

# City of Albany

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## Public Works Department

### Sewer System Management Plan June 1, 2014

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## INTRODUCTION

### Background

This Sewer System Management Plan (SSMP) has been prepared in compliance with the State Water Resources Control Board (SWRCB) Order 2006-0003: Statewide General Waste Discharge Requirements for Sanitary Sewer Systems (WDR), as revised by Order No. WQ 2008-0002. EXEC on February 20, 2008 and Order No. WQ 2013-0058. EXEC, effective September 9, 2013.

### Organization of SSMP

The structure of this document follows the section numbering and nomenclature specified in the WDR. The SSMP includes eleven sections, as follows:

- 1) Goal
- 2) Organization
- 3) Legal Authority
- 4) Operation and Maintenance Program
- 5) Design and Performance Provisions
- 6) Overflow Emergency Response Plan
- 7) Fats, Oils and Grease (FOG) Control Program
- 8) System Evaluation and Capacity Assurance Plan
- 9) Monitoring, Measurement, and Program Modifications
- 10) SSMP Audits
- 11) Communication Program/Management of Change Log

### System Overview

The City of Albany (City) was incorporated in 1908 as a charter city. The City is situated in northern Alameda County between the East Bay Hills and the San Francisco Bay along Interstate 80, and is the northern gateway to Alameda County. The City has a population of approximately 18,500 residents and covers an area of approximately 1.5 square miles. The city is now largely built out, with only a few areas of potential new development, primarily vacant parcels on the UC Village property and scattered vacant or underutilized parcels along San Pablo Avenue, Solano Avenue, and streets north of Brighton Avenue near the border with El Cerrito. The average annual rainfall in the area is 22.5 inches and generally occurs between November and April.

The City owns and maintains approximately 32 miles of sewer main. These pipelines discharge to a trunk sewer (the “North Interceptor”) that runs along the east shore of the San Francisco Bay. The trunk sewer is owned, operated, and maintained by East Bay Municipal Utility District, Special District 1 (EBMUD). The wastewater collected from the City’s service area is treated by EBMUD’s Main Wastewater Treatment Plant in the City of Oakland, near the Bay Bridge.

Over 75 percent of Albany’s sewer system consists of 8-inch and smaller diameter pipe, and over 90 percent is 12 inches and smaller. Table 1 tabulates the footage of pipe by diameter.

**Table 1: Sewer System Inventory**

<b>Pipe Size (in.)</b>	<b>Length (feet)</b>	<b>Length (miles)</b>	<b>Percent of Total</b>
<6	1,288	0.2	0.8%
6	68,230	12.9	40.2%
8	61,058	11.6	36.0%
10	16,988	3.2	10.0%
12	9,066	1.7	5.3%
14-15	5,572	1.1	3.3%
18-24	5,231	1.0	3.1%
42 <sup>a</sup>	2,186	0.4	1.3%
<b>Total</b>	<b>169,619</b>	<b>32.1</b>	<b>100.0%</b>

a. Cerrito Creek trunk sewer, jointly owned by Albany and Berkeley

The oldest portions of the system date to the early 1900s; however, over 50 percent of the system has been rehabilitated or replaced in the past 30 years, so that the average age of the sewer system is now about 50 years. Most older sewers are constructed of vitrified clay pipe (VCP), with plastic materials, primarily high-density polyethylene (HDPE) and polyvinyl chloride (PVC) used for newer sewer construction and rehabilitation. The larger 24- and 42-inch trunk sewers are constructed of reinforced concrete pipe (RCP).

The sewer system also includes approximately 4,600 private sewer laterals. The City assumes responsibility for the maintenance and repair of the lower portion of the laterals located within the public right-of-way from the curb or curb cleanout to the sewer main. A system overview map is contained in **Appendix I-A**.

In 1987 the Regional Water Quality Control Board (Regional Board) issued a Cease and Desist Order (CDO) to the Cities of Albany, Berkeley, Emeryville, Oakland, Piedmont, Alameda, EBMUD and to the Stege Sanitary District. Permission to continue to discharge treated wastewater to the San Francisco Bay was conditioned upon participation in the Infiltration and Inflow Correction Program (I/ICP) that required all sanitary sewer overflows (SSOs) for a 5 year design storm or less to be eliminated and that groundwater infiltration and inflow to the EBMUD trunk sewer and treatment facilities be reduced. In 2003, existing sewer bonds were refinanced and new revenue bonds were issued, which enabled the City to continue with several sewer construction projects. The City completed its required capital work under the CDO and subsequently the Regional Water Board adopted Order No. 2011-0055 to remove the City as a party to the CDO.

In November of 2009 the United States Environmental Protection Agency (USEPA) issued an Administrative Order (AO) to the City and six other EBMUD satellite communities. The AO required the agencies to develop and implement programs necessary to further reduce rainfall infiltration and inflow (I/I) entering the City collection system and the EBMUD interceptor

system. Due to treatment and conveyance limitations, excessive I/I can cause or contribute to the discharge of wastewater receiving less than secondary treatment from Wet Weather Facilities (WWFs) during rainfall events that exceeded a recurrence interval of 5 years. These discharges were previously permitted but in 2007 the permit to discharge from the facilities was remanded. A reduction in rainfall dependent I/I is necessary to eliminate or significantly reduce discharges from the WWFs. The requirements of the AO were converted to Stipulated Order for Preliminary Relief Case 09-05684 RS effective September 6, 2011 (SO).

In 2010, to address the capital demands of its aging sewer system, the City adopted a 60 percent increase to its sewer service charge to be phased in over a five-year period. The Sewer Enterprise Fund revenue currently supports the operational and capital costs involved with implementing this Sewer System management Plan.

Albany has prepared the plans and reports and implemented the programs required under the AO and SO. In 2013, EBMUD and the seven Satellite agencies entered into negotiations with the EPA, SWRCB, and Regional Board and two non-governmental organizations, San Francisco Baykeeper and Our Children's Earth Foundation, on a Consent Decree intended to eliminate discharges from the WWFs over an approximate 20-year period through programs designed to reduce I/I in the Satellite collection systems, as initiated under the AO and SO. The Consent Decree will incorporate the requirements of the Satellite and EBMUD SOs, as well as a program to accelerate the identification and elimination of inflow and "rapid infiltration" sources, and processes for documenting compliance toward reducing WWF discharges and eliminating them by the required compliance dates. The Consent Decree will also impose monetary penalties for non-compliance with any of the requirements. For the Satellites, including Albany, the CD-required "Work" includes specified annual amounts of sewer rehabilitation, inspection, and cleaning; as well as continued implementation of private sewer lateral compliance and inflow elimination programs. The Consent Decree is expected to become final by mid-2014.

## **ELEMENT 1 – GOALS**

The Goals of the City's SSMP are as follows:

1. To provide a plan to properly manage, operate, and maintain all parts of the wastewater collection system
2. To provide adequate capacity to convey peak flows associated with the design storm identified in the East Bay I/I Correction Program (1986)
3. To minimize the frequency of SSOs
4. To mitigate the impact of SSOs

## **ELEMENT 2 – ORGANIZATION**

The intent of this section of the SSMP is to identify City staff responsible for implementing this SSMP, responding to SSO events, and meeting the SSO reporting requirements. This section also includes the designation of the Authorized Representative to meet SWRCB requirements for completing and certifying spill reports.

## 2-1. Legally Responsible Official

The City's Legally Responsible Official (LRO), having overall responsibility for wastewater collection system matters, is the Director of Public Works/City Engineer. The City's Senior Project Engineer serves as a Legally Responsible Official for reporting SSOs to the State Water Board online database (CIWQS) when the Director of Public Works/City Engineer is not available.

## 2.2 Responsibility of SSMP Implementation and Update

The City's Director of Public Works/City Engineer has the ultimate responsibility for development, implementation, and maintenance of all elements of the City's SSMP. The responsibility for day to day implementation of each of the City's SSMP elements has been delegated to City staff.

The Director of Public Works/City Engineer plans, organizes, and directs public works activities and associated budgets for the City. This includes advising City Management and City Council on public works matters including those related to the wastewater collection system. It is the responsibility of City Council to establish new and amend existing ordinances and policies governing municipal operations through recommendations by City management. This includes ordinances and policies related to the wastewater collection system. The Director of Public Works/City Engineer is responsible for updating SSMP Goals, Organization, Legal Authority, Program Audits, and the Communication Program.

## 2.3 Organization Chart and Position Descriptions

The Organization Chart of staff involved in implementing the SSMP is shown in **Figure 1**. Position descriptions are explained below:

**CITY COUNCIL**—The CITY COUNCIL (COUNCIL) establishes policy.

**BUILDING/PUBLIC WORKS INSPECTOR** – The City Inspector inspects private (upper lateral) replacement projects, maintenance projects and public sewer construction projects.

**CITY MANAGER** – The City Manager implements policy, plans strategy, leads staff, allocates resources, delegates responsibility and authorizes outside contractors to perform services.

**COMMUNITY DEVELOPMENT DIRECTOR** – The Community Development Director coordinates the City's planning and permitting activities.

**PUBLIC WORKS DIRECTOR/CITY ENGINEER** - The Public Works Director/City Engineer coordinates the City's SSMP efforts and serves as the public information officer. He/she coordinates and provides staff and resources necessary to achieve the goals of the SSMP. The Public Works Director/City Engineer manages the Capital Improvement Program and operations and maintenance activities. He/she prepares wastewater collection system planning documents ensures that new and rehabilitated assets meet agency standards.

**FIELD ENGINEER/CONSTRUCTION MANAGER** – The Field Engineer/Construction Manager assists the Public Works Director/City Engineer in collection system rehabilitation design, procurement and construction inspection.

**REGULATORY AND OPERATIONS ANALYST** – The Regulatory and Operations Analyst reviews how effectively Public Works is operating within state and federal regulatory laws that are applicable to the sewer system. In addition, this position is responsible for managing the sewer asset maintenance management system and for providing work load reports to the lead maintenance worker. The Regulatory and Operations Analyst oversees implementation of the City's Sanitary Sewer Management Plan and Sanitary Sewer Emergency Response Plan.

**MAINTENANCE CREW** – The Maintenance Crew maintains the sewer system assets and responds to emergency call outs at the direction of the Public Works Maintenance Supervisor.

**PUBLIC WORKS OFFICE ASSISTANT**– The Public Works Office Assistant assists with the day-to-day efforts of the maintenance crew, and receives and responds to calls from the public.

**PROJECT ENGINEER**– The Project Manager assists the Public Works Director/City Engineer with the preparation of sewer program construction documents and oversees all public sewer construction activities. He/she provides assistance as needed for all applicable permits, laws and regulations, and provides support to all parts of operations.

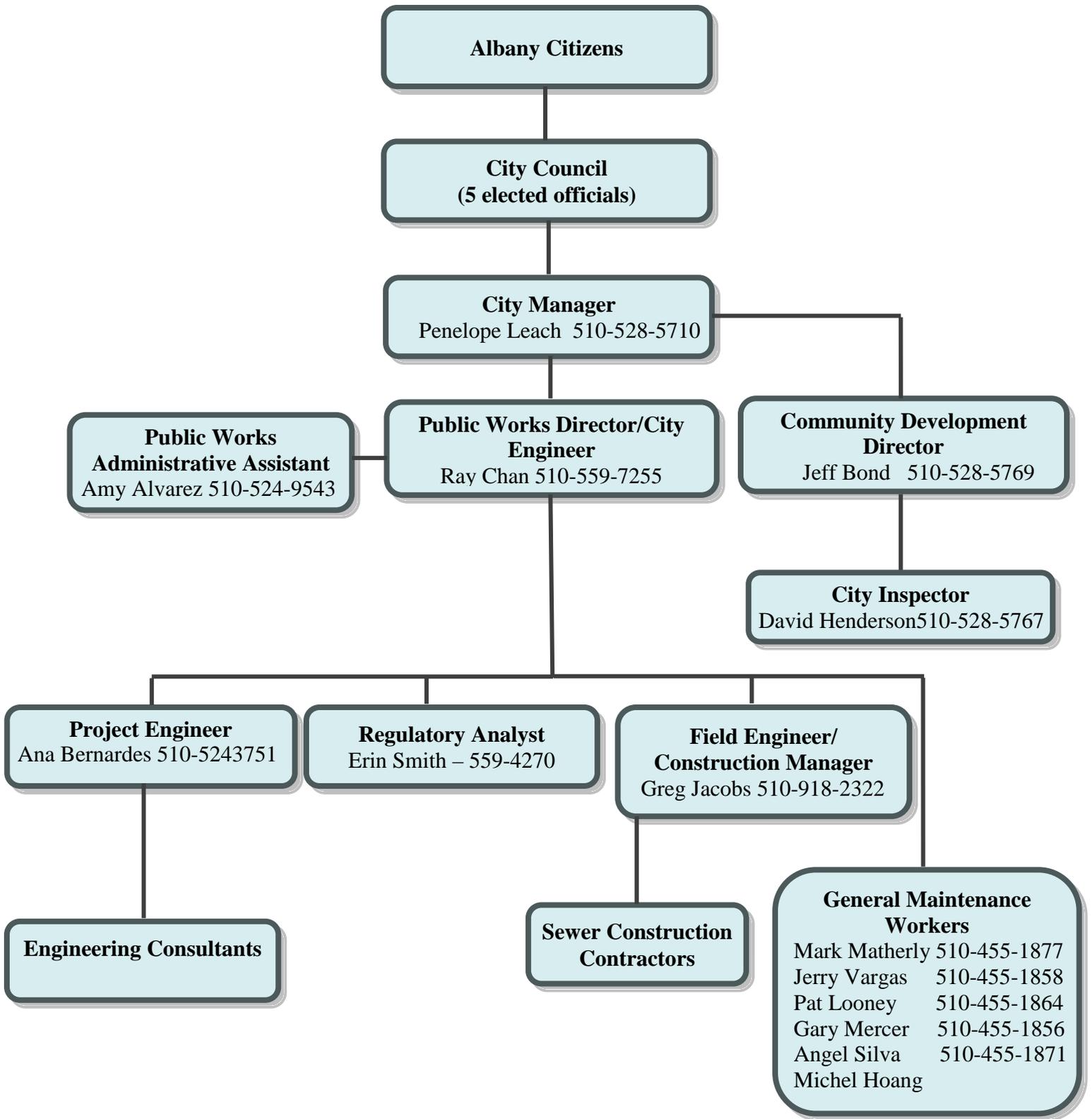


Figure 1. Staff Organization Chart

## **ELEMENT 3 - LEGAL AUTHORITY**

This section of the SSMP discusses the City's legal authority to comply with the SSMP requirements, as provided in its Municipal Code and agreements with other agencies.

Chapter 15 of the Albany Municipal Code (AMC) establishes the City's current legal authority to operate and maintain the sewer system. The legal authorities for the specific areas stipulated in the Waste Discharge Requirements (WDR) are discussed below.

### **3.1. Prevention of Illicit Discharges and I/I Control**

AMC Section 15-1.11, Storm Water and Ground Water Prohibited, Section 15-1.19, Building Sewer Materials for Construction and Repair, and Section 15-1.20, Sewer Lateral Construction and Repair, provide the legal foundation for the City to control inflow and infiltration entering the wastewater collection system. Roof downspouts, foundation drains, and other sources of storm water inflow are considered to be illicit connections to the sanitary sewer system. Similarly, these AMC sections also prohibit the connection of groundwater drainage or infiltration.

### **3.2. Sewer Service Lateral Maintenance**

To address old, leaking private laterals, the City began implementing an Upper Sewer Lateral Compliance Program in 1994. The City was one of the first agencies in northern California to adopt such a program. AMC Chapter 15-1.22 requires that upon sale of a property or upon application for a building permit for construction which exceeds a specified amount, the property owner shall demonstrate that their upper lateral is in compliance with City Standards and pass a verification test. In 2014, the City joined the Regional Sewer Lateral Program, implemented by EBMUD. The Statement of Roles and Responsibilities between the City of Albany and East Bay Municipal Utility District for Implementation of the Regional Private Sewer Lateral Program is included in **Appendix 3-A**.

Section 15-1.22 further requires that property owners maintain their upper lateral such that the following minimum requirements are met:

- a. The Upper Sewer Lateral shall be kept free from roots, grease deposits, and other solids which may impede the flow or obstruct the transmission of waste.
- b. All joints shall be watertight and all pipe shall be sound to prevent exfiltration by waste or infiltration by ground water or storm water.
- c. The Upper Sewer Lateral shall be free of any structural defects, cracks, breaks, openings, rat holes, or missing portions and the grade shall be uniform without sags or offsets.

- d. The Upper Sewer Lateral shall have a two (2) way Cleanout located at the property line or at the Sewer Main easement. All Cleanouts shall be securely capped with a proper cap at all times.

### 3.3. Proper Design and Construction of Sewers and Connections

The proper design and construction of sewer mains, laterals and connections is regulated under AMC Chapter 14-2, "Use of Right-of-Way", AMC Chapter 15-1.14, "Permit Applications", and AMC Chapter 22-9, "Improvements".

Permits are required for all sewer lateral construction work. Work within the public right-of-way must be conducted by licensed contractors in accordance with the Uniform Plumbing Code and the City's standard specifications and detailed drawings. The Public Works Director/City Engineer has authority to review and approve plans and specifications for upper laterals (building sewers on private property) and lower laterals (lateral sewers on public property), to ensure adherence to the City's standard specifications and ordinances. Installation of cleanouts and backwater overflow devices is required for all new construction. Minimum size and slope of side sewers (laterals) are specified, and guidelines for private pumps are provided to the owner/developer whenever sewer lateral flow is below the elevation of the sewer main.

City specifications and standards are posted on the City website at the following address: <http://www.albanyca.org/index.aspx?page=987>.

### 3.4. Enforcement

The AMC provides the procedure for the City to follow when a landowner fails to comply with provisions of the code. The City's Public Works Director or his representative (under Section 15-1.24, "Right of Entry" and under Section 15-1.25, "Emergency Work by the City"), has authorization to proceed with all necessary work to bring the lateral into compliance with City standards by entering onto private property and recovering the City's costs from the property owner.

Provisions for appeal of decisions made by the City Public Works Director are provided in the AMC. Appeals must be in writing and state the basis and reason(s) for the appeal.

## ELEMENT 4 – OPERATIONS AND MAINTENANCE PROGRAM

This section of the SSMP presents the City’s wastewater collection system operations and maintenance (O&M) program.

### 4.1. Collection System Mapping

The City uses a Geographic Information System (GIS) to create, maintain, and manage maps and data sets associated with its wastewater collection system facilities. The City began development of the GIS to serve the Public Works Department in March 2008. Basemap and cadastral data were developed and paper sewer maps were digitized and geospatially referenced. Additional asset locations were acquired through the use of global positioning system (GPS) tools.

Sewer pipe and manhole inventory data including length, diameter, material, rim/invert elevations, street address, and other information are kept current with field edits and new construction data. MUNSYS, utility mapping software employed by the City, is linked to OASIS, the City’s maintenance management software. This allows users to select a particular asset on the map and obtain its attribute information including the asset age, material, dimensions and work order history.

The City Sewer and Storm Mapbooks are printed in two versions: one with an aerial imagery background and one without. Mapbooks are kept in all emergency response vehicles. The Sewer and Storm Map index appears as **Figure 2**.

#### Map Updates and Edits

The City’s inventory of wastewater collection system facilities is continuously being improved and kept current through field edits and new construction record drawings. The two main sources of asset inventory revisions are described below:

- 1) Field crew locates an edit to the map (i.e. an unknown manhole, change in manhole or pipe location, incorrect pipe material, etc.) and prepares a mark-up of the map page showing the edit. Upon returning to the yard, field crew member makes a photocopy of the revised map page (keeping the original mark up in his/her mapbook) and provides it to the Program Analyst. Program Analyst updates MUNSYS and assigns new asset identification numbers, if necessary.
- 2) Capital work complete - MUNSYS is updated with new asset attribute information and maintains a scanned copy of any associated record drawings.

Revised Mapbooks are printed on an as-needed basis depending on the volume of edits. An example map page is shown in **Figure 3**.

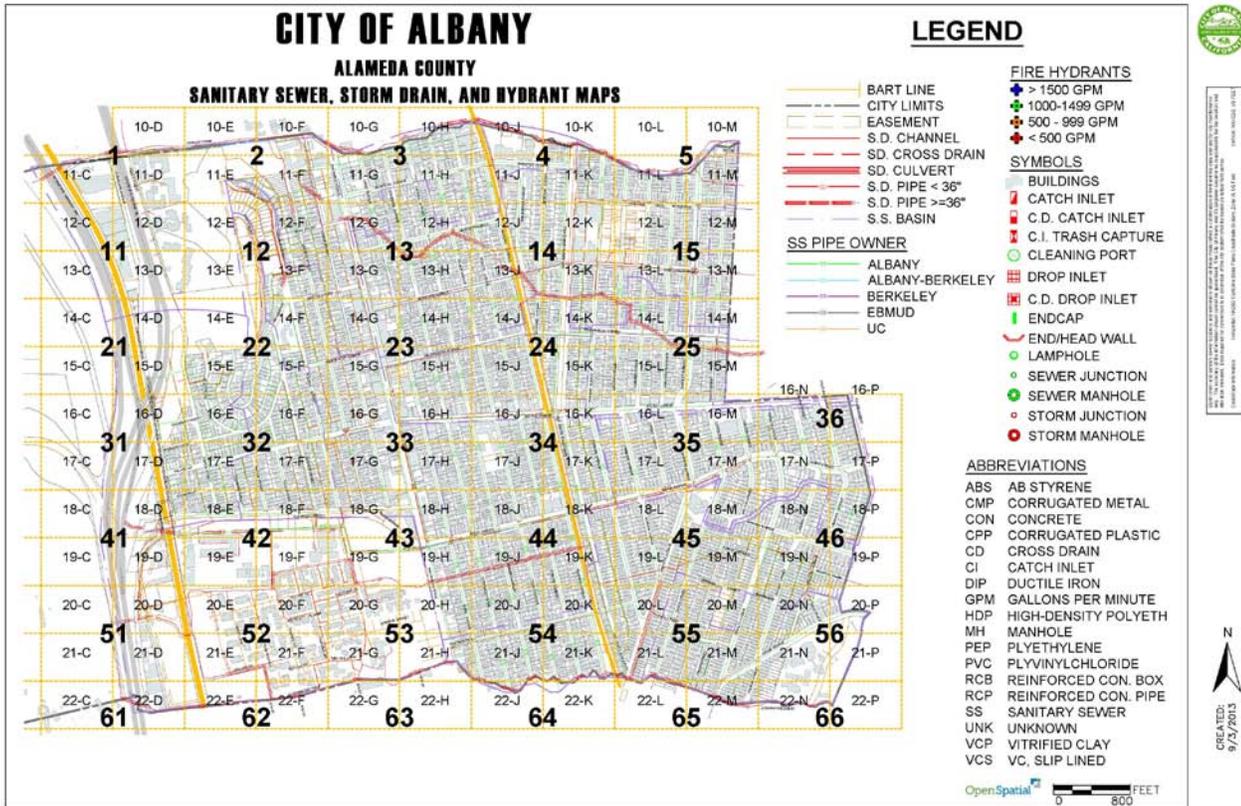


Figure 2. Index to Sewer and Storm Map



Figure 3. Example Field Map Page

## 4.2. Resources and Budget

Sewer system maintenance and capital improvements are funded solely by the Sewer Enterprise Fund, which receives its revenue sewer service charges and new connection fees. The City's sewer service charge has been gradually increased over the last ten years to fund the SSMP as described below.

In July of 2009 City Council approved a proposal from Bartle Wells Associates, Independent Public Finance Advisors of Berkeley, CA to begin preparation of a wastewater financial plan and rate review. The Bartle Wells Associates final wastewater financial plan and rate review determined that to meet the requirements of the City's Stipulated Order the rate at which the wastewater collection facilities are replaced would need to be increased. This increase would require an increase in the Capital Improvement Program expenditures not included in the previously authorized increase in rates approved by the Council in 2007.

The BWA Report recommended that a minimum balance consisting of 60% of the operating expense for the year plus a capital/emergency minimum reserve of \$1.5 million be maintained. The total minimum balance for 2010-11 would amount to \$2.8 million. The BWA Report projects revenue and expense for the Sewer Enterprise Fund and recommends a rate increase necessary to achieve the required rehabilitation and replacement program and to maintain the minimum recommended balance of \$2.8 million at the end of each year. Based on these recommendations, the City Council adopted Resolution #2010-23, authorizing an increase in the sewer service charge by up to two dollars per month plus the previously authorized CPI adjustment for each of the next successive five years and then by the Consumer Price Index (CPI) through FY 2016/17.

**Table 1** shows a 10 year projection of the Sewer Enterprise Fund revenue and expenses based on the approved rate increase through FY 2016/17 and then an annual increase of approximately 2.2% through FY 2020/21.

City of Albany  
Sewer System Management Plan, June 1, 2014

			Planned	Projected						
	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/2021
Available Beginning Fund Balance	\$3,909,000	\$3,568,000	\$3,237,000	\$3,048,000	\$3,024,000	\$3,032,000	\$3,038,000	\$3,038,000	\$3,047,000	\$3,061,000
Revenue										
Sewer service charges	\$2,733,000	\$2,997,000	\$3,261,000	\$3,526,000	\$3,681,000	\$3,771,000	\$3,861,000	\$3,951,000	\$4,041,000	\$4,132,700
Interest @ 1.1%	\$43,000	\$39,000	\$36,000	\$34,000	\$33,000	\$33,000	\$33,000	\$33,000	\$34,000	\$34,000
Connection/inspection fees	\$30,000	\$30,000	\$30,000	\$30,000	\$30,000	\$30,000	\$30,000	\$30,000	\$30,000	\$30,000
Total Annual Revenue	<u>\$2,806,000</u>	<u>\$3,066,000</u>	<u>\$3,327,000</u>	<u>\$3,590,000</u>	<u>\$3,744,000</u>	<u>\$3,834,000</u>	<u>\$3,924,000</u>	<u>\$4,014,000</u>	<u>\$4,105,000</u>	<u>\$4,196,700</u>
Expenses										
O&M	\$1,089,000	\$1,122,000	\$1,155,000	\$1,189,000	\$1,225,000	\$1,262,000	\$1,300,000	\$1,339,000	\$1,380,000	\$1,421,000
Spot repairs/rehabilitation	\$375,000	\$425,000	\$475,000	\$500,000	\$547,000	\$563,000	\$580,000	\$580,000	\$580,000	\$580,000
Revenue bonds payment	\$632,000	\$634,000	\$635,000	\$635,000	\$635,000	\$633,000	\$635,000	\$636,000	\$636,000	\$636,000
SSMP and Capital Projects	\$1,051,000	\$1,216,000	\$1,251,000	\$1,290,000	\$1,329,000	\$1,370,000	\$1,409,000	\$1,450,000	\$1,495,000	\$1,539,850
Total Annual Expenditures	<u>\$3,147,000</u>	<u>\$3,397,000</u>	<u>\$3,516,000</u>	<u>\$3,614,000</u>	<u>\$3,736,000</u>	<u>\$3,828,000</u>	<u>\$3,924,000</u>	<u>\$4,005,000</u>	<u>\$4,091,000</u>	<u>\$4,176,850</u>
Net Annual Revenue	(\$341,000)	(\$331,000)	(\$189,000)	(\$24,000)	\$8,000	\$6,000	\$0	\$9,000	\$14,000	\$19,850
Ending Fund Balance	\$3,568,000	\$3,237,000	\$3,048,000	\$3,024,000	\$3,032,000	\$3,038,000	\$3,038,000	\$3,047,000	\$3,061,000	\$3,080,850
Fund Target Minimum Balance	\$2,758,000	\$2,809,000	\$2,859,000	\$2,894,000	\$2,994,000	\$2,975,000	\$3,009,000	\$3,033,000	\$3,058,000	\$3,083,000

**Table 1. Projection of Sewer System Revenue and Expense**

### 4.3. Preventive Maintenance

The elements of the City’s wastewater collection system Operation and Maintenance Program include preventive and corrective maintenance of gravity sewers and manholes. The details of the City’s O&M programs are described in this section.

#### Staffing

Sewer maintenance and cleaning activities are performed by City Maintenance Workers, except for the application of chemicals for root control, which is done by a contractor. The City currently employs six general maintenance workers. As the City is a small full-service municipality, and not a special sewer district, three of the general maintenance workers dedicate approximately half of their work hours to sewer activities. These staff members are completely trained to perform sewer maintenance activities and are capable of operating all maintenance and video equipment.

#### Sewer Cleaning

Each mainline in the system is cleaned every five years, at most, or at a shorter frequency based on the observations from previous cleaning activity. Field crew is provided a cleaning schedule at least once per month, which lists the lines due for cleaning. The cleaning schedule also serves as the form for documenting specific observations made about the cleaning activity. Field crew makes note of the amount or severity of roots, grease, and debris in the line. **Appendix 4-A** contains an example cleaning schedule form.

Based on the cleaning activity observations, field crew determines the frequency for subsequent cleanings. **Table 2** contains the criteria used to determine the preventive cleaning frequency.

**Table 2. Criteria for Establishing Sewer Cleaning Frequency**

<b>Condition Score (1)</b>	<b>Sewer Cleaning Frequency</b>
5	90 days (3 months)
4	180 days (6 months)
3	365 days (1 year)
2	1096 days (3 years)
1	1826 days (5 years)

1. Use the single highest condition score recorded during cleaning activity to determine the sewer cleaning frequency

The cleaning frequency is entered into OASIS, which then generates subsequent cleaning schedules, accordingly. Given that conditions in the sanitary sewer are constantly changing, the ability to adjust preventive maintenance schedules based on field observations allows the Operations and Maintenance Program to be continually optimized to ensure program effectiveness and efficiency. It takes only a single Condition Score to increase the cleaning frequency of a pipe segment. To decrease the cleaning frequency of a pipe segment, two consecutive Condition Scores of 1, or a “clear” pipe, are required to decrease the cleaning frequency to the next lower frequency (ex. 180 to 365 days).

### Hot Spot Management

The Hot Spot Cleaning List consists of the following:

- Main line segments that had a blockage or SSO
- Main line segments that based on field observations have a preventive maintenance (PM) schedule of 180 days or shorter

The City historically had not had patterns of frequent repeat blockages that would have provided the basis for maintaining a hot-spot list. However, starting in 2011, the City began adding main line segments to a Hot Spot Cleaning List.

Main line segments are removed from the Hot Spot Cleaning List if the line is rehabilitated, the source of increased maintenance is addressed (i.e. FOG), or based on future cleaning and/or inspection data, the line is determined clear. Hot Spot sewer cleaning is scheduled in OASIS.

### Root Control

When a sewer main segment is inspected and root intrusion observed, a preventive maintenance schedule for root foaming is established in OASIS. When the sewer main is treated, the return frequency is set for two years. The City runs an OASIS report each year to group those pipes either newly identified for root control or due for a retreatment. The report serves as the basis for the annual contractor work request. Chemical root control work is performed by the root-foaming contractor, Duke's Root Control, Inc. They apply licensed root control agents to kill the root growth present in the lines and to inhibit root re-growth without permanently damaging the vegetation producing the roots.

The materials used are USEPA registered, labeled for the intended use in sewer lines, and registered with the California Department of Pesticide Regulation. Duke's complies with all applicable federal, state, and local requirements and ordinances relative to this type of material and usage. Chemical handling and treatments is done by trained, professional applicators that are certified by the State pesticide regulatory agency, as required by law. Application of the chemical root control agent is by foaming in accordance with the best-recommended practice for conditions present in the line under treatment. Duke's Root Control also contacts EBMUD to give advance notice of the chemical application.

## 4.4. Sewer Inspection and Condition Assessment

Condition assessment is critical to effectively managing sewer assets. The condition of an asset at a specific point in its lifecycle can be used to estimate the remaining reliable life and therefore be used to prioritize capital improvement. City sewer staff performs direct visual inspection of sewer facilities and closed circuit television (CCTV) inspections of mainline sewer. The City purchased an OZII Pan and Tilt Optical Zoom Camera in July 2008 and customized a trailer to transport the associated equipment and computer with Granite XP™, the sewer inspection data collection and management software.

CCTV inspection is performed to assess the condition of the gravity sewer pipelines in the City's wastewater collection system and to confirm the location and magnitude of structural defects,

points of inflow and infiltration, undocumented/illegal connections, existing pipe lining (if any), and blockages within the gravity sewer system.

CCTV inspections are conducted in accordance with the National Association of Sewer Service Companies (NASSCO) Pipeline Assessment and Certification Program (PACP) standards. City staff that conduct CCTV inspections are PACP-certified and use the standard PACP coding for observations during the inspection. Granite XP™ is PACP compliant sewer inspection software. Based on the structural pipe rating calculated at the end of an inspection, City staff determine the frequency for the next CCTV inspection. Each mainline in the sewer system is inspected every five years, at most, or at a shorter frequency based on the previous structural pipe rating.

**Table 3** contains the criteria used to determine the CCTV inspection frequency for a pipe segment.

**Table 3. Criteria for Establishing CCTV Inspection Frequency**

<b>PACP Structural Score</b>	<b>CCTV Inspection Frequency</b>
5	not to exceed 365 days (1 year)
4	731 days (2 years)
3	1096 days (3 years)
2	1,826 days (5 years)
1	3,653 days (10 years)
0	3,653 days (10 years)

The CCTV inspection frequency is entered into OASIS, which then generates inspection schedules, accordingly. The sewer field crew is provided inspection schedules at least once per month

Given that conditions in the sanitary sewer are constantly changing, this ability to adjust preventive maintenance schedules based on field observations allows the Operations and Maintenance Program to be continually optimized to ensure program effectiveness and efficiency.

#### 4.5. Equipment and Parts Inventory

The City owns a 2012 VacCon, 1994 Vactor and a SRECO mechanical rodder. The combination sewer cleaners are designed for line cleaning and offer jack hammer action to clear obstructions. The pumps are hydraulically driven to provide pressure sufficient enough for a scouring velocity. The Rodder is generally used in areas with heavy root intrusion, as it can be effective for mechanical root removal.

The City uses Granite XP™, a data collection and management software for CCTV pipeline and manhole inspections. The City field crew uses a laptop computer that is connected to a OZII Pan and Tilt Optical Zoom Camera to perform sewer inspections and record the associated media and observation data.

The City maintains contingency equipment and replacement parts for its sewer system. A list of specific equipment kept ready at the maintenance yard for sewer system emergency conditions includes:

- Closed circuit television camera and support equipment
- Portable flooded suction centrifugal pumps, capable of pumping 1,400 gallons per minute (gpm), large enough to be used for emergency pumping, for SSOs, and for pumping from manhole to manhole around blockages.
- Emergency generator and floodlights
- Suction and discharge hoses for all pumps
- Confined space entry trailer with emergency flashers, one tripod and two winches for manhole entry and rescue, and all associated personal safety equipment
- Vaccon combination sewer cleaner with an older Vector as backup
- Spare pipes of assorted sizes, materials, and repair couplings are kept at the City.
- Rigid sewer snake
- Electrical eel
- Rodder

#### 4.6. Training

The City has developed and maintains a training program for its employees. City emergency response personnel are encouraged to become a member of the California Water Environment Association (CWEA) and attend conferences regularly. All response personnel are trained on the Sewer System Management Plan and SSO Emergency Response Plan biannually, at minimum.

City staff attend other collections systems workshops, seminars, conferences, and safety training, sponsored by professional groups such as Bay Area Clean Water Agencies (BACWA), California Association of Sanitation Agencies (CASA), League of California Cities, National Safety Council, and Water Environment Research Foundation (WERF). The collection system staff holds periodic tailgate meetings to remind staff of standard procedures for maintenance activities and emergency response, especially following emergency response events.

## ELEMENT 5 - DESIGN AND CONSTRUCTION STANDARDS

### 5.1. Standard Specifications

The City Standard Specifications and Technical Provisions are posted on the City website at the following address: <http://www.albanyca.org/index.aspx?page=988>.

The documents include design and construction standards for installation and rehabilitation of sewer mains and side sewers, including standards for inspection and testing. **Table 4** contains a summary of provisions pertinent to implementation of the SSMP.

**Table 4. City Standard Specifications and Technical Provision Summary**

Provision	Reference
Sanitary Sewers and Storm Drains	T-124
Trenching	T-124
Bedding	T-126
Pipe Materials and Installation (New or Replacement)	T-127
Pipe Liners (or Pipe Rehabilitation Lines)	T-138
Backfill	T-143
Testing Pipelines	T-149
Manholes, Cleanouts and Appurtenances	T-154
Sewer Lateral Rehabilitation	T-159
Control of Existing Flows	T-165
Trench Resurfacing	T-166
Measurement and Payment	T-166
Standard Specifications for Public Works Construction “Technical Provisions”	T-218

### 5.2. Standard Detail Drawings

The City’s Standard Detail drawings are posted on the city website at the following address: <http://www.albanyca.org/index.aspx?page=989>. **Table 5** contains a summary of City Details pertinent to implementation of the SSMP.

**Table 5. City Standard Details Summary**

Provision	Reference
Standard Manhole	SS 1
Standard Sewer Manhole	SS 2
Raised Manhole Ring and Cover	SS 3
Standard Rodding Inlet	SS 4
Typical Trench Section	SS 5
Standard Laterals and Cleanouts	SS 6
Standard Cleanouts and Backwater Prevention Device	SS 7

Provision	Reference
Backwater Shutoff and Check Valve System	SS 8
Main Sewer Protection Above Utility Crossing	SS 9
Main Sewer Protection Below Utility Crossing	SS 10
Side Sewer Protection Above Utility Crossing	SS 11
Side Sewer Protection At Utility Crossing	SS 12
Standard Concrete Pipe Protection	SS 13
Standard Redwood Check Board	SS 14

## ELEMENT 6 – SANITARY SEWER OVERFLOW EMERGENCY RESPONSE PLAN

The purpose of the Overflow Emergency Response Plan (OERP) is to support an orderly and effective response to Sanitary Sewer Overflows (SSOs). The complete OERP is contained in **Appendix 6-A**.

The City's goals with respect to responding to SSOs are:

- Work safely;
- Respond quickly to minimize the volume of the SSO;
- Eliminate the cause of the SSO;
- Contain the spilled wastewater to the extent feasible;
- Prevent sewage system overflows or leaks from entering the storm drain system or receiving waters to the maximum extent practicable;
- Minimize public contact with the spilled wastewater;
- Mitigate the impact of the SSO; and
- Meet the regulatory reporting requirements.

Each response vehicle contains a complete copy of the OERP and field documentation forms. A complete copy of the plan is also on file in the City Maintenance Center break room. The response plan is a living document and is updated as necessary to reflect any changes in staffing or notification requirements, including contact numbers.

### 6.1. Summary of OERP Components

The components of the OERP are briefly explained below:

#### Definitions

The SSS WDR defines three categories of SSOs from the public sewer system and private lateral sewage discharges. The category of SSO determines specific regulatory requirements.

#### Employee and Contractor Training

City personnel and contractors who may have a role in responding to, reporting, and/or mitigating a SSO receive training on the contents of the OERP. New employees receive training before they are placed in a position of responsibility for SSO response and current employees

receive annual refresher training on the procedures in the OERP. Training records are kept on file on the City server.

#### City Notification

The City has procedures for incoming sewer service calls during business hours and non-business hours. Incoming calls typically come from the public and either come directly to Public Works or through Police Dispatch. The City website notifies a property owner to call Police Dispatch for any sewer related complaint. Police Dispatch routes the call to Public Works during business hours and to on call staff during non-business hours. A message machine always picks up at Public Works after a set amount of rings. The message informs the incoming caller to call Police Dispatch for sewer related complaints. This approach connects the incoming caller with a live person at all times.

#### Response Procedures

The OERP describes in detail the procedures for responding to an SSO from responder dispatch through containment and mitigation of the overflow. The OERP addresses responder safety, response equipment, 2-hour regulatory reporting, posting of signs, and water quality sampling.

#### Regulatory Reporting

The OERP includes procedures, timelines and staff responsibilities for reporting SSOs to the State Water Board's online SSO database (CIWQS).

#### SSO Investigation and Documentation

The OERP contains a description and procedures for completing an SSO field form. The SSO field form documents the specifics of an SSO event and any follow up investigative actions (ex. CCTV). Each SSO event record contains completed field form(s), volume estimation and photographs (if applicable), a copy of the CIWQS certification record and OASIS work order. SSO event records are compiled into one file folder for the year unless the volume of the SSO is greater than 250 gallons in which case the record has a separate file folder labeled with the CIWQS event number.

## **ELEMENT 7 - FATS, OILS, AND GREASE (FOG) CONTROL PROGRAM**

### 7.1. Purpose

The purpose of the City's FOG Control Program is to minimize the discharge of fats, oils and grease (FOG) to the sewer system to prevent the formation of blockages in sewer lines. The City's FOG Control Program consists of source control, preventive maintenance, food service establishment inspections and enforcement.

### 7.2. Program Implementation

AMC Chapter 15-5 and the California Plumbing Code provide the legal foundation for FOG control within the City. The City participates in a regional FOG Control Program administered by EBMUD. The scope of the FOG control activities and the roles and responsibilities of each agency are outlined in the "FOG Scope of Services Among EBMUD, City of Alameda, City of Albany, City of Berkeley, City of Emeryville, City of Oakland, City of Piedmont, Stege Sanitary District." The Scope of Services was adopted February 2, 2010 by the City through the Technical

Advisory Board and is reevaluated annually. **Appendix 7-A** is a copy of the current Scope of Services and **Appendix 7-B** is a copy of the City's FOG Control Implementation Plan.

### 7.3. Commercial

The commercial portion of the FOG Control Program consists of hotspot investigations, mainline camera work, gravity grease interceptor inspections, enforcement and reporting/database management. EBMUD maintains a list of approved grease haulers and provides a disposal facility for grease

Commercial outreach includes the distribution of materials, which may include bill inserts, billboards, and other direct forms of communication with Food Service Establishments (FSE). In addition, information related FSE Best Management Practices (BMPs) is distributed and accessible on the EBMUD website.

### 7.4. Residential

EBMUD and the City conducts educational outreach to City residents concerning proper handling and disposal of their kitchen food wastes using several methods: (1) the City newsletter, (2) the City website, [www.albanyca.org](http://www.albanyca.org), (3) door hangers displaying FOG messages such as "Grease Alert," and (4) other outreach materials distributed by EBMUD. A door hanger conveying a message to properly handle kitchen grease is left on the resident's door handle after the City's sewer crew responds to a sewer service call. The City's SSO Response Plan contains instructions for door hangers and SSO response vehicles are equipped with supplies of door hangers.

## ELEMENT 8 - CAPACITY MANAGEMENT

This section of the SSMP presents the City's System Evaluation and Capacity Assurance Plan (SECAP).

### 8.1. System Evaluation and Capacity Assurance Plan

Although there have been no recent capacity-related SSOs in the City, a comprehensive capacity evaluation using a dynamic hydraulic model was performed to quantify flows and capacities in all major sewers under current and future flow conditions. This evaluation and its findings are documented in the report: City of Albany Sewer Master Plan, April 2014 (Master Plan), and are summarized here. The Master Plan builds upon and enhances existing sewer programs, including inspection, condition assessment, rehabilitation and infiltration/inflow correction.

The modeling utilized InfoWorks™ CS, a fully dynamic hydraulic modeling software supported by a GIS-based modeling interface. The assessment focused on the trunk sewer network, the primarily 10-inch and larger pipes, plus some 6- and 8-inch pipes, that convey flow generated throughout the system to the EBMUD interceptor. Flow loads to the model were developed from customer water use data, estimates of additional flows from potential future development, and from flow monitoring programs conducted by the City and by EBMUD during the 2010/11 and 2011/12 wet weather seasons. The flow monitoring data were used to estimate the amount of I/I

for various areas of the system and to confirm, through model calibration, that the hydraulic model reasonably simulates the actual performance of the system during both dry and wet weather conditions.

The capacity of the system was assessed with respect to a design storm condition, defined as a design rainfall event falling under saturated soil conditions with the timing of the storm such that the peak I/I flows occur at about the same time as the peak diurnal base wastewater flow in most areas. The design rainfall is a 7-hour historical storm (known as the “EBMUD design event”), which was defined for the 1980s I/I studies and has been used since that time by the Satellites and EBMUD for wet weather evaluations. The storm has an approximate *rainfall* return period of 5 years, but based on the assumed timing of the storm under design event conditions, it is generally thought to create a return period of peak wastewater *flow* that is greater than the return period of the rainfall event.

The hydraulic model was run with the design event to identify areas of the trunk sewer system that would not have adequate capacity to convey the peak wet weather flows generated by that event. Capacity was considered inadequate whenever the model predicted that the peak flows would result in overflows from the system or surcharge (flow above the crown of sewer pipes) to within four feet of manhole rims.

The modeling indicated potential capacity deficiencies in some areas of the sewer system, the most significant being the 10-inch sewer in Marin Avenue from San Pablo Avenue to the Berkeley city limits. This sewer also receives flow from upstream areas of Berkeley that discharge into the Albany sewer system. It is important to note that these model results reflect the predicted performance of the system under the design event for current conditions. However, the City is committed to a program of replacement of sewers (and associated manholes and lower laterals) in the system that have not yet been rehabilitated or replaced since the 1980s, as well as identification and elimination of direct inflow sources, and continued participation in a regional private sewer lateral compliance program that will also result in substantial replacement of upper laterals throughout the city. These programs are anticipated to result in significant reductions in I/I, on the order of 50 percent or more. Therefore, as confirmed by the model, identified capacity deficiencies will be substantially alleviated as a result of these I/I reduction efforts. Specifically for Albany, the model predicts that the only remaining deficiency would be the sewer in Marin Avenue. Accordingly, upsizing of this pipe is recommended as part of the Capital Improvement Plan (CIP). The CIP also includes accelerating the replacement of sewers upstream of identified current capacity deficiencies in order to minimize the risk of overflow during the interim period until maximum I/I reductions are achieved.

The Master Plan also contains the City’s 10-CIP (FY14/15 – FY 23/24), developed based on the following three primary criteria:

- Meet the minimum annual sewer rehabilitation footage requirements of the Consent Decree.
- Maintain consistency with the City’s annual capital improvement budget based on the financial plan and sewer service charge schedule that has been adopted by the City Council.
- Prioritize mini-basins for rehabilitation based on risk scores as calculated by the Pipe Rating Model.

## **ELEMENT 9 – MONITORING, MEASUREMENT, AND PROGRAM MODIFICATIONS**

This section of the SSMP discusses how the City monitors implementation of the SSMP elements and measures the effectiveness of SSMP elements in reducing SSOs. Performance indicators have been selected to meet the SSMP goals of the City.

### **9.1. Performance Indicators**

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

- SSO Sewer Main Rate (SSOs/100 miles/year);
- Number of lower lateral overflows
- Number of SSOs for each cause (roots, grease, debris, pipe failure, capacity, lift station failures, and other);
- Median SSO volume (gallons);
- Percentage of SSOs greater than 100 gallons;
- Percentage of sewage contained compared to total volume spilled; and
- Percentage of total spilled sewage discharged to surface water.

### **9.2. System of Updating SSMP**

The City will evaluate the performance of its wastewater collection system biennially using the performance measures identified in Section 9.1, above. The City may use other performance measures in its evaluation.

The City will determine the need to update its SSMP based on the results of the biennial audit and the performance of its sanitary sewer system. In the event that the City decides that an update is warranted, the City will complete the update within six months following identification of the need for the update.

City Staff will seek approval from the City Council for significant changes to the SSMP. The authority for approval of minor changes such as employee names, contact information, or minor procedural changes is delegated to the Public Works Director/City Engineer.

## **ELEMENT 10 – SSMP AUDITS**

The City will conduct a biennial audit of the SSMP, as required by the SSS WDR. The SSMP Audit Checklist, based on the requirements in the WDR, will be used to guide the audit. The SSMP Audit Form is included in **Appendix 10-A**.

The results of the audit will be included in a SSMP Audit Report. The SSMP Audit Report will focus on the effectiveness of the SSMP program, compliance with the WDR requirements, and identification of any deficiencies in the SSMP. The SSMP Audit Report will identify revisions that may be needed for a more effective program. Performance indicator data, discussed in Element 9, will be used reviewed and analyzed to report on the City's success in meeting its numeric targets for SSMP implementation. Copies of the SSMP Audit Reports will be retained by the City for five years.

**Appendix 10-B** contains a SSMP Change Log, where changes made to the SSMP post September 2013 will be documented

## **ELEMENT 11 – COMMUNICATION PROGRAM**

The City's website at [www.albanyca.org](http://www.albanyca.org) provides the community with information regarding sewer improvement projects, educational materials, FOG and other issues. The website also includes a link to the current SSMP.

The City hosts a booth annually at the Solano Stroll, the largest street fair in the East Bay. Information regarding FOG prevention, SSOs, upper lateral compliance, and preventing hazardous materials from entering the City's sanitary system is distributed to the public. The City will continue to hold events to educate the public on the goals and implementation of its SSMP.

The City notifies property owners in advance of any sewer construction work in their neighborhood. The City has, and will continue, to develop information for dissemination to local plumbers and contractors, as a guide to proper installation of sewer laterals and to ensure that plumbing practices are not exacerbating blockage issues in sewer mains or contributing infiltration/inflow to the sewer system. Flyers are available at the City for review. The City maintains literature describing backwater overflow devices and backflow prevention devices in the Community Development office. Information on these devices is also available on the City's website.



**OASIS Preventive Maintenance Schedule Report for City of Albany**

**PM03: Main Line PM Schedule - Next Date Due - not grouped - field sheets**

Criteria: Show records where PM Next Due date contains any date value or date is blank And Structure Group = ML Main Lines.

Sorted By PM Next Due in Ascending order.

PM Next Due: All Dates

<u>Structure Type, ID and Address/Location</u> <u>Depth, Size, and Material</u>	<u>Struct</u> <u>Rating</u>	<u>Maint</u> <u>Rating</u>	<u>Joints</u> <u>Rating</u>	<u>Debris</u> <u>Rating</u>	<u>Grease</u> <u>Rating</u>	<u>Roots</u> <u>Rating</u>	<u>I &amp; I</u> <u>Rating</u>	<u>Odor</u> <u>Rating</u>	<u>Vermin</u> <u>Rating</u>	<u>Surch.</u> <u>Rating</u>
Upstream structure: <b>11-100-29</b>	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
Downstream structure: <b>11-100-28</b>	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
Line: <b>SS 11-100-29+11-100-28</b>	NA	_____	NA	_____	_____	_____	NA	NA	NA	NA
San Pablo Av @ Buchanan St, ALB	<u>PM</u> <u>Type</u>	<u>PM</u> <u>Workload</u>	<u>PM</u> <u>Unit</u>	<u>PM</u> <u>Hrs.</u>	<u>PM</u> <u>Freq</u>	<u>PM</u> <u>Last Done</u>	<u>PM</u> <u>Next Due</u>	<u>Inspection</u> <u>Next Due</u>	Date Done: _____	
Map: 18-H / Basin: 11-100 / Length: 82 / Size: 14 / Mat'l: VCS / Depth: 15	CJET	82	Inft		1,826				By: _____	

Notes: \_\_\_\_\_

FLAG:

- Condition scoring:
- 1 = OK
  - 2 = Light
  - 3 = Moderate
  - 4 = Heavy
  - 5 = Severe

Notes: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_



# City of Albany

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## Public Works Department

### Sanitary Sewer Overflow Emergency Response Plan June 2013

CIWQS Agency ID: 2SS010088

1000 San Pablo Avenue  
Albany, CA 94706  
Phone: 510-524-9543  
Fax: 510-524-9722





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## Appendices

Appendix A: Sanitary Sewer Overflow Service Report Form

Appendix B: Regulatory Reporting and Notification Flow Chart

Appendix C: Contingency Plan For Response Equipment

Appendix D: Standard Procedure: Posting Of Raw Sewage Signs for SSOs

Appendix E: Standard Procedure: Posting Of Contaminated Waters Signs for SSOs

Appendix E: Standard Procedure: Receiving Water Sampling For SSOs

Appendix F: Note Card For Lower Lateral Work

Appendix G: Sanitary Sewer Overflow Procedure Flow Charts



## I. PURPOSE

The purpose of this Sanitary Sewer Overflow Emergency Response Plan (OERP) is to establish guidelines for the response, remediation and reporting of Sanitary Sewer Overflows (SSOs) in the City's service area.

## II. SCOPE

These procedures are applicable to all SSOs from the publicly owned portion of the wastewater collection system.

## III. DEFINITIONS

Four categories of SSO's are defined by the SWRCB:

### **Category 1 SSO:**

Discharges of untreated or partially treated wastewater of any volume resulting from an enrollee's sanitary sewer system failure or flow condition that:

- Reach surface water and/or reach a drainage channel tributary to a surface water; or
- Reach a municipal separate storm sewer system 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).

### **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.

### **Category 3 SSO:**

All other discharges of untreated or partially treated wastewater resulting from an enrollee's sanitary sewer system failure or flow condition.

### **Category 4 SSO - Private Lateral Sewage Discharge:**

Discharges of untreated or partially treated wastewater resulting from blockages or other problems within a privately owned sewer lateral connected to the enrollee's sanitary sewer system or from other private sewer assets. PLSDs that the enrollee becomes aware of may be voluntarily reported to the CIWQS Online SSO Database.

## IV. EMPLOYEE AND CONTRACTOR TRAINING

All City personnel and contractors who may have a role in responding to, reporting, and/or mitigating a sewer system overflow will receive training on the contents of this 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.

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

## **V. CITY NOTIFICATION OF OVERFLOW**

### **V.A. BUSINESS HOURS PROCEDURES (8:00 AM AND 4:30 PM, M-F.)**

1. Reporting Party contacts either the Police Department or the Public Works Department directly. Phone numbers are available on the City website.
2. Public Works Office Assistant receives the information and immediately opens a work order. The work order documents, at minimum, the location of the incident, the informant name and contact information, and the time the City was notified of the event.
3. The Office Assistant immediately contacts the Lead Maintenance Worker by phone and conveys the work order information verbally. The Lead Maintenance Works either designates him/herself as SSO Responder or dispatches another crew member as SSO Responder. The Office Assistant prints the work order and places it in the Lead Maintenance Worker box.
4. The SSO Responder arrives as soon as reasonably possible, but no later than 30 minutes from the time of notification

### **V.B. NON-BUSINESS HOURS**

1. Reporting Party contacts Police Department.
2. Police contacts the on-call Public Works Maintenance Worker and notifies them of the location of the incident, the informant name and contact information of the Reporting Party.
3. The on-call Public Works Maintenance Worker is automatically designated the lead SSO Responder.
4. On-call Public Works Maintenance Worker contacts backup on-call staff member for support.
5. SSO Responder(s) arrives at incident as soon as reasonably possible but no later than 1 hour from the time the call was received by the Police Department.

## **VI. SSO RESPONSE PROCEDURES**

This section describes the response procedures for a SSO event.

### **VIA. SSO RESPONDER PRIORITIES**

The SSO Responder priorities are:

- To follow safe work practices.
- To respond promptly with the appropriate equipment.
- To evaluate the cause of the overflow and determine responsibility.
- To restore the flow as soon as possible

- To contain the overflow whenever feasible.
- To minimize public access to and/or contact with the spilled sewage.
- To mitigate the impacts of the SSO
- To properly document the event on the appropriate forms.

## **VI.B. RESPONSE EQUIPMENT**

Public Works has a designated response truck that is used to respond to SSO events. The Lead Maintenance Worker is responsible for ensuring that the response truck is maintained with the following supplies, at minimum:

- 6” to 10” air plug
- Air tank and air compressor
- Spill Kit (pads, gloves, etc.)
- Plastic sheeting
- Sewer and Storm Maps
- Sanitary Sewer Overflow Report Forms (**Appendix A**)
- Regulatory Reporting and Notification Flowchart (**Appendix B**)
- City of Albany Sanitary Sewer Overflow Emergency Response Plan

If the City VacCon is required and is out of service, the City Vactor can be used. If both combination sewer cleaners are out of service, **Appendix C** contains a response equipment contingency plan.

## **VI.C. SCENE ARRIVAL**

The SSO Responder is required to arrive at the incident site with the response truck and equipment as soon as reasonably possible but no later than 30 minutes after the City was notified of the event (1-hour for non-business hours).

If the United States Department of Agriculture facility needs to be accessed, contact information is as follows:

### Monday-Friday (excluding Federal holidays), 6:00am-4:30pm

- 1) Primary point-of-contact – Tom Moreno (510)559-5622 or (510) 206-6810 [cell]
- 2) 1<sup>st</sup> Alternate – Fred Brown (510) 559-5697
- 3) 2<sup>nd</sup> Alternate – Lone Santacera (510) 559-5883
- 4) 3<sup>rd</sup> Alternate – Stanley Green (510) 559-6052
- 5) 4<sup>th</sup> Alternate – Boiler Tender (510) 559-5611 or (510) 725-8273 [cell]

### Monday-Friday, 4:30pm-6:00am; Saturdays, Sundays, and Federal Holidays

- 1) Primary point-of-contact – Boiler Tender (510) 559-5611 or (510)725-8273 [cell]
- 2) Alternate – Tom Moreno (510) 559-5622 or (510) 206-6810 [cell]

When the SSO Responder arrives on the scene, he/she will:

- Note arrival time at overflow site;
- Assess whether backup staff is needed and make appropriate calls, if applicable;
- Estimate volume and use the Regulatory Reporting and Notification Flowchart (**Appendix B**) to determine if Office of Emergency Services (OES) must be contacted within 2-hours of becoming aware of the SSO;
- Contact OES, if applicable;
- Comply with all safety precautions;
- Contact the Public Works Director/City Engineer if the overflow appears to be in a sensitive area or there is doubt regarding the extent, impact, or how to proceed; and
- Photograph site (with emphasis on overflow volume).

#### **VI.D. OVERFLOW CONTAINMENT**

The SSO Responder must contain as much of the overflow as possible using the following steps, as applicable:

- Determine immediate destination of overflowing sewage;
- Plug storm drains using available equipment and materials;
- If sewage reached storm drainage system, plug downstream storm drainage facilities.
- Contain/direct the spilled sewage using dike/dam, sandbags, or other containment materials on hand;
- Use absorbent and vacuum;
- 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.

#### **VI.E. RESTORE THE OVERFLOW**

The SSO Responder must determine if the overflow was caused by a blockage in the publically owned lower lateral and/or sewer main or a privately owned upper lateral. If it is determined to be on the private side, the SSO Responder must:

- Notify resident of their responsibility and that the City is not responsible for work on a private property;
- Instruct the resident to contact a qualified plumbing contractor to remove the blockage.

If the blockage is caused on the public side, the SSO Responder must:

- Relieve blockage and restore the flow;
- Set up downstream of the blockage and hydro-clean upstream from a clear maintenance hole;
- Observe flows to ensure that the blockage does not recur downstream;
- If blockage cannot be cleared within a reasonable time, or the sewer requires construction repairs to restore flow, initiate containment and/or bypass pumping.
- Photographs response activities, if feasible.

#### **VI.F. SSO SIGNAGE AND PUBLIC ACCESS RESTRICTION**

To minimize potential public health risks, the SSO Responder must do the following, as applicable:

- a. Cone and barricade overflow area;
- b. Use **Appendix D** to determine if Raw Sewage flyers are needed and if so, post around site to direct pedestrian and auto traffic around/away from overflow area;
- c. Contact the City Police Department if street closure is necessary;
- d. If sewage reached surface water or a drainage channel and was not fully recovered use **Appendix E** to determine if Contaminated Water signs should be posted and water quality samples taken. If so, call on additional staff to post so that the SSO Responder can continue with the procedures in this emergency response plan.
- e. Use the sanitary sewer and storm drain maps to identify the potentially affected surface water.

## **VI.G. RECOVERY, CONTAINMENT AND CLEAN-UP**

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

The SSO Responder(s) should perform the following procedures:

- Vacuum up or pump the spilled sewage and discharge it back into the sanitary sewer system;
- Clean up and wash down area with dechlorinated water to reduce the potential for human health issues and adverse environmental impacts:
  - i. Hard Surface Areas: Collect all signs of sewage solids and sewage-related material either by hand or with the use of rakes and brooms. Wash down area and collect and vacuum wash water down grade. Repeat the process if additional cleaning is required.
  - ii. Landscaped and Unimproved Natural Vegetation: Collect all signs of sewage solids and sewage-related material either by hand or with the use of rakes and brooms. Allow the area to dry. Wash down area and collect and vacuum wash water down grade. Repeat the process if additional cleaning is required.
  - iii. Natural Waterways: OES should be notified in the event an SSO impacts any creeks, gullies, or natural waterways. 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.
  - iv. Private Property: City crews are responsible for the cleanup when the property damage is minor in nature and is outside of private building dwellings, such as in front, side and backyards, easements, etc. In all other cases, affected property owners can call a water damage restoration contractor to complete the cleanup and restoration. If the overflow into property is the definite cause of City system failure, the property owner can call out a water damage restoration contractor to complete the cleanup and restoration. In both cases, property owners may pick up City claim forms from the City Clerk's office at City Hall.

If a blockage was cleared from a lower lateral and the property owner was not home, the SSO Responder must complete the Note Card for Lower Lateral Work (**Appendix F**) and leave it on the door of the property.

## **VI.H. SURFACE WATER SAMPLING AND LAB TESTS**

The collection of water quality samples and the posting of Contaminated Water signs is required for sanitary sewer overflows where an estimated 5,000 gallons or greater of unrecovered sewage has reached surface waters. Refer to **Appendix E** for the Standard Operating Procedure: Water Quality Sampling and Posting of Contaminated Waters in Connection with SSOs.

## **VII. SSO INVESTIGATION AND DOCUMENTATION**

The following steps are to be performed by the SSO Responder(s) after the impacts of the SSO are mitigated:

- Photograph site after clean-up.
- Complete the Sanitary Sewer Overflow Report Form
- Perform, or delegate a responsible party, to do a CCTV inspection of the sewer following SSO mitigation but no later than the next business for mainlines or the next three days for lower laterals.
- Provide field form, any supporting documentation and the camera used to take the photographs to the designated Regulatory Reporter within 2 days for Category 1 and 2 overflows and within 5 days for Category 3 overflows.
- Perform, or delegate a responsible party (i.e. a contractor), to do a CCTV inspection of the sewer following SSO mitigation but no later than the next business for mainlines or the next three days for lower laterals.

The Regulatory Reporter is to submit the SSO event data to CIWQS within the time frames specified in Section VIII. The Public Works Director/City Engineer will review and certify the SSO event in CIWQS. The Regulatory Reporter will print the CIWQS certification record, input necessary data in OASIS to close the Work Order and print a copy of the work Order. All of the SSO information will be compiled into a single SSO event file. SSO event files for events less than 250 gallons are compiled and stored in a single folder by year of occurrence. If the SSO volume is 250 gallons or greater, the event file will be stored in a separate folder labeled with the CIWQS event number. All SSO documentation are located in the Regulatory Reporter's office.

## **VIII. SSO REGULATORY REPORTING PROCEDURES**

The following staff members are designated Legally Responsible Officers in the California Integrated Water Quality System (CIWQS) and appear in the order of SSO reporting and certification responsibility. In the event a staff member is unavailable for CIWQS reporting and certification, the staff member listed next in chronological order will be responsible:

- 1) Ray Chan, Public Works Director
- 2) Ana Bernardes, Project Manager

In the event that CIWQS is not available, the LRO will fax all required information to the Regional Water Board at 510-622-2460. In such event, the City will submit the appropriate reports using CIWQS as soon as practical.

## **VIII.A. MULTIPLE APPEARANCE POINTS – SINGLE SSO**

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

## **VIII.B. SSO REPORTING FOR CATEGORY 1**

The SSO Responder will contact OES for all Category 1 SSOs 1,000 gallons or greater within 2 hours of the City becoming aware of the SSO. This is specified in the response procedures noted above.

Within 3 business days of becoming aware of the SSO, the Regulatory Reporter (Data Submitter) must submit the initial report to the SWRCB's CWIQS Online SSO database @ <http://ciwqs.waterboards.ca.gov/ciwqs>

Within 15 calendar days of the SSO end date, the Public Works Director/City Engineer (LRO) must review and certify the report in the CWIQS Online SSO database @ <http://ciwqs.waterboards.ca.gov/ciwqs>

## **VIII.C. SSO REPORTING FOR CATEGORY 2**

Within 3 business days of becoming aware if the SSO, the Regulatory Reporter must submit the initial report to the SWRCB's CWIQS Online SSO database @ <http://ciwqs.waterboards.ca.gov/ciwqs>

Within 15 calendar days of the SSO end date, the Public Works Director/City Engineer must review and certify the report in the CWIQS Online SSO database @ <http://ciwqs.waterboards.ca.gov/ciwqs>

## **VIII.D. SSO REPORTING FOR CATEGORY 3**

Within 30 calendar days of the end of the calendar month in which the SSO occurred, the Public Works Director/City Engineer must review and certify the report in the CWIQS Online SSO database @ <http://ciwqs.waterboards.ca.gov/ciwqs>

## **VIII.E. SSO REPORTING FOR PRIVATE LATERAL SEWAGE DISCHARGES**

Private lateral sewage discharges (PLSD) that the City becomes aware of or responds to may be voluntarily reported in the CIWQS online SSO database. The Public Works Director/City Engineer if reporting the PLSD must specify that the sewage discharge occurred and was caused by a private line and identify the responsible party, if known. No LRO certification is required for PLSDs.

## **VIII.F. 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:

- i. Causes and Circumstances of the SSOs;
  - a. Complete and detailed explanation of how and when the SSO was discovered.
  - b. Diagram showing the SSO failure point, appearance point(s), and final destination(s).
  - c. Detailed description of the causes(s) of the SSO.
  - d. Copies of the original field crew records used to document the SSO,
  - e. Historical maintenance records for the failure location.
- ii. Response to SSO:
  - a. Chronological narrative description of all actions taken to terminate the overflow.
  - b. Explanation of how the OERP was implemented to respond to and mitigate the SSO.
  - c. Final corrective action(s) completed and/or planned to be completed, including a schedule or actions not yet completed.
- iii. Water Quality Monitoring
  - a. Description of all water quality sampling activities conducted including analytical results and evaluation of the results.
  - b. Detailed location map illustrating all water quality sampling points.

The Public Works Director/City Engineer is responsible for the development and certification of the SSO Technical Report as the City LRO.

## **VIII.G. No Spill Certification (Monthly)**

Within 30 calendar days of the end of a calendar month that there are no SSO's, the Regulatory Reporter must submit and certify a "No Spill" certification to the CIWQS online SSO database.

## **VIII.H. CIWQS Not Available**

In the event that the CIWQS online SSO database is not available, the Public Works Director/City Engineer 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 City will submit the appropriate reports using the CIWQS online SSO 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 SSO document file.

## **VIII.I. Amending SSO Reports**

The Public Works Director/City Engineer is responsible for amending SSO reports. Certified SSO reports may be updated by amending the report or adding an attachment to

the SSO report within 120 calendar days after the SSO end date. After 120 days, the City must contact the State SSO Program Manager to request to amend an SSO report along with a justification for why the additional information was not available prior to the end of the 120 days. The SSO Program Manager contact information follows:

Victor Lopez, P.E.  
 State Water Resources Control Board  
 Division of Water Quality  
 1001 I Street 15<sup>th</sup> Floor  
 Sacramento, CA 95814  
 E-mail: [Russell.norman@waterboards.ca.gov](mailto:Russell.norman@waterboards.ca.gov)  
 Phone: (916) 323-5598

## IX. EMERGENCY CONTACT PHONE NUMBERS

STAFF NAME	POSITION	PHONE NUMBER	LEGALLY RESPONSIBLE OFFICER
Police Department		510-525-7300	No
Ray Chan	Public Works Director	510-455-1866	Yes
Ana Bernardes	Senior Project Engineer	510-815-6005	Yes
Erin Smith	Technical and Regulatory Analyst	415-812-3746	Yes
Amy Alvidrez	Office Assistant	510-524-9543	No
David Henderson	City Inspector	510-528-5767	No
Jerry Vargas	Maintenance Worker II	510-455-1858	No
Mark Matherly	Maintenance Worker II	510-455-1877	No
Pat Looney	Maintenance Worker II	510-455-1864	No
Gary Mercer	Maintenance Worker II	510-455-1856	No
Angel Silva	Maintenance Worker II	510-455-1871	No
Michel Hoang	Maintenance Worker II	510-455-1842	No

CITY OF ALBANY, CA  
**SANITARY SEWER OVERFLOW REPORT**

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OASIS Work Order ID: \_\_\_\_\_ Mainline Address \_\_\_\_\_ Mainline SID: \_\_\_\_\_

1. Problem reported by: \_\_\_\_\_ Phone #: \_\_\_\_\_ Time of Notification: \_\_\_\_\_ AM/PM

2. What was the Reported Problem/Situation: \_\_\_\_\_

3. Spill/Blockage Appearance Point:

- Building or structure    Upper lateral/bldg. cleanout    Lower lateral/ curb cleanout  
 Mainline    Manhole    Other System Structure    Other (Specify): \_\_\_\_\_

4. Where did the Failure Occur: \_\_\_\_\_

5. Using the Notification and Reporting Flow Chart: Is 2-hour Reporting to OES required? Y / N

6. If OES contacted, Date of Call: \_\_\_\_\_ Time of Call: \_\_\_\_\_ Control No. \_\_\_\_\_

7. Was all of the wastewater fully captured and returned to the sanitary sewer system? Y / N / NA

8. Final Destination of Overflow:

- Building or structure    Unpaved surface    Street/Curb/Gutter    Other Paved Surface  
 Storm drain system; if so was it fully recovered? Y / N  
 Surface Water (creek, the Bay, etc.) (if so, estimated vol. that reached surface water: \_\_\_\_\_ gallons)  
 Other (Specify) \_\_\_\_\_

9. Estimated volume of overflow: \_\_\_\_\_ gallons   **10. Is Page 2 of this Form Complete: Y / N**

11. Estimated volume of overflow recovered: \_\_\_\_\_ gallons

12. Estimated overflow start DATE: \_\_\_\_\_ Estimated overflow start TIME: \_\_\_\_\_ AM/PM

13. Estimated DATE operator arrived at scene: \_\_\_\_\_ Estimated TIME arrived at scene: \_\_\_\_\_ AM/PM

14. Estimated overflow end DATE: \_\_\_\_\_ Estimated overflow end TIME: \_\_\_\_\_ AM/PM

15. If a main line overflow, what is the diameter and material of pipe that failed: \_\_\_\_\_

16. Response Activities (check all that apply):

- Restored Flow    Contained all or portion of spill    Returned all or portion of spill to sewer system  
 Inspected Sewer with CCTV    Site Cleaned-Up    Signs Posted    Barricades Placed

17. Photos are **REQUIRED**. Number of photos taken: \_\_\_\_\_ (try to document initial volume and site after cleanup)

18. Determination of Overflow Cause after CCTV Inspection (check all that apply and circle predominant cause):

- Grease/FOG    Operator error    Pipe problem/failure    Vandalism    Roots    Debris-General  
 Debris-Rags    Flow exceeded capacity    Other (Specify): \_\_\_\_\_

19. Follow up Activities:

- CCTV    Increased Maintenance    Emergency Repair    Asset Failure Analysis  
 Other (Specify): \_\_\_\_\_

20. Work Order Field Report and Notes: \_\_\_\_\_

21. Crew Name(s) and Hours: \_\_\_\_\_

22. Form Completed By: \_\_\_\_\_ Date: \_\_\_\_\_

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Data Entry In OASIS By: \_\_\_\_\_ Date: \_\_\_\_\_

Report Entry In CIWQS By : \_\_\_\_\_ Date: \_\_\_\_\_ CIWQS Event ID: \_\_\_\_\_

Certification In CIWQS By: \_\_\_\_\_ Date: \_\_\_\_\_

## Methods for Estimating Spill Volume

The person preparing the SSO volume estimate should use the method most appropriate to the sewer overflow in question and use the best information available. Please check the method used and include any calculations, drawings and notes.

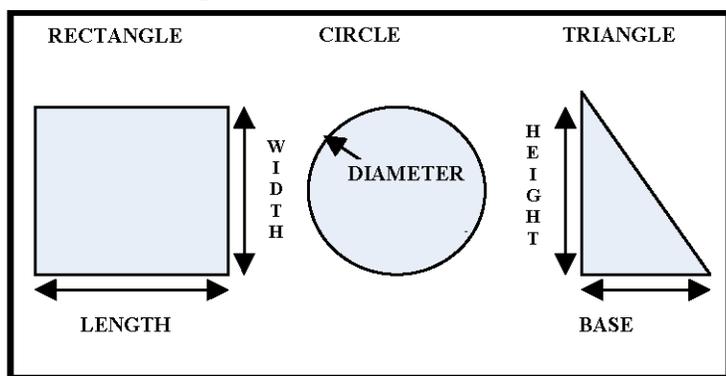
### ☐ Method 1 Eyeball Estimate

The volume of small overflows 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 overflow 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 overflows up to approximately 200 gallons

### ☐ Method 2 Measured Volume

This method can be used to estimate the volume of most small overflows that have been contained. The shape, dimensions, and the depth of the contained wastewater are needed. SHOW ALL WORK INVOLVED IN CALCULATION.

#### 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 0.79

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.

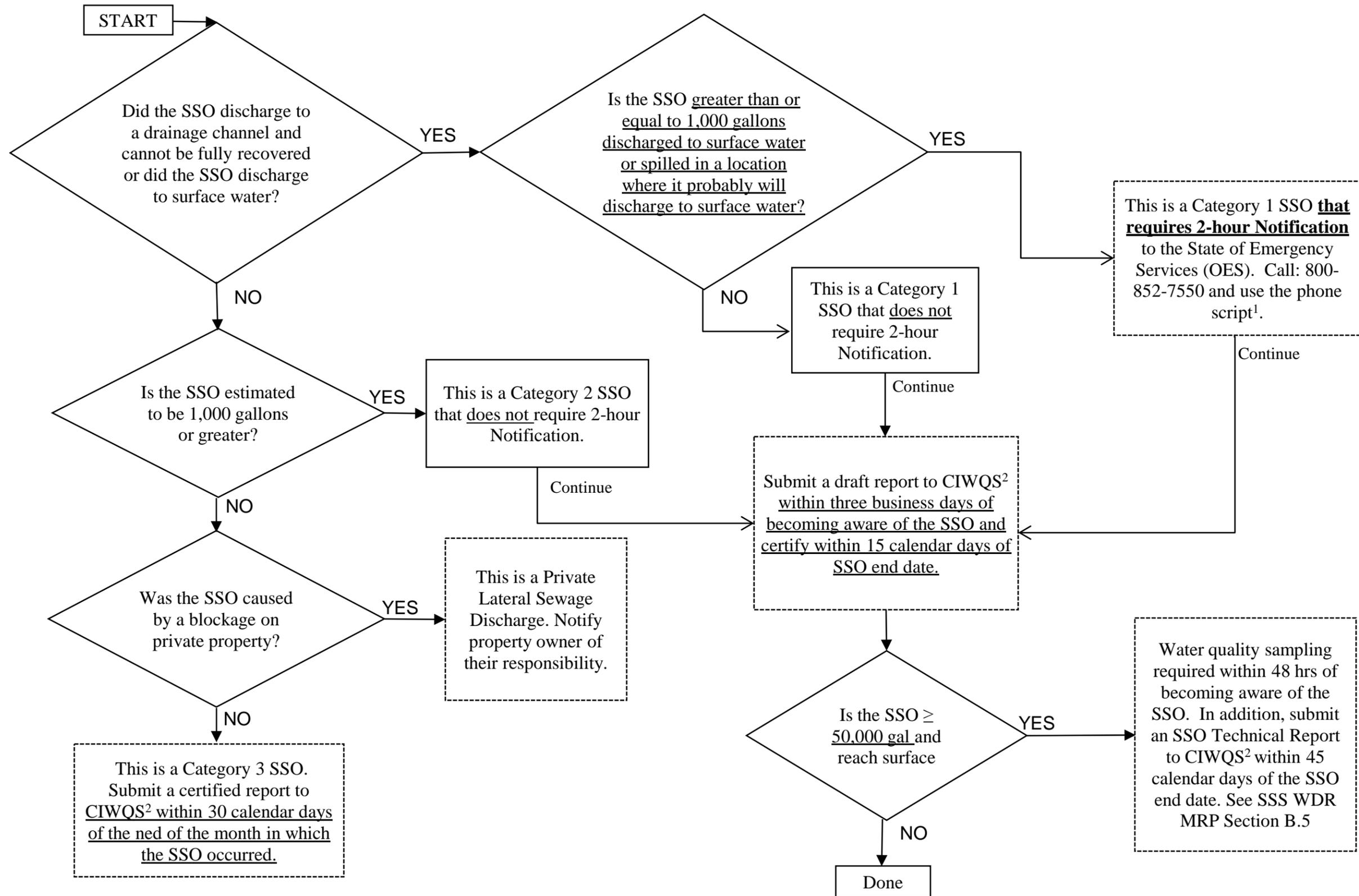
Step 7 Multiply the volume in cubic feet by 7.5 to convert it to gallons

Step 8 Write all computations down and attach them to this document.

### ☐ Method 3 Duration and Flowrate

Calculating the volume of larger overflows, where it is difficult or impossible to measure the area and depth, may require a different approach. See the separate Duration and Flow Rate Worksheet.

## Sanitary Sewer Overflow Regulatory Notification and Reporting, effective September 9, 2013



**NOTES:**

1. Notification Phone Script: "This is (name) from the City of Albany. There has been a sanitary sewer overflow that requires notification to OES. The overflow occurred at (date, time, location) and the estimated amount of the overflow is (#gallons). A city crew was dispatched on site at (time) to alleviate the stoppage and mitigate impacts." Make sure you obtain a OES control number for the call. Also, note if surface water was impacted and a spill rate, if applicable.

2. Report SSOs to CIWQS at <http://ciwqs.waterboards.ca.gov/>.

CITY OF ALBANY  
SANITARY SEWER OVERFLOW RESPONSE PLAN

### **Contingency Plan for Response Equipment**

A non-formal agreement for mutual aid exists between the City of Albany and Stege Sanitary District. Each agency has granted verbal agreement to lend assistance across jurisdictional boundaries on an as-needed basis.

Stege Sanitary District has the following equipment available:

- HydroJetter
- 2 rodders
- CCTV van
- Multiple generators
- Technical experience

If the above equipment is needed, contact:

Stege Sanitary District 24-hour phone number: 510-524-4667

Stege Sanitary District Staff members available for assistance include Walt Lunn, Dennis Wright and Rex Delizo.

City of Albany  
Sanitary Sewer Overflow Emergency Response Plan  
Posting of Raw Sewage Signs in Connection with SSOs

**STANDARD PROCEDURE:**

1. Raw Sewage signs should be posted when pedestrian and auto traffic need to be diverted around/away from the overflow area.
2. The Lead SSO Responder shall assign a crew member to post Raw Sewage advisory signs in conspicuous locations to avert potential human exposure.
3. Signs should be printed on a bright colored paper no smaller than 8.5"x11".
4. Raw sewage signs should remain posted until the clean-up procedures contained in section VI.G of the Emergency Response Plan are complete.

# DANGER

## RAW SEWAGE

Keep Children and pets out of this area.



# PELIGRO

## AGUA CONTAMINADA

Mantenga niños y mascotas fuera de esta área.



For more information – Para más información

Contact: City of Albany  
Department of Public Works

(510) 524-9543

CITY OF ALBANY  
SANITARY SEWER OVERFLOW RESPONSE PLAN

Water Quality Sampling and Posting of Contaminated Waters in  
Connection with SSOs

The collection of water quality samples and the posting of Contaminated Water signs is required for sanitary sewer overflows where **an estimated 5,000 gallons or greater of unrecovered sewage has reached surface waters.**

If the weather is such that collecting samples poses a safety risk to staff or the accuracy of the receiving water samples would be significantly diluted, contact the Public Works Director/City Engineer for further direction. When sampling is not possible, document the details of the situation – this information will be included in the certified Category 1 SSO Report and the SSO Technical Report submitted to the CIWQS Online SSO Database.

### **Signs and Sample Collection**

1. Lead SSO Responder shall assign a crew member to post Contaminated Water advisory signs in conspicuous locations to avert potential human water contact. Laminated signs are contained in the Water Quality Kit (blue cooler) on top of the refrigerator in the maintenance center break room.
2. Lead SSO Responder shall inform the City Police and Parks and Recreation Departments of the overflow and potentially impacted surface waters.
3. Samples must be taken as soon as reasonably possible, but no later than 48 hours of becoming aware of the SSO.
4. Sampling equipment is contained in the Water Quality Kit (blue cooler) located on top of the refrigerator in the maintenance center break room. Before going out to the field with the cooler, place the ice pack located in the freezer into the blue cooler.
5. Choose three sampling locations as follows:
  - a. Upstream Location: approximately 100 feet upstream from point of sewage entry into surface water
  - b. Source Location: approximately 10 feet downstream from point of sewage entry into surface water
  - c. Downstream Location: approximately 100 feet downstream from point of sewage entry into surface water
6. Take photographs of each sampling site – close up photos and the surrounding area.
7. Samples should be taken at each location for the following constituents: ammonia, fecal coliform and total coliform.

8. Before taking the sample:
  - a. Label each sample bottle (provided in cooler) with the location of the sampling site (i.e. Cerrito Creek 100 ft upstream), the date and the time the sample was taken. **It is critical to note whether the sample is the Upstream, Downstream or Source Location.**
  - b. Complete a Chain of Custody Record (provided in cooler) for each location. Be sure to complete Date Sampled, Time Sample, and Sample Identification/Site for each sample bottle. **The Location description must match that written on the sample bottle.**
  - c. “Relinquished by” is the individual who drops the sample off at the lab. This field should be completed at the time the samples are dropped off.
9. Keep sample bottles closed prior to filling. Remove the container cap without touching the inner surface, lip or neck of the container. Fill the bottle without rinsing or splashing - leave some air space in the bottle for mixing. The minimum sample volume for ammonia is 200 mL and for coliform is 100 mL.
10. Replace the cap immediately.
11. Place samples in the cooler with the ice pack to maintain sample temperature below 10°C.
12. Samples must be transported to the Caltest Analytical Laboratory, 1885 N. Kelly Road, Napa, CA 94558, as soon as reasonably possible but no longer than 8 hours from the time the samples were taken.
13. Contact CalTest Analytical Lab in advance of dropping the samples off: (707) 258-4000 during regular business hours (M-F, 8AM-5PM) and (707) 333-1615 on weekend and holidays (Sat and Sun, 9AM-5PM)
14. At the time of sample delivery, complete the “Relinquished by” field on the Chain of Custody form.

### **Sampling Results**

1. If the constituent levels at the point of sewage discharge and downstream sampling locations are equal to or below constituent levels at the upstream sampling location, the Public Works Director/City Engineer can authorize the posted warning signs to be removed.
2. If the constituent levels at the point of sewage discharge and downstream sampling locations are above constituent levels at the upstream sampling location, additional sampling may be necessary and requested by the Public Works Director/City Engineer. Do not remove posted warning signs under these circumstances.

### **Restock Cooler**

1. Replace ice pack in maintenance yard break room freezer.
2. Reorder sampling bottles from CalTest and reprint a Chain of Custody form – place these in the cooler
3. Place cooler back on top of the freezer in the maintenance yard break room.

# **DANGER**

# **RAW SEWAGE HAS**

# **CONTAMINATED WATER**

**CONTACT MAY CAUSE ILLNESS**  
**Keep Children and pets out of this area.**



# **PELIGRO**

# **AGUA CONTAMINADA**

**CONTACTO CON EL AGUA**  
**PUEDE CAUSAR ENFERMEDADES**  
**Mantenga niños y mascotas fuera de esta área.**



**For more information – Para más información**

**Contact: City of Albany**  
**Department of Public Works**

**(510) 524-9543**

# ALBANY CALIFORNIA



**CITY OF ALBANY**  
1000 SAN PABLO AVENUE  
ALBANY, CA 94706  
[www.AlbanyCA.org](http://www.AlbanyCA.org)

On \_\_\_\_\_ our maintenance crew responded to a sewer problem in the lower lateral at this property: \_\_\_\_\_.

The problem has been resolved.

We will return to inspect the line.

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If you have any questions, please call the Public Works Department at 510-524-9543. Thank you.

**FOG Scope of Services Among  
EBMUD, City of Alameda, City of Albany, City of Berkeley, City of Emeryville, City of  
Oakland, City of Piedmont, Stege Sanitary District**

Background

The wastewater collection system agencies in the East Bay Municipal Utility District (EBMUD)'s wastewater service area are the cities of Alameda, Albany, Berkeley, Emeryville, Oakland, Piedmont, and Stege Sanitary District (agencies). The State Water Resources Control Board Order No. 2006-0003-DWQ statewide requirements include implementation of Fats, Oils, and Grease (FOG) programs unless agencies demonstrate that they do not have FOG related sanitary sewer overflows (SSOs) in their community sewers. The agencies and EBMUD have developed a regional FOG control program, as part of the TAB programs, to reduce FOG related SSOs, and wish to continue working collaboratively on development and implementation of FOG control.

EBMUD has the experience, qualifications, staff and expertise to perform agreed-upon services effectively and efficiently. It is mutually beneficial for EBMUD to provide services to the agencies related to FOG control. Regional implementation of FOG control activities coordinated and supported by EBMUD is an efficient use of resources, including economies of scale and trained staff with a broad knowledge base of the activities that support a regional effort and that provide a systematic approach to managing wastewater discharges from food service establishments (FSEs). It is also mutually beneficial to maintain consistency in development and implementation of FOG control requirements throughout EBMUD's wastewater service area.

Scope of Services

The purpose of this Scope of Services is to continue ongoing FOG control activities to help reduce FOG related SSOs in the agencies' community sewer system. This Scope of Services clarifies the roles and responsibilities of EBMUD and the agencies in this collaborative effort and identifies the tasks to be conducted by each party.

The agencies authorize EBMUD to implement a regional FOG control program as described in this Scope of Services. To facilitate implementation of FOG control activities outlined in the scope of services, agencies will continue to provide EBMUD with the following information:

- a) Completed grease SSO and blockage reporting forms for areas in which the agency wants EBMUD to conduct hotspot investigations;
- b) Electronic and/or hard copies of community sewer maps that include manhole identification numbers and their locations, sewer pipes size, and flow direction.
- c) Residential addresses, including apartment numbers, for hotspot areas in which the agency wishes FOG information to be delivered.

Each agency is responsible for the costs of implementing the FOG control program in its service area as established in Exhibit A: FOG Control Program Budget.

## Termination

Any of the Parties may terminate its obligations under this Scope of Services by giving all other parties at least ninety (90) days written notice.

## EBMUD's Scope of Services

EBMUD is the technical service provider for the agencies' FOG program requirements. EBMUD also leads inter-agency coordination for the regional FOG control program to maximize consistency and efficiency. EBMUD is responsible for the following activities:

### 1. FOG HOTSPOT INVESTIGATIONS

(a) EBMUD will initiate an investigation after receiving a completed grease SSO and blockage reporting form from agency. The investigation will:

- 1) Identify the sewer drainage basin contributing to the location of the blockage, SSO, or increased sewer maintenance (FOG hotspot area).
- 2) Determine if the FOG hotspot area is in a residential, commercial, or combined residential/commercial drainage basin.
- 3) Identify commercial FSEs that discharge in the sewer drainage basin.
- 4) If FSEs are identified in the sewer drainage basin, the following field activities may be performed to identify FSEs that caused or contributed to the SSO, blockage, or increased sewer maintenance:
  - Field inspection of the FSEs
  - Dye testing
  - Gravity interceptor inspection
  - Sewer lateral camera inspection
  - Mainline camera inspection
  - Sampling at FSEs

(b) EBMUD will maintain an electronic listing and perform a follow-up inspection to confirm that the required grease control device (GCD) has been installed and is properly maintained. Grease control devices include gravity grease interceptors and additional approved devices, such as automatic grease removal devices. The Parties shall develop a communications program for identifying and updating the GCD listing with EBMUD.

(c) EBMUD may perform follow-up sewer lateral and/or main line camera inspections, upon request by agencies.

### 2. GRAVITY GREASE INTERCEPTOR INSPECTIONS

(a) EBMUD will perform periodic gravity grease interceptor inspections for FSEs in hotspots as well as for FSEs that are not in hotspots.

### 3. RESIDENTIAL HOTSPOT RESPONSE

(a) EBMUD will provide targeted outreach in identified residential FOG hotspots, within the limits of the funding provided in this Scope of Services (Exhibit A). Residential outreach

information will be distributed based on the residential addresses, including apartment numbers, in identified hot spot areas based on agency's requests.

#### 4. ENFORCEMENT SUPPORT

- (a) EBMUD will send notifications to FSEs based on agency-specific requirements. These notifications may include requirement letters, notices of non-compliance and other follow-up documents.
- (b) EBMUD will support agencies in any enforcement actions and proceedings taken by agencies (e.g. if agency initiates hearing, EBMUD will present findings of hotspot investigation).
- (c) EBMUD shall maintain a list of approved grease haulers and shall continue to provide a disposal facility for grease.

#### 5. REPORTING

- (a) EBMUD will submit to agencies quarterly FOG hotspot investigation summary reports. These reports include:
  - i. A summary of all FOG hotspots that were investigated during the quarter describing the activities performed and the FOG hotspot status at the end of the quarter.
  - ii. The number of inspections performed, FSEs identified to cause or contribute FOG related blockages/SSOs, GCDs confirmed to have been installed, and a summary of residential outreach materials distributed during the quarter.
  - iii. A summary by satellite agency detailing the level of effort for agency during the previous quarter. This report shall also include the full listing of all FOG hot spot investigation reports submitted by all agencies, their current status and those still remaining to be investigated.

#### 6. FOG CONTROL DATABASE

- (a) EBMUD will develop and maintain a FOG control database that includes:
  - i. FOG Hotspots identified by the agencies
  - ii. FSEs identified in each FOG hotspot and grease control device/ gravity grease interceptor information for each FSE in the FOG hotspots
  - iii. FSE, gravity grease interceptor, lateral camera and main line camera inspections performed at FSEs and FOG hotspots
  - iv. Requirement and agency enforcement information for FSEs provided to EBMUD

#### 7. RESIDENTIAL AND COMMERCIAL OUTREACH

EBMUD will maintain commercial and residential outreach and public education program activities, which may include bill inserts, billboards, outreach events, website development, and periodic direct communication with FSEs. These activities are not included in the budget (Exhibit A).

#### 8. COMPENSATION

The agencies will compensate EBMUD for the work conducted under Scope of Services items 1 – 6 of this Scope of Services. Current FOG program funding will continue for FY11. Exhibit A details the budget for FY12 and FY13.

9. SCOPE OF SERVICES EVALUATION

EBMUD and Satellites agree to reevaluate the Scope of Services contained herein annually not later than February of each year.

W:\NAB\IDS\P2\Fats Oil and Greases\MOA\TAB Agreement 2011\FOG Scope of Services 2-2-2011.doc

# City of Albany

Alameda County, California



## Fats, Oils, and Grease Control Program Implementation Plan

### Standards & Procedures

June 2012



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## **Section 1 – General**

Fats, Oils, and Grease (FOG) discharged to the sanitary sewer can accumulate along sewer pipe walls coating pipes until wastewater flow through the line is restricted or blocked, increasing the risk of Sanitary Sewer Overflows (SSOs). These occurrences can result in property damage, environmental problems in nearby surface waters, and public health hazards.

In 2006, the State Water Resources Control Board adopted General Waste Discharge Requirements for Sanitary Sewer Systems (Order No. 2006-003-DWQ) to facilitate the proper funding and management of wastewater collection systems. The Waste Discharge Requirements include the development and implementation of a Sanitary Sewer Management Plan (SSMP). The SSMP must include a program to control the discharge of FOG to the sewer system.

The City of Albany (City) SSMP was developed and approved by City Council according to the timeline specified in the Waste Discharge Requirements. Element IV of the SSMP contains the plan and commitment by the City to control FOG discharge to the sanitary sewer system. The primary goal of the FOG Control Program is to reduce the risk of blockages and SSOs in an effort to protect public health and the environment by minimizing public exposure to unsanitary conditions. By controlling the amount of FOG in the wastewater collection system, FOG buildup in sewer lines can be lessened, thereby increasing the system's operating efficiency and reducing the number of sewer line blockages and potential overflows. In addition, an effective FOG Control Program can minimize revenue losses associated with enforcement actions and the impacts of restricting public activities, such as beach closures.

The purpose of this Fats, Oils, and Grease Control Program Implementation Plan (Plan) is to establish fair and consistent policies and procedures for implementing Municipal Code Section 15-5, titled "Fats, Oils and Grease Entering the Sanitary Sewer System."

At the time of Plan adoption, the East Bay Municipal Utility District (EBMUD) is designated the City's Authorized Representative for implementing specific procedures contained herein.

**Appendix A** contains the current FOG Scope of Services Among EBMUD, City of Alameda, City of Albany, City of Berkeley, City of Emeryville, City of Oakland, City of Piedmont, Stege Sanitary District. The City reserves the right, at any time, to amend or terminate this service.

## **Section 2 – Definitions**

**Additives** – includes any product used to break down grease including, but not limited to, enzymes or surfactants acting as grease emulsifiers or degradation agents.

**Approved Grease Control Device** - A device designed to intercept fats, oils, and grease from wastewater discharge. This includes the allowable devices referenced in Appendix D of this Plan.

**Automatic Grease Removal Device** - A device designed to retain fats, oils, and grease from wastewater discharge. An automatic grease removal device actively skims and/or removes FOG from the wastewater stream and transfers it to an external FOG container that food facility staff then empties into a collection container.

**Building Official** - The Community Development Director has the authority to act as the Building Official for the purposes of implementing this Plan.

**City Authorized Representative** - is an individual or organization selected by the City to implement and/or enforce one or all the provisions of the FOG Control Program.

**City Manager** - is appointed by the City Council as the administrative head of the City of Albany municipal government. The City Manager is responsible for policy implementation and management of the day-to-day operations of the City. This term is used interchangeably with “City Administrator” in Albany.

**Director of Public Works**- The Public Works Manager has the authority to act as the Director of Public Works for the purposes of implementing this Plan.

**Food Service Establishment** - includes but is not limited to any facility preparing and/or serving food for commercial use or sale. This includes restaurants; cafes; lunch counters; cafeterias; hotels; hospitals; convalescent homes; factory or school kitchens; catering kitchens; bakeries; grocery stores with food preparation, food packaging, meat cutting, and meat preparation (excluding grocery stores with only food warming operations); meat packing facilities, and other food handling facilities not listed above where fats, oil, and grease may be introduced into the community sewer system and cause line blockages and sewer overflows.

**FOG** - Refers to all fats, oils, and grease generated during food preparation, food service, and/or kitchen cleanup.

**Grease Hauler** – Licensed company that is contracted to periodically pump out and clean grease interceptors and traps. The hauler then disposes of the grease in an appropriate and legal manner.

**Gravity Grease Interceptor**– A large, partitioned vault made of various materials, installed to remove grease and food waste by trapping floatables and settleable solids so that they can be

separated and removed before discharge to the community sewer. It is usually installed underground, outside of the food handling establishment.

**Grease Control Device (GCD)** – See Approved Grease Control Device.

**Grease Trap** – A device designed to retain grease before it enters plumbing lines. It is usually installed indoors in kitchen floors or under counters.

**Plumbing Fixture** – A receptacle, device, or appliance, directly or indirectly connected to a drainage system such as the sanitary sewer, that supplies or receives water or liquid-borne wastes.

### **Section 3. Conditions Requiring a Grease Control Device at Food Service Establishments**

A Grease Control Device is required to be installed and maintained, at the property owner's expense, to prevent FOG related overflows, blockages or increased maintenance in the sanitary sewer system. Grease Control Devices are required if a Food Service Establishment meets any of the following conditions:

- a) New construction, including new construction or conversion from a non-food service establishment to a food service establishment. (City staff is responsible for completing and submitting to EBMUD a New Restaurant Notification Form (**Appendix B**) for each new Food Service Establishment)
- b) Remodels, additions, alterations or repairs of Food Service Establishments valued at \$75,000 or greater.
- c) Multiple permits for remodels, additions, alterations or repairs by the same Food Service Establishment owner or operator within a three (3) year period and with a cumulative value over \$75,000.
- d) An existing Food Service Establishment caused or contributed to increased maintenance such that the cleaning frequency of the associated mainline sewer was 180 days or less, or a FOG-related sanitary sewer system overflow that required reporting in the California Integrated Water Quality System

The above criteria do not preclude the City from evaluating the need for a Food Service Establishment to control FOG discharge from the establishment. The stated criteria also do not preclude a property owner from controlling FOG discharged from their establishment on their own accord and at their expense.

## **Section 4. Waiver of Grease Control Device Requirements at Food Service Establishments**

While the intent of this program is to set forth uniform requirements for Food Service Establishments to control the discharge of fats, oil, and grease to the sewer system, a Food Service Establishment determined to have no immediate adverse impact on the sewer system may be granted a conditional waiver from Grease Control Device installation requirements if specific conditions are met.

### **A. Grease Control Device Conditional Waiver:**

A Grease Control Device may not be required if a facility can demonstrate that food preparation and service do not generate fats, oil, and grease in a quantity sufficient to require a Grease Control Device. A Food Service Establishment determined to have no immediate adverse impact on the collection system because of business type and grease generating capabilities may be granted a waiver from Grease Control Device installation requirements. The Building Official or his/her designee may, at any time, revoke a waiver and require the Food Service Establishment to install a Grease Control Device.

Grease Control Devices may not be required for business types listed below:

- a) Establishments serving beverages and/or ready to eat, packaged or unpackaged items (with or without food warming);
- b) Ice cream parlors without any baking or other food preparation;
- c) Snack bar with no food preparation other than food warming;
- d) Bakeries with no food preparation other than food warming;
- e) Other establishments serving only ready to eat foods with or without food warming.

For a waiver to be granted, the Building Official or his/her designee must approve a completed Grease Control Device Conditional Waiver application form (**Appendix C**). The EBMUD Environmental Services Division, the designated City Authorized Representative for implementing specific program procedures, will assist in the review of the application form and make a recommendation to the Building Official or his/her designee.

The Building Official or his/her designee may, at any time, revoke a waiver and require the Food Service Establishment to install a Grease Control Device.

## **Section 5. Grease Control Device Approval Process**

**Appendix D** contains a list of approved Grease Control Devices. Note: there may be a device not listed in Appendix D that is appropriate for site-specific conditions and may be approved.

The City does not permit the installation of passive grease traps. While these devices trap grease, they do not remove the grease to a separate container, making it difficult to measure the depth or fullness of the grease trap. As the passive grease trap's separation efficiency diminishes as the trap fills, timely cleaning and maintenance is critical for proper functioning. An Automatic

Grease Removal Device removes the skimmed grease to a separate container thereby eliminating this challenge and providing clarity for a maintenance frequency determination.

Grease Control Devices must be properly sized in conformance with the current edition of the California Plumbing Code. The volume of the interceptor must be determined by using Table 10-3 in 2010 CA Plumbing Code, reproduced below as **Table 1**. If the number of drainage fixture units (DFUs) is not known, the interceptor must be sized based on the maximum DFUs allowed for the pipe size connected to the inlet of the interceptor.

**Table 1. (10-3 2010 CA Plumbing Code). Gravity Grease Interceptor Sizing**

DFUs <sup>1,3</sup>	Interceptor Volume <sup>2</sup>
8	500 gallons
21	750 gallons
35	1,000 gallons
90	1,250 gallons
172	1,500 gallons
216	2,000 gallons
307	2,500 gallons
342	3,000 gallons
428	4,000 gallons
576	5,000 gallons
720	7,500 gallons
2112	10,000 gallons
2640	15,000 gallons

1. The maximum allowable DFUs plumbed to the kitchen drain lines that will be connected to the grease interceptor.
2. This size is based on: DFUs, the pipe size from this code; Table 7-5; Useful Tabled for flow in half-full pipes (ref: *Mohinder Nayyar Piping Handbook*, 3<sup>rd</sup> Edition, 1992). Based on 30-minute retention time (ref: George Tchobanoglous and Metcalf & Eddy. *Wastewater Engineering Treatment, Disposal and Reuse*, 3<sup>rd</sup> Ed. 1991 & Ronald Crites and George Tchobanoglous, *Small and Decentralized Wastewater Management Systems*, 1998). Rounded up to nominal interceptor volume.
3. When the flow rate of directly connected fixture(s) or appliance(s) have no assigned DFU values, the additional grease interceptor volume shall be based on the known flow rate (gpm) multiplied by the 30-minutes.

Plans to install a Grease Control Device must be reviewed and approved by the Building Official prior to installation. Grease Control Devices must be installed by a licensed plumbing contractor.

## **Section 6. Grease Control Device Maintenance**

### **Responsibility**

The property owner is responsible for making all maintenance and repairs of the Grease Control Device.

Grease Control Device maintenance shall be done according to the manufacturer's specifications and in a manner that does not present potential risks to human health or cause a public nuisance.

If a Grease Interceptor is installed, the Food Service Establishment is responsible for the following maintenance:

- i. Remove the entire contents of the interceptor each time the interceptor is pumped.
- ii. Ensure proper operation, maintenance and performance during the entire period of wastewater discharge.
- iii. Maintain a minimum pumping frequency of once per three-month period or more frequently to ensure that objectionable odors are not present and the discharge does not cause or contribute to FOG-related overflows, blockages, or increased maintenance in the sanitary sewer system.
- iv. Maintain maintenance records with the following information for each Grease Interceptor:
  - 1) Date of hauling service
  - 2) Name of the licensed and permitted grease hauler
  - 3) Volume pumped (gallons)
  - 4) Waste disposal location

Maintenance Records shall be kept for a minimum of three (3) years from the date of service and shall be provided to the City upon request.

## **Section 7. Appeal of Building Official Decision**

The decision of the Building Official or his/her designee may be appealed to a hearing officer of qualified judgment within ten (10) calendar days after written notice thereof. The City of Albany Master Fee Schedule contains the fee, to be paid by the property owner, that is associated with an appeal of a Building Official decision.

The appeal must be in writing and must state the basis of the appeal. The appeal will be acted upon by within thirty (30) days after receipt of the written appeal, except for good cause shown. An appeal of the Hearing Officer's decision may be made to the City Council in accordance with Council adopted procedures.

## **Section 8. Failure to Comply**

Should any property owner fail to install, maintain or repair their Grease Control Device as set forth in the provisions of this Plan, a written notice of the violation will be issued by the City or City Authorized Representative. The notice will specify a period of time within which the property owner must correct the deficiency. Continual violation is subject to enforcement proceedings defined for violation of the Building Code.

### **FOG Scope of Services Among EBMUD, City of Alameda, City of Albany, City of Berkeley, City of Emeryville, City of Oakland, City of Piedmont, Stege Sanitary District**

#### Background

The wastewater collection system agencies in the East Bay Municipal Utility District (EBMUD)'s wastewater service area are the cities of Alameda, Albany, Berkeley, Emeryville, Oakland, Piedmont, and Stege Sanitary District (agencies). The State Water Resources Control Board Order No. 2006-0003-DWQ statewide requirements include implementation of Fats, Oils, and Grease (FOG) programs unless agencies demonstrate that they do not have FOG related sanitary sewer overflows (SSOs) in their community sewers. The agencies and EBMUD have developed a regional FOG control program, as part of the TAB programs, to reduce FOG related SSOs, and wish to continue working collaboratively on development and implementation of FOG control.

EBMUD has the experience, qualifications, staff and expertise to perform agreed-upon services effectively and efficiently. It is mutually beneficial for EBMUD to provide services to the agencies related to FOG control. Regional implementation of FOG control activities coordinated and supported by EBMUD is an efficient use of resources, including economies of scale and trained staff with a broad knowledge base of the activities that support a regional effort and that provide a systematic approach to managing wastewater discharges from food service establishments (FSEs). It is also mutually beneficial to maintain consistency in development and implementation of FOG control requirements throughout EBMUD's wastewater service area.

#### Scope of Services

The purpose of this Scope of Services is to continue ongoing FOG control activities to help reduce FOG related SSOs in the agencies' community sewer system. This Scope of Services clarifies the roles and responsibilities of EBMUD and the agencies in this collaborative effort and identifies the tasks to be conducted by each party.

The agencies authorize EBMUD to implement a regional FOG control program as described in this Scope of Services. To facilitate implementation of FOG control activities outlined in the scope of services, agencies will continue to provide EBMUD with the following information:

- a) Completed grease SSO and blockage reporting forms for areas in which the agency wants EBMUD to conduct hotspot investigations;
- b) Electronic and/or hard copies of community sewer maps that include manhole identification numbers and their locations, sewer pipes size, and flow direction.
- c) Residential addresses, including apartment numbers, for hotspot areas in which the agency wishes FOG information to be delivered.

Each agency is responsible for the costs of implementing the FOG control program in its service area as established in Exhibit A: FOG Control Program Budget.

### Termination

Any of the Parties may terminate its obligations under this Scope of Services by giving all other parties at least ninety (90) days written notice.

### EBMUD's Scope of Services

EBMUD is the technical service provider for the agencies' FOG program requirements. EBMUD also leads inter-agency coordination for the regional FOG control program to maximize consistency and efficiency. EBMUD is responsible for the following activities:

#### 1. FOG HOTSPOT INVESTIGATIONS

(a) EBMUD will initiate an investigation after receiving a completed grease SSO and blockage reporting form from agency. The investigation will:

- 1) Identify the sewer drainage basin contributing to the location of the blockage, SSO, or increased sewer maintenance (FOG hotspot area).
- 2) Determine if the FOG hotspot area is in a residential, commercial, or combined residential/commercial drainage basin.
- 3) Identify commercial FSEs that discharge in the sewer drainage basin.
- 4) If FSEs are identified in the sewer drainage basin, the following field activities may be performed to identify FSEs that caused or contributed to the SSO, blockage, or increased sewer maintenance:
  - Field inspection of the FSEs
  - Dye testing
  - Gravity interceptor inspection
  - Sewer lateral camera inspection
  - Mainline camera inspection
  - Sampling at FSEs

(b) EBMUD will maintain an electronic listing and perform a follow-up inspection to confirm that the required grease control device (GCD) has been installed and is properly maintained. Grease control devices include gravity grease interceptors and additional approved devices, such as automatic grease removal devices. The Parties shall develop a communications program for identifying and updating the GCD listing with EBMUD.

(c) EBMUD may perform follow-up sewer lateral and/or main line camera inspections, upon request by agencies.

#### 2. GRAVITY GREASE INTERCEPTOR INSPECTIONS

(a) EBMUD will perform periodic gravity grease interceptor inspections for FSEs in hotspots as well as for FSEs that are not in hotspots.

#### 3. RESIDENTIAL HOTSPOT RESPONSE

(a) EBMUD will provide targeted outreach in identified residential FOG hotspots, within the limits of the funding provided in this Scope of Services (Exhibit A). Residential outreach information will be distributed based on the residential addresses, including apartment numbers, in identified hot spot areas based on agency's requests.

4. ENFORCEMENT SUPPORT

- (a) EBMUD will send notifications to FSEs based on agency-specific requirements. These notifications may include requirement letters, notices of non-compliance and other follow-up documents.
- (b) EBMUD will support agencies in any enforcement actions and proceedings taken by agencies (e.g. if agency initiates hearing, EBMUD will present findings of hotspot investigation).
- (c) EBMUD shall maintain a list of approved grease haulers and shall continue to provide a disposal facility for grease.

5. REPORTING

- (a) EBMUD will submit to agencies quarterly FOG hotspot investigation summary reports. These reports include:
  - i. A summary of all FOG hotspots that were investigated during the quarter describing the activities performed and the FOG hotspot status at the end of the quarter.
  - ii. The number of inspections performed, FSEs identified to cause or contribute FOG related blockages/SSOs, GCDs confirmed to have been installed, and a summary of residential outreach materials distributed during the quarter.
  - iii. A summary by satellite agency detailing the level of effort for agency during the previous quarter. This report shall also include the full listing of all FOG hot spot investigation reports submitted by all agencies, their current status and those still remaining to be investigated.

6. FOG CONTROL DATABASE

- (a) EBMUD will develop and maintain a FOG control database that includes:
  - i. FOG Hotspots identified by the agencies
  - ii. FSEs identified in each FOG hotspot and grease control device/ gravity grease interceptor information for each FSE in the FOG hotspots
  - iii. FSE, gravity grease interceptor, lateral camera and main line camera inspections performed at FSEs and FOG hotspots
  - iv. Requirement and agency enforcement information for FSEs provided to EBMUD

7. RESIDENTIAL AND COMMERCIAL OUTREACH

EBMUD will maintain commercial and residential outreach and public education program activities, which may include bill inserts, billboards, outreach events, website development, and periodic direct communication with FSEs. These activities are not included in the budget (Exhibit A).

8. COMPENSATION

The agencies will compensate EBMUD for the work conducted under Scope of Services items 1 – 6 of this Scope of Services. Current FOG program funding will continue for FY11. Exhibit A details the budget for FY12 and FY13.

9. SCOPE OF SERVICES EVALUATION

EBMUD and Satellites agree to reevaluate the Scope of Services contained herein annually not later than February of each year.



**East Bay Municipal Utility District Environmental Services Division**

P.O. Box 24055, MS 702

Oakland, CA 94623-1055

Telephone (510) 287-1651 Fax (510) 287-0621

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**New Food Service Establishment Notification Form**

**Establishment Name:** \_\_\_\_\_

**Owner Name:** \_\_\_\_\_

**Mailing Address:** \_\_\_\_\_

**Service Address:** \_\_\_\_\_

**Phone Number:** \_\_\_\_\_

**Grease Control Device Installation**      **YES**      **NO**

**Type of Grease Control Device:**  
\_\_\_\_\_  
\_\_\_\_\_

**Additional Comments:** \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Please fax or email to:**

Nadia Borisova

Fax: 510-287-0621

[nborisov@ebmud.com](mailto:nborisov@ebmud.com)

### Grease Control Device Conditional Waiver

I, \_\_\_\_\_  
(Business Representative's Name Printed)

Representing \_\_\_\_\_  
(Business Name and Address Printed)

certify that the business named above does not require a grease interceptor installation because it meets the definitions set forth in the *City of Albany Fats, Oils, and Grease Control Program Implementation Plan*. If at any time the business listed above does not meet the definition, I understand that I must notify the City within ninety (90) days of the change and work towards obtaining City approval to install a grease control device sized according to the provisions in the *City of Albany Fats, Oils, and Grease Control Program Implementation Plan*

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

The grease interceptor installation conditional variance is not transferable to a new owner or occupant.  
The Grease Interceptor waiver is not transferable.

The person signing this variance waiver warrants that it has or has obtained the necessary consent and authority to execute this waiver variance and to make this variance binding upon itself.

SIGNED \_\_\_\_\_ DATE \_\_\_\_\_

CONTACT PHONE NUMBER \_\_\_\_\_  
**Supporting documentation of business type must be submitted with application form**

-----  
Please Do Not Write Below This Line

**APPROVAL:** \_\_\_\_\_ EBMUD REP  
PRINT SIGNATURE  
DATE \_\_\_\_\_ CONTACT NO. \_\_\_\_\_

REASON FOR APPROVAL:  
\_\_\_\_\_  
\_\_\_\_\_

CITY/AGENCY REP \_\_\_\_\_ DATE \_\_\_\_\_

**REJECTED:** \_\_\_\_\_ EBMUD REP  
PRINT SIGNATURE  
DATE \_\_\_\_\_ CONTACT NO. \_\_\_\_\_

REASON FOR REJECTION:  
\_\_\_\_\_  
\_\_\_\_\_

CITY/AGENCY REP \_\_\_\_\_ DATE \_\_\_\_\_

CITY/AGENCY REP \_\_\_\_\_ DATE \_\_\_\_\_



## Appendix D

Manufacturer	Web Site	Product Name	Technology
ADS	<a href="http://www.ads-pipe.com/en/index.asp?ProdID=253">http://www.ads-pipe.com/en/index.asp?ProdID=253</a>	Grease Interceptor	Gravity device, pump out of captured grease and sediment by EBMUD approved grease hauler
API Industries, Inc.	<a href="http://www.apiindustriesinc.org/grease_trap.html">http://www.apiindustriesinc.org/grease_trap.html</a>	ECH20	Coalescing plates device, automatic draw-off of captured grease to external container
Goslyn Environmental Systems	<a href="http://www.goslyn.ca">http://www.goslyn.ca</a>	Goslyn	Hydro-mechanical device, captured grease automatically drained to an external container
Green Turtle	<a href="http://www.proceptor.com/default.html">http://www.proceptor.com/default.html</a>	Proceptor	Gravity device, pump out of captured grease and sediment by EBMUD approved grease hauler
Highland Tank	<a href="http://www.highlandtank.com/">http://www.highlandtank.com/</a>	HT-AGI	Hydro-mechanical device, skimmer draws-off captured grease and transfers to an external container
		HT PGI	Gravity device, pump out of captured grease and sediment by EBMUD approved grease hauler
International GRD, Inc.	<a href="http://www.internationalgrd.com/">http://www.internationalgrd.com/</a>	2000	Hydro-mechanical device, captured grease automatically drained to an external container
		2500 IB	Hydro-mechanical device, captured grease automatically drained to an external container
		2500 IBP	Hydro-mechanical device, captured grease automatically drained to an external container
		3500	Hydro-mechanical device, captured grease automatically drained to an external container
		5000	Hydro-mechanical device, captured grease

## Appendix D

automatically drained to an external container			
Jay R Smith Mfg. Co.	<a href="http://www.jrsmith.com/">http://www.jrsmith.com/</a>	Grease+Guard	Hydro-mechanical device, skimmer draws-off captured grease and transfers to an external container
Jensen Precast	<a href="http://www.jensenprecast.com">http://www.jensenprecast.com</a>	Grease Interceptor	Gravity device, pump out of captured grease and sediment by EBMUD approved grease hauler
Josam Co	<a href="http://www.josam.com/">http://www.josam.com/</a>	GI200A	Hydro-mechanical device, captured grease automatically pumped to an external container
		60100H - GRD	Hydro-mechanical device, captured grease automatically pumped to an external container
Schier Products	<a href="http://www.schierproducts.com/">http://www.schierproducts.com/</a>	Great Basin	Gravity device, pump out of captured grease and sediment by EBMUD approved grease hauler
Thermaco	<a href="http://www.big-dipper.com/index.php">http://www.big-dipper.com/index.php</a>	Big Dipper	Hydro-mechanical device, skimmer draws-off captured grease and transfers to an external container
		Trapzilla	Gravity device, pump out of captured grease and sediment by EBMUD approved grease hauler
Zurn	<a href="http://www.zurn.com">http://www.zurn.com</a>	Z1199	Hydro-mechanical device, captured grease automatically drained to an external container

**City of Albany  
Sewer System Management Plan  
Audit Report Form**

*The purpose of the SSMP Audit is to evaluate the effectiveness of the City of Albany's (City's) SSMP and to identify any needed for improvement.*

**Directions:** Please check **YES** or **NO** for each question. If **NO** is answered for any question, describe the updates/changes needed and the timeline to complete those changes.

		YES	NO
<b>ELEMENT 1 - GOALS</b>			
A.	Are the goals stated in the SSMP still appropriate and accurate?	<input type="checkbox"/>	<input type="checkbox"/>
Discussion:			
<b>ELEMENT 2 - ORGANIZATION</b>			
A.	Is Figure 1 of the SSMP, the City Organization Chart, current?		
B.	Are the position descriptions an accurate portrayal of staff responsibilities?		
Discussion:			
<b>ELEMENT 3 – LEGAL AUTHORITY</b>			
Does the SSMP contain current information on the Albany Municipal Code? Does the City have legal authority to:			
A.	Prevent illicit discharges?		
B.	Require proper design and construction of sewers and connections		
C.	Ensure access for maintenance, inspection, or repairs for portions of the lateral owned or maintained b the City?		
D.	Limit discharges of fats, oils and grease?		
E.	Enforce any violation of its sewer ordinances?		
F.	Were any changes or modifications made in the past year to City Sewer Ordinances, Regulations or standards?		
Discussion:			

<b>ELEMENT 4 – OPERATIONS AND MAINTENANCE</b>			
<b>Collection System Maps</b>			
A.	Does the SSMP reference the current process and procedures for maintaining the City’s wastewater collection system maps?	<input type="checkbox"/>	<input type="checkbox"/>
B.	Are the City’s waster collection system maps complete, current and sufficiently detailed?	<input type="checkbox"/>	<input type="checkbox"/>
<b>Prioritized Preventive Maintenance</b>			
C.	Does the SSMP describe current preventive maintenance activities and the system for prioritizing the cleaning of sewers?	<input type="checkbox"/>	<input type="checkbox"/>
D.	Based upon information in the Annual SSO Report, are the City’s preventive maintenance activities sufficient and effective in minimizing SSOs and blockages?	<input type="checkbox"/>	<input type="checkbox"/>
<b>Scheduled Inspections and Condition Assessments</b>			
E.	Is there an ongoing condition assessment program sufficient to develop a capital improvement plan addressing the proper management and protection of infrastructure assets? Are the current components of this program documented in the SSMP?	<input type="checkbox"/>	<input type="checkbox"/>
<b>Contingency Equipment and Replacement Inventory</b>			
F.	Does the SSMP list the major equipment currently used in the operation and maintenance of the collection system and documents the procedures of inventory management?	<input type="checkbox"/>	<input type="checkbox"/>
G.	Are contingency and replacement parts sufficient to respond to emergencies and properly conduct regular maintenance?	<input type="checkbox"/>	<input type="checkbox"/>
<b>Training</b>			
H.	Does the SSMP document current training expectations and programs?	<input type="checkbox"/>	<input type="checkbox"/>
<b>Outreach to Plumbers and Building Contractors</b>			
I.	Does the SSMP document current outreach efforts to plumbers and building contractors?		
Discussion:			
<b>ELEMENT 5- DESIGN AND PERFORMANCE STADARDS</b>			
A.	Does the SSMP reference current design and construction standards for the installation for new sanitary sewer systems, pump stations and other appurtenances and for the rehabilitation and repair of existing sanitary sewer systems?		
B.	Does the SSMP document current procedures and standards for inspecting and testing the installation of new sewers, pumps, and other appurtenances and the rehabilitation and repair of existing sewer lines?		
Discussion:			

<b>ELEMENT 6 – OVERFLOW AND EMERGENCY RESPONSE PLAN</b>			
A.	Does the City’s Sanitary Sewer Overflow Emergency Response Plan establish procedures for the emergency response, notification, and reporting of SSOs?	<input type="checkbox"/>	
B.	Are City staff and contractor personnel appropriately trained on the procedures of the Sanitary Sewer Overflow Emergency Response Plan?	<input type="checkbox"/>	
C.	Considering SSO performance data, is the Sanitary Sewer Overflow Emergency Response Plan effective in handling SSOs in order to safeguard public health and the environment?	<input type="checkbox"/>	
Discussion:			
<b>ELEMENT 7 – FATS, OILS AND GREASE (FOG) CONTROL PROGRAM</b>			
A.	Does the FOG Control Program include efforts to educate the public on proper handling and disposal of FOG?	<input type="checkbox"/>	<input type="checkbox"/>
B.	Does the FOG Control Program identify sections of the collection system with FOG issues and take measures to prevent overflows?	<input type="checkbox"/>	<input type="checkbox"/>
C.	Does the City have sufficient legal authority to implement and enforce the FOG Control Program?		
D.	Is the current FOG program effective in minimizing blockages of sewer lines resulting from discharges of FOG to the system		
Discussion:			
<b>ELEMENT 8- SYSTEM EVALUATION AND CAPACITY ASSURANCE PLAN</b>			
A.	Does the City of Albany Sanitary Sewer Master Plan evaluate hydraulic deficiencies in the system, establish sufficient design criteria and recommend both short and long term capacity enhancement and improvement projects?	<input type="checkbox"/>	<input type="checkbox"/>
B.	Does the City’s Capital Improvement Plan (CIP) establish a schedule of approximate completion dates for both short and long-term improvements and is the schedule reviewed and updated to reflect current budgetary capabilities and activity accomplishment?	<input type="checkbox"/>	<input type="checkbox"/>
Discussion:			

<b>ELEMENT 9- MONITORING, MEASUREMENT, AND PROGRAM MODIFICATIONS</b>			
A.	Does the SSMP accurately portray the methods of tracking and reporting selected performance indicators?		
B.	Is the City able to sufficiently evaluate the effectiveness of the SSMP elements based on relevant information?		
Discussion:			
<b>ELEMENT 10 – SSMP AUDITS</b>			
A.	Will the SSMP Audit be completed, reviewed and filed?		
Discussion:			
<b>ELEMENT 11 – COMMUNICATION PROGRAM</b>			
A.	Does the City effectively communicate with the public and other agencies about the development and implementation of the SSMP and continue to address any feedback?		
<b>Change Log</b>			
A.	Is the SSMP Change Log, current and up to date?	<input type="checkbox"/>	<input type="checkbox"/>
Discussion:			

Prepared By: \_\_\_\_\_ Reviewed By: \_\_\_\_\_

Approved for Filing on: \_\_\_\_\_ (date)



Appendix 10-C  
City Council Adoption Documents

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**RESOLUTION NO. 2014-55**

**A RESOLUTION OF THE ALBANY CITY COUNCIL APPROVING THE  
CITY OF ALBANY SEWER SYSTEM MANAGEMENT PLAN**

**WHEREAS**, the State Water Resources Control Board adopted Statewide General Waste Discharge Requirements (WDR) by Order No. 200-0003 on May 2, 2006 for all publicly owned sanitary sewer collection systems; and

**WHEREAS**, the WDR required the City of Albany to develop a Sewer System Management Plan (SSMP); and

**WHEREAS**, on July 7, 2009 the Albany City Council adopted an SSMP by Resolution No. 09-36; and

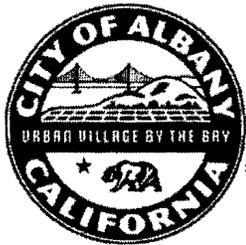
**WHEREAS**, the WDR Monitoring and Reporting Program was amended by Order No. 2013-0058 EXEC, dated July 30, 2013 and effective September 9, 2013; and

**WHEREAS**, an update to the SSMP is required every five years, and must include any significant program changes; and

**WHEREAS**, the WDR requires that the Sewer System Management Plan be presented for approval by the City's governing board at a public meeting.

**NOW THEREFORE, BE IT RESOLVED**, the City Council of the City of Albany does hereby adopt the attached updated City of Albany Sewer System Management Plan.

  
\_\_\_\_\_  
MAYOR



# City of Albany

1000 San Pablo Avenue • Albany, California 94706  
(510) 528-5710 • www.albanyca.org

**RESOLUTION NO. 2014-55**

PASSED AND APPROVED BY THE COUNCIL OF THE CITY OF ALBANY,

The 16th day of June, 2014, by the following votes:

AYES: Council Members Atkinson, Barnes, and Vice Mayor Wile

NOES: none

ABSENT: Council Member Maass

ABSTAINED: none

RECUSED: none

WITNESS MY HAND AND THE SEAL OF THE CITY OF ALBANY, this 24th  
day of June, 2014.

Eileen Harrington  
DEPUTY CITY CLERK