ALTO SANITARY DISTRICT

P.O. BOX 163, MILL VALLEY, CA 94942, (415) 388-3696

http://www.altosanitarydistrict.org

2019 SEWER SYSTEM MANAGEMENT PLAN

Certified by the Board of Directors on January 23, 2019

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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.

SSMP ELEMENTS

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.

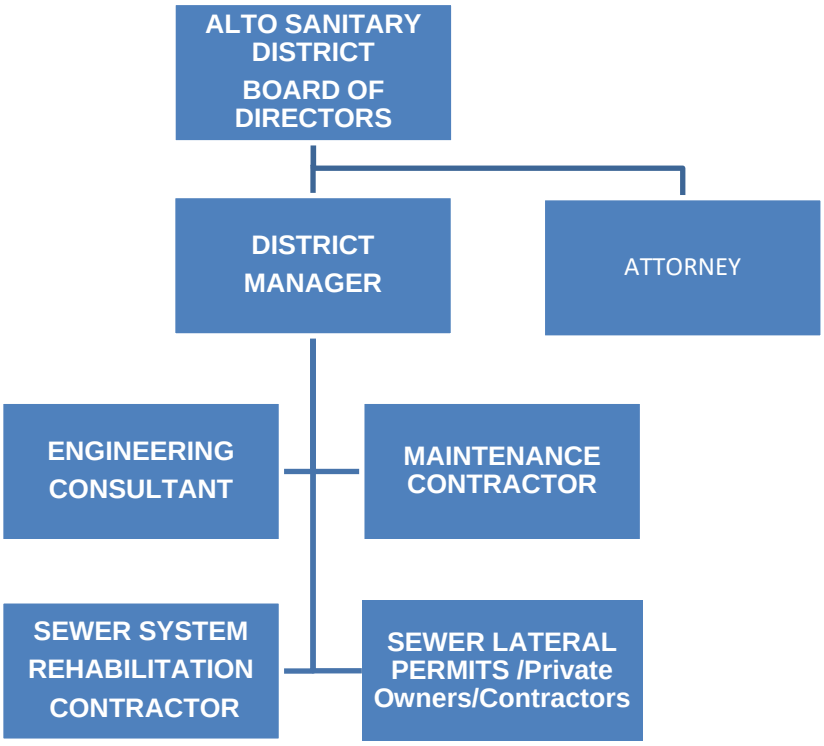
ENGINEERING CONSULTANT:
Responsible to the Manager. Provides technical expertise in assessing the condition of the District's system leading to the preparation of rehabilitation projects; Coordinates findings determined by Maintenance Contractor into the Capital Improvement Program; Prepares contracts 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 6^{th} 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 OVERFLOW EMERGENCY RESPONSE PLAN

Requirements:

D.13.(vi) Overflow Emergency Response Plan - Each Enrollee shall develop and implement an Overflow Emergency Response Plan that identifies measures to protect public health and the environment. At a minimum, this plan must include the following:

(a) Proper notification procedures so that the primary responders and regulatory agencies are informed of all SSOs in a timely manner;

(b) A program to ensure appropriate response to all overflows;

(c) Procedures to ensure prompt notification to appropriate regulatory agencies and other potentially affected entities (e.g. health agencies, regional water boards, water suppliers, etc.) of all SSOs that potentially affect public health or reach the waters of the State in accordance with the Monitoring and Reporting Program (MRP). All SSOs shall be reported in accordance with this MRP, the California Water Code, other State Law, and other applicable Regional Water Board WDR or NPDES permit requirements. The SSMP should identify the officials who will receive immediate notification;

(d) Procedures to ensure that appropriate staff and contractor personnel are aware of and follow the Overflow Emergency Response Plan and are appropriately trained;

(e) Procedures to address emergency operations, such as traffic and crowd control and other necessary response activities; and

(f) A program to ensure that all reasonable steps are taken to contain and prevent the discharge of untreated and partially treated wastewater to waters of the United States and to minimize or correct any adverse impact on the environment resulting from the SSOs, including such accelerated or additional monitoring as may be necessary to determine the nature and impact of the discharge.

Response:

VIa) Goals

The goals of the OERP are to provide general guidance to Alto staff and maintenance contractors for a systematic response and effective actions to protect the public health during an SSO.

VIb) SSO Categories

The responsibilities of the SSO Response Team depend on the volume and location of an incident. Three categories of SSO's are defined by the SWRCB:

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

_ Reach surface water and/or reach a drainage channel tributary to a surface water, or
_ Reach a municipal separate storm sewer system and are not fully captured and returned to the sanitary sewer system or not otherwise captured and disposed of properly. Any volume of wastewater not recovered from the municipal separate storm sewer system is considered to have reached surface water unless the storm drain system discharges to a dedicated storm water or ground water infiltration basin (e.g. infiltration pit, percolation pond.)
For Category 1 SSO's, within two hours of notification the District must report the event to the Office of Emergency Service (OES) at 800-852-7550 (and obtain a control number) and the Marin County Environmental Control Services at 415-499-7237. Within 3 business days a report must be made to the SWRCB California Integrated Water Quality System (CIWQS) together with a final report within 15 days of the SSO event.

- **Category 2 SSO:** Discharges of untreated or partially treated wastewater of 1,000 gallons or greater resulting from an enrollee's sanitary sewer system failure or flow condition that do not reach surface water, a drainage channel, or a municipal separate storm sewer system unless the entire SSO discharged to the storm drain system is fully recovered and disposed of properly.
  For Category 2 SSO's, the District must call the OES and file a report with CIWQS.

- **Category 3 SSO:** All other discharges of untreated or partially treated wastewater resulting from an enrollee's sanitary sewer system failure or flow condition.
  For Category 3 SSO's, the District must file a report with CIWQS.

Note: For Private Lateral SSO's, the District must document and file information internally when the District is notified.

VIc) Notification Procedures

Public observation is the most common way that blockages and SSOs are reported. The public contacts the Alto Sanitary District through the listed telephone number which is **415-388-3696** and the phone message allows direct selection of Roto-Rooter's phone number (**415-388-2740**) for an emergency. Contact information is also listed on the Alto website at: http://www.altosanitarydistrict.org/.

VId) Response Program

The Alto Sanitary District has contracted with the firm of Roto-Rooter Sewer Service as First Responder to provide emergency response 24 hours, 7 days per week to calls from residents of the District reporting sewage overflows. On-Call personnel are required to be on site within 60 minutes of being notified. 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. For regulatory notification, reporting and certification purposes, the District Manager follows the most current State Water Resources Control Board (SWRCB) requirements.

The following Emergency Contractors' resources are available to the District Manager to address SSO's:

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
Precidio Systems, Inc. TV and Pumping:	925-456-8400
Hardiman Pipelines:	415-847-0010

The District has formalized its agreement with Roto-Rooter Sewer Service for the continued maintenance of the District's system. The agreement was reviewed and approved by Marin County Counsel, acting as the District's Counsel in the matter.

The District Staff reviews annually the USA and response program with Roto Rooter, and refers to the latest state requirements for SSO response requirements for maintenance team training, and worker safety. The 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 the CWIQS, and to receive follow up instructions.

If a spill impacts the waters of the State or otherwise affects public health, the office of emergency services is contacted. Marin County OES contact is 415-473-7250 or 415-473-6907. The Health Officer can be reached at 415-473-3707. Marin County Sheriff contact info is: Civil Division, 1600 Los Gamos Dr. #200, San Rafael, CA 94903, 415-479-2311.

If there are multiple appearance points for sewage during an event, each location shall be clearly documented, managed, and cleaned up.

SSO reports are made to:
https://www.waterboards.ca.gov/water_issues/programs/sso/
https://www.waterboards.ca.gov/ciwqs/publicreports.html
http://ciwqs.waterboards.ca.gov/

No Spill Certifications are also filed monthly if no SSO's occur.

Reports may be reviewed or amended with:

Russell Norman, P.E.
State Water Resources Control Board
Division of Water Quality

1001 I Street 15th Floor
Sacramento, CA 95814
E-mail: Russell.norman@waterboards.ca.gov
Phone: (916)323-5598

VIe) Staff and Contractor Training

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

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

VIf) 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

VIg) Initial Response

The First Responder should report to the location within 60 minutes of the initial SSO report with the objective of minimizing and/or eliminating an overflow. The appropriate response measure will vary based on the circumstances and nature of the SSO and the information provided by the caller. Actions related to external and internal SSOs are summarized below.

VIh) External SSO

Upon arrival at the site, the First Responder should complete the following:

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

- Conduct visual monitoring to determine immediate actions, starting with documentation of SSO volume using the methods included in the OERP
- If flow cannot be restored, contain, mitigate, and minimize impacts from the SSO, and restore flow.
- 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.
- Identify and clearly assess the affected area and extent of spill, including possible impacts on surface water. Where it is safe and practical, visually inspect surface water in the vicinity of the SSO & record observations on the SSO Report Form. Signs of receiving water impacts include clear signs of sewage (solids, grease, paper), abnormal color, fish kills, etc.
- The California Department of Fish and Wildlife (CDFW) should be notified in the event an SSO impacts any creeks, cullies, 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 by the OERP
- 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 SSO 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 SSO cause, including conducting CCTV inspection as appropriate.
- Document all activities through photos and written documentation

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

VIi) Internal SSO

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 District-owned sewer main. If a blockage is found in a property owner’s lateral, it should be clearly communicated that response and repair of private laterals is not the District’s responsibility. 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 SSO 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 to follow 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 overflow area. Do not remove any contaminated items.
- Turn off the HVAC system

The First Responder should follow 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

VIj) Recovery and Cleanup

The recovery and cleanup phase begins immediately after the flow has been restored and the SSO has been contained to the extent possible. The SSO recovery and cleanup procedures include volume estimation, sewage recovery, and cleanup and disinfection.

Estimate and Recover the Volume of Spilled Sewage

Estimate the volume of the spilled sewage. Wherever possible, document the estimate using photos of the SSO site before and during the recovery operation.

Spilled sewage shall be vacuumed and/or pumped, and to the extent possible, discharged back into the sanitary sewer system.

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 an SSO event. The procedures described are for dry weather conditions and should be modified as required for wet weather conditions. Clean up should proceed quickly in order to minimize negative impact. Any water that is used in the cleanup process should be de-chlorinated prior to use.

Spills inside houses or buildings should be cleaned 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.

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. Take reasonable steps to contain and vacuum up the wastewater. Disinfect all areas that were contaminated from the SSO as appropriate. Apply minimal amounts of the disinfectant solution using a hand sprayer. Document the volume and application method of disinfectant that is employed. Allow 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 SSO 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 an overflow 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.

VIk) Impact to Waters of United States

If an SSO is confirmed to have entered waters of the United States[1], the District Manager must be notified immediately. The response team would then proceed with the following additional activities:

- Determine the extent of the SSO 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 SSO is 50,000 gallons or greater, collect water quality samples within 48 hours of becoming aware of the SSO
- EHS requires daily water quality sampling until compliance is achieved, if there is a Category I discharge of 1,000 gallons or greater and spills into surface water
- Immediately post contaminated water sign(s) and protect the water body from public access on all sides
- Photograph sign placement and evidence of the overflow in and around the water body to the farthest point reached by the sewage
- Determines if the water body is safe to enter. During the winter storm season, cleaning the water body may not be feasible due to high water flows
- If feasible, block the water body 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

[1] **40 CFR 230.3(s)** defines the term "waters of the United States." This term includes all lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, or natural ponds, or waters that could be used for recreational or other purposes.

- 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 Inspection Superintendent ultimately determines when this happens and makes any follow up calls to affected agencies

VIl) Water Quality Sampling

Water quality sampling and testing is required whenever the spilled sewage enters a water body. The purpose of testing is to determine the extent and impact of the SSO. The following guidelines must be followed:

- The First Responder should arrange for collection of samples. Samples should be collected as soon as possible after the discovery of the SSO event
- For spills less than 1,000 gallons, at a minimum, water quality samples should be collected at the discharge point, 100 feet upstream, and 100 feet downstream
- If a spill is more than 1,000 gallons, additional sites may require sampling, following the requirements of the County of Marin Environmental Health Services (EHS)
- The water quality sampling procedures should follow EHS procedures as follows:
  - 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
  - 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.
- Samples should be tested for fecal coliform, total coliform and enterococcus.
  - Samples should be stored and shipped by placing the 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.

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

in sufficient time to allow samples to be processed within 8 hours of collection, and before 3:00 pm.

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.

VIm) Water Quality Monitoring Plan

A Water Quality Monitoring Plan must be implemented immediately upon discovery of any Category 1 SSO of 50,000 gallons or more in order to assess impacts from SSOs to surface waters. Water quality testing must be completed within 48 hours of the District becoming aware of the SSO.
The District's SSO Water Quality Monitoring Program includes the following:

- Protocols for water quality monitoring
- Account for spill travel time in the surface water and scenarios where monitoring may not be possible (e.g. safety, access restrictions, etc.)
- Requirement for water quality analyses for ammonia and bacterial indicators to be performed by an accredited or certified laboratory
- Requirement for monitoring instruments and devices used to implement the SSO Water Quality Monitoring Program to be properly maintained and calibrated, including any records to document maintenance and calibration, as necessary, to ensure their continued accuracy

VIn) SSO Technical Report

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

1. Causes and Circumstances of the SSOs
2. Complete and detailed explanation of how and when the SSO was discovered
3. Diagram showing the SSO failure point, appearance point(s), and final destination(s)
4. Detailed description of the causes(s) of the SSO
5. Copies of the original field crew records used to document the SSO
6. Historical maintenance records for the failure location
7. Response to SSO:
8. Chronological narrative description of all actions taken to terminate the SSO
9. Explanation of how the OERP was implemented to respond to and mitigate the SSO

10. Final corrective action(s) completed and/or planned to be completed, including a schedule or actions not yet completed
11. Water Quality Monitoring:
12. Description of all water quality sampling activities conducted including analytical results and evaluation of the results
13. Detailed location map illustrating all water quality sampling points

The District Manager is responsible for the development and certification of the SSO Technical Report.

VIo) Containment or 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 overflowing sewage
- Plug storm drains using available equipment and materials to contain the spill, where feasible. 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 overflow
- If an SSO reaches a water body, follow the requirements below for posting and SSO notification signage. Also conduct water quality sampling as discussed above.

VIp) SSO 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. Signs should remain in place until removal of the signs is directed by the Streets and Sewers Superintendent.

If a creek, stream and/or beach have been contaminated as a result of an SSO, 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 that are described above. The removal of signs must be approved by EHS and the County Public Health Officer.

VIq) Failure Analysis

For each SSO 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-SSO Debrief is to determine actions necessary, if any, to reduce the recurrence and better mitigate the effects of SSOs.

VIr) SSO Documentation and Reporting

For each Sanitary Sewer Overflow, the District's records include:

- Documentation of response steps and/or remedial actions
- Photographic evidence as available to document the extent of the SSO, field crew response operations
- Site conditions after field crew SSO response operations have been completed
- The date, time, location, and direction of photographs taken will be documented
- Documentation of how any estimations of the volume of discharged and/or recovered overflow were calculated

VIs) Contractors Working On District Facilities

All contractors working on the District's sewer facilities should be trained in the District's OERP and will be required to follow the OERP in the event that they cause or observe an SSO.

VIt) SSO Response Training

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

Initial and Annual Refresher Training

All personnel who may have a role in responding to, reporting, and/or mitigating a sewer system overflow should receive training on the contents of this OERP. 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 Overflow Emergency Response Plan
- SSO Volume Estimation Techniques
- Impacted Surface Waters: Response Procedures

The District will verify that annual safety training requirements are current for each employee, and that employees are competent in the performance of all core competencies. The District will address, through additional training/instruction, any identified gaps in required core competencies.

SSO 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.

SSO Training Record Keeping

Records should be kept of all training that is provided in support of this plan. The records for all scheduled training courses and for each overflow emergency response training event and will 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 XIII 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:

XIIIa) 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.

XIIIb) 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.

XIIIc) 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.

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

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**	

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

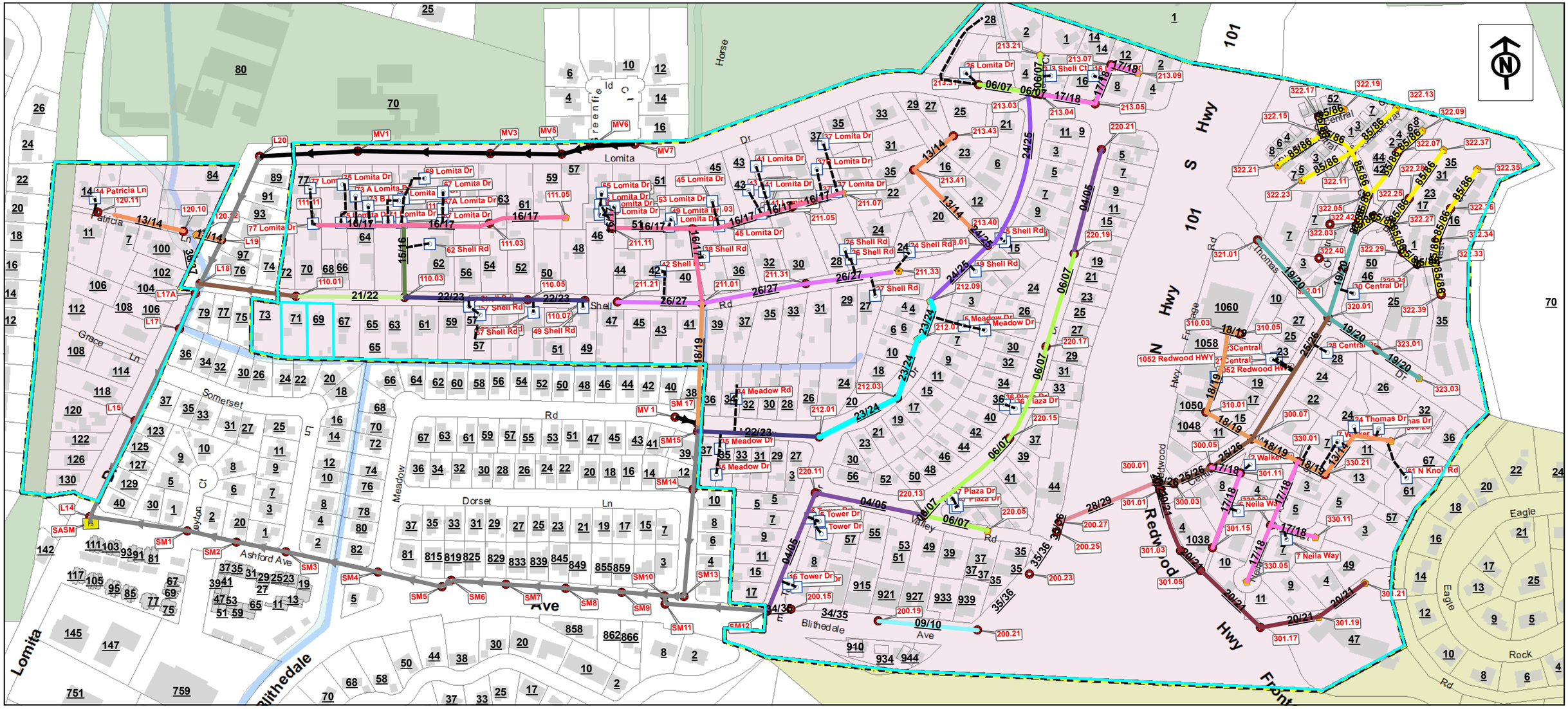
_Estimated Pipe Cost/Ft + 30% Contingencies = *Easemment* *$364*

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 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

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