ALTO SANITARY DISTRICT

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http://www.altosanitarydistrict.org

2019 SEWER SYSTEM MANAGEMENT PLAN

Certified by the Board of Directors on January 23, 2019

Element VI: Spill Emergency Response Plan - Updated 06/05/2023

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LIST OF ACRONYMS

BACWA	Bay Area Clean Water Agencies
BMP	Best Management Practice
MCFCWD	Marin County Flood Control and Water Conservation District
CCTV	Closed-Circuit Television
CFR	Code of Federal Regulations
CIP	Capital Improvement Project
CITY	City of Mill Valley
CIWQS	California Integrated Water Quality System
CMMS	Computerized Maintenance Management System
CDFW	California Department of Fish and Wildlife
EHS	Environmental Health Services
FOG	Fats, Oils and Grease
FSE	Food Service Establishment
GIS	Geographical Information System
GPM	Gallons per Minute
I/I or I&I	Inflow & Infiltration
LRGP	Lateral Replacement Grant Program
LRO	Legally Responsible Official
MGD	Million Gallons per Day
MRP	Monitoring and Reporting Program
NASSCO	National Association of Sewer System Companies
NPDES	National Pollution Discharge Elimination System
OERP	Overflow Emergency Response Plan
OES	California Office of Emergency Services (Previously Cal-EMA)
PACP	Pipeline Assessment and Certification Program
POTW	Publicly-Owned Treatment Works
RWQCB	Regional Water Quality Control Board
SASM	Sewerage Agency of Southern Marin
SMCSD	Sausalito-Marin City Sanitary District
SSMP	Sewer System Management Plan
SSO	Sanitary Sewer Overflow
SWRCB	State Water Resources Control Board
WDR	General Waste Discharge Requirements
WWTP	Wastewater Treatment Plant

DEFINITIONS

Bay Area Clean Water Agencies (BACWA) – Association comprised of Bay Area wastewater treatment and collection system agencies. BACWA represents the interests of public wastewater agencies in regulatory matters and to support the exchange of information.
Website: http://www.bacwa.org

Blockage – An object that partially or fully hinders flow through a sewer pipeline. The blockage can be caused by debris in the sewer, grease buildup, root intrusion, or a partial or full collapse of the pipeline. Also known as a stoppage.

California Association of Sanitation Agencies (CASA) - A non-profit, statewide association representing public agencies that provide wastewater collection, treatment, disposal, and/or water reclamation services to California agencies. Website: http://www.casaweb.org

California Integrated Water Quality System (CIWQS) – A computer system used by the State and Regional Water Quality Control Boards to track information about SSOs, among other information. CIWQS is the tool used for online submittal of SSO details, which are then made available to the public. Website: http://www.swrcb.ca.gov/ciwqs/

California Water Environment Association (CWEA) – The statewide association of wastewater professionals that trains and certifies wastewater professionals, disseminates technical information and promotes policies to protect and enhance the environment.
Website: http://www.cwea.org

Enrollee – The legal public entity that owns a sanitary sewer system, as defined by the Statewide WDR. Also known as a sewer system agency or wastewater collection system agency.

FOG Control Program –Program implemented at the discretion of the agency, based on the identified causes of sewer overflows, to reduce the discharge of fats, oils and grease into the sewer system.

Geographical Information System (GIS) – A database linked with mapping that records sewer system information. The GIS database could include sewer features such as pipe location, diameter, material, condition, or last date cleaned or repaired. GIS maps also typically contain base information such as streets and parcels.

Governing Board – Alto Sanitary District Board of Directors

Groundwater Induced Infiltration (GWI) – Infiltration attributed to groundwater entering the sewer system.

Infiltration – The seepage of groundwater into a sewer system, including service connections. Seepage frequently occurs through defective or cracked pipes, pipe joints, connections or manhole walls and joints.

Inflow – Water discharged into a sewer system from such sources as roof leaders, cellars, yard and area drains, foundation drains, through holes in manhole covers, cross connections from the storm system or street wash waters. Inflow differs from infiltration in that it is a direct discharge into the sewer rather than a leak through defects in the sewer.

Lateral or Private Lateral – The privately-owned sewer pipeline that conveys wastewater from the premises of a user to the Alto Sanitary District's sewer system. The upper lateral extends from the building to property line (or easement line). The lower lateral extends from the property or easement line to the connection to the pipe.

Monitoring and Reporting Program - The program used by the Alto Sanitary District to monitor, maintain records, report issues and complete needed public notifications.

Overflow Emergency Response Plan – This document identifies measures that are needed to respond to sanitary sewer overflows in a way that maximizes the protection of public health and the environment.

Preventive maintenance (PM) – Regularly scheduled servicing of machinery, infrastructure or other equipment using appropriate tools, tests, and lubricants.

Rainfall Dependent Infiltration and Inflow – Infiltration and Inflow that is attributed directly to rainfall R-Value.

Regional Water Quality Control Board –San Francisco Bay Area Regional Water Quality Control Board, also known as the Regional Board or Region 2.

Rehabilitation and Replacement Plan (also referred to as a Capital Improvement Plan) – Identifies and prioritizes system deficiencies and implements short-term and long-term rehabilitation actions to address each deficiency.

San Francisco Bay Regional Water Quality Control Board – Also known as Region 2 or RWQCB. This regulatory agency preserves, enhances and restores the quality of California's water resources, and ensures their proper allocation and efficient use for the benefit of present and future generations. Website: http://www.waterboards.ca.gov/sanfranciscobay

Sanitary Sewer Overflow (SSO) – Any overflow, spill, release, discharge or diversion of untreated or partially treated wastewater from a sanitary sewer system, including overflows or releases that reach waters of the United States, overflows or releases that *do not* reach water of the United States, and backups into buildings and/or private property caused by conditions within the publicly owned portion of the sewer system.

Sanitary Sewer System – Any system of pipes, pump stations, sewer lines, or other conveyances, upstream of a wastewater treatment plant headworks used to collect and convey wastewater to the wastewater treatment plant.

Satellite Collection System – The portion, if any, of a sanitary sewer system that is owned or operated by a different public agency or user.

Sewer System Management Plan – A series of written programs that address how a collection system owner/operator conducts daily business. Each SSMP is unique for an individual discharger. The plan includes provisions to provide proper and efficient management, operation, and maintenance of sanitary sewer systems, while taking into consideration risk management and cost benefit.

State Water Resources Control Board – Also called the State Board. This agency developed and passed the Statewide Waste Discharge Requirements for collection systems and maintains the SSO reporting web site.

System Evaluation and Capacity Assurance Plan – A required component of an agency's SSMP that provides 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.

Statewide Waste Discharge Requirements – The Statewide General Waste Discharge Requirements for Sanitary Sewer Systems was adopted by the SWCRB in 2006 to provide a structure and guidance for SSMP development. Also known as Order No. 2006-0003-DWQ.

Wastewater Collection System – See Sanitary Sewer System.

SSMP REQUIREMENT

This Sewer System Management Plan (SSMP) has been prepared in compliance with requirements of the State Water Recourse Control Board (Also referred to at SWRCB or the Water Boards) and the Statewide Waste Discharge Requirements. The District's waste discharge identification number in the California Integrated Water Quality System (CIWQS) is 2SSO10090.

Section D.13 of the Sanitary Sewer System Waste Discharge Requirements (SSS WDRs), requires all Enrollees to development an SSMP and make it available to the public and to the SWRCB and San Francisco Regional Water Quality Control Board (RWQCB). The SSS WDRs further specifies eleven (11) mandatory Elements that must be addressed in the SSMP. The SSS WDRs also requires that the SSMP be audited annually and updated at least every two (2) years from the original governing board approval date and updated or revised and re-certified by the governing board at least every five (5) years from adoption or whenever any significant changes to the SSMP are made, as specified in Section D.14 of the SSS WDRs.

DISTRICT OVERVIEW

The Alto Sanitary District is an unincorporated suburban residential area located adjacent to and northeast of the City of Mill Valley including an area east of Highway 101. The District has an estimated population of about 1,200. The Alto Sanitary District has one part-time employee, the Manager. The District has no plant or equipment. All maintenance, engineering and other professional services are performed under contract with outside firms. The Alto Sanitary District is one of six agencies which are part of a Joint Powers Authority known as the Sewerage Agency of Southern Marin (SASM). Sewage collected by these districts, including Alto, is conveyed to the SASM treatment plant, which is operated by the City of Mill Valley under contract with SASM. The treated sewage from SASM is then pumped to a diffuser in Raccoon Straits by way of a force main.

The Alto sewer system was constructed in the late 1940s and early 1950s, and consists of +/- 16,500 feet (+/-3.125 miles) of gravity sewers; there are no pump stations maintained by the District. The original system consists mostly of six-inch vitrified clay pipe, and over the years, due to ground shifting and other causes the pipes have developed many cracks, offset joints and other problems typical of such systems. The pipes are subject to considerable root-intrusion. Several years ago the District embarked on a program to replace and/or rehabilitate the old pipes through a phased replacement program. The District's Engineering Consultant, Nute Engineering, and our Maintenance Contractor, Roto Rooter Sewer Service, have televised the District's system and have evaluated problem sites. Roto Rooter has been assigned the task of addressing point-source problems and Nute Engineering prepares construction contracts for the Capital Improvement Program.

ELEMENT I SSMP GOALS

Requirements:

D.13.(i) Goals: The goal of the SSMP is to provide a plan and schedule to properly manage, operate, and maintain all parts of the sanitary sewer system. This will help reduce and prevent SSOs, as well as mitigate any SSOs that do occur.

Response:

Ia) To achieve zero Sewer System Overflows (SSOs).

Ib) To manage, operate and maintain the District's sewer system in an efficient, cost-effective manner.

Ic) To upgrade the District system to reduce to as great an extent as possible the problems associated with an aging infrastructure.

Id) To act in the best interest of the District's residents in all matters relating to the operation and maintenance of their sewer system.

Ie) To reduce Infiltration and Inflow in the District's system by locating problems in private laterals and working with the property owners to rehabilitate or replace such lower portions of laterals during Capital Projects, and implementing a Lateral Ordinance requiring inspections and repairs of entire laterals based on the following trigger points: Home Sales, Remodels over $50,000, Legalization of a Second Unit, and properties associated with District Capital Projects.

ELEMENT II ORGANIZATION

Requirements:

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

(a) The name of the responsible or authorized representative as described in Section J of this Order (SSS WDR).

(b) The names and telephone numbers for management, administrative, and maintenance positions responsible for implementing specific measures in the SSMP program. The SSMP must identify lines of authority through an organization chart or similar document with a narrative explanation; and

(c) The chain of communication for reporting SSOs, from receipt of a complaint or other information, including the person responsible for reporting SSOs to the State and Regional Water Board and other agencies if applicable (such as County Health Officer, County Environmental Health Agency, Regional Water Board, and/or State Office of Emergency Services (Cal OES)).

Response:

IIa) The Alto Sanitary District is organized as follows:

ALTO SANITARY DISTRICT BOARD OF DIRECTORS:
Elected by and responsible to property owners and rate payers. This five member Board governs the District, adopts policies and plans, approves budget to implement maintenance and rehabilitation programs, and represents the District in all matters pertaining to operation of the sewer system.

ATTORNEY:
Responsible to the Board of Directors. Advisory and oversight role to the Board and Manager for governmental process and liability concerns. The current Attorney is Marin County Counsel.

DISTRICT MANAGER:
Responsible to the Board of Directors. Conducts the day-to-day business activities of the District; Oversees the maintenance and operation of the District's sewer system; Coordinates the activities of the Maintenance Contractor and the Engineering Consultant; Maintains records and reports required by regulatory agencies. The current District Manager is Bill Hansell and the District's telephone number is 415-388-3696.

ENGINEERING CONSULTANT:
Responsible to the Manager. Provides technical expertise in assessing the condition of the District's system leading to the preparation of rehabilitation projects; Coordinates findings determined by Maintenance Contractor into the Capital Improvement Program;

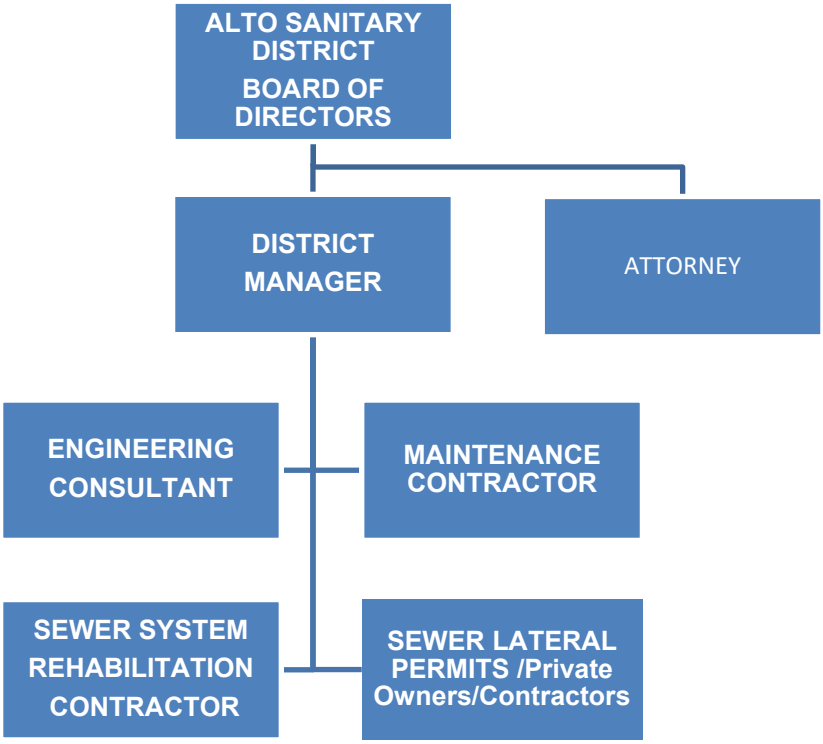
Prepares contracts for the implementation of the program; Provides field engineering for construction while work is in progress; Implements the smoke testing and lateral rehabilitation programs; and coordinates this work with the Maintenance Contractor. The current Primary Engineering Consultant is Nute Engineering (415.453.4480.)

MAINTENANCE CONTRACTOR:
Responsible to the Manager. Provides emergency service to stop overflows immediately upon notification; Under direction of the Manager, performs the District's periodic cleaning and preventive maintenance program; Provides emergency sewer repair and/or replacement in situations where preparing and awarding a contract would expose the public to the risk of sewage overflows; Performs field work related to the smoke testing and lateral rehabilitation programs; and coordinates this work with the Engineering Consultant. The current Primary Maintenance Contractor is Roto-Rooter (415-388-2740.)

SEWER SYSTEM REHABILITATION CONTRACTOR:
Responsible to the Manager and to the Engineering Consultant. Under contracts prepared by the Engineering Consultant and awarded by the Board of Directors, the Contractor performs sewer rehabilitation and/or replacement projects or other special inspections like CCTV and Smoke Testing.

IIb) The Alto Sanitary District's Organizational Chart is as follows:

ORGANIZATION CHART



IIc) As described in Element VI, SSO's are reported to the District's Maintenance Contractor who responds on site and immediately notifies the District Manager. The District Manager is responsible for reporting SSO's to the State, Regional Water Board, and other agencies as applicable.

ELEMENT III LEGAL AUTHORITY

Requirements:

D.13.(iii) Legal Authority: Each Enrollee must demonstrate, through sanitary sewer system use ordinances, service agreements, or other legally binding procedures, that it possesses the necessary legal authority to:

(a) Prevent illicit discharges into its sanitary sewer system (examples may include infiltration and inflow (I/I), storm water, chemical dumping, unauthorized debris and cut roots, etc…);

(b) Require that sewers and connections be properly designed and constructed;

(c) Ensure access for maintenance, inspection, or repairs for portions of the lateral owned or maintained by the Public Agency;

(d) Limit the discharge of fats, oils, and grease and other debris that may cause blockages, and

(e) Enforce any violation of its sewer ordinances.

Response:

IIIa) Alto Sanitary District is a Special District registered with the State of California and LAFCO with a publicly elected Board of Directors. It conducts its business to manage sewer and garbage in the Alto service area and holds regularly scheduled Public Meetings.

IIIb) Alto is a member of the Sewerage Agency Southern Marin (SASM) Joint Powers Authority (JPA), obtains sewer treatment from that JPA, and collects fees for sewer service with the property tax rolls.

IIIc) Alto administers its Lateral Ordinance number No. 2015-01 which gives authority to investigate private laterals for defects and require repairs.

IIId) The District published Design Standard Specifications and Drawings and a Lateral Ordinance in July 2015 which are available on its website: http://www.altosanitarydistrict.org/

ELEMENT IV OPERATIONS AND MAINTENANCE

Requirements:

D.13.(iv) Operation and Maintenance Program. The SSMP must include those elements listed below that are appropriate and applicable to the Enrollee's system:

(a) Maintain an up-to-date map of the sanitary sewer system, showing all gravity line segments and manholes, pipe ages, cleaning records, materials, SASM and Mill Valley nearby facilities, and applicable storm water conveyance facilities;

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

(c) Develop rehabilitation and replacement plan to identify and prioritize system deficiencies and implement short-term and long-term rehabilitation actions to address each deficiency. The program should include regular visual and TV inspections of manholes and sewer pipes, and a system for ranking the condition of sewer pipes and scheduling rehabilitation. Rehabilitation and replacement should focus on sewer pipes that are at risk of collapse or prone to more frequent blockages due to pipe defects. Finally, the rehabilitation and replacement plan should include a capital improvement plan that addresses proper management and protection of the infrastructure assets. The plan shall include a time schedule for implementing the short and long term plans plus a schedule for developing the funds needed for the capital improvement plan;

(d) Provide training on a regular basis for staff in sanitary sewer system operations, maintenance, and require contractors to be appropriately trained; and

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

Response:

IVa) Collection System Maps

The District works with its Engineering Consultant to prepare and maintain a set of GIS maps of the District's collection system. The District's map is in ArcGIS. In

addition, the Data is reflected (backed up) and hosted live for JPA members to view at Marin Map, County of Marin. They are utilized in the day-to-day maintenance of the system and for emergency service calls as well as by the Engineering Consultant for evaluation of the system's condition and for establishing priorities for rehabilitation projects. They are used for reference at the District Board meetings. The system maps are continually updated to reflect changes to the system. Additionally, cleaning records can be associated with pipe segments and a cleaning schedule.

CCTV worst pipe ratings, Cleaning, and SSO and hot spot records from 2008 to the present have been entered into the GIS database associated with the maps. Attributes of this data can be plotted on the maps.

IVb) Resources and Budget

The Alto Sanitary District derives its operating funds principally from service charges levied on the District's property owners. The charges are collected along with the property taxes by the County of Marin. The service charges are currently $1500 per EDU per year. This amount was determined adequate to fund an aggressive CIP for replacement of the old sewers and an increase in SASM's assessment for treatment. The SASM increase is needed for treatment plant rehabilitation based on construction work in progress. In 2016, Alto completed a Prop. 218 process for increasing the annual service charges to fund execution of the district's as well as SASM's rehabilitation program.

The District completed the televising of all the sewers in the system in 2011 and continues inspection with routine inspections prior to and post construction of CIP projects. Scheduled inspections and condition assessment for system re-examination happens with cleaning and CIP activities to provide the Engineering Consultant, the Maintenance Contractor, and the District with current information. The District's cleaning program is for the cleaning of all the sewers in the system on a minimum three-year cycle.

Current expenses carried by Alto are show in the appendices.

IVc) Prioritized Preventive Maintenance

The 2011 televising survey located problems requiring point repairs in which the most severe issues were subsequently repaired. Depending on their severity, current problems are either dealt with as emergencies or are maintained (cleaned) on an increased schedule. The CCTV review was used to rate the pipe levels of severity and to revise the tri-annual cleaning program to one that rated pipes for cleaning classifications of either 6th month, 1 year, 2 year, or 3 year frequencies.

The District continues to perform cleaning and televising of the system as required. In 2016, the District completed a Prop. 218 process that increased fees to a level that

will allow annual system rehabilitation projects (CIP) to complete full pipe replacement in a ~50 year time frame. The process is well under way and will meet that expectation.

IVd) Training

Training is performed frequently by Roto-Rooter staff. Quarterly meetings are held with the District to stay current on State Requirements and CIWQS updates. Additional training is detailed in Element VI, below.

ELEMENT V DESIGN AND CONSTRUCTION

Requirements:

D.13.(v) Design and Performance Provisions:

(a) Design and construction standards and specifications for the installation of new sanitary sewer systems, pump stations and other appurtenances; and for the rehabilitation and repair of existing sanitary sewer systems; and

(b) Procedures and standards for inspecting and testing the installation of new sewers, pumps, and other appurtenances and for rehabilitation and repair projects.

Response:

Va) Standards for Installation, Rehabilitation and Repair

The Alto Sanitary District follows construction standards established by its Engineering Consultant for sewer extensions and connections and private sewer laterals. The standards were adopted by the Board and published on its website. The District further requires contractors to adhere to the construction standards set forth by the County of Marin for pavement restoration and other work within the County's jurisdiction. These standards have been found to be appropriate and adequate for the District's purposes. If and when the need arises, the standards will be expanded and/or modified to follow changing technologies and construction methods.

Vb) Standards for Inspection and Testing of New and Rehabilitated Facilities

The Alto sewer system is essentially complete and the only new construction is the replacement and/or rehabilitation of existing facilities. This work is done under contract with private construction firms and is inspected by the District's Engineering Consultant in conjunction with their administration of the contracts. Standards followed for this work are as set forth above. County inspection is performed where applicable for road restoration and building permits.

ELEMENT VI SPILL EMERGENCY RESPONSE PLAN

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FIGURES

SERP APPENDIX (See Attachment 4)

LIST OF ACRONYMS

ASD	Alto Sanitary District
BACWA	Bay Area Clean Water Agencies
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NPDES	National Pollution Discharge Elimination System
OERP	Overflow Emergency Response Plan
RWQCB	Regional Water Quality Control Board
SASM	Sewerage Agency of Southern Marin
SERP	Spill Emergency Response Plan
Spill	Sanitary Sewer Spill
SWRCB	State Water Resources Control Board
WDR	General Waste Discharge Requirements

LIST OF TERMS

Bay Area Clean Water Association (BACWA) – Association comprised of Bay Area wastewater treatment and collection system agencies. BACWA represents the interests of public wastewater agencies in regulatory matters and to support the exchange of information.
Website: http://www.bacwa.org

Blockage – An object that partially or fully hinders flow through a sewer pipeline. The blockage can be caused by debris in the sewer, grease buildup, root intrusion, or a partial or full collapse of the pipeline. Also known as a stoppage.

California Integrated Water Quality System (CIWQS) – A computer system used by the State and Regional Water Quality Control Boards to track information about Spills, among other information. CIWQS is the tool used for online submittal of spill details, which are then made available to the public. Website: http://www.swrcb.ca.gov/ciwqs/

Enrollee – The legal public entity that owns a sanitary sewer system, as defined by the Statewide WDR. Also known as a sewer system agency or wastewater collection system agency.

Infiltration – The seepage of groundwater into a sewer system, including service connections. Seepage frequently occurs through defective or cracked pipes, pipe joints, connections or manhole walls and joints.

Inflow – Water discharged into a sewer system from such sources as roof leaders, cellars, yard and area drains, foundation drains, through holes in manhole covers, cross connections from the storm system or street wash waters. Inflow differs from infiltration in that it is a direct discharge into the sewer rather than a leak through defects in the sewer.

Lateral or Private Lateral – The privately-owned sewer pipeline that conveys wastewater from the premises of a user to the District's sewer system. The upper lateral extends from the building to property line (or easement line). The lower lateral extends from the property or easement line to the connection to the pipe.

Monitoring and Reporting Program – The program used by the District to monitor, maintain records, report issues and complete needed public notifications.

San Francisco Bay Regional Water Quality Control Board – Also known as Region 2 or RWQCB. This regulatory agency preserves, enhances and restores the quality of California's water resources, and ensures their proper allocation and efficient use for the benefit of present and future generations. Website: http://www.waterboards.ca.gov/sanfranciscobay

Sanitary Sewer Spill – A discharge of sewage from any portion of the publicly owned sanitary sewer system due to a sanitary sewer system spill, operational failure, and/or infrastructure failure

Sanitary Sewer System – Any system of pipes, pump stations, sewer lines, or other conveyances, upstream of a wastewater treatment plant headworks used to collect and convey wastewater to the wastewater treatment plant.

Sewer System Management Plan – A series of written programs that address how a collection system owner/operator conducts daily business. Each SSMP is unique for an individual discharger. The plan includes provisions to provide proper and efficient management, operation, and maintenance of sanitary sewer systems, while taking into consideration risk management and cost benefit.

Spill Emergency Response Plan – This document identifies measures that are needed to respond to sanitary sewer spills in a way that maximizes the protection of public health and the environment.

State Water Resources Control Board – Also called the State Board. This agency developed and passed the Statewide Waste Discharge Requirements for collection systems and maintains the spill reporting web site.

Statewide Waste Discharge Requirements – The Statewide General Waste Discharge Requirements for Sanitary Sewer Systems was adopted by the SWCRB on December 6, 2022 and is known as Order WQ 2022-0103-DWQ.

Wastewater Collection System – See Sanitary Sewer System.

1 INTRODUCTION

Alto Sanitary District (ASD or District) Spill Emergency Response Plan (SERP) provides guidelines for responding to, cleaning, containing, and reporting spills that occur during the collection system service area.

1.1 SPILL EMERGENCY RESPONSE PLAN OBJECTIVES

The Spill Emergency Response Plan includes measures to protect public health and the environment. This plan includes information to support District response to spills from its system in a timely manner that minimizes water quality impacts and nuisance by:

- Stopping the spill and preventing/minimizing a discharge to waters of the State[1];
- Intercepting sewage flows to prevent/minimize spill volume discharged into waters of the State;
- Recovering, cleaning up and disposing of sewage and wash down water; and
- Cleaning publicly accessible areas while preventing toxic discharges to waters of the State.

1.2 REGULATORY REQUIREMENTS

On May 2, 2006, the State Water Resources Control Board (SWRCB) issued a directive through Order No. 2006-0003-DWQ to require all public wastewater collection system agencies in California with greater than one mile of sewers to be regulated under the Statewide WDR. Portions of this Order related to monitoring and reporting were amended by Order No. 2013-0058-EXEC, dated July 30, 2013. All of the previous SWRCB Orders were superseded by Order No. 2022-0103-DWQ, effective June 5, 2023, which is referenced in this document as the Statewide WDR.

The Statewide WDR requirements for the Spill Emergency Response Plan are listed below.

> The District must develop and implement a spill emergency response plan to ensure prompt detection and response to spills to reduce spill volumes and collect information for prevention of future spills. At a minimum, this plan must include procedures to:
>
> - Notify primary responders, appropriate local officials, and appropriate regulatory agencies of a spill in a timely manner;
> - Notify other potentially affected entities (for example, health agencies, water suppliers, etc.) of spills that potentially affect public health or reach waters of the State;
> - Comply with the notification, monitoring and reporting requirements of the Statewide WDR, State law and regulations, and applicable Regional Water Board Orders;

[1] Waters of the State include any surface water or groundwater, including saline waters, within the boundaries of the state as defined in Water Code section 13050(e), and are inclusive of waters of the United States.

- Ensure that appropriate staff and contractors implement the Spill Emergency Response Plan and are appropriately trained;
- Address emergency system operations, traffic control, and other necessary response activities;
- Contain a spill and prevent/minimize discharge to waters of the State or any drainage conveyance system;
- Minimize and remediate public health impacts and adverse impacts on beneficial uses of waters of the State;
- Remove sewage from the drainage conveyance system;
- Clean the spill area and drainage conveyance system in a manner that does not inadvertently impact beneficial uses in the receiving waters;
- Implement technologies, practices, equipment, and interagency coordination to expedite spill containment and recovery;
- Implement pre-planned coordination and collaboration with storm drain agencies and other utility agencies/departments prior, during, and after a spill event;
- Conduct post-spill assessments of spill response activities;
- Document and report spill events as required by the Statewide WDR; and
- Annually, review and asses effectiveness of the Spill Emergency Response Plan and update it as needed.

2 SPILL CATEGORIES

Four categories of spills, Categories 1 through 4, are defined in the Statewide WDR, as defined in Table 2.1. For reporting purposes, the Statewide WDR also has requirements for a "No Spill" category. All agencies that own or operate sanitary systems greater than one mile in length that collect and/or convey untreated or partially treated wastewater to a publicly owned treatment facility are required to report all spills, excluding private lateral spills. The District documents and files information on private lateral spills when notified.

TABLE 2.1 STATEWIDE WDR SPILL CATEGORIES

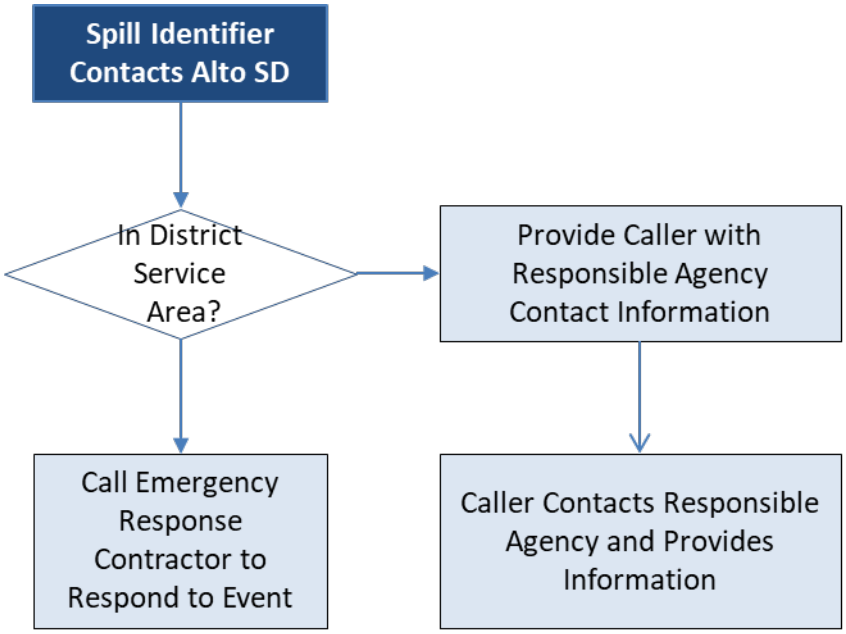
Category 1	A spill of any volume of sewage from or caused by a sanitary sewer system or publicly owned lateral that results in a discharge to: • A surface water, including a surface water body that contains no flow or volume of water; or • A drainage conveyance system that discharges to surface waters when the sewage is not fully captured and returned to the sanitary sewer system or disposed of properly. Any spill volume not recovered from a drainage conveyance system is considered a discharge to surface water, unless the drainage conveyance system discharges to a dedicated stormwater infiltration basin or facility.
Category 2	A spill from a sewer main of 1,000 gallons or greater that does not discharge to a surface water.
Category 3	A spill from a sewer main of 50 gallons or greater and less than 1,000 gallons that does not discharge to a surface water.
Category 4	A spill from a sewer main of less than 50 gallons that does not discharge to a surface water.

3 NOTIFICATION PROCEDURES

The District has adopted service call / spill response procedures requiring immediate response to minimize or eliminate impacts resulting from the spill. The District contracts with an emergency response contractor that provides all necessary spill response supplies.
When a notification of a spill is received, it should be clearly communicated who will respond, the estimated time of arrival, and what areas will need to be accessed. The information provided by the caller should be verified before dispatching a field crew. This includes verifying the address and nearest cross street and making sure it is part of the District's conveyance system. If not, provide the caller with the phone number of the responsible agency and follow up by calling the agency and providing the details of the call.

Contact information for neighboring agencies is included in Table 8.2. Figure 3.1 summarizes the District's process for spill notification and response.

FIGURE 3.1. SPILL NOTIFICATION PROCESS



3.1 Roles for Responding to Spills

Currently, the following positions are responsible for responding to spills:

- First Responder to Spill: Emergency Response Contractor
- Claims Processing: District Manager

The contact information for those currently holding the positions named above are shown in the Appendix.

3.2 Notification by Field Staff or the Public

Public observation is the most common way that the District is notified of blockages and spills. Contact information for reporting sewer spills and backups is in the phone book and on the website: http://altosanitarydistrict.org. The District office telephone number is (415) 388-3696. The phone message allows direct selection of the current emergency response contractor, Roto-Rooter, via phone number (415-388-2740) for an emergency. The sewer maintenance contractor provides emergency response 24 hours, 7 days per week.

When District staff receives a call reporting a sewer spill or backup, the staff member takes the information from the caller. The person who took the call communicates appropriate information to the District Manager, or appropriate District personnel, along with any information collected. The person who took the call, and/or the District Manager, or other appropriate District personnel then notifies the emergency response contractor, who responds to the incident and files a report to the District as soon as possible.

The individual receiving the call should collect the information listed in Table 3.1.

TABLE 3.1. INFORMATION TO GATHER FROM CALLER OF POTENTIAL SPILL

Call Notes from Potential Spill – Conversation Checklist
• Date and time of call; • Date and time the caller first noticed the spill, if available; • Specific location of the potential problem; • Narrative description of the complaint, including any information the caller provided regarding whether the spill has reached surface waters or a drainage conveyance system, if available; • Caller's contact information, if available; and • Additional supportive information such as whether the caller smells any odor, or whether the appearance was at a cleanout or manhole would be beneficial. • Document on the same record the final resolution of the call.

3.3 Staff Observation

District contractors perform periodic work on its sewer system facilities. Any problems noted with the sewer system facilities are reported to District staff, or in an emergency, the District phone number above for further action.

3.4 Reporting Deadlines

Statewide WDR has mandatory timelines for reporting spill events that are summarized in Table 3.2 on the following page.

TABLE 3.2 REGULATORY REPORTING TIMELINES

Element	Requirement	Method
NOTIFICATION	Category 1 Spill of 1,000 Gallons or Greater: • Notify OES within two hours of becoming aware of the spill • Obtain an OES notification control number. • Also notify Marin County Environmental Health, and the County Health Officer	• Call Cal OES at: **(800) 852-7550** • County Health Officer **(415) 473-3707** and Marin County Environmental Health Services (EHS) **(415) 473-6907** are also to be contacted. • During evenings/weekends, call the Sheriff Communication Center at **(415) 479-2311.**
REPORTING	Category 1 Spill: • Draft Report within three business days of becoming aware of the spill | LRO certifies within 15 calendar days of spill end date • Spill Technical Report within 45 calendar days after the spill end date if 50,000 gallons or more Category 2 Spill: • Draft Report within 3 business days of becoming aware of the spill | LRO certifies within 15 calendar days of the spill end date Category 3 & 4 Spills: • CAT 3 - Certified report within 30 calendar days of the end of month in which the spill occurred • CAT 4 - Monthly the estimated total spill volume exiting the sanitary sewer system, and the total number of all Category 4 spills within 30 calendar days after the end of the calendar month in which the spills occurred • LRO certifies annually a report of all Category 4 spills, by February 1 after the end of the calendar year in which the spills occurred "No Spill" Certification • LRO certifies that no Spill occurred within 30 calendar days of the end of the month in which there are no spills.	• Enter data into the CIWQS Online Spill Database (http://ciwqs.waterboards.ca.gov/), certified by the Legally Responsible Official(s). • All information required by CIWQS will be captured in the Sanitary Sewer Spill Report. • Certified spill reports may be updated by amending the report or adding an attachment to the spill report within 90 calendar days after the spill end date. After 90 days, the State Spill Program Manager must be contacted to request to amend a spill report along with a justification for why the additional information was not available prior to the end of the 90 days.
WATER QUALITY MONITORING	The District will conduct water quality sampling within 18 hours after being aware of Category 1 spills in which 50,000 gallons or greater are spilled to surface waters. EHS may require daily water quality sampling until compliance is achieved.	Water quality results will be included in the Spill Technical Report for Category 1 spills in which 50,000 gallons or greater reach surface waters.

4 SPILL RESPONSE PROGRAM

This section describes responsibilities, priorities, and field response activities related to spills. Alto Sanitary District has contracted with an emergency response contractor to provide First Responder and emergency response 24 hours, 7 days per week. The emergency response contractor receives calls from residents of the District reporting sewage spills. The current agreement with the emergency response contractor was reviewed and approved by Marin County Counsel, acting as the District's Counsel in the matter. District staff review annually the USA and response program with the contractor, and refer to the latest state requirements for spill response requirements for maintenance team training, and worker safety. Alto, along with SASM and its member agencies are currently soliciting proposals for renewal of the sewer maintenance contract.

The Contractor maintenance team has maps in all the trucks and will call for additional assistance if required, keeping the District Manager informed during emergency events. They perform first responder duties and then submit a response report to the District for review, submittal to CWIQS, and to receive follow up instructions.

The following additional Emergency Contractor resources are available to the District Manager to address spills:

- Roto Rooter Sewer Service: 415-388-2740
- Roy's Sewer Service: 415-381-0256
- SASM Staff: 415-388-2402
- Maggiora and Ghilotti Contractors: 415-459-8640
- Team Ghilotti Contractors: 707-763-8700
- Presidio Systems, Inc. TV and Pumping: 925-456-8400
- Hardiman Pipelines: 415-847-0010

Following are additional entities and contact information for matters related to sewer spills:

- In Case of Emergency: 911
- County Sheriff Dispatch: (415) 473-7250
- Office of Emergency Services: (800) 852-7550
- District Manager: (415) 388-3696
- Contract Responder – Roto-Rooter: (415) 388-2740 or (415) 898-2700
- Agencies:
    - California Regional Water Quality Control Board: (510) 622-2300
    - California Department of Fish and Wildlife Services: (707) 944-5500
    - County Environmental Health Services: (415) 473-6907

- California Office of Emergency Services: (800) 852-7550
- U.S. Coast Guard : (415) 399-3530

4.1 First Responder Priorities

The first responder's priorities are as follows:

- To follow safe work practices, including those related to traffic control, confined space, and employee and public safety
- To respond promptly with the appropriate equipment
- To evaluate the cause of spill and determine responsibility
- To restore the flow as soon as possible
- To contain the spill whenever feasible
- To minimize public access to and/or contact with the spilled sewage

4.2 Safety

The First Responder is responsible for following safety procedures at all times. Special safety precautions must be observed when performing sewer work. Special consideration should be given to following all local traffic, confined space, and safety procedures.

4.3 Initial Response

Contract on-call personnel are required to be on site within 60 minutes of being notified, with the objective of minimizing and/or eliminating the spill. Each service technician has been provided with a set of the District's system maps to facilitate their efforts.
The Contractor immediately advises the District Manager of the event. As necessary, the Engineering Consultant is brought into the matter to recommend procedures for remedying the situation.
The First Responder determines appropriate response measures based on the circumstances and information provided by the caller (e.g., weather and traffic conditions, small backup vs. sewage flowing on the ground, etc.). If additional help is needed, they contact other employees, contractors, and/or equipment suppliers.
Contact information for the District personnel is available in the Appendix. A comprehensive emergency contact list is also found in the Appendix.
Upon arrival at the site, the First Responder should complete the following:

- Note arrival time at spill site, and include the time in the Spill Reporting Form. Record basic incident information on site, and complete the form after finishing the response;
- Verify the existence of a sewer system spill;
- Field-verify the address and nearest cross street, and confirm that the spill is part of the District's sewer/conveyance system;

- Conduct visual monitoring to determine immediate actions, starting with documentation of spill volume using the methods included in the Appendix;
- If flow cannot be restored, contain, mitigate, and minimize impacts from the spill, and restore flow;
- If the blockage cannot be cleared within a reasonable time, or the sewer requires construction repairs to restore flow, then initiate containment and/or bypass pumping;
- Identify and clearly assess the affected area and extent of spill, including possible impacts on surface water. Where it is safe and practical, conduct receiving water visual observations as described in Section 4.8;
- The California Department of Fish and Wildlife (CDFW) should be notified in the event a spill impacts any creeks, gullies, or natural waterways. CDFW will provide guidance associated with cleanup. Cleanup should proceed quickly, and any water used in the process should be dechlorinated prior to use;
- Post signs as required;
- Notify the District Manager if:
    - The spill appears to be large (over 1000 gallons), in a sensitive area, may imminently and substantially endanger human health, results in fish kills, if there is doubt regarding the extent, impact, or how to proceed, or if additional help is needed for line cleaning or repair, containment, recovery, lab analysis, and/or site cleanup;
- Where safe and feasible, take necessary water quality samples at the point of discharge and at upstream and downstream locations. Use best judgment and consult with the District Manager and Consulting Engineer if uncertain. Water quality monitoring is not given precedence over stopping the spill or protecting public health. However, if sufficient personnel are available, monitoring is conducted in parallel with these activities or with the cleanup effort;
- Comply with all safety precautions (traffic, confined space, etc.);
- Contact caller, if time permits. Identify spill cause, including conducting CCTV inspection as appropriate;
- Document all activities through photos and written documentation.

The First Responder should provide the completed Spill Reporting Form to the District Manager for input into the computerized maintenance management system. Contact information is included in the Appendix.

4.4 Internal Spill

Upon arrival at the location of a spill into a house or a building, the First Responder should evaluate and determine if the spill was caused by a blockage in the lateral or in the District owned sewer main, caused either by a backup in the sewer main line or nearby operations and

maintenance activities.

- If a blockage is found in a property owner's lateral, it should be clearly communicated that it is not the District's responsibility to work on a private lateral. The homeowner is responsible for clearing any blockage in the home's plumbing system or private lateral and for any resulting flood damage to the structure. The homeowner is also responsible for damage that happens because a lateral was not properly installed.
- If a backup in the main line is found to have caused the spill in a house or building, the First Responder should take steps to address the issue as described above.
- The First Responder should attempt to instruct the property owner as to the following guidelines:
    - Keep all family members and pets away from the affected area.
    - Place towels, rags, blankets, etc between areas that have been affected and areas that have not been affected.
    - Move any uncontaminated property away from the spill area. Do not remove any contaminated items.
    - Turn off the HVAC system.
- The First Responder should take the following steps to assist the homeowner:
    - Gather information.
    - Call a restoration company and wait for the restoration firm to arrive.
    - Forward incident reports and related documents to the District Manager.

4.5 Restore Flow

The First Responder should attempt to remove the blockage from the system and restore flow to the area. Using the appropriate cleaning tools, the field crew should set up downstream of the blockage and hydroclean upstream from a clear manhole. The flows should be observed to ensure that the blockage does not recur downstream.

If the blockage cannot be cleared within a reasonable time, or sewer requires construction repairs to restore flow, then initiate containment and/or bypass pumping.

4.6 Containment and Bypass

The First Responder should attempt to contain as much of the spilled sewage as possible using the following steps:

- Determine the immediate destination of the spill.

- Plug storm drains using available equipment and materials to contain the spill, whenever appropriate. If spilled sewage has made contact with the storm drainage system, attempt to contain the spilled sewage by plugging downstream storm drainage facilities.
- Contain/direct the spilled sewage using dike/dam or sandbags.
- Pump around the blockage/pipe failure/pump station or vacuum flow from upstream of the blockage and dispose of downstream of the blockage to prevent further spills.
- If a spill reaches a water body, follow the requirement in Section 4 of this document for posting and spill notification signage. Also see Section 4.8 for Water Quality Sampling requirements.

4.7 Spill Notification Signage and Restrict Public Access

Barriers shall be installed to prevent the public from having contact with the sewage if possible. Signs should be posted to keep vehicles and pedestrians away from contact with spilled sewage. Signs should remain in place until removal of the signs is directed by the District Manager.
If a creek, stream and/or beach have been contaminated as a result of a spill, notifications should be posted at visible access locations until the risk of contamination has subsided to acceptable background levels. The warning signs, once posted, should be checked every day to ensure that they are still in place. "Closed" signs should be posted at the outfall and a minimum of 100 feet upstream and 100 feet downstream of the discharge. If there is a large volume of sewage, more signs must be posted downstream. Signs must remain posted until at least two consecutive days of sampling meet the Public Beach Sanitation and Ocean Water-Contact Sports standards.
The removal of signs must be approved by EHS and the County Public Health Officer.
A sample warning sign is included in the Appendix.

4.8 Impact to Surface Waters

If a spill is confirmed to have entered surface waters, the District Manager shall be immediately notified. The response team then proceeds with the following additional activities:

- Determine the extent of the spill by investigating downstream until there is no evidence of sewage or debris along the creek or water body.
- Conduct Water Quality Sampling, following the process described below. If the spill is 50,000 gallons or greater, collect water quality samples **within 18 hours** of becoming aware of the spill.
- EHS requires daily water quality sampling until compliance is achieved, for Category 1 discharges of 1,000 gallons or greater that reach surface water.
- Immediately post contaminated water sign(s) and protect the waterbody from public access on all sides.
- Photograph sign placement and evidence of the spill in and around the waterbody to the farthest point reached by the sewage.

- Determine if the waterbody is safe to enter. During the winter storm season, cleaning the waterbody may not be feasible due to high water flows.
- If feasible, block the waterbody downstream of the affected area in a location that is safe to enter and is accessible to set up a pump or utilize other sewer cleaning equipment.
- To the extent feasible, recover and return contaminated water to the collection system.
- Perform follow-up sampling until the area shows no water quality impairment and the posted signs can be removed. The District Manager ultimately determines when this happens and makes any follow up calls to affected agencies.

4.8.1 Receiving Water Visual Observations

Through visual observations and use of best available spill volume-estimating techniques and field calculation techniques, the response team shall gather and document the following information for spills discharging to surface waters.

- Estimated spill travel time to the receiving water;
- For spills entering a drainage conveyance system, estimated spill travel time from the point of entry into the drainage conveyance system to the point of discharge into the receiving water;
- Estimated spill volume entering the receiving water; and
- Photography of:
    - Waterbody bank erosion,
    - Floating matter;
    - Water surface sheen;
    - Discoloration of receiving water; and
    - Impact to the receiving water.

4.8.2 Water Quality Sampling and Analysis for Category 1 Spills of 50,000 Gallons or More

Water quality sampling and testing are required for sanitary sewer spills that are 50,000 gallons or greater and reach surface water. Sampling and testing may be required for spills less than 50,000 gallons as required by the Marin County Health Officer. The purpose of testing is to determine the extent and impact of the spill. The following guidelines must be followed:

- The First Responder should notify the District Manager to collect samples. Samples should be collected as soon as possible after the discovery of the spill event;
- If sampling is required by the County for spills less than 1,000 gallons, at a minimum, samples should be collected at the discharge point, 100 feet upstream, and 100 feet downstream;

- Sample locations required by the Statewide WDR are listed in the Table 4.1 on the following page. The County may require additional sample locations;
- Samples must be collected **within 18 hours** of initial knowledge of the spill event; and
- Records of monitoring information should include the date, exact place, and time of sampling or measurements, the individual(s) who performed the sampling or measurements, the date(s) analyses were performed, the individual(s) who performed the analyses, the analytical technique or method used, and the results of such analyses.

The required water quality sampling procedures are as follows:

- Collect one water sample, each day of the duration of the spill, upstream of the spill entry point if sewage discharges to a surface water via a drainage conveyance system; and/or
- Three receiving water sampling locations (upstream, at the spill entry point, and downstream).
- If the receiving water has no flow during the duration of the spill, report "No Sampling Due to No Flow" for the receiving water sampling locations;
- Analyze the collected receiving water samples for **Ammonia** and the appropriate other bacterial indicator(s) that include one or more of the following, unless directed otherwise by the Regional Water Board: **Total Coliform Bacteria, Fecal Coliform Bacteria, E-coli, and/or Enterococcus;** and
- Collect and analyze additional samples as required by the applicable Regional Water Board Executive Officer or designee.

Sample locations are described further in Table 4.1 on the following page. The distance above and below the sample point should be selected by the District as appropriate for the spill location.

TABLE 4.1 SAMPLING OF FLOW FOR SPILLS 50,000 GALLONS OR GREATER

Sampling Location	Description
DCS-001	A point in a drainage conveyance system before the drainage conveyance system flow discharges into a receiving water.
RSW-001 Point of Discharge	A point in the receiving water where sewage initially enters the receiving water.
RSW-001U: Upstream of Point of Discharge	A point in the receiving water, upstream of the point of sewage discharge, to capture ambient conditions absent of sewage discharge impacts.
RSW-001D: Downstream of Point of Discharge	A point in the receiving water, downstream of the point of sewage discharge, where the spill material is fully mixed with the receiving water.

- Sample analysis must be conducted according to sufficiently sensitive test methods approved under 40 Code of Federal Regulations Part 136 for the sample analysis of pollutants. A method is considered sufficiently sensitive when the minimum level of the analytical method approved under 40 Code of Federal Regulations Part 136 is at or below the receiving water pollutant criteria; and
- The analysis of water quality samples required per this General Order must be performed by a laboratory that has accreditation pursuant to Article 3 (commencing with section 100825) of Chapter 4 of Part 1 of Division 101 of the Health and Safety Code. (Water Code section 13176(a).) The State Water Board accredits laboratories through its Environmental Laboratory Accreditation Program (ELAP). Additional sites may require sampling, following the requirements of the County Environmental Health Services (EHS) department.

In addition, the District's water quality sampling procedures, which are the same as the EHS procedures, are:

- Keep the sterile collection bottle closed until it is to be filled. Do not contaminate inner surface of the lid or bottle rim;
- Collect water sample just below the surface in knee deep water, approximately 3 feet deep (full arm's length), without rinsing. If needed, extend the sampling pole to the fullest length to reach deeper water depth. Minimize contact with bank or beach bed as water fouling may occur;
- Remove cap and hold the bottle near its base and plunge it, neck downward, below the surface;
- Turn bottle until neck points slightly upward and mouth is directed toward the current. Fill bottle leaving about 1 inch of air to allow lab to mix by shaking. Collect a minimum of 100 mL. (If applicable, insert sterile collection bottle into the holder on the sample pole. Extend the sample pole and plunge bottle end into the water, bottle opening downward);
- Immediately place cap securely on bottle to avoid leaks and contamination;
- Dry the bottle;
- Label container with distinctive sample site name, date, and time collected; and
- Complete the laboratory requisition slip with requested information (site, bottle number, collector, date and time of collection, type of sample, test requested, name and phone number of responsible person for reporting purposes, and deliverer name). Note any field observations that may have occurred during the sampling.
- Test samples for fecal coliform, total coliform, and enterococcus (also ammonia testing may be optional). The method of analysis for ammonia should be a readily available, good quality test kit, suitable for field analysis.

Samples should be stored and shipped according to the following procedures:

- Place water sample bottle in a cooler with frozen blue ice. Water sample must be kept cool. Ice may be used but care must be taken so water samples are not contaminated or diluted by the ice.
- Bring to a California state-certified laboratory within 8 hours of collection. For compliance tests, the holding time must not exceed 8 hours from the time of collection to time of processing or the tests will be invalidated. Other water tests for non-compliance purposes may be held below 10 degrees C until the time of analysis, up to 24 hours.

Water samples may be taken to the Water samples may be taken to the **SASM Laboratory at 450 Sycamore Avenue, Mill Valley, CA 94941, (415) 388-2402.** The water samples must be brought to the laboratory within 8 hours of collection, before 3:00 pm, for processing.

If the SASM laboratory is closed, utilize an alternate testing laboratory managed by:

Caltest Analytical Laboratory at 1885 N Kelly Rd., Napa, CA 94558, (707) 258-4000, Toll Free 888-258-TEST (8378), Fax: 707.226.1001 or

Brelje and Race Laboratories, 425 S E St., Santa Rosa, CA 95404, (707) 544-8807.

Records of monitoring information shall include the date, exact place, and time of sampling or measurements, the individual(s) who performed the sampling or measurements, the date(s) analyses were performed, the individual(s) who performed the analyses, the analytical technique or method used, and the results of such analyses.

4.8.3 Spill Technical Report

If 50,000 gallons or greater from a spill reaches surface waters, a spill Technical Report must be prepared and submitted to the CIWQS online spill database within 45 calendar days of the spill end date. The spill Technical Report must include, at a minimum, the following:

1. Spill causes and circumstances, including at minimum:
   a) Complete and detailed explanation of how and when the spill was discovered;
   b) Photographs illustrating the spill origin, the extent and reach of the spill, drainage conveyance system entrance and exit, receiving water, and post-cleanup site conditions;
   c) Diagram showing the spill failure point, appearance point(s), the spill flow path, and ultimate destinations;
   d) Detailed description of the methodology employed, and available data used to calculate the discharge volume and, if applicable, the recovered spill volume;
   e) Detailed description of the spill cause(s);
   f) Description of the pipe material, and estimated age of the pipe material, at the failure location;
   g) Description of the impact of the spill;
   h) Copy of original field crew records used to document the spill; and

i) Historical maintenance records for the failure location.

2. The District's response to the spill:

   a) Chronological narrative description of all actions taken by the District to terminate the spill;

   b) Explanation of how the Spill Emergency Response Plan was implemented to respond to and mitigate the spill; and

   c) Final corrective action(s) completed and a schedule for planned corrective actions, including:

      i) Local regulatory enforcement action taken against an illicit discharge in response to this spill, as applicable,

      ii) Identifiable system modifications, and operation and maintenance program modifications needed to prevent repeated spill occurrences, and

      iii) Necessary modifications to the Spill Emergency Response Plan to incorporate lessons learned in responding to and mitigating the spill.

3. Water Quality Monitoring, including at minimum:

   a) Description of all water quality sampling activities conducted;

   b) List of pollutant and parameters monitored, sampled and analyzed;

   c) Laboratory results, including laboratory reports;

   d) Detailed location map illustrating all water quality sampling points; and

   e) Other regulatory agencies receiving sample results (if applicable).

4. Evaluation of spill impact(s), including a description of short-term and long-term impact(s) to beneficial uses of the surface water.

The District Manager is responsible for managing the development of the Spill Technical Report, and for certifying and submitting the report. An outline for the Spill Technical Report is included in the Appendix.

4.8.4 Spill Notification Signage

Barriers shall be installed to prevent the public from having contact with the sewage. Signs should be posted to keep vehicles and pedestrians away from contact with spilled sewage. A sample warning sign is included in the Appendix.

If a creek, stream and/or beach have been contaminated as a result of a spill, notifications should be posted at visible access locations until the risk of contamination has subsided to acceptable background levels. The warning signs, once posted, should be checked every day to ensure that they are still in place. "Closed" signs should be posted at the outfall and a minimum of 100 feet

upstream and 100 feet downstream of the discharge. If there is a large volume of sewage, more signs must be posted downstream.

Signs must remain posted until the removal of signs is approved by EHS and the County Public Health Officer.

5 RECOVERY AND CLEANUP

The recovery and clean up phase begins immediately after the flow has been restored and the spilled sewage has been contained to the extent possible.

5.1 Recovery of Spilled Sewage

Vacuum up or pump the spilled sewage and to the extent possible, discharge the water back to the sanitary sewer system.

5.2 Clean Up and Disinfection

Clean up and disinfection procedures should be implemented to reduce the potential for human health issues and adverse environmental impacts that are associated with a spill event. The procedures described are for dry weather conditions and should be modified as required for wet weather conditions. Cleanup should proceed quickly in order to minimize negative impact. Any water that is used in the cleanup process should be dechlorinated prior to use.

5.2.1 Private Properties

Spills inside houses or buildings should be cleaned up by a professional cleaning company. Contact information for professional cleaning companies can be found in the "Water Damage Restoration" section of the Yellow Pages. Claims by homeowners should be forwarded to the District Manager.

5.2.2 Guidelines for Cleanup

On **hard surface areas**, collect all signs of sewage solids and sewage-related material either by hand or with the use of rakes and brooms. Allow the area to dry. Repeat the process if additional cleaning is required.

On **landscaped or unpaved areas**, collect all signs of sewage solids and sewage-related material either by hand or with the use of rakes and brooms. Allow the area to dry. Repeat the process if additional cleaning is required.

If the spill has reached the **storm drain system**, the combination sewer cleaning truck should be used to vacuum/pump out the catch basin and any other portion of the storm drain that may contain sewage. In the event that a spill occurs at night, the location should be re-inspected as soon as possible the following day. The operator should look for any signs of sewage solids and sewage-related material that may warrant additional cleanup activities.

5.2.3 Wet Weather Modifications

Omit flushing and sampling during heavy storm events with heavy runoff where flushing is not required and sampling would not provide meaningful results.

5.3 Estimate the Volume of Spilled Sewage

Use the methods outlined in the Appendix to estimate the volume of the spilled sewage.

Wherever possible, document the estimate using photos of the spill site before and during the recovery operation.

5.4 Post-Spill Assessment

For each spill event greater than 1000 gallons, all participants involved in the response – from the person who received the call to the last person to leave the site – should meet, as soon as feasible, after the event to review and evaluate the incident and District response procedures. The objective of the post-spill debrief is to determine actions necessary, if any, to reduce the recurrence and better mitigate the effects of spills.

6 PUBLIC NOTIFICATION

6.1 Spills that Do Not Reach Surface Waters

For spills that are contained and do not release unrecovered sewage into a storm drain, stream or a surface water body, notification to the public shall be accomplished through the use of signs at the location of the spill. See Section 4 and the Appendix for guidelines on the installation of signs for these types of spills.

6.2 Public Contact

The District Manager shall be responsible for public notification, if necessary.

7 SPILL DOCUMENTATION

In accordance with the WDR, the District should maintain the following records for each sanitary sewer spill. Records are maintained at the District office.

1. Records are retained for at least five (5) years
2. Records are readily available, either electronic or hard copies, for review by Water Board staff during onsite inspections or through an information request
3. Records are retained for each of the following spill-related events and activities:
    a. Spill event complaints
    b. Category 4 spills (in addition to records for Cat 1 through 3 spills listed under Reporting)
    c. Sewer system telemetry records
    d. Sewer system management plan implementation records
    e. Audit records
    f. Equipment Records
    g. Work orders

This section also lists spill-specific documentation that is required, which includes spill location and spread and volume estimation.
Specific requirements for recordkeeping are listed further in the sections below.

7.1 Responsibilities

The District Manager will prepare a file for each individual spill.

7.2 Spill Event Complaints

The District shall maintain records for each of the following spill-related events and activities:

- Spill event complaint, including but not limited to records documenting how the District responded to notifications of spills. Each complaint record must, at a minimum, include the following information:
    - Date, time, and method of notification;
    - Date and time the complainant first noticed the spill, if available;
    - Narrative description of the complaint, including any information the caller provided regarding whether the spill has reached surface waters or a drainage conveyance system, if available;
    - Complainant's contact information, if available; and
    - Final resolution of the complaint.
- Records documenting the steps and/or remedial action(s) undertaken by the District;

- Records documenting how estimate(s) of volume(s) and, if applicable, volume(s) of spill recovered were calculated;
- All California Office of Emergency Services notification records, as applicable; and
- Water quality monitoring records.

7.3 Supplemental Recordkeeping of Category 4 Spills

The District shall maintain the following supplemental records for each individual Category 4 spill:

1. Contact information: Name and telephone number of District contact person to respond to spill-specific questions;
2. Spill location name;
3. Description and GPS coordinates for the system location where the spill originated;
4. Did the spill reach a drainage conveyance system? If Yes:
    a. Description of drainage conveyance system location;
    b. Estimated spill volume fully recovered within the drainage conveyance system;
    c. Estimated spill volume remaining within the drainage conveyance system; and
    d. Estimated total spill volume exiting the sanitary sewer system.
5. Spill date and start time;
6. Spill cause(s) (for example, root intrusion, grease deposition, etc.);
7. System failure location (for example, main, pump station, etc.);
8. Description of spill response activities including description of immediate spill containment and cleanup efforts;
9. Description of how the volume estimation was calculated, including, at minimum:
    a. The methodology and type of data relied upon, including supervisory control and data acquisition (SCADA) records, flow monitoring or other telemetry information used to estimate the volume of the spill discharged, and the volume of the spill recovered (if any volume of the spill was recovered); and
    b. The methodology and type of data relied upon to estimate the spill start time, on-going spill rate at time of arrival (if applicable), and the spill end time.
10. Description of implemented system modifications and operating/maintenance modifications.

7.4 Recordkeeping for Total Annual Spill Information

The District shall keep the following records summarizing annual spills:

1. Estimated total annual spill volume;
2. Description of spill corrective actions, including at minimum:
    a. Local regulatory enforcement action taken against the sewer lateral owner in response to a spill, as applicable; and
    b. System operation, maintenance and program modifications implemented to prevent repeated spill occurrences at the same spill location.

7.5 Sewer System Telemetry Records

The District shall maintain the following sewer system telemetry records if used to document compliance with Statewide WDR, as applicable:

1. Supervisory control and data acquisition (SCADA) system(s);
2. Alarm system(s);
3. Flow monitoring device(s) or other instrument(s) used to estimate sewage flow rates, and/or volumes;
4. Computerized maintenance management system records; and
5. Asset management-related records.

7.6 Sewer System Management Plan Implementation Records

The District shall maintain records documenting the implementation of its Sewer System Management Plan, including documents supporting its Sewer System Management Plan audits, corrections, modifications, and updates to the Sewer System Management Plan.

7.7 Audit Records

The District shall maintain, at minimum, the following records pertaining to its Sewer System Management Plan audits, and other internal audits:

1. Completed audit documents and findings;
2. Name and contact information of staff and/or consultants that conducted or involved in the audit; and
3. Follow-up actions based on audit findings.

7.8 Equipment Records

The District shall maintain a log of all owned and leased sewer system cleaning, operational, maintenance, construction, and rehabilitation equipment.

7.9 Work Orders

The District shall maintain record of work orders for operations and maintenance projects.

7.10 Spill Specific Monitoring (Documentation)

Spill-specific monitoring means the gathering of information and data for a specific spill event to be reported or kept as records. The WDR requires the following assessments, as a component of data gathering following a spill.

7.10.1 Spill Location and Spread

The District shall visually assess the spill location(s) and spread using photography, global positioning system (GPS), and other best available tools. The District shall document the critical spill locations, including:

- Photography and GPS coordinates for:
    - The system location where spill originated; or
    - For multiple appearance points of a single spill event, the points closest to the spill origin.
- Photography for:
    - Drainage conveyance system entry locations;
    - The location(s) of discharge into surface waters, as applicable;
    - Extent of spill spread; and
    - The location(s) of clean up.

7.10.2 Spill Volume Estimation

The District shall estimate the total spill volume using updated volume estimation techniques, calculations, and documentation for electronic reporting. The District shall update its notification and reporting of estimated spill volume (which includes spill volume recovered) as further information is gathered during and after a spill event, including:

- Initial service call information;
- Spill Report Form;
- Copies of the certified CIWQS report forms including volume estimate;
- CCTV inspection if completed;
- Water quality sampling and test results, if applicable; and
- Spill Technical Report if prepared.

7.11 Other Records

In addition to the abovementioned records, the following additional records should also be retained for all spills when available and as applicable:

- All original recordings for continuous monitoring instrumentation
- Service call records and complaint logs of calls received by the District for the previous five years
- Work orders, work completed, and any other maintenance records from the previous five years that are associated with spills
- Documentation of performance and implementation measures for the previous five years

8 REGULATORY REPORTING

This section describes the requirements that have been established for reporting of spills to the regulatory agencies.
Table 8.1 summarizes key deadlines to be aware of for spill reporting. Table 8.2 lists all regulatory reporting requirements and timelines that are also described further in this section.
Table 8.3 lists contact information for spill reporting.
Figure 8.1 presents a flow chart showing the external reporting and response requirements based on the type of spill.

TABLE 8.1. KEY DEADLINES FOR SPILL REPORTING

2 HOURS of being aware of spill	**Call Office of Emergency Services & Health Department if Category 1 sewer main spill is 1000 gallons or more**
3 BUSINESS DAYS of being aware of spill	Submit draft reports to CIWQS for Category 1 and sewer main or Category 2 sewer main spills
15 CALENDAR DAYS from spill end date	Certify Category 1 and Category 2 spills
30 CALENDAR DAYS from end of month if applicable	Certify Category 3 and/or Category 4 sewer main spills or submit "No Spill" report
45 CALENDAR DAYS from spill end date	Submit Spill Technical Report for spills 50,000 gallons or larger that reach Waters of the State
90 CALENDAR DAYS from spill end date (Cat 1 or 2) or certified spill report due date (Cat 3)	Submit amended spill report for Category 1 through 3 spills
FEBRUARY 1 **of each year**	Submit Category 4 spill summary report

TABLE 8.2. SPILL REPORTING REQUIREMENTS

If spill	Then Notify
Category 1 Spill: 1000 gallons or more reaching a surface water or with the potential to reach a surface water.	**2-Hour Notification to** Cal OES: (800) 852-7550. Ask for an OES Control Number (for RWQCB). County Health Officer (415) 473-3707 and Marin County Environmental Health Services (EHS) (415) 473-6907 are also to be contacted. During evenings/weekends, call the Sheriff Communication Center at (415) 473-7250. **Within 3 Business Days** of having knowledge of spill report to SWRCB using CIWQS **Within 15 Calendar Days** of Conclusion of Response certify by LRO using CIWQS **Within 45 Calendar Days of Conclusion of Response** submit Spill Technical Report via CIWQS online database if 50,000 gallons or more **Additional Notification as Needed** – California DFWS: (707)-944-5500
Category 2 Spill: 1,000 gallons or more without the potential to reach surface waters.	**Within 3 Business Days** of having knowledge of spill report to SWRCB using CIWQS. **Within 15 Calendar Days** of Conclusion of Response certify by LRO using CIWQS.
Category 3 Spill: 50 gallons to 999 gallons without the potential to reach surface waters. Category 4 Spill: 49 gallons or less, not reaching surface waters.	**Within 30 Calendar Days** past End of Month with Spill Event, report to SWRCB and certify by LRO using CIWQS. **By February 1 of the Year Following the Year in Which Cat 4 Spills Occurred** submit annual report to SWRCB and Certify by LRO using CIWQS.
No Spill Reporting: (no spills in month.	**Within 30 Calendar Days** past End of Month report by LRO to SWRCB using CIWQS.
Member Agency spill (respond and then contact member agency)	SASM: (415) 388-2402 City of Mill Valley: (415) 388-4033 Homestead Valley Sanitary District: (415) 388-4796 Alto Sanitary District: (415) 388-3696 Almonte Sanitary District: (415) 388-8775 Tamalpais Community Services District: (415) 389-8722
Annual Report (Was Collection System Questionnaire)	Update and certify April 1 beginning in 2024 (Submit Collection System Questionnaire on prior schedule in 2023)

TABLE 8.3. CONTACT INFORMATION FOR SPILL REPORTING

California Integrated Water Quality System (CIWQS)

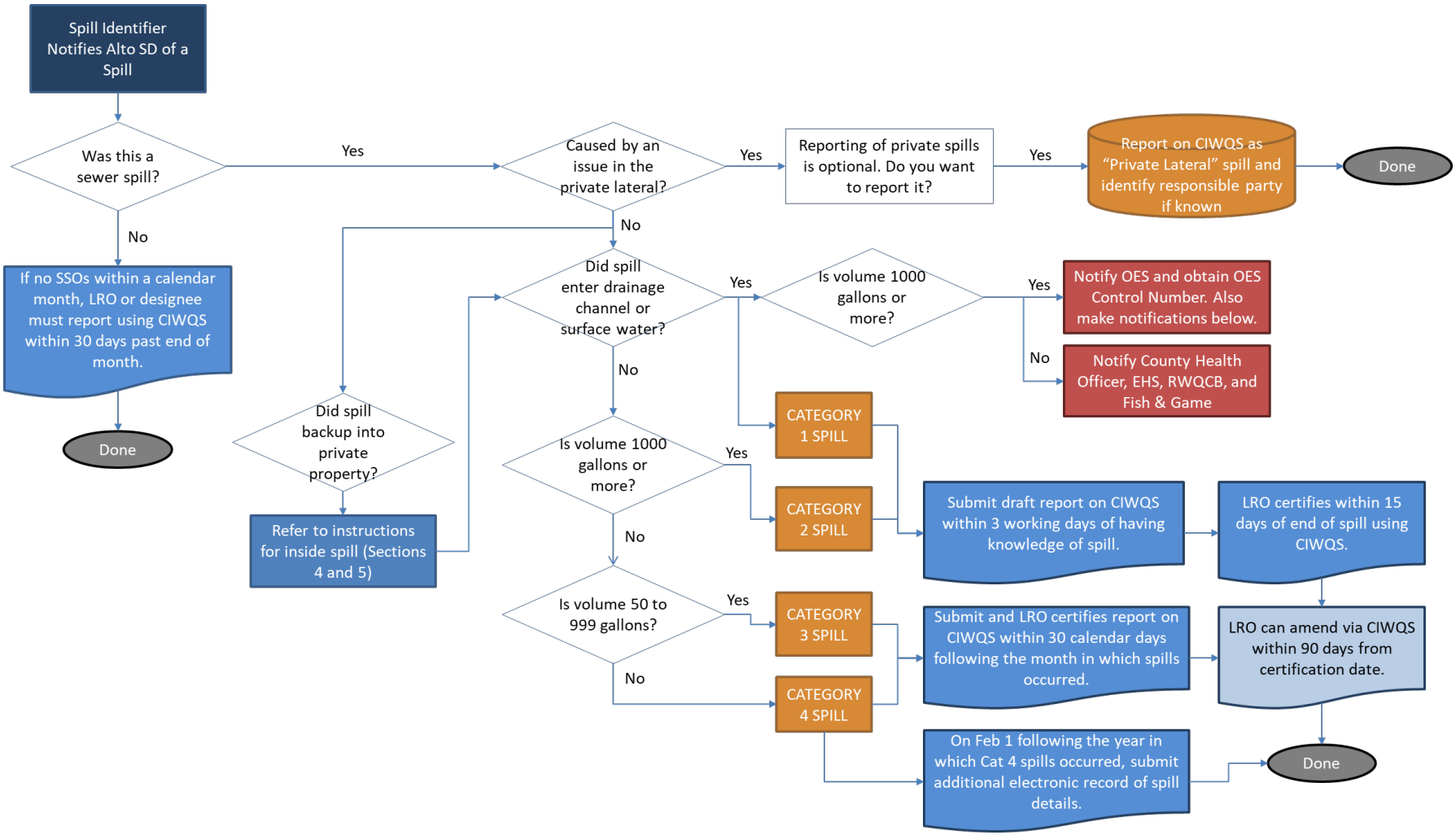
SWRCB REPORTING TIMEFRAMES DEPEND ON THE SIZE AND FINAL DESTINATION OF THE SPILL

- CIWQS must be used for reporting if the website is available (http://ciwqs.waterboards.ca.gov)
    - User Name: XXXX
    - Password: XXXX
    - Waste Discharge Identification Number (WDID): 2SSO10090
- The spill database will automatically generate an email notification with customized information about the spill upon initial reporting and final certification for all Category 1 spills.
- Emails must be sent to the EHS and the San Francisco Bay RWQCB.
- Fax the RWQCB if the website is down.

Two-Hour Notification

1. State Office of Emergency Services (OES)
    - Phone: (800) 852-7550. Make sure you ask for an "OES CONTROL NUMBER"
2. Marin County Environmental Health Services
    - Phone – Day: (415) 499-6907
    - Phone – Night: (415) 499-7235 (Sheriff's Communication Center)
    - County Health Officer: (415) 473-3703
3. RWQCB Region 2 (San Francisco Bay)
    - Phone – Day: (510) 622-2300
    - Phone – Night: (510) 622-2369
    - Online: RB2SpillReports@waterboards.ca.gov

FIGURE 8.1 EXTERNAL REPORTING AND RESPONSE REQUIREMENTS



8.1 Multiple Appearance Points – Single Spill

For reporting purposes, if one spill event of whatever category results in multiple appearance points in a sewer system, a single spill report is required in CIWQS which includes the GPS coordinates for the location of the spill appearance point closest to the failure point, blockage or location of the flow condition that caused the spill, and descriptions of the locations of all other discharge points associated with the single spill event.

8.2 2-Hour Notification to Regulatory Agencies of Spills

Cal OES is to be notified of a Category 1 spill greater than or equal to 1,000 gallons discharged to surface water or spilled in a location where it probably will be discharged to surface water. In addition, both the County Health Officer and EHS are to be contacted. During regular business hours, the Health Officer can be reached at (415) 473-3707 and the main EHS phone number to call is (415) 473-6907. During evenings/weekends, call the Sheriff Communication Center at (415) 479-2311.

The First Responder is responsible for reviewing field data for reporting to regulatory agencies. If it is determined that the criteria for OES notification was met, then the First Responder must notify OES of the event no later than two (2) hours after:

1. The District has knowledge of the spill;
2. Notification is possible; and
3. Notification can be provided without substantially impeding cleanup or other emergency measures.

The OES phone number is (800) 852-7550.

The First Responder is responsible for obtaining an OES Control number. Following the initial notification to OES and until the spill report is certified in the SWRCB online spill Database, the LRO will provide updates (or provide direction for updates to be provided) to OES regarding substantial changes to estimated volume of untreated or partially treated sewage discharged and any substantial changes to known impact(s).

8.3 Detailed Reporting Requirements

The following sections describe the detailed reporting requirements for each category of spill.

8.3.1 Spill Reporting for Category 1 Spills

The first responder will immediately notify the District Manager. The first responder will fill out the Field Report and turn it in to the Legally Responsible Official (LRO). The District Manager, or their designee, will meet with field crew(s) at the site of the spill event to assess the situation. In the event of a very large spill or a spill in a sensitive area, the District Manager will notify the Board of Directors.

8.3.1.1 Draft Spill Report

• Cal OES and EHS shall receive notification with 2 hours of having knowledge of any Category 1 spills greater than or equal to 1,000 gallons, as stated earlier in this section.

• The Data Submitter must then submit the initial draft report to the SWRCB's CIWQS Online spill database at http://ciwqs.waterboards.ca.gov/ciwqs within 3 business days of becoming aware of the spill.

Table 8.4 below lists information that is required in the draft spill report. The data provided in the draft spill must be supplemented further, during the certification process, as discussed further below

TABLE 8.4 CATEGORY 1 AND 2 CIWQS DRAFT SPILL REPORT – REQUIRED INFORMATION

Required Information for Category 1 and 2 Draft Spill Reports
1. Contact information: Name and telephone number of contact person to respond to spill-specific questions;
2. Spill location name;
3. Date and time the District was notified of, or self-discovered, the spill;
4. Operator arrival time;
5. Estimated spill start date and time;
6. Date and time the District notified the California Office of Emergency Services, and the assigned control number;
7. Description, photographs, and GPS coordinates of the system location where the spill originated;
8. If a single spill 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 spill appearance point explanation field;
9. Estimated total spill volume exiting the system;
10. Description and photographs of the extent of the spill and spill boundaries;
11. Did the spill reach a drainage conveyance system? If Yes:
a. Description of the drainage conveyance system transporting the spill;
b. Photographs of the drainage conveyance system entry location(s);
c. Estimated spill volume fully recovered from the drainage conveyance system;
d. Estimated spill volume remaining within the drainage conveyance system;
e. Description and photographs of all discharge point(s) into the surface water;

** Items 12 and 13 are required for Category 1 spills only **

12. Estimated spill volume that discharged to surface waters; and
13. Estimated total spill volume recovered.

8.3.1.2 Spill Certification for Category 1 Spills – 15 Calendar Days of the Spill End Date

Within 15 calendar days of the spill end date, the LRO must review and certify the report in the CWIQS Online spill database at http://ciwqs.waterboards.ca.gov/ciwqs
The Certified Spill Report requires additional information to supplement the data provided in the Draft Spill Report. Table 8.5 on the following page summarizes information that is required during spill certification.

8.3.1.3 Spill Amendments for Category 1 Spills – 90 Calendar Days of the Spill End Date

The District shall update or add additional information to a Certified Spill Report within 90 calendar days of the spill end date by amending the report or by adding an attachment to the Spill Report in the online CIWQS Sanitary Sewer System Database. The Enrollee shall certify the amended report. After 90 calendar days, the District shall contact the State Water Board at SanitarySewer@waterboards.ca.gov to request to amend a Spill Report. The Legally Responsible Official shall submit justification for why the additional information was not reported within the Amended Spill Report due date.

8.3.2 Spill Reporting for Category 2 Spills

The first responder will fill out the Field Report and turn it in to the LRO.

8.3.2.1 Draft Spill Report – 3 Business Days of Becoming Aware of the Spill

Within 3 business days of becoming aware of the spill, the LRO must submit the initial report to the SWRCB's CWIQS Online Spill Database at:
http://ciwqs.waterboards.ca.gov/ciwqs . The draft report shall include Items 1 through 11 of the list provided above for the Category 1, 3-day draft report.

8.3.2.2 Spill Certification for Category 2 Spills – 15 Calendar Days of the Spill End Date

Within 15 calendar days of the spill end date, the LRO must review and certify the report in the CWIQS Online Spill Database at http://ciwqs.waterboards.ca.gov/ciwqs . The Spill Certification must include, in addition to the information provided in the draft report, Items 1 through 13 of the list provided above for the Category 1 Spill Certification. *In addition, the Spill Certification must include a new Item 14 - Whether or not the spill was located within 1,000 feet of a municipal surface water intake.*

TABLE 8.5 CATEGORY 1 AND 2 CIWQS SPILL CERTIFICATION – REQUIRED INFORMATION

Required Information for Category 1 and 2 Spill Certification
1. Description of the spill event destination(s), including GPS coordinates if available, that represent the full spread and reach of the spill; 2. Spill end date and time; 3. Description of how the spill volume estimations were calculated, including at a minimum: a. The methodology, assumptions and type of data relied upon, such as supervisory control and data acquisition (SCADA) records, flow monitoring or other telemetry information used to estimate the volume of the spill discharged, and the volume of the spill recovered (if any volume of the spill was recovered); and b. The methodology(ies), assumptions and type of data relied upon for estimations of the spill start time and the spill end time; 4. Spill cause(s) (for example, root intrusion, grease deposition, etc.); 5. System failure location (for example, main, lateral, pump station, etc.); 6. Description of the pipe material, and estimated age of the pipe material, at the failure location; 7. Description of the impact of the spill; 8. Whether or not the spill was associated with a storm event; 9. Description of spill response activities including description of immediate spill containment and cleanup efforts; 10. Description of spill corrective action, including steps planned or taken to reduce, eliminate, and prevent reoccurrence of the spill, and a schedule of major milestones for those steps; 11. Spill response completion date; 12. Detailed narrative of investigation and investigation findings of cause of spill; 13. Reasons for an ongoing investigation (as applicable) and the expected date of completion; ** Items 14 through 17 are required for Category 1 spills only ** 14. Name and type of receiving water body(s); 15. Description of the water body(s), including but not limited to: a. Observed impacts on aquatic life; b. Public closure, restricted public access, temporary restricted use, and/or posted health warnings due to spill;

c. Responsible entity for closing/restricting use of water body; and d. Number of days closed/restricted as a result of the spill. 16. Whether or not the spill was located within 1,000 feet of a municipal surface water intake; and 17. If water quality samples were collected, identify sample locations and the parameters the water quality samples were analyzed for. If no samples were taken, "Not Applicable" shall be selected.

8.3.2.3 Amended Certified Spill Reports for Individual Category 2 Spills – 90 Calendar Days of the Spill End Date

The District shall update or add additional information to a Certified Spill Report within 90 calendar days of the spill end date by amending the report or by adding an attachment to the Spill Report in the online CIWQS Sanitary Sewer System Database. The LRO shall certify the amended report. After 90 calendar days, the District shall contact the State Water Board at SanitarySewer@waterboards.ca.gov to request to amend a Spill Report. The Legally Responsible Official shall submit justification for why the additional information was not reported within the Amended Spill Report due date.

8.3.3 Spill Reporting for Category 3 and 4 Spills

8.3.3.1 Monthly Spill Reporting for Category 3 Spills

Within 30 calendar days of the end of the calendar month in which the spill occurred, the LRO must submit and certify a report to the SWRCB's CWIQS Online Spill database at http://ciwqs.waterboards.ca.gov/ciwqs. For each spill, the report shall include the information shown in Table 8.6.

TABLE 8.6 CATEGORY 3 CIWQS SPILL CERTIFICATION – REQUIRED INFORMATION

Required Information for Category 3 Spill Certification
1. Contact information: Name and telephone number of Enrollee contact person to respond to spill-specific questions; 2. Spill location name; 3. Date and time the Enrollee was notified of, or self-discovered, the spill; 4. Operator arrival time; 5. Estimated spill start date and time; 6. Description, photographs, and GPS coordinates where the spill originated:

Required Information for Category 3 Spill Certification
7. If a single spill 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 spill appearance point explanation field; 8. Estimated total spill volume exiting the system; 9. Description and photographs of the extent of the spill and spill boundaries; 10. Did the spill reach a drainage conveyance system? If Yes: a. Description of the drainage conveyance system transporting the spill; b. Photographs of the drainage conveyance system entry locations(s); c. Estimated spill volume fully recovered from the drainage conveyance system; and d. Estimated spill volume discharged to a groundwater infiltration basis or facility, if applicable. 11. Estimated total spill volume recovered; 12. Description of the spill event destination(s), including GPS coordinates, if available, that represent the full spread and reaches of the spill; 13. Spill end date and time; 14. Description of how the spill volume estimations were calculated, including, at minimum: a. The methodology and type of data relied upon, including supervisory control and data acquisition (SCADA) records, flow monitoring or other telemetry information used to estimate the volume of the spill discharged, and the volume of the spill recovered (if any volume of the spill was recovered); and b. The methodology and type of data relied upon to estimate the spill start time, on-going spill rate at time of arrival (if applicable), and the spill end time. 15. Spill cause(s) (for example, root intrusion, grease deposition, etc.); 16. System failure location (for example, main, pump station, etc.); 17. Description of the pipe/infrastructure material, and estimated age of the pipe/infrastructure material, at the failure location; 18. Description of the impact of the spill; 19. Whether or not the spill was associated with a storm event; 20. Description of spill response activities including description of immediate spill containment and cleanup efforts;

Required Information for Category 3 Spill Certification
21. Description of spill corrective actions, including steps planned or taken to reduce, eliminate, and prevent reoccurrence of the spill, and a schedule of the major milestones for those steps; including, at minimum: a. Local regulatory enforcement action taken against an illicit discharge in response to this spill, as applicable, and b. Identifiable system modifications, and operation and maintenance program modifications needed to prevent repeated spill occurrences at the same spill event location, including: i. Adjusted schedule/method of preventive maintenance; ii. Planned rehabilitation or replacement of sanitary sewer asset; iii. Inspected, repaired asset(s), or replaced defective asset(s); iv. Capital improvements; v. Documentation verifying immediately implemented system modifications and operating/maintenance modifications; vi. Description of spill response activities; vii. Spill response completion date; and viii. Ongoing investigation efforts, and expected completion date of investigation to determine the full cause of spill. 22. Detailed narrative of investigation and investigation findings of cause of spill.

8.3.3.2 Amended Certified Spill Reports for Individual Category 3 Spills – 90 Calendar Days of the Spill End Date

The District shall update or add additional information to a Certified Spill Report within 90 calendar days of the spill end date by amending the report or by adding an attachment to the Spill Report in the online CIWQS Sanitary Sewer System Database. The LRO shall certify the amended report. After 90 calendar days, the District shall contact the State Water Board at SanitarySewer@waterboards.ca.gov to request to amend a Spill Report. The Legally Responsible Official shall submit justification for why the additional information was not reported within the Amended Spill Report due date.

8.3.3.3 Monthly Spill Reporting for Category 4 Spills

Within 30 calendar days of the end of the calendar month in which the spill occurred, the LRO must submit and certify the estimated total spill volume exiting the sanitary sewer system and the total number of all Category 4 spills to the SWRCB's CWIQS Online spill database at http://ciwqs.waterboards.ca.gov/ciwqs.

8.3.3.4 *Annual Spill Reporting for Category 4 Spills*

Upload and certify a report, in an acceptable digital format, of all Category 4 spills to the online CIWQS Sanitary Sewer System Database, by February 1st after the end of the calendar year in which the spills occur.

8.3.4 No Spill Certification (Monthly)

If no spills occur during a calendar month, the LRO shall certify, within 30 calendar days after the end of each calendar month, a "No-Spill" certification statement in the online CIWQS Sanitary Sewer System Database, certifying that there were no spills in the designated month.
If a spill starts in one calendar month and ends in a subsequent calendar month, and the District has no further spills of any category, in the subsequent calendar month, the LRO shall certify "no-spills" for the subsequent calendar month. If the District has no spills from its systems during a calendar month, but the District voluntarily reported a spill from a private lateral or a private system, the LRO shall certify "no-spills" for that calendar month.

8.3.5 CIWQS Not Available

In the event that the CIWQS online spill database is not available, the LRO will fax or e-mail all required information to the RWQCB office at (510) 622-2460 in accordance with the time schedules identified above. In such an event, the District will submit the appropriate reports using the CIWQS online spill database when the database becomes available. A copy of all documents that certify the submittal in fulfillment of this section shall be retained in the spill document file.

8.3.6 Amending Spill Reports

The LRO is responsible for amending spill reports. Certified spill reports may be updated by amending the report or adding an attachment to the spill report within 90 calendar days after the spill end date. After 90 days, the District must contact the State spill Program Manager to request to amend a spill report along with a justification for why the additional information was not available prior to the end of the 90 days. The SWRCB Spill Program Manager contact information is as follows:

State Board: SanitarySewer@waterboards.ca.gov
Walter Mobley
State Water Resources Control Board
Division of Water Quality
1001 I Street 15th Floor
Sacramento, CA 95814
E-mail: walter.mobley@waterboards.ca.gov
Phone: (916) 323-0878

9 EQUIPMENT INVENTORY

The emergency response contractor maintains a stock of emergency response equipment which is available if needed for spill response. The District does not maintain specialized equipment to support spill response.

SASM maintains water quality sampling kits for the District that include:

- Sterile plastic bottles, 125 mL and 250 mL
- Laboratory requisition forms
- Styrofoam container, ice chest, or equivalent
- Blue ice packs, frozen
- Waterproof marker and ballpoint pen
- Labels for collection bottles
- Towel for drying bottles
- Sampling pole for collecting samples
- Rubber boots and/or rubberized waders

These supplies meet EHS standards for proper water quality sampling.

10 TRAINING

This section provides information on the training that is required to support this Spill Emergency Response Plan.

10.1 Employees and Contractor Employees

10.1.1 Initial and Annual Refresher Training

All District personnel and contractor employees who may have a role in responding to, reporting, and/or mitigating a sewer system spill should receive training on the contents of this Spill Emergency Response Plan. All new employees should receive training before they are placed in a position where they may have to respond. Current employees should receive annual refresher training on this plan and the procedures to be followed. Affected employees will receive annual training on the following topics, at a minimum, by knowledgeable trainers:

- The District's Spill Emergency Response Plan
- Spill Volume Estimation Techniques
- Impacted Surface Waters: Response Procedures

10.1.2 Spill Response Drills

Periodic training drills should be held to ensure that employees are up to date on these procedures, equipment is in working order, and the required materials are readily available. The training drills will cover scenarios typically observed during sewer related emergencies. The results and the observations during the drills will be recorded and action items should be tracked to ensure completion.

10.1.3 Spill Training Record Keeping

The District Manager keeps records of all training that is provided in support of this plan. The records for all scheduled training courses and for each spill emergency response training event should include date, time, place, content, name of trainer(s), and names of attendees.

ELEMENT VII FOG CONTROL PROGRAM

Requirements:

The agency shall evaluate its service area to determine whether a FOG control program is needed. If the agency determines that a FOG program is not needed, justification must be provided for why it is not needed. If FOG is found to be a problem, the agency must prepare and implement a FOG source control program to reduce the amount of these substances discharged to the sanitary sewer system. The FOG source control program shall include the following as appropriate:

An implementation plan and schedule for a public education outreach program that promotes proper disposal of FOG

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

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

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

Authority to inspect grease producing facilities, enforce requirements, and determine whether SASM has sufficient staff to inspect and enforce the FOG ordinance

An identification of sewer system sections subject to FOG blockages and the establishment of a cleaning maintenance schedule for each section

Development and implementation of source control measures, for all sources of FOG discharged to the sewer system, for each sewer system section identified as subject to blockages

Response:

VIIa) A business related FOG control program is not specifically needed for the Alto Sanitary District because the District has no restaurants or other sources where significant amounts of fats, oils or grease are generated.

VIIb) Communication with the Public as described in the Element XI, below, indicates methods for *public outreach* and actions currently in collaboration with the SASM JPA FOG program.

ELEMENT VIII SYSTEM EVALUATION & CAPACITY MANAGEMENT

Requirements:

D.13.(viii) System Evaluation and Capacity Assurance Plan: The Enrollee shall prepare and implement a capital improvement plan (CIP) that will provide hydraulic capacity of key sanitary sewer system elements for dry weather peak flow conditions, as well as the appropriate design storm or wet weather event. At a minimum, the plan must include:

(a) Evaluation: Actions needed to evaluate those portions of the sanitary sewer system that are experiencing or contributing to an SSO discharge caused by hydraulic deficiency. The evaluation must provide estimates of peak flows (including flows from SSOs that escape from the system) associated with conditions similar to those causing overflow events, estimates of the capacity of key system components, hydraulic deficiencies (including components of the system with limiting capacity) and the major sources that contribute to the peak flows associated with overflow events;

(b) Design Criteria: Where design criteria do not exist or are deficient, undertake the evaluation identified in "a" above to establish appropriate design criteria; and

(c) Capacity Enhancement Measures: The steps needed to establish a short- and long-term capital improvement plan (CIP) to address identified hydraulic deficiencies including prioritization, alternatives analysis, and schedules. The CIP may include increases in pipe size, I/I reduction programs, increases and redundancy in pumping capacity, and storage facilities. The CIP shall include an implementation schedule and shall identify sources of funding.

(d) Schedule: The Enrollee shall develop 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.

Response:

VIIIa) Alto Sanitary District does not have many property lots still available for new construction so capacity management for system growth on a large scale is not required. Individual expansions require the developer to define new capacity and evaluate downstream pipes for capacity impact.

VIIIb) Cleaning frequency is typically increased to clear roots and occasional solids (i.e.

'swiffers' and sanitary wipes, many of which don't break down and cause blockages in the sewers) or grease. In the flatter areas where pipe have less velocity, cleaning frequent is increased to reduce SSO risk. Soil settlement in some of the flatter pipes has reduced pipe segment efficiency and capacity. Surveys have been performed to review needed re-design requirements in order to improve pipe capacity in these areas. These sections and older pipes have been prioritized on the CIP plan. They are cleaned on a more frequent basis until they can be replaced.

VIIIc) The District's CIP plan has been made available on the District's website and in the appendices here.

ELEMENT IX MONTORING, MEASUREMENT & PROGRAM MODIFICATIONS

Requirements:

D.13.(ix) Monitoring, Measurement, and Program Modifications: The Enrollee shall:

(a) Maintain relevant information that can be used to establish and prioritize appropriate SSMP activities;

(b) Monitor the implementation and, where appropriate, measure the effectiveness of each element of the SSMP;

(c) Assess the success of the preventative maintenance program;

(d) Update program elements, as appropriate, based on monitoring or performance evaluations; and

(e) *Identify and illustrate SSO trends, including: frequency, location, and volume.*

Response:

IXa) The Alto Sanitary District is small and employs a part-time District Manager and field service for the District has for many years been provided by a contract with Roto-Rooter Sewer Service who also respond to emergency calls regarding SSOs. Residents calling in to report an SSO are directed by the phone voice mail system to Roto-Rooter at a number reserved for that purpose. Roto-Rooter has personnel on call at all times and they have been directed to place the highest priority on calls from District residents reporting overflows. Roto-Rooter's response time is within one hour of notification. Each Roto-Rooter vehicle carries a set of the District's system maps and little time is lost searching out the source of SSOs, once the service technician is on the scene.

IXb) In general, the Alto Sanitary District is making a strong effort to upgrade an aging system with an active CIP that executes projects each fiscal year cycle while at the same time maintaining the system in as serviceable a condition as possible.

IXc) The Board of Directors has set the sewer service rate at a level which will allow the rehabilitation of the sewer system in accordance with the program set forth by the Engineering Consultant and updated by the District Manager as approved by the District Board. The rates provide sufficient funds for maintaining and operating the old pipes until such time as they can be rehabilitated.

IXd) The smoke testing completed in 2008-2012 revealed some laterals which were

repaired but the District has since focused energy on its Lateral Ordinance which has been much more effective in requiring lateral rehabilitation. The District's lateral program is intended to correct I&I problems and defects which may have contributed to the public and private SSOs experienced by the District in the past. Smoke testing may be used again in the future to review for system leaks and possible roof or yard drain connections which are prohibited.

IXe) Each year, the financial status of the District and the demands of the maintenance and operation of the system along with the requirements of the rehabilitation program are examined in detail. The Board stands ready to go to the rate payers with a proposal to increase the sewer service charge should the economic inflation or deterioration of the sewers so require.

IXf) In 2016, the District raised the sewer service rates over three years from $500/EDU to the current level of $1,500/EDU. The increased rate allowed full resumption of the Capital Improvement Program and now funds the ongoing cleaning, televising, and flow monitoring programs required by the regulatory agencies as well as the District's share of the SASM Treatment Plants O&M and upgrades.

ELEMENT X SSMP PROGRAM AUDITS

Requirements

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

Response:

Xa) The District reviews its performance with the Maintenance Contractor on a quarterly basis and in an annual meeting with the Consultant Engineer sets the budget and program goals for the next CIP. After the budget is approved, the District reviews the cleaning records and verifies priorities with both the Consultant Engineer and the Maintenance Contractor to ensure priorities are kept current. Any program changes for CIP, cleaning, notification, Ordinance compliance, etc. are reviewed and updated.

Xb) The District audits the SSMP every two years and prepares a report to be kept on file.

ELEMENT XI COMMUNICATION PLAN

Requirements:

D.13.(xi) Communication Program. The Enrollee shall communicate on a regular basis with the public on the development, implementation, and performance of its SSMP. The communication system shall provide the public the opportunity to provide input to the Enrollee as the program is developed and implemented. The Enrollee shall also create a plan of communication with systems that are tributary and/or satellite to the Enrollee's sanitary sewer system.

Response:

XIa) Public Outreach and Education include website updates and postcard mailers to the public with topical sewer and garbage information for educating customers on actions they can take to improve systems performance.

XIb) JPA Managers Meetings: The District Manager attends monthly JPA managers meetings to discuss system updates, plant improvements, lateral ordinance compliance, regulatory requirements, and feedback from the public outreach and education programs.

REVISIONS LOG

This section is meant to provide a quick reference for changes made in the current 2019 SSMP Update from the 2016 SSMP.

1. Added List of Acronyms
2. Added List of Terms
3. Revised the format to match the Element numbering system.
4. Updated the CIWQS registration Waste Water Discharge Identification Number.
5. Added Element Requirements.
6. Clarify Infiltration investigations with CIP projects and Lateral Ordinance Inspection Requirements.
7. Updated Organization Chart to show Private Lateral Contractors.
8. Listed Current Primary Maintenance Contractor: Roto-Rooter.
9. Revised Spill Category 1, 2, and 3 and Private Lateral SSO requirements.
10. Clarified Public Outreach for Fats Oils and Grease.
11. Extensively revised and added to the Overflow Emergency Response Plan (OERP.)
12. Update Legal Authority Description
13. Added details for Capacity Management
14. Updated Measures and Activities, CIP Plan, and budget.
15. Clarified Construction Standards to include Private Laterals.
16. Added details to the Monitoring, Measurements and Program Changes quarterly activities, and updated budget.
17. Added updated 5 Year SSO Details.
18. Added the Communication Program Description.
19. Updated Relevant Budget Attachments
20. Added the Revisions Log.
21. 06/05/2023 – Updated Element VI Spill Emergency Response Plan
22. 06/05/2023 – Added Attachment 4

APPENDICES

Attachment 1: Alto Sanitary District Fiscal Year 2018/19 Budget

Attachment 2: Capital Improvements Project (CIP) Planning to FY 2028/29

Attachment 3: Alto Sanitary District System Maps

Attachment 4: SERP Appendix (Added 06/05/2023)

- Contact Information for District Personnel
- Sanitary Sewer Spill Service Call & Field Report Form (Field Report)
- Sample Warning Sign
- Sewage Volume Estimation Methods
- Example Spill Technical Report (Outline)

2019 SEWER SYSTEM MANAGEMENT PLAN

Attachment 1:

Alto Sanitary District Fiscal Year 2018/19 Budget

Alto Sanitary District

Budget for Fiscal Year 2018-19 - APPROVED by the Board of Directors on 06/27/18

Revenue			
Item	***FY17-18 Proj***	***FY18-19 Budget***	***%***
Operating Revenue			
Program Revenues (Sewer Service Charges) FY18/19 = 1,500/EDU	621,478	745,773	*120%*
Franchise Fees (MVRS)	14,022	16,000	*114%*
Marin Housing Authority Sewer Fee	70,000	84,000	*120%*
Permits & Fees	49,805	25,000	*50%*
Operating Revenue:	**755,305**	**870,773**	*115%*
Non-Operating Revenue			
Property Taxes	49,883	49,574	*99%*
Excess ERAF	21,559	20,000	*93%*
Aid from Govt Agencies (HOPTR)	126	126	*100%*
Interest	2,660	2,000	*75%*
Grant	5,000	0	*0%*
Non-Operating Revenue:	**79,228**	**71,700**	*90%*
Total Revenue:	**834,533**	**942,473**	*113%*

Expenses			
Sewage Treatment			
Sewage Treatment SASM	265,398	290,000	*109%*
Sewage Treatment:	**265,398**	**290,000**	*109%*
Sewer System Maintenance			
Cleaning	20,560	22,000	*107%*
Televising Program	0	0	
Repairs	4,868	5,000	*103%*
Lateral Rehab Prog (Inspections)	0	1,000	
Underground Service Alert	10,075	11,000	*109%*
Unscheduled Services	7,203	8,000	*111%*
Sewer System Maintenance:	**42,706**	**47,000**	*110%*
Professional Services			
Marin County Admin Fees	547	1,200	*219%*
LAFCO Dues	285	400	*140%*
Marin County Encroachment Fee	490	490	*100%*
CSDA Dues	3,094	2,200	*71%*
PO Box Fee	108	108	*100%*
SWRCB	2,088	2,100	*101%*
Underground Service Alerts Fees	310	350	*113%*
Audit	5,500	6,000	*109%*
Bookkeeping	3,575	2,000	*56%*
Legal	440	2,500	*568%*
MarinMap Membership Share	3,875	3,875	*100%*
Marketing & Public Outreach	5,022	2,500	*50%*
Engineering (GIS,EPA,SSMP)	10,079	11,000	*109%*
Engineering (Lateral Oversight)	23,688	25,000	*106%*

Alto Sanitary District

Budget for Fiscal Year 2018-19 - APPROVED by the Board of Directors on 06/27/18

Engineering (Other)	1,781	2,000	*112%*
Professional Services:	**60,882**	**61,723**	*101%*
Administration Costs			
Insurance: CSRMA	844	900	*107%*
Election Notices and Fees	40	100	*250%*
Office Expenses (Postage, Printing, Supplies)	349	500	*143%*
Utilities (Cell Phone, Office Phone, Website)	1,505	1,660	*110%*
Miscellaneous (Parking, Mileage)	0	0	
Administration Costs:	**2,738**	**3,160**	*115%*
Payroll Expenses			
Payroll for Manager	36,000	38,000	*106%*
Stipends for Board (includes YTD Special Mtgs)	6,600	7,000	*106%*
Management of Special Projects	6,110	15,000	*245%*
Employer Taxes	3,500	4,252	*121%*
Payroll Service	1,025	1,100	*107%*
Payroll Bank Account Fees	12	48	
Payroll Expenses:	**53,247**	**65,400**	*123%*
Total Operating Expenses:	**424,971**	**467,283**	*110%*
Net Operations (Revenue - Expenses):	**409,562**	**475,190**	*116%*
CIP Program/Rehabilitation			
FY15_16 CIP (Islamic Cntr Parking Lot) - Complete	0	0	
FY16_17 CIP (Easements) - Complete	327,051	0	
FY17_18 CIP (Lomita, Niela, Central, Crystal) - In Progress	297,115	32,000	
FY18_19 CIP - TBD	0	443,000	
Total CIP Expense:	**624,166**	**475,000**	
Est. Beginning of Fiscal Year Account Balances:			
Reserve Fund Cash Balance:	217,300	218,756	
Operations Cash Balance:	486,700	272,096	
Total Beginning Cash Balance:	704,000	**490,852**	
Est. End of Fiscal Year Account Balances:			
2018 Reserve Fund Cash Balance (Incl etimated interest):	218,756	NA	
2019 Reserve Fund Cash Balance (Incl etimated interest):	NA	318,756	
Operations Cash Balance (Beg Ops Bal + Net Ops - CIP):	272,096	272,286	
Total Ending Cash Balance:	490,852	**591,042**	

2019 SEWER SYSTEM MANAGEMENT PLAN

Attachment 2:

Capital Improvement Projects (CIP) Planning to FY 2028/29

Alto Sanitary District

Capital Improvement Project (CIP) Planning To FY2028/29

NOTES:

_Present Value Level Budgeting Projection

_District Total Pipe Footage ~ 16,500 LF

HISTORY:

_District previously replaced ~3,600 LF (~10 years or less new heavy guage plastic)

_Developer installed Central Court in 1986 ~29 years old ~2,150 LF (SDR 35 light guage plastic)

_Remaining pipe to replace: 9,229 LF (not counting Central Court)

GOALS:

_Replace 9,229 LF by 2029. Yearly average = 769 LF

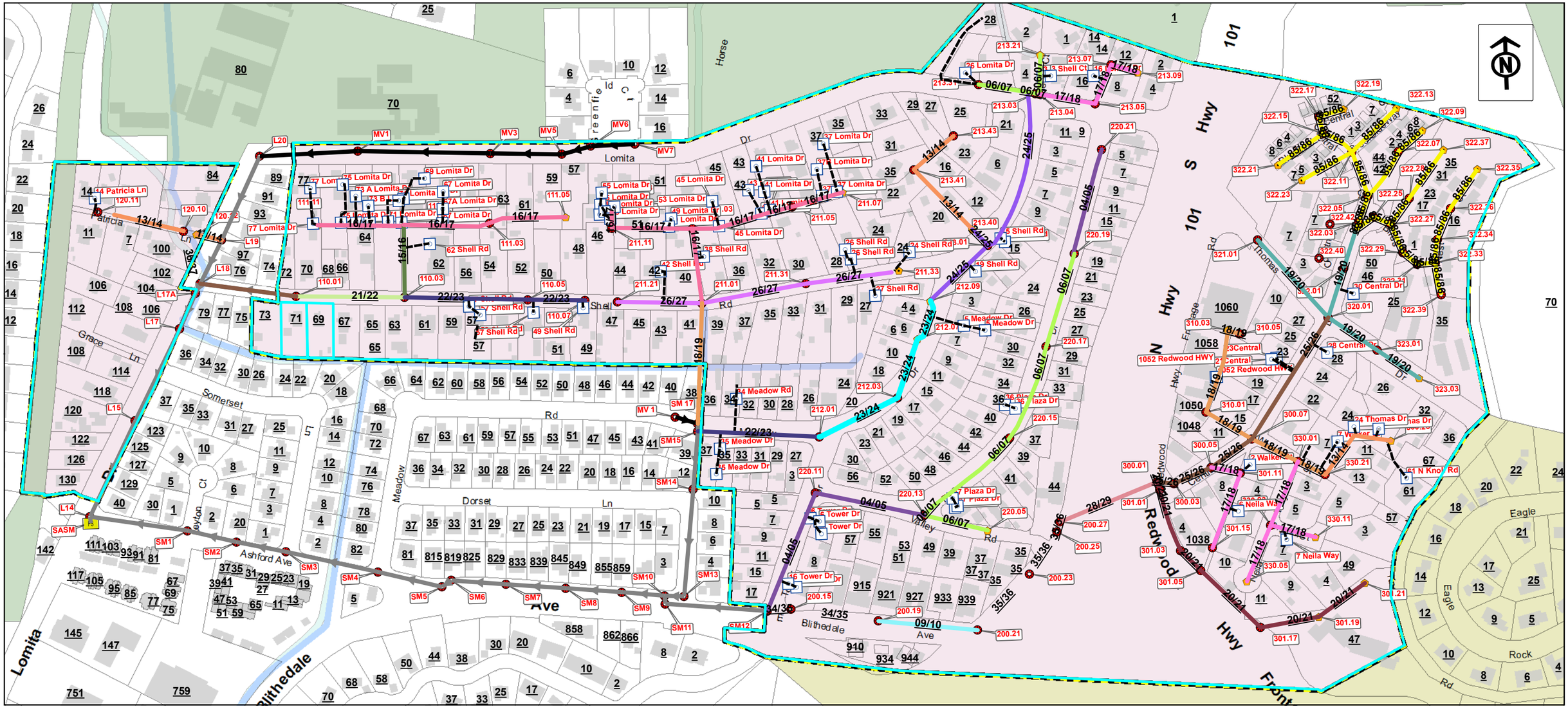
_Estimated Pipe Cost/Ft + 30% Contingencies = *Easemment* *$364*

Street *$455*

Fiscal Year	Sewer Segments	Easement/Street	Footage	Cost (estimate/ft)	Budget (including 35% contingencies)	Running Total	Action/Notes (Planned, Completed, Hold)
2017/18	213.07-213.05	Easement	120	$364	$43,532		Completed 2017/18
2017/18	213.09-213.07	Easement	78	$364	$28,299		Completed 2017/18
2017/18	213.05-213.04	Easement	161	$364	$58,466		Completed 2017/18
2017/18	330.05-330.03	Street	173	$455	$78,544		Completed 2017/18
2017/18	330.03-330.01	Street	196	$455	$89,234		Completed 2017/18
2017/18	330.11-330.03	Street	132	$455	$59,851		Completed 2017/18
2017/18	301.11-300.05	Easement	84	$364	$30,487		Completed 2017/18
2017/18	301.15-301.11	Easement	226	$364	$82,415		Completed 2017/18
FY 2017/18 Total			**1,168**		**$470,828**	**$470,828**	
2018/19	330.01-300.07	Street	145	$455	$65,975		Planned 2018/19
2018/19	330.21-330.01	Street	86	$455	$39,149		Planned 2018/19
2018/19	211.01-SM17	Easement/SASM	341	$364	$124,124		Planned 2018/19
2018/19	310.01-300.07	Easement	150	$364	$54,600		Planned 2018/19
2018/19	310.03-310.01	Easement	240	$364	$87,381		Planned 2018/19
2018/19	310.05-310.03	Easement	35	$364	$12,629		Planned 2018/19
FY 2018/19 Total			**997**		**$383,857**	**$854,686**	
2019/20	323.01-320.01	Street	166	$455	$75,530		Planned
2019/20	323.03-323.01	Street	143	$455	$65,065		Planned
2019/20	321.01-320.01	Street	296	$455	$134,817		Planned
2019/20	322.01-320.01	Street	260	$455	$118,300		Planned
FY 2019/20 Total			**865**		**$393,712**	**$1,248,398**	
2020/21	301.05-301.03	Easement	79	$364	$28,753		Planned
2020/21	301.03-301.01	Easement	183	$364	$66,697		Planned
2020/21	301.01-300.01	Easement	23	$364	$8,493		Planned
2020/21	301.17-301.05	Easement	234	$364	$85,199		Planned
2020/21	301.19-301.17	Easement	167	$364	$60,863		Planned
2020/21	301.21-301.19	Easement	162	$364	$59,073		Planned
FY 2020/21 Total			**849**		**$309,077**	**$1,557,475**	
2021/22	110.03-110.01	Street	307	$455	$139,541		Planned
2021/22	110.01-L18	Street	274	$455	$124,749		Planned
FY 2021/22 Total			**581**		**$264,289**	**$1,821,765**	
2022/23	110.05-110.03	Street	349	$455	$158,810		Planned
2022/23	110.07-110.05	Street	161	$455	$73,262		Planned
2022/23	212.01-SM15	Street	344	$455	$156,668		Planned
FY 2022/23 Total			**854**		**$388,739**	**$2,210,504**	
2023/24	212.03-212.01	Street	248	$455	$113,004		Planned
2023/24	212.09-212.07	Street	126	$455	$57,188		Planned
2023/24	212.07-212.03	Street	176	$455	$79,863		Planned

FY 2023/24 Total			**550**		**$250,056**	**$2,460,559**	
2024/25	213.03-213.01	Street	467	$455	$212,365		Planned
2024/25	213.01-212.09	Street	226	$455	$103,025		Planned
FY 2024/25 Total			**693**		**$315,389**	**$2,775,949**	
2025/26	300.07-300.05	Street	139	$455	$63,401		Planned
2025/26	300.05-300.03	Street	115	$455	$52,265		Planned
2025/26	300.03-300.01	Street	49	$455	$22,287		Planned
2025/26	320.01-300.07	Street	406	$455	$184,851		Planned
FY 2025/26 Total			**709**		**$322,804**	**$3,098,753**	
2026/27	211.21-211.01	Street	239	$455	$108,738		Planned
2026/27	211.31-211.01	Street	299	$455	$136,249		Planned
2026/27	211.33-211.31	Street	244	$455	$110,850		Planned
FY 2026/27 Total			**782**		**$355,838**	**$3,454,591**	
2027/28	200.19-200.15	Street	250	$455	$113,775		Planned
2027/28	200.15-SM12	Street	67	$455	$30,285		Planned
2027/28	200.25-200.23	Easement	142	$364	$51,846		Planned
2027/28	200.27-200.25	Easement	30	$364	$10,881		Planned
2027/28	200.23-200.21	Easement	216	$364	$78,788		Planned
2027/28	120.10-L17A	Street	179	$455	$81,394		Planned
FY2027/28 Total			**884**		**$366,971**	**$3,821,562**	
2028/29	300.01-200.27	Crossing	295	$1,500	$443,198		Planned
FY 2028/29 Total			**295**		**$443,198**	**$4,264,759**	
Grand Total:			**9,229**			**$4,264,759**	

EXHIBIT : CIP MAP



NUTE
Nute Engineering
907 Mission Avenue
San Rafael, California
TEL: 415-453-4480
FAX: 415-453-0343

ALTO SANITARY DISTRICT

Drawn by: PC

Checked by: PC

SCALE: 350 175 0 350 Feet

Date: 10/30/2018

LEGEND

85/86 09/10 16/17 19/20 22/23 25/26 28/29
04/05 13/14 17/18 20/21 23/24 26/27
06/07 15/16 18/19 21/22 24/25 27/28
MILL VALLEY PIPES SASM PIPES

2019 SEWER SYSTEM MANAGEMENT PLAN

Attachment 3:

Alto Sanitary District System Maps

A-2

B-2

A-3

B-3

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KeyMap

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1 INCH = 365 FEET

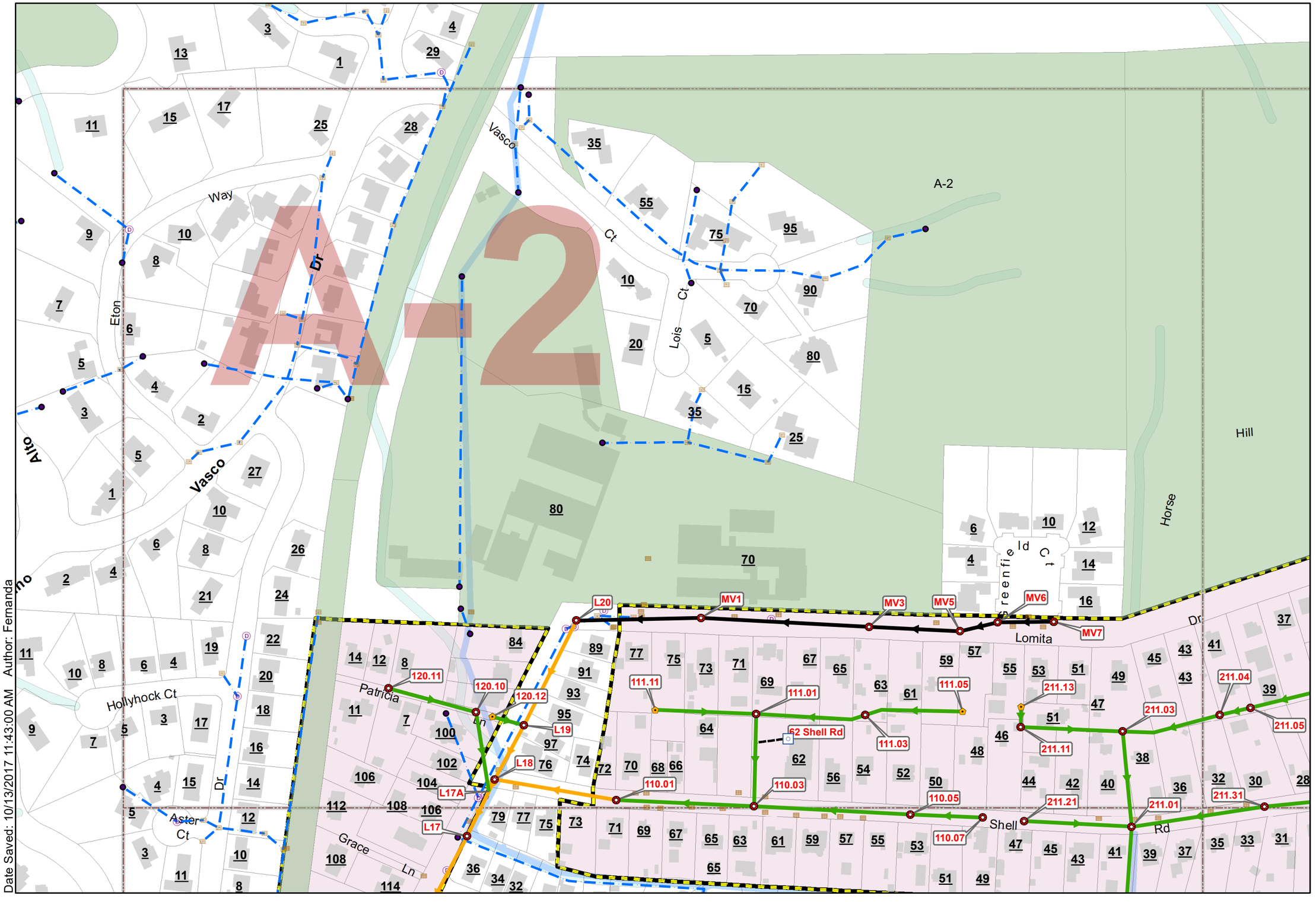
SANITARY SEWER SYSTEM

ALTO SANITARY DISTRICT

MARIN COUNTY, CALIFORNIA

Nute Engineering

Printed
Date: 10/13/2017



A-2

N
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1 INCH = 200 FEET

SANITARY SEWER SYSTEM

ALTO SANITARY DISTRICT

MARIN COUNTY, CALIFORNIA

Nute Engineering

Printed
Date: 10/13/2017

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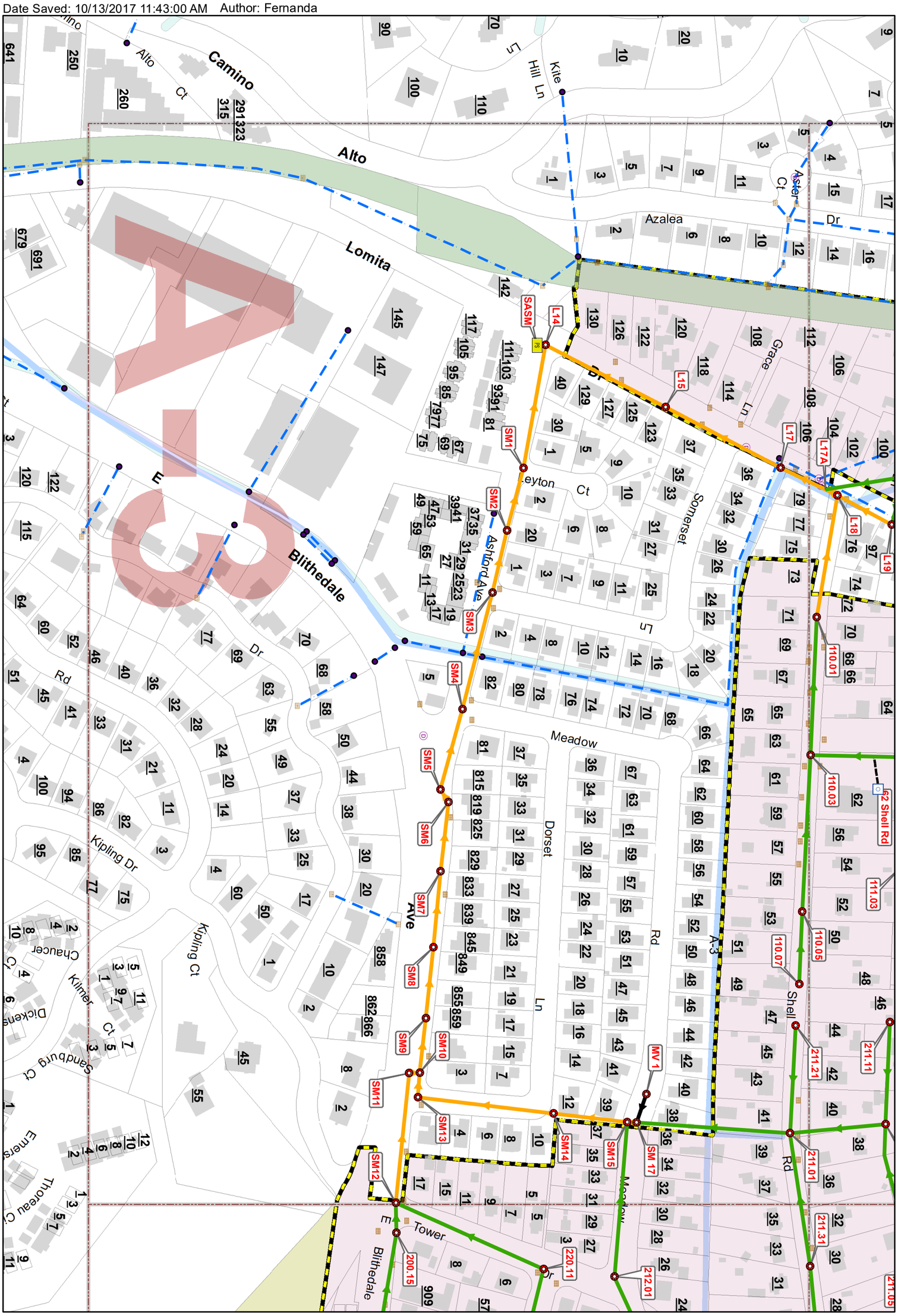

SANITARY SEWER SYSTEM

ALTO SANITARY DISTRICT

MARIN COUNTY, CALIFORNIA

Nute Engineering

Printed Date: 10/13/2017

1 INCH = 200 FEET

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B-2

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S

1 INCH = 200 FEET

SANITARY SEWER SYSTEM

ALTO SANITARY DISTRICT

MARIN COUNTY, CALIFORNIA

Nute Engineering

Printed
Date: 10/13/2017

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SANITARY SEWER SYSTEM

ALTO SANITARY DISTRICT

MARIN COUNTY, CALIFORNIA

B-3

N

W E

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1 INCH = 200 FEET

Nute Engineering

Printed
Date: 10/13/2017

B-3

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Alto Sanitary District CIP Pipe Table

CIP TABLE				
ID	**CIP_FY**	**Diameter**	**Material**	**Length**
322.39-322.33	1985/86	6	PVC	93
322.28-322.27	1985/86	6	PVC	91
322.03-322.01	1985/86	6	PVC	49
322.35-322.36	1985/86	6	PVC	135
322.05-322.03	1985/86	6	PVC	54
322.07-322.05	1985/86	6	PVC	152
322.11-322.05	1985/86	6	PVC	131
322.13-322.11	1985/86	6	PVC	177
322.23-322.11	1985/86	6	PVC	162
322.15-322.11	1985/86	6	PVC	98
322.17-322.15	1985/86	6	PVC	49
322.34-322.33	1985/86	6	PVC	67
322.19-322.17	1985/86	6	PVC	74
322.21-322.15	1985/86	6	PVC	154
322.09-322.07	1985/86	6	PVC	90
322.25-322.01	1985/86	6	PVC	62
322.27-322.25	1985/86	6	PVC	53
322.37-322.28	1985/86	6	PVC	167
322.29-322.27	1985/86	6	PVC	87
322.31-322.29	1985/86	6	PVC	52
322.33-322.31	1985/86	6	PVC	51
322.36-322.34	1985/86	6	PVC	95
220.05-220.13	2004/05	8	PVC	183
220.03-220.13	2004/05	8	PVC	34
220.13-220.11	2004/05	8	PVC	315
220.11-SM12	2004/05	8	PVC	360
220.15-220.03	2004/05	8	PVC	297
220.17-220.15	2004/05	8	PVC	279
220.21-220.19	2004/05	8	PVC	309
220.19-220.17	2004/05	8	PVC	275
213.21-213.04	2006/07	8	PVC	112
213.04-213.03	2006/07	8	PVC	34
213.31-213.03	2006/07	8	PVC	139
200.21-200.19	2009/10	8	PE	281
330.23-330.21	2013/14	6	PE	243
213.41-213.40	2013/14	6	PE	237
213.43-213.41	2013/14	6	PE	147
120.11-120.10	2013/14	6	PE	201
120.12-L19	2013/14	6	PE	73
213.40-213.01	2013/14	6	PE	62
111.01-110.03	2015/16 (Partial)	6	VCP & PVC C-900	205
211.03-211.01	2016/17	6	PE	213
211.11-211.03	2016/17	6	PE	228

Alto Sanitary District CIP Pipe Table

CIP TABLE				
ID	**CIP_FY**	**Diameter**	**Material**	**Length**
211.13-211.11	2016/17	6	PE	46
211.07-211.05	2016/17	6	PE	149
111.05-111.03	2016/17	6	PE	218
111.11-111.01	2016/17	6	PE	225
111.03-111.01	2016/17	6	VCP	245
211.05-211.04	2016/17	6	PE	70
211.04-211.03	2016/17	6	PE	221
213.07-213.05	2017/18	6	VCP	120
213.09-213.07	2017/18	6	VCP	78
213.05-213.04	2017/18	6	VCP	161
330.03-330.01	2017/18	6	VCP	196
330.05-330.03	2017/18	6	VCP	173
330.11-330.03	2017/18	6	VCP	132
301.11-300.05	2017/18	6	VCP	84
301.15-301.11	2017/18	6	VCP	226
330.01-300.07	2018/19	6	VCP	145
330.21-330.01	2018/19	6	VCP	86
211.01-SM17	2018/19	6	VCP	341
310.01-300.07	2018/19	6	VCP	150
310.03-310.01	2018/19	6	VCP	240
310.05-310.03	2018/19	6	VCP	35
323.01-320.01	2019/20	6	VCP	166
323.03-323.01	2019/20	6	VCP	143
321.01-320.01	2019/20	6	VCP	296
322.01-320.01	2019/20	6	VCP	260
301.05-301.03	2020/21	6	VCP	79
301.03-301.01	2020/21	6	VCP	183
301.01-300.01	2020/21	6	VCP	23
301.17-301.05	2020/21	6	VCP	234
301.19-301.17	2020/21	6	VCP	167
301.21-301.19	2020/21	6	VCP	162
110.03-110.01	2021/22	6	VCP	307
110.01-L18	2021/22			274
110.05-110.03	2022/23	6	VCP	349
110.07-110.05	2022/23	6	VCP	161
212.01-SM15	2022/23	6	VCP	344
212.03-212.01	2023/24	6	VCP	248
212.09-212.07	2023/24	6	VCP	126
212.07-212.03	2023/24	6	VCP	176
213.03-213.01	2024/25	6	VCP	467
213.01-212.09	2024/25	6	VCP	226
300.07-300.05	2025/26	6	VCP	139
300.05-300.03	2025/26	6	VCP	115
300.03-300.01	2025/26	6	VCP	49

Alto Sanitary District CIP Pipe Table

CIP TABLE				
ID	**CIP_FY**	**Diameter**	**Material**	**Length**
320.01-300.07	2025/26	6	VCP	406
211.21-211.01	2026/27	6	VCP	239
211.31-211.01	2026/27	6	VCP	299
211.33-211.31	2026/27	6	VCP	244
200.19-200.15	2027/28	8	VCP	250
200.15-SM12	2027/28	8	VCP	67
200.25-200.23	2027/28	8	VCP	142
200.27-200.25	2027/28	8	VCP	30
200.23-200.21	2027/28	8	VCP	216
120.10-L17A	2027/28	6	VCP	179
300.01-200.27	2028/29	8	PVC	295
Total Length:				16,775

2019 SEWER SYSTEM MANAGEMENT PLAN

Attachment 4:

SERP Appendix (Added 06/05/2023)

- Contact Information for District Personnel
- Sanitary Sewer Spill Service Call & Field Report Form (Field Report)
- Sample Warning Sign
- Sewage Volume Estimation Methods
- Example Spill Technical Report (Outline)

Alto Sanitary District
Spill Response and Emergency Contact List
Updated 01/25/2023

District Manager: Bill Hansell, (415) 388-3696

Emergency Contractor resources available to the District Manager to address spills:

- Roto Rooter Serwer Service: 415-388-2740
- Roy's Sewer Service: 415-381-0256
- SASM Staff: 415-388-2402
- Maggiora and Ghilotti Contractors: 415-459-8640
- Team Ghilotti Contractors: 707-763-8700
- Presidio Systems, Inc. TV and Pumping: 925-456-8400
- Hardiman Pipelines: 415-847-0010

Sanitary Sewer Spill Service Call and Field Report Form
(Field Report)

Initial Information

Date:	Call Received AM / PM
Received By:	Caller's Name:
Caller's Phone #:	Caller's Address:
Spill Location Name / Location of Spill	Cross Street:
Time and Names of Crew Members Contacted:	
Description of Complaint including when first noticed, did water reach a drainage channel/ open water. Update to include the final resolution of this complaint.	

This field report, gas detector, radio, system maps, personal protective equipment and camera should be collected by field crew prior to responding.

Work Order No:		
Frequency of Cleaning Program:		Date of Last Cleaning:
Recommendations on How to Eliminate Future Problems:		
Post-Spill Assessment Complete:	☐ YES ☐ NO	Date:

Distribute Field Report immedately to Manager.

Sanitary Sewer Spill Service Call and Field Report Form
(Field Report)

Field Report for Response Crew's Use

Time Mobilized AM / PM		Crew:	
Time Arrived at Site: AM / PM			
Form Completed By:		Date:	
Asset #:	U/S Asset #:	Work Area:	D/S Asset #:
Size of Line:	Length of Line:	Easement ☐ YES ☐ NO	
GPS Coordinates (Latitude / Longitude, if Available):			
Comments:			

Sketch of Area: (Include Manholes, Intersections, Stoppage Location, Etc.)

Sanitary Sewer Spill Service Call and Field Report Form
(Field Report)

Complete Form if a Spill Has Occurred

Time Spill Started:	Time Spill Stopped:
Duration of Spill:	Est. Spill Volume (Gallons):
Describe How Spill Quantity was Calculated (See Volume Estimation Tools, App E):	
☐ Eyeball Estimate ☐ Duration / Flowrate ☐ Measured Volume	
☐ Other _____ _____	
Did Spill Reach Storm Drainpipe That Was Not Fully Recovered? ☐ YES ☐ NO	
Did Spill Discharge to Drainage Channel and/or Surface Water? ☐ YES ☐ NO	
Impacted Surface Water(s) (If Applicable):	
Impacted Beach(es) (If Applicable):	
Final Spill Destination:	
☐ Storm Drain ☐ Building ☐ Yard/Land ☐ Surface Water ☐ No Water Involved ☐ Captured from Storm Drain (100%) ☐ Other _____	
Volume Recovered / Returned to Sewer System (Gallons):	
Volume to Waters & Not Recovered, Including Surface Water, Drainage Channel, or **NOT** Recovered from Storm Drain (Gallons):	
For Continuing Spills Without Complete Blockage Removal and/or Repairs (if Applicable), Current Spill Rate (Gallons per Minute):	
Weather: Sunny ☐ Cloudy ☐ Rainy ☐ Rain for Several Days ☐	
Primary Cause:	
☐ Roots ☐ Grease ☐ Debris ☐ Vandalism ☐ Pipe Failure	
☐ Construction Damage ☐ Pump Station Failure ☐ Power Failure	
☐ Capacity (Heavy Rain) ☐ Other _____	
Additional Information:	

Sanitary Sewer Spill Service Call and Field Report Form
(Field Report)

Spill Appearance Point / Source of Spill:

☐ Manhole ☐ Gravity Main ☐ Forcemain ☐ Clean Out ☐ Private Lateral	
☐ Pump Station: _____(Name) ☐ Other: _____	
Blockage Location: Upstream MH#: _____	☐ Private Lateral Downstream MH#: _____ Spill MH#: _____
Photos/Video Taken: ☐ YES ☐ NO	Photo/Video File Location:
Samples Taken By:	Location of Samples
Describe Property Damage:	
Signs Posted: YES ☐ NO ☐	Neighbors Notified: YES ☐ NO ☐
Barricaded YES ☐ NO ☐	CalOES Notified: YES ☐ NO ☐ Date/Time: _____
CalOES Contacts/Details:	
CalOES Spill#:	
RWQCB Notified: YES ☐ NO ☐	Date/Time: _____
Other Agencies Notified: _____	
Spill Information Faxed to RWQCB: ☐ NO ☐	Date/Time: _____
YES Caller/Customer Notified re: Status: YES ☐ NO ☐	
If Not, Why:_____	
Recommended Spill Corrective Actions:	

WARNING

WATER CONTACT MAY CAUSE ILLNESS

¡AVISO!

EL CONTACTO CON AGUA PUEDE CAUSAR ENFERMEDADES

BY ORDER OF THE HEALTH OFFICER
County of Marin
FOR FURTHER INFORMATION
CALL: (415) 499-6907

OR CALL

DISTRICT MANAGER
ALTO SANITARY DISTRICT
(415) 388-3696

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ALTO SANITARY DISTRICT
(415) 388-3696

Methods for Estimating Spill Volume

A variety of approaches exist for estimating the volume of a sanitary sewer spill. This Appendix documents the three methods that are most often employed. The person preparing the estimate should use the method most appropriate to the sewer spill in question and use the best information available.

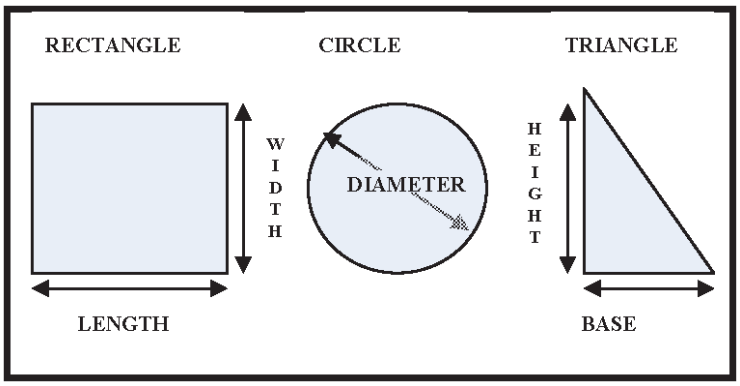
Method 1: Eyeball Estimate

The volume of 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 a 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 approximately 200 gallons.

Method 2: Measured Volume

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

Common Shapes and Dimensions



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

Rectangle: Area = length (feet) x width (feet)
Circle: Area = diameter (feet) x diameter (feet) x 0.785
Triangle: Area = base (feet) x height (feet) x 0.5

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

Method 3: Duration and Flowrate

Calculating the volume of larger spills, where it is difficult or impossible to measure the area and depth, requires a different approach. In this method, separate estimates are made of the duration of the spill and the flowrate. The methods of estimating duration and flowrate are:

Duration

The duration is the elapsed time from the time the spill started to the time that the flow was restored.

Start Time: The start time is sometimes difficult to establish. Here are some approaches:

1. Local residents can be used to establish start time. Inquire as to their observations.

   Spills that occur in rights-of-way are usually observed and reported promptly. Spills that occur out of the public view can go on longer. Sometimes observations like odors or sounds (e.g. water running in a normally dry creek bed) can be used to estimate the start time.

2. Changes in flow on a downstream flowmeter 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 during the spill event with flow data from prior days. This method will likely only be effective with consistent weather.

3. Conditions at the spill site change over time and can be used to establish the start time. Initially there will be limited deposits of toilet paper and other sewage solids. After a few days to a week, the sewage solids form a light-colored residue. After a few weeks to a month, the sewage solids turn dark. The quantity of toilet paper and other materials of sewage origin increase over time. These observations can be used to estimate the start time in the absence of other information. Taking photographs to document the observations can be helpful if questions arise later in the process. This method is valid for spills that have been occurring for a long time and may be used in conjunction with either of the above methods.

4. It is important to remember that spills may not be continuous. Blockages are not usually complete (some flow continues). In this case the spill would occur during the peak flow periods (typically 10:00 to 12:00 and 13:00 to 16:00 each day). Spills that occur due to peak flows in excess of capacity will occur only during, and for a short period after, heavy rainfall.

End Time: The 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 flowmeters.

Flow Rate

The flowrate is the average flow that left the sewer system during the time of the spill.

There are three common ways to estimate the flowrate:

1. **The San Diego Manhole Flowrate Chart**: This chart, included as at the end of this appendix, shows sewage flowing from manhole covers at a variety of flowrates. The observations of the field crew can be used to select the appropriate flowrate from the chart. If possible, photographs are useful in documenting basis for the flowrate estimate.

2. **Flowmeter:** Changes in flows in downstream flowmeters can be used to estimate the flowrate during the spill.

3. **Counting Connections:** Once the location of the spill is known, the number of upstream connections can be determined from the sewer maps. Multiply the number of connections by 200 to 250 gallons per day per connection or 8 to 10 gallons per hour per connection.

For example: 22 upstream connections * 9 gallons per hour per connection
= 198 gallons per hour / 60 minutes per hour
= 3.3 gallons per minute

Spill Volume

Once duration and flowrate have been estimated, the volume of the spill is the product of duration (hours or days) and the flowrate (gallons per hour or gallons per day).

For example: Spill start time = 11:00
Spill end time = 14:00
Spill duration = 3 hours
3.3 gallons per minute x 3 hours x 60 minutes per hour
= 594 gallons

City of San Diego
Metropolitan Wastewater Department

Reference Sheet for Estimating Sewer Spills from Overflowing Sewer Manholes

All estimates are calculated in gallons per minute (gpm)

Wastewater Collection Division
(619) 654-4160


5 gpm


25 gpm


50 gpm


100 gpm


150 gpm


200 gpm


225 gpm


250 gpm


275 gpm

All photos were taken during a demonstration using metered water from a hydrant in cooperation with the City of San Diego's Water Department.

rev. 4/99

ON LETTERHEAD

Date

State Water Resources Control Board
1001 I Street
Sacramento, CA 95814

Subject: Technical Report for Sanitary Sewer Spill Greater than 50,000 Gallons
Event ID: XXXXXX

This submittal comprises the Sanitary Sewer Spill Technical Report ("Report") that is required by State Water Resources Control Board ("SWRCB") Order No.WQ 2022-0103-DWQ ("Order"). The Order requires each enrollee to submit a Spill Technical Report in the California Integrated Water Quality System ("CIWQS") online Sanitary Sewer System Database within 45 calendar days of the spill end date for any spill in which 50,000 gallons or greater is discharged to surface waters.

This Report comprises the following sections:

1. Causes and Circumstances of the Spill
2. District's Response to Spill
3. Water Quality Monitoring
4. Spill Impact Evaluation

1.0 CAUSES AND CIRCUMSTANCES OF THE SPILL

A. Complete and detailed explanation of how and when the spill was discovered:

B. Photographs illustrating the spill origin, the extent and reach of the spill, drainage conveyance system entrance and exit, receiving water, and post-cleanup site conditions:

C. Diagram showing the spill failure point, appearance point(s), the spill flow path, and ultimate destinations:

D. Detailed description of the methodology employed and available data used to calculate the discharge volume and, if applicable, the recovered spill volume:

E. Detailed description of the spill cause(s):

F. Description of the pipe material and estimated age of the pipe material at the failure location:

G. Description of the impact of the spill:

H. Copy of original field crew records used to document the spill are included at the end of this report.

I. The Order requests historical maintenance records for the failure location. The associated pipe segment cleaning and CCTV history is provided in Table 1.

Table 1. Maintenance Results for Pipe Segment XXXXX-XXXX

Date	Action: Clean or CCTV	Summary of Findings

2.0 RESPONSE TO SPILL

A. Chronological narrative description of all actions taken by the District to terminate the spill:

B. Explanation of how the Sewer System Management Plan SERP was implemented to respond to and mitigate the spill:

C. Final corrective action(s) completed and a schedule for planned corrective actions, including:
   a. Local regulatory enforcement action taken against an illicit discharge in response to this spill, as applicable:

   b. Identifiable system modifications, and operation and maintenance program modifications needed to prevent repeated spill occurrences:

   c. Necessary modifications to the SERP to incorporate lessons learned in responding to and mitigating the spill.

3.0 WATER QUALITY MONITORING

A. Description of all water quality sampling activities conducted:

B. List of pollutant and parameters monitored, sampled, and analyzed:

C. Laboratory results, including laboratory reports:

D. Detailed location map illustrating all water quality sampling points:

E. Other regulatory agencies receiving sample results (if applicable):

4.0 SPILL IMPACT EVALUATION

A. Evaluation of spill impact(s), including a description of short-term and long-term impact(s) to beneficial uses of the surface water.