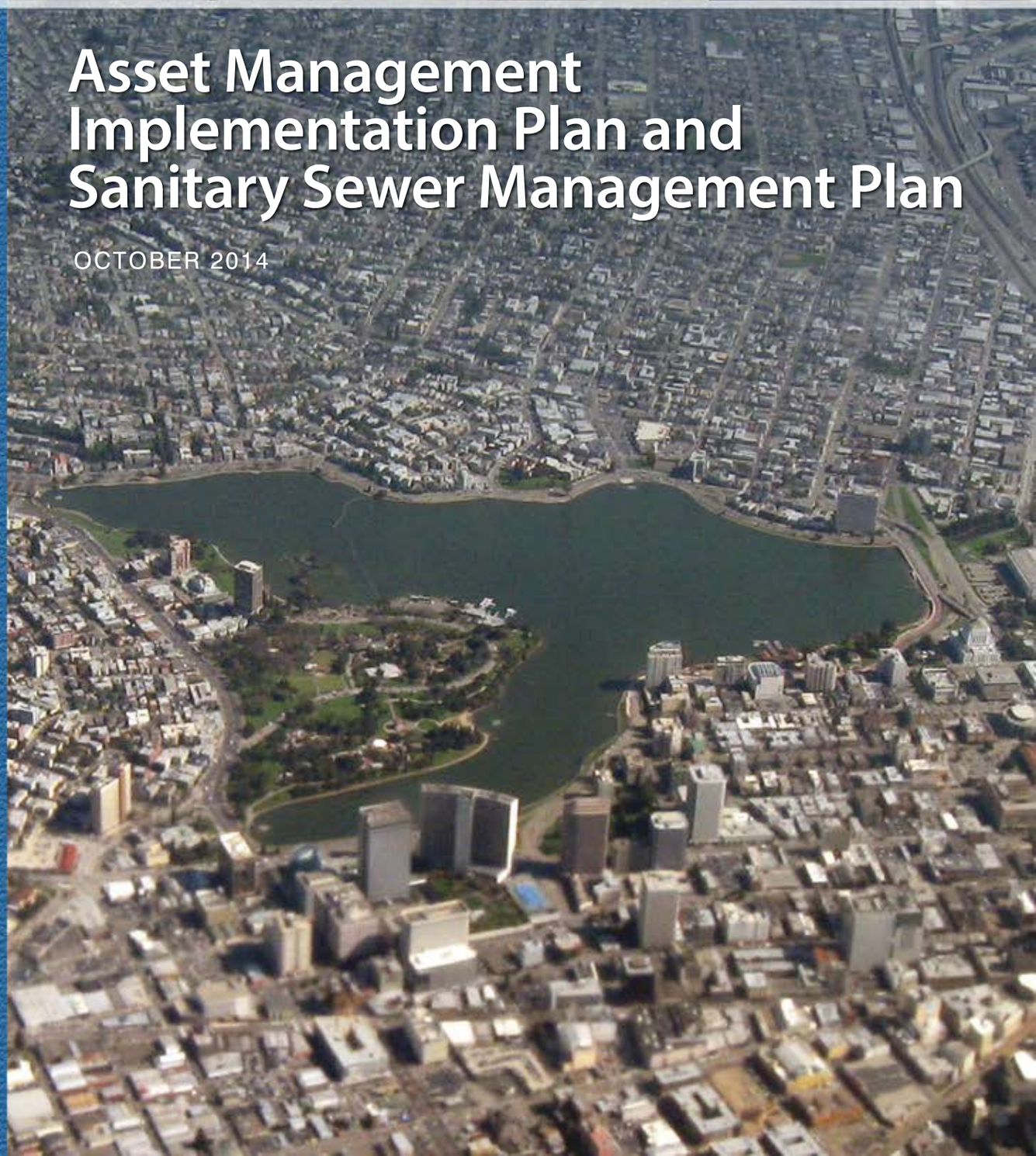
CITY OF OAKLAND

Asset Management Implementation Plan and Sanitary Sewer Management Plan

OCTOBER 2014



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ASSET MANAGEMENT IMPLEMENTATION PLAN AND SEWER SYSTEM MANAGEMENT PLAN

October 2014

October 27,2014

Prepared By

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CITY OF OAKLAND

ASSET MANAGEMENT IMPLEMENTATION
AND SANITARY SEWER MANAGEMENT PLAN

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ASSET MANAGEMENT IMPLEMENTATION PLAN (AMIP)/ SANITARY SEWER MANAGEMENT PLAN (SSMP)

This Asset Management Implementation and Sanitary Sewer Management Plan (AMIP/SSMP) has been developed to meet both the requirements of the Environmental Protection Agency's (EPA's) Consent Decree (Case 3:09-cv-00186-RS) entered on September 22, 2014, and the State Water Resources Control Board's Sewer System Management Plan (SSMP) and Monitoring and Reporting Program (MRP) requirements in Order No. 2006-0003-DWQ (Appendix B). It replaces the plans approved by EPA on December 28, 2012.

- Introduction. The City of Oakland (City) owns and operates a sanitary sewage collection system that serves approximately 400,000 people within the City. The collection system includes approximately 929 miles of gravity main, less than one mile of force main, and seven sewage pump/lift stations. The City's collected wastewater is conveyed to the East Bay Municipal Utility District's (EBMUD's) wastewater interceptor system, which transports it to EBMUD's main wastewater treatment plant for treatment. The treated effluent is ultimately discharged to San Francisco Bay.
- Condition Assessment.
  - Sewer Inspection. The City uses Closed Circuit Television (CCTV) for most routine sewer inspections. In addition, cleaning crews call for CCTV inspection when responding to a Sanitary Sewer Overflow (SSO) or when they encounter blockages or structural damage in sewer mains. CCTV is performed by in-house City crews using City-owned equipment. Following completion of a CCTV inspection, each pipe segment is rated using the National Association of Sewer Service Companies Quick Rating System. The Consent Decree (CD) requires the City to assess the condition of at least 728,640 feet (138 miles) of sewer mains by June 30, 2015, and 485,760 feet (92 miles) per fiscal year thereafter, on a cumulative basis.
  - Sewer Maintenance Holes. Maintenance Holes at either end of a sewer segment are inspected at the time the segment is inspected.
  - Pump Station and Force Main Inspection. The City visually inspects each of its seven pump/lift stations weekly. The City owns less than one mile of force mains. Inspection of force mains will occur as part of pump station rehabilitation.
  - Private Sewer Lateral (PSL) Inspection and Repair. Property owners are required to inspect and, if necessary, rehabilitate PSL's upon sale of property or remodeling in excess of $100,000. The City's building permit process requires EBMUD to issue a Certificate of Compliance confirming that PSL's meet standards before a building permit is finalized.

  - Inflow Identification. A study of Oakland's sewer system identified areas where rain water, which is supposed to be captured through a storm water system, finds its way into the sanitary sewer system. The City notifies property owners of any code violations.
  - Capacity Monitoring. The City is monitoring water levels at twelve locations where capacity problems may exist and will take corrective action as required.

- **Operations and Maintenance.**
  - Sewer Cleaning. The CD requires the City to clean its sewer collection system by June 30, 2018. The City is ahead of schedule in complying with this requirement.
  - "Hot Spots" Cleaning. Any sewer pipe that experiences more than one SSO in a three year period is considered a "Hot Spot" and shall be cleaned at least annually until there are no recurring SSO's within three years.
  - Root Control Program. Fifty miles of sewers with heavy root growth will be treated with root growth retardant annually
  - Fats, Oil and Grease (FOG) Control. The City will continue to work with EBMUD to educate the public to keep grease and cooking oil out of kitchen drains.
  - SSO Emergency Response. City crews respond to reports of SSO's with a goal of initiating response no later than 60 minutes after receipt of the report by the OPW Call Center. Every attempt is made to keep SSO's from reaching receiving waters of the state. SSO's are reported to regulatory agencies as required. The City's SSO Emergency Response Plan was approved by EPA on November 30, 2010.
  - Data Management. The City uses Cityworks Computerized Maintenance Management System (Cityworks CMMS), a computerized maintenance management system, to track work on all Public Works assets. Cityworks CMMS is linked to the City's Geographic Information System. The City's Maintenance Management System Plan was approved by EPA on December 6, 2010.

- Capital Improvements.
  - Standards for Installation, Rehabilitation, and Repair. The City uses the statewide Standard Specifications for Public Works Construction ("Green Book") for installation, rehabilitation, and repair of sewers. As part of updating the "Green Book", the City will work with other East Bay entities to develop Regional Standards for sewer rehabilitation.
  - Sewer Main Rehabilitation. The CD requires the City to rehabilitate 12 miles of sewers per year on a cumulative basis from specified sub-basins. An additional mile of sewers must be rehabilitated from anywhere in the City. Lower PSL's (in the street area) are inspected and, if necessary, rehabilitated at the same time as the sewer mains.

  - Minor Repairs and Improvements. Repairs within the City's in-house capabilities are placed on the Sewer Maintenance Repair List and are normally completed within one year of identification.
  - Major Repairs and Emergencies. The Bureau of Engineering and Construction (BEC) maintains an annual sewer on-call construction contract to provide quick response to emergencies and other urgent repair requests.
  - Acute Defects. Acute Defects are defined as a defect in a sewer pipe in need of urgent response to address an imminent risk of an SSO. The City will complete repairs to acute defects within one year of identification.
  - Pump Station and Force Main Improvements. The City's Pump Station Reliability Plan, approved by EPA on March 4, 2011, requires that rehabilitation of the City's pump stations be completed by 2022. Work is proceeding ahead of schedule.

- Program Monitoring. Beginning September 30, 2015, and by September 30th of each year thereafter, the City of Oakland will submit Annual Reports to the EPA summarizing implementation of this AMIP/SSMP.
- AMIP/SSMP Review and Modification. Compliance with the AMIP/SSMP will be reported annually as required by the Consent Decree. Modification, where necessary, will be requested as specified in the CD.
- Communication Plan. The Consent Decree and the September 2014 Annual Report have been placed on the City's web site. This AMIP/SSMP will be added to the City's web site once it is approved by EPA. The Annual Report will be presented to the City Council's Public Works Committee as part of discussion about the condition of the City's infrastructure.

Chapter 1
INTRODUCTION

1.1 COLLECTION SYSTEM OVERVIEW

The City of Oakland (City) owns and operates a collection system that serves approximately 400,000 people within the City (Figure 1.1). The collection system includes approximately 929 miles of gravity main, less than one mile of force main, and seven sewage pump stations. There are approximately 102,000 private lateral sewer connections to the collection system.

The City's service area includes the Port of Oakland (Port), which owns and maintains approximately 39 miles of gravity sewers, laterals, and force mains. The Port's wastewater collection system is divided into three main sub-systems: Aviation, Maritime, and Commercial. The Aviation sewer collection system services the Oakland International Airport and associated facilities and discharges to East Bay Municipal Utility District (EBMUD) interceptor system. The Maritime sewer collection system serves the seaport and tenants at the former Oakland Army Base, and the Commercial collection system covers Jack London Square and areas southeast of Jack London Square along Embarcadero. These systems discharge to the City's collection system.

Oakland does not own or operate wastewater treatment facilities. The City's collected wastewater is conveyed to EBMUD's wastewater interceptor system, which transports it to EBMUD's main wastewater treatment plant for treatment. The treated effluent is ultimately discharged to San Francisco Bay.

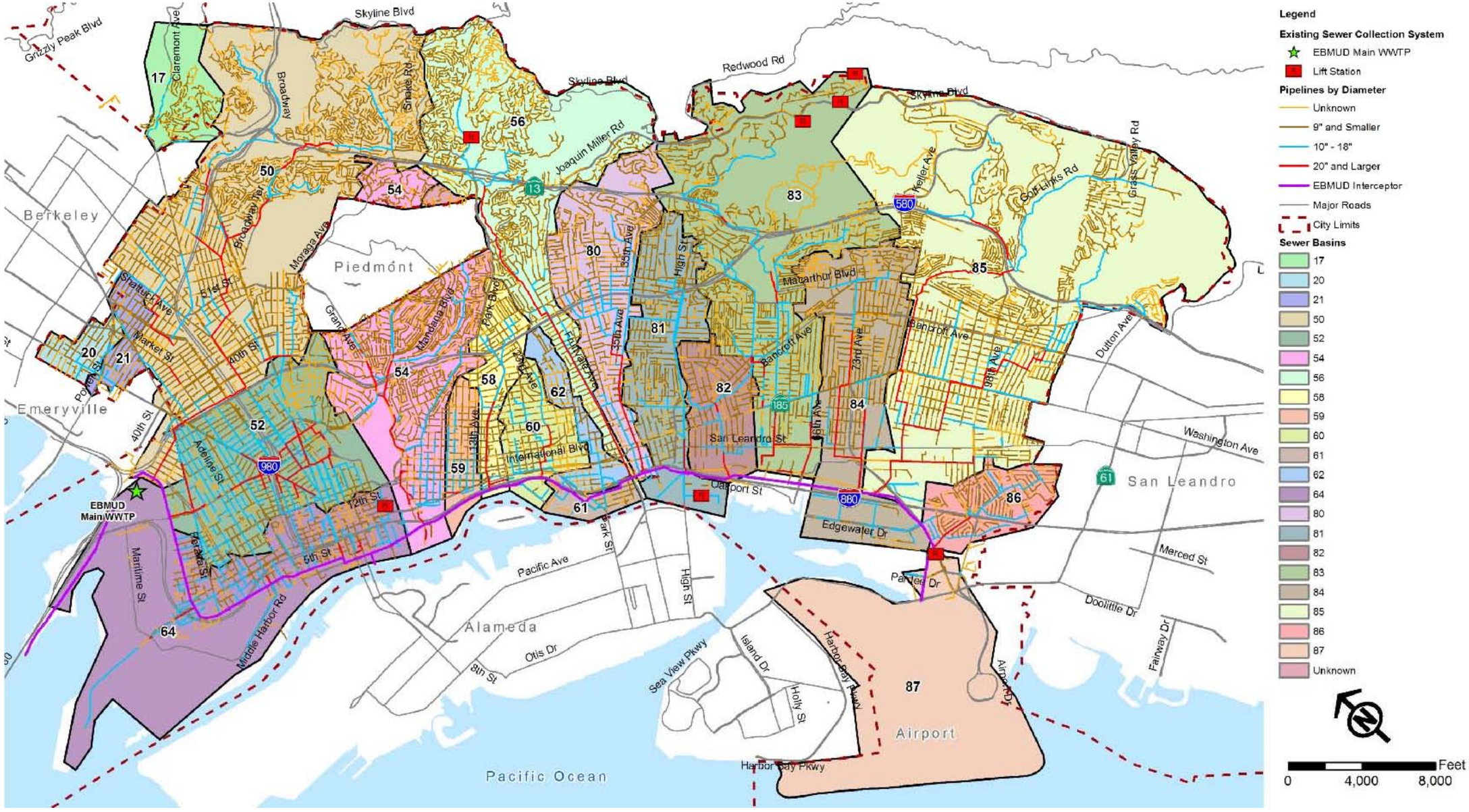
1.2 PURPOSE

Oakland's original Asset Management Implementation and Sanitary Sewer Management Plan (AMIP/SSMP) was developed to meet both the requirements of the Environmental Protection Agency's (EPA's) Stipulated Order Docket No. CWA 309(a)-10-009 filed on March 15, 2011 and the State Water Resources Control Board's SSMP and Monitoring and Reporting Program (MRP) requirements in Order No. 2006-0003-DWQ (Appendix B). That AMIP was conditionally approved by EPA on December 28, 2012.

This AMIP/SSMP has been prepared as required by Paragraph 81 of Consent Decree Case 3:09-cv-05684-RS with an Effective Date of September 22, 2014, which states:

"The City shall revise its AMIP as necessary, so that it is consistent with the requirements of this Section, and to ensure that Repair and Rehabilitation projects continue to be adequately identified and planned for..."

Once approved, it will serve as the basis for maintaining and reporting on the maintenance of Oakland's sewer collection system.



SEWER COLLECTION SYSTEM AND SEWER BASINS

FIGURE 1.1

CITY OF OAKLAND
ASSET MANAGEMENT IMPLEMENTATION PLAN & SANITARY SEWER MANAGEMENT PLAN

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pw://Carollo/Documents/Client/CA/Oakland/8574A00/Deliverables/AMIP/Figure 1.1

1.3 GOALS

The goal of the AMIP/SSMP is to document, build upon, and strengthen the City's ongoing sewer management program so that the City continues to:

- Professionally manage, operate, and maintain all parts of the collection system;
- Comply with requirements of Consent Decree, Case 3:09-cv-95684-RS;
- Minimize the frequency and impact of Sanitary Sewer Overflows (SSOs);
- Reduce infiltration and inflow (I/I); and
- Comply with all applicable regulations including National Pollutant Discharge Elimination System (NPDES) permits and the California General Waste Discharge Requirements for Sanitary Sewer Systems (GWDR).

1.3.1 Performance Measures

The follow performance measures shall be used to measure progress toward goals listed above:

- Minimize the frequency and impact of SSOs by:
  - Cleaning all sewer mains by June 30, 2018;
  - Treating 50 miles of sewers per year to control root growth;
  - Cleaning "hot spots" annually or more frequently if required;
  - Repairing Acute Defects in the sewer collection system within 12 months of identification;
  - Monitoring water levels at 12 locations for capacity assurance; and
  - Completing improvements to pump stations by October 15, 2022.
- Reduce I/I by:
  - Rehabilitating 63,360 linear feet (12 miles) of sewer mains per year in specified sub-basins;
  - Rehabilitating an additional 5280 linear feet (one mile) of sewer mains per year anywhere in the City;
  - Inspecting and documenting condition assessment of sewer mains at an annual rate of no less than 10 percent per year;
  - Working with EBMUD to reduce I/I in Private Sewer Laterals;
  - Inspecting and repairing or rehabilitating, as necessary, all sewer laterals owned by City in specified sub-basins;
  - Taking steps to eliminate high priority sources of inflow and rapid infiltration identified through EBMUD's Regional Technical Support Plan; and
  - Performing other work required by the Consent Decree.

1.4 ORGANIZATION

The City is governed by an elected Mayor and an elected City Council. The City Council consists of seven members elected from Council Districts and one member elected from the City at-large. A City Administrator (CAO) manages the day-to-day operations of the City.

The Director of Oakland Public Works (OPW) reports to the CAO and is responsible for managing the City's infrastructure, including the collection system. Figure 1.2 shows the hierarchy of responsibility for the City's collection system.

1.5 RESPONSIBILITIES

The Manager of the Engineering and Right-of-Way Management Division is the designated Asset Manager and the Engineer for the collection system. The Operations Manager of the Sewer Maintenance Division is responsible for the operation and maintenance (O&M) of the collection system. These two divisions meet monthly to coordinate activities and address any issues that arise. Contact information for key City personnel involved in the AMIP/SSMP is shown in Figure 1.3.

1.6 LEGAL AUTHORITY

Chapter 13 of the City of Oakland's Municipal Code (OMC) provides the City with the legal authority to:

- Collect sewer service charges to pay for operation and maintenance of the sewer collection system;
- Install, test, and inspect connections to the sewer system;
- Control I/I; and
- Enforce City standards and prohibitions.

The entire OMC is available on the Internet at http://bpc.iserver.net/codes/oakland/. Copies of Sections 13.04 and 13.08 are included as Appendix D. The following section list is provided for easy reference to pertinent sections of the OMC referenced in this report.

13.04 Sewer Service System generally.

13.04.020 Imposition of sewer service charge.

13.08.040 Building sewers and building sewer connections--Permit required, to whom issued, exceptions.

13.08.100 Emergency abatement, dangerous condition.

13.08.120 Responsibility of property owner.

13.08.130 Use of public sanitary sewers.

13.08.140 Prohibited use of public sanitary sewers and any private sanitary sewer or building sewer discharging, directly or indirectly, into said public sanitary sewers.

13.08.150 Prohibited uses generally--Wastewater.

13.08.160 Additional prohibited uses--Waters and wastes.

13.08.170 Additional prohibited uses--Excessive volume.

13.08.180 Additional prohibited uses--Radioactive wastes.

13.08.190 Special agreements.

13.08.200 The right to limit discharge.

13.08.210 Sampling structures.

13.08.220 Right of entry--Suspected dangerous and insanitary condition.

13.08.230 Right of entry--Inflow/infiltration correction program.

13.08.240 Dangerous and insanitary sewer conditions--Order to abate--Sewers not subject to the inflow/infiltration correction program.

13.08.250 Dangerous and insanitary sewer conditions--Order to abate--Sewers subject to inflow/infiltration correction program.

13.08.260 Dangerous and insanitary sewer condition--Notice of hearing, hearing, and appeal.

13.08.340 Connection to public sanitary sewer required.

13.08.350 Repair of lower lateral required--Right of the city to construct private laterals at city's expense--Inflow/infiltration correction program only.

13.08.360 Two-way cleanout required--Point of discharge in public right-of-way.

13.08.370 Two-way required--Point of discharge in easement.

13.08.380 Two-way cleanout test-wye not required.

13.08.390 Two-way cleanout required--Reduction in size of building sewer.

13.08.400 Two-way cleanout required--Replacement of existing building sewers or portion(s) thereof.

13.08.410 Two-way cleanout required--Rehabilitation of existing building sewers or portion(s) thereof.

13.08.420 Connections to public or common private sewers to be made in presence of Director of Public Works.

13.08.430 Manholes required.

13.08.440 Common private sanitary sewer.

13.08.450 Each building to have its own sanitary sewer--Exception.

13.08.460 Temporary building sewer connection--Revocation.

13.08.480 Damaging existing building sewer--Authority of Director of Public Works.

13.08.490 Abandonment of existing building sewers and sewage disposal facilities--Exception.

13.08.500 Inspection and testing--Building sewer permits.

13.08.510 Inspection and testing--Inflow/ infiltration correction program--Building sewer laterals and common private sewers.

13.08.520 Requirement for standard cleanout adjacent to building--Inflow/infiltration correction program.

13.08.530 Standards of quality of materials and methods of construction.

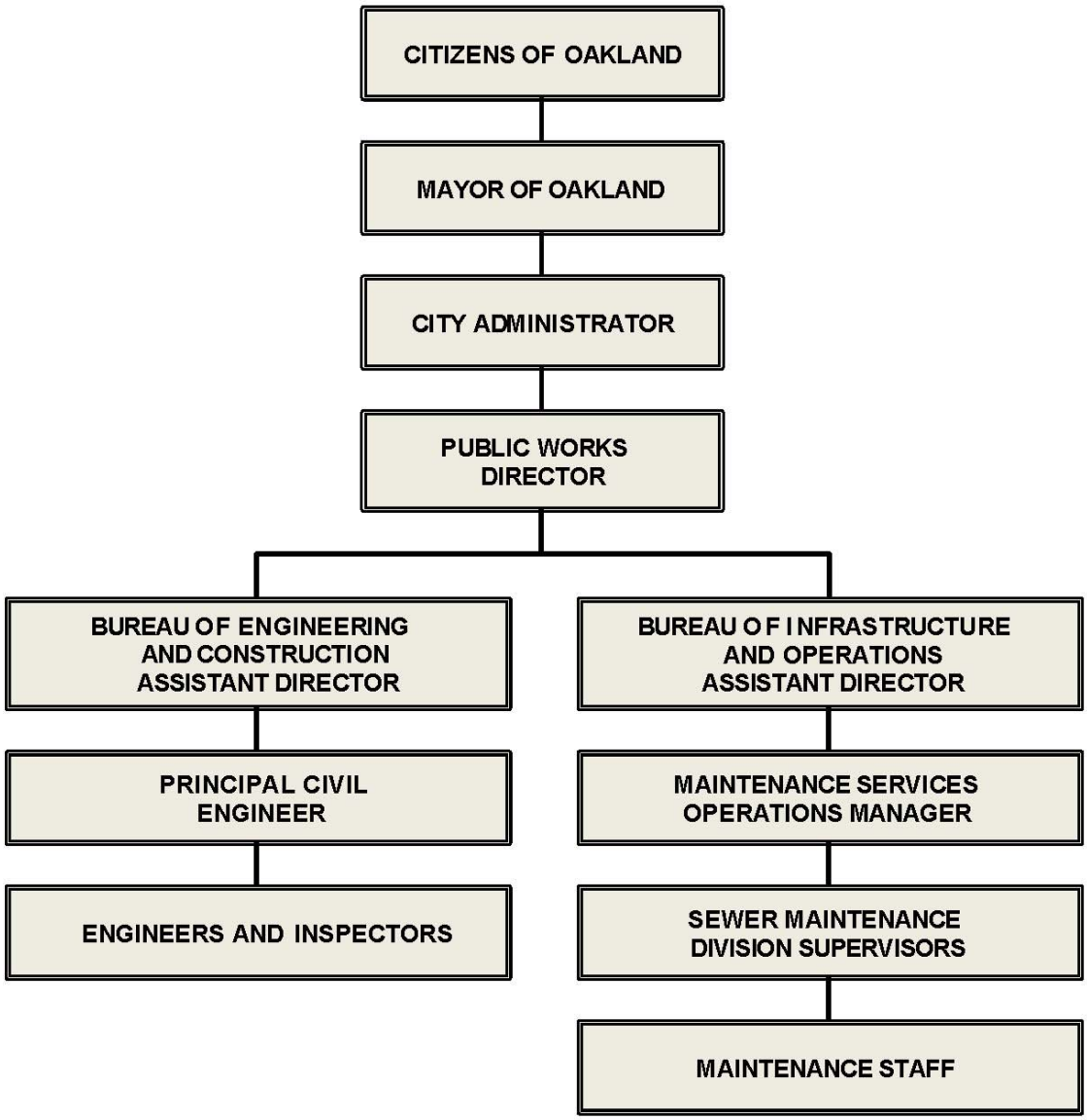
13.08.540 Emergency work by city--Notice--Liability for cost of work.

13.08.550 Pressurized building sewer or common pressurized common sanitary sewer.

13.08.560 Rehabilitation of damaged or defective building sewer by sliplining--Exceptions.

13.08.570 Rehabilitation of damaged or defective building sewer by sliplining--Standards and quality of materials and method of construction--Exceptions.

13.08.580 Violations--A.



OAKLAND PUBLIC WORKS ORGANIZATIONAL CHART

FIGURE 1.2

Contact Information		
Oakland Public Works – (510) 615-5566		
Name / Title	Address	Phone / E-mail
Brooke A. Levin Public Works Agency Director	250 Frank Ogawa Plaza Suite 4314 Oakland, CA 94612	(510) 238-4470 blevin@oakland.com
Jason Mitchell Assistant Director Bureau of Infrastructure and Operations	Bureau of Infrastructure and Operations 7101 Edgewater – Building 4 Oakland, CA 94621	(510) 615-5856 JWMitchell@oaklandnet.com
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Loren Little Public Supervisor II Bureau of Infrastructure and Operations	Bureau of Infrastructure and Operations 7101 Edgewater – Building 4 Oakland, CA 94621	(510) 615-5570 llittle@oaklandnet.com
Kenneth Patton Supervisor II Bureau of Infrastructure and Operations	Bureau of Infrastructure and Operations 7101 Edgewater – Building 4 Oakland, CA 94621	(510) 615-5984 KPatton@oaklandnet.com
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CITY CONTACT INFORMATION

FIGURE 1.3

CITY OF OAKLAND

ASSET MANAGEMENT IMPLEMENTATION PLAN & SANITARY SEWER MANAGEMENT PLAN

CONDITION ASSESSMENT

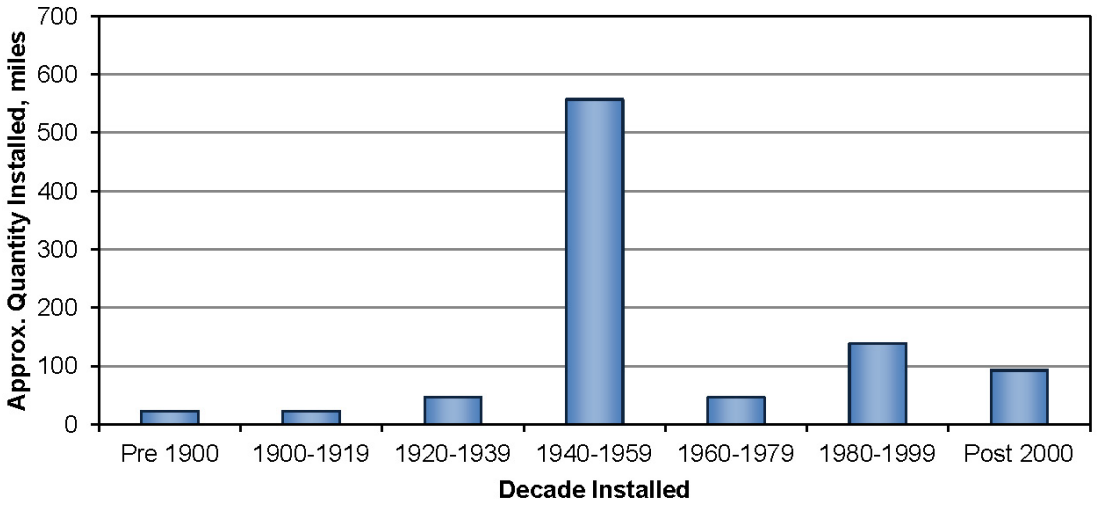
This chapter describes the status of the City of Oakland's (City) sanitary sewage collection system assets and provides information on how the City assesses the condition of those assets.

2.1 INVENTORY – USE OF A GEOGRAPHIC INFORMATION SYSTEM

2.1.1 Inventory

Oakland's sanitary sewer collection system serves approximately 400,000 people and includes approximately 929 miles of gravity sanitary sewer mains ranging in size from 6 to 81 inches in diameter. The sewer system connects to approximately 92,900 residential units, 8,600 commercial units, 600 industrial units, and 900 public authorities. Additionally, all sanitary sewer flows from the City of Piedmont are collected and transported through Oakland's collection system. Two basins flow from Oakland into the City of Emeryville's sewers and one flows into the City of Berkeley's sewers.

Figure 2.1 shows the breakdown of the sewer collection system by year of installation. The sizes and distribution of the active sewers within Oakland are described in Table 2.1.



CITY OF OAKLAND SANITARY SEWER INSTALLATIONS BY YEAR
FIGURE 2.1
CITY OF OAKLAND
ASSET IMPLEMENTATION MANAGEMENT PLAN & SANITARY SEWER MANAGEMENT PLAN

Table 2.1 Size and Distribution of Active Sewer Main Pipes, City of Oakland			
Pipe Diameter (in)	**Length (ft)**	**Length (mi)**	**Percentage of System (by length) (%)**
under 8	328,831	62.28	6.70
8[(1)]	3,730,065	706.45	76.01
9	457	0.09	0.01
10	266,996	50.57	5.44
12	183,640	34.78	3.74
14	30,484	5.77	0.62
15	54,735	10.37	1.12
16	31,867	6.04	0.65
18	86,783	16.44	1.77
20	3,051	0.58	0.06
21	66,263	2.55	1.35
22	852	0.16	0.02
24	48,627	9.21	0.99
27	6,198	1.17	0.13
30	14,310	2.71	0.29
33	7,749	1.47	0.16
35	658	0.12	0.01
36	6,443	3.11	0.34
39	3,310	0.63	0.07
42	4,801	0.91	0.10
45	1,437	0.27	0.03
48	6,101	1.16	0.12
51	276	0.05	0.01
57	2,275	0.43	0.05
58	347	0.07	0.01
60	1,504	0.28	0.03
63	1,005	0.19	0.02
66	5,437	1.03	0.11
larger than 66	2,990	0.57	0.06
Totals	**4,907,490**	**929**	**100%**

Notes:
(1) Includes 132 miles of pipe with unknown diameter.

The City also operates seven pump stations as described in Table 2.2.

Table 2.2 Pump Station Type and Capacity, City of Oakland

Pump Station		Capacity (gpm)
Denton Place	Submersible	9
Fallon Street	Dry Pit	1,000
Hegenberger Road	Dry Pit	1,780
Parkridge Drive	Dry Pit	4.5
Tidewater Avenue	Submersible	1,230
Shepherd Canyon Road	Submersible	45
Skyline Blvd	Submersible	9

2.1.2 Collection System Map and Geographic Information System

The City's collection system is mapped in detail and integrated into a Geographic Information System (GIS). Drawings are available in both hard copy and electronic format and are made available to the City's Engineering and Maintenance staffs and to other public and utility agencies as needed. The maps are continually updated and are the basis for the development of construction plans for the City's capital improvement projects. Maps are used by Maintenance staffs to plan cleaning, inspection and maintenance work in the field.

2.2 SEWER MAIN AND MAINTENANCE HOLE INSPECTION

Paragraph 83.c. of the Consent Decree states: *"For the duration of this Consent Decree, the City of Oakland shall inspect, using CCTV or other equally effective methods, and document condition assessment of, its Collection System at an annual rate of no less than 10 percent of its Sewer Mains per Fiscal Year (at least 485,760 feet of Sewer Main per Fiscal Year) on a cumulative basis (e.g. 242,880 feet by June 30, 2014; 728,640 feet by June 30, 2015; 1,214,400 feet by June 30, 2016; etc.). When the City inspects a Sewer Main, it shall also inspect all Maintenance Holes associated with that Sewer Main."*

2.2.1 Sewer Main Inspection.

The City uses Closed Circuit Television (CCTV) for most routine sewer main inspections. In addition, cleaning crews call for CCTV inspection when responding to a Sanitary Sewer Overflow (SSO) or when they encounter blockages or structural damage in sewer mains. CCTV is performed by in-house crews using City-owned equipment. Additional support from contractors is sometimes used in areas where specialized services are required or when short-term demand exceeds available City resources.

Other visual means are used when sewer mains are too small or otherwise unable to accommodate CCTV cameras. In the future, the City may choose to use ultrasonic inspection for large sewer mains to determine the depth of sediment to determine if additional cleaning is required.

Sewer Mains are inspected:

- On a proactive sub-basin by sub-basin basis to assess the condition of sewer mains and to gather/confirm data for the City's GIS;
- Before street paving and before and after sewer main rehabilitation;
- After a SSO to determine the cause of the SSO and identify corrective action; and
- Based on a random sample of sewers that have been cleaned or treated with root foam as a quality-control measure.

Paragraph 83.c. of the Consent Decree requires the City to inspect and assess the condition of at least 728,640 feet (138 miles) of sewer mains by June 30, 2015, and 485,760 feet (92 miles) per fiscal year thereafter, on a cumulative basis. As explained in its recently submitted Annual Report, the City is ahead of schedule in meeting this requirement.

2.2.2 Sewer Main Condition Assessment

Following completion of a CCTV inspection, each pipeline segment (the length of pipe between two manholes) is evaluated using the National Association of Sewer Service Companies' (NASSCO) Pipeline Assessment Certification Program (PACP) Quick Rating system. PACP uses defect severity grades (both structural and O&M) for observed conditions in a pipe segment. PACP defect grades are described in Table 2.3.

Table 2.3 NASSCO PACP Defect Grades

Defect Grade	Defect Title	Description
5	Immediate Action	Defects requiring immediate action.
4	Poor	Severe defects that will become Grade 5 defects within the foreseeable future.
3	Fair	Moderate defects that will continue to deteriorate.
2	Good	Defects that have not begun to deteriorate.
1	Excellent	Minor defects.

The PACP Quick Rating system expresses the number of occurrences of the two highest severity grades in a pipe segment. A four character score is used to characterize a pipe segment's structural, O&M, and overall condition as follows:

- The first character is the highest severity grade occurring along the pipe segment.

- The second character is the total number of occurrences of the highest severity grade. If the total number exceeds 9, then alphabetic characters are used as follows: 10 to 14, A; 15 to 19, B; 20 to 24, C; etc.
- The third character is the next-highest severity grade occurring along the segment.
- The fourth character is the total number of the second-highest severity grade occurrences, derived as in item 2 above.

As an example, a pipeline segment with 17 grade 4 defects and 7 grade 2 defects would be given/assigned a PACP Quick Rating of 4B27. If a pipe segment has only one defect grade, the first two characters specify the grade and quantity of defects, and the last two characters are 00. A pipe segment with no defects would have a PACP Quick Rating of 0000.

The condition assessment is performed by a technician certified in accordance with PACP standards. Post-cleaning inspections to assess the quality of sewer cleaning work do not need to be performed by a PACP-certified technician, although the City may choose to do so on a case-by-case basis.

2.2.3 Maintenance Hole Inspection

Maintenance holes at either end of a sewer segment are inspected at the time the segment is inspected. An electronic Maintenance Hole Inspection Form shown in Figure 2.2 is used to document the inspection. Results of the inspection are entered into Cityworks CMMS.

2.2.4 Pump Station and Force Main Inspection

The City's collection system includes seven pump and lift stations ranging in capacity from less than 5 gallons per minute (gpm) to nearly 2,000 gpm, as shown in Table 2.2.

In 2007, the City developed a Pump Station Master Plan that evaluated the collection system pump stations and identified needed improvements for each station. The following standards were used as comparison benchmarks in the evaluation of the collection system pump stations:

- State Water Resources Control Board (SWRCB) General Wastewater Discharge Requirements (WDRs)
- Uniform Building Code (UBC)
- California Occupational Safety and Health Administration (CalOSHA)
- National Fire Protection Act (NEPA) 820

Inspection Id	
Entity Type	
Entity Uid (FacilityID)	
Location	
Inspection Date	
Inspected By	
Type of Inspection	
Actual Finish	
Date Closed	
Closed By	
Cancelled	
Cancelled By	
Cancel Reason	
Cancel Date	
Status	
Initiated By	

Observations / Results

Question Id	Question	Answer
78676	Surface at Maintenance Hole	
78677	Surface at Maintenance Hole - Other - Explain	
78678	Cover Type	
78679	Frame Below Grade (Inches)	
78680	Frame Misaligned or Not Sealed	
78681	Steps	
78682	Construction Type	
78683	Construction Type - Other	
78684	Maintenance Hole Structural Condition	
78685	Evidence of Infiltration	
78686	Degree of Above Evidence	
78687	Surcharge Evidence High Water Height (Feet) (Above Invert)	
78688	Maintenance Hole Diameter (Inches) - Frame	
78689	Maintenance Hole Diameter (Inches) - Barrel	
78690	Maintenance Hole Depth (Tenths of Feet)	
78691	Channel Depth (Inches)	
78692	Additional Comments	

Work Order

Work Order ID #	
Work Order Category	
Work Order Description	
Work Order Priority	
Supervisor	
Actual Start Date	
Actual Finish Date	
Associated Project Name	
Work Order Address	
Work Order Comments	
Work Order Status	
Work Completed By Employee Name	
Total Entities on Work Order	

Asset Info From GIS

ELECTRONIC MAINTENANCE HOLE INSPECTION FORM

FIGURE 2.2

- National Electric Code (NEC)
- National Electrical Manufactures Association (NEMA), Standard 250/Underwriters Laboratories (UL)

The Pump Station Master Plan included detailed assessments, evaluations, and recommended improvements for each pump station. It also provided preliminary cost estimates for the recommended improvements. The recommended improvements were then prioritized based upon the level of risk to life safety, public health, and regulatory requirements.

The City visually inspects each pump station weekly. Inspection results are entered into Cityworks CMMS.

The City owns and operates less then one mile of force main in the collection system. Inspection of force main piping is planned to occur during the repair and improvement of each associated pump station.

2.2.5 Computerized Maintenance Management System

The City uses Cityworks CMMS, a Computerized Maintenance Management System, to plan and schedule sewer inspection activities and to record completed work. When a sewer line segment has been inspected, a work order is created in Cityworks CMMS with information about which assets were inspected. The City uses GraniteXP for CCTV inspection and keeps an up-to-date database that is readily accessible.

2.3 PUBLIC ENTITY SEWER LATERAL INSPECTION AND NOTIFICATION

Paragraph 84.e. of the Consent Decree states: *"In the event the City identifies a property owned by a Public Entity or the State or federal government that has an identified defective Sewer Lateral, the City shall report the address of the property and the name of the owner to Plaintiffs as part of its Annual Report, and provide a description of the PSL defect."*

To date, the City has not identified any defective sewer laterals owned by public entities. The City will comply with this requirement and, when identified, include defective sewer laterals owned by public entities in its Annual Report.

2.4 PRIVATE SEWER LATERAL INSPECTION AND REPAIR

2.4.1 Private Sewer Lateral Inspection Required on Sale or Remodeling of Private Property.

Paragraph 84.b. of the Consent Decree states: *"…the City of Oakland shall include as part of its application process for building permits and approvals for construction or remodeling projects in excess of $100,000 a requirement that the applicant submit a valid Compliance Certificate." (*from East Bay Municipal Utility District [EBMUD])

On July 21, 2011, the Oakland City Council passed ordinance number 13080 C.M.S. stating that it is the responsibility of the property owner to perform all required maintenance, repairs and replacement of the upper and lower building sewer lateral in accordance with EBMUD's and the City's ordinance requirements. The new ordinance is provided as Appendix E. A statement of roles and responsibilities between the City and EBMUD for the implementation of East Bay Regional Private Sewer Lateral Program is provided as Appendix F.

A property owner is required to obtain a "Compliance Certificate" for the sewer lateral prior to transferring the property title, obtaining any permit for the construction or significant modification of the property, or obtaining an approval for a change in size of the water service meter. Compliance Certificates are issued by EBMUD and are valid for 20 years from the date of issuance for complete replacement of the private sewer lateral, and 7 years for compliance resulting from a repair or testing without a repair. A Compliance Certificate confirms that the sewer lateral serving the subject property is in good condition and is not a source of infiltration or inflow of rainwater.

The property owner is responsible for all work required for the certification of the private sewer lateral (PSL) in accordance with EBMUD's procedures. All repair and replacement work must conform to the City's standards and permit requirements.

In the near future, the City will amend its existing ordinance to make these requirements apply to privately owned upper sewer laterals only. Lower laterals will be rehabilitated as part of the City's sewer main rehabilitation program as described in the Consent Decree.

Paragraph 84.c further states: *"The City…shall document, in spreadsheet format the building permits issued during the Fiscal Year, the certificates of occupancy issued, and whether a Compliance Certificate was submitted prior to issuance of the certificate(s) of occupancy."*

The City has and will continue to report this information as part of its Annual Report.

2.4.2 Repair of Defective Private Sewer Laterals Identified by City Forces

Paragraph 85.a. of the Consent Decree states: *"Within 90 days of identifying a Sewer Lateral as defective the City of Oakland shall notify the owner in writing…"*

Occasionally, sewer maintenance workers responding to reports of SSO's, sewer blockages, or pavement subsidence encounter defects in private sewer laterals.

These defects are reported to Engineering and Right-of-Way Management Division personnel who issue Notices to Abate to private property owners within 90 days and take other enforcement actions in accordance with the Public Works Code and the Consent Decree. Defects identified and enforcement actions are reported as part of the City's Annual Report.

2.4.3 Education and Outreach Program

Paragraph 85.b of the Consent Decree states:

"The City of Oakland shall assist EBMUD in the development, pursuant to Paragraph 32 above, of an education and outreach program encouraging Sewer Lateral owners to inspect and, if necessary Repair or Rehabilitate Sewer Laterals before owners are required to under the Regional or Local Ordinances."

The City will work with EBMUD to implement this program. Details of implementation will be provided in future updates to this Asset Management Implementation Plan (AMIP).

2.5 INFLOW IDENTIFICATION

2.5.1 Completed Smoke Testing

Based on the Environmental Protection Agency's (EPAs) Stipulated Order, during 2012 – 2014 the City smoke tested certain sewer sub-basins with high rates of inflow/infiltration. Results of the smoke testing were analyzed and notices were sent to suspected sources of inflow and infiltration. Results of the smoke testing have been submitted to EPA as part of the City's Annual Report.

2.5.2 EBMUD's Regional Technical Support Program (RTSP)

Paragraph 87 of the Consent Decree states: *"In lieu of further implementation of the inflow identification portions of the IIRP* [Inflow Identification and Reduction Program]*, the City shall cooperate with EBMUD's implementation of the Regional Technical Support Program ."*

As part of the RTSP, "*EBMUD shall give formal notification of the identified sources of Inflow and Rapid Infiltration in a letter to Oakland, and a copy to Plaintiffs, no later than*

September 30th of each Year. EBMUD's formal notification to the City shall include the physical location o f each source, whether the source is in sub-basins 80-111 or 80-011, a description of the source and the defect and an estimate of the expected Inflow and Rapid Infiltration reduction into Oakland's Collection System of the source if eliminated." (Paragraph 28.b.)

The City shall:

- Review the list of sources provided by EBMUD;
- Classify the sources as Linear, Non-Linear or Private sources;
- Designate which of the sources are High Priority; and
- Submit a formal notification to Plaintiffs of the City's determination regarding the above items by December 31st of each year.

High Priority Sources shall be eliminated within 24 months of the December 31st formal notification.

2.6 CAPACITY MONITORING

In response to the EPA's Stipulated Order, the City developed a hydraulic model that allowed a determination of the available capacity in the existing collection system and identified sewer main segments where capacity improvements may be needed in the future. The flow data from both the City and EBMUD's metering programs was used in the development, calibration, and validation of the City's hydraulic computer model. The hydraulic model showed collection system capacity was adequate, although potential capacity deficiencies were identified at eleven locations. None of those locations had experienced capacity related Sanitary Sewer Overflows.

To assure no capacity related SSO's occur at these locations and at a twelfth location identified by EPA, Paragraph 89.a. of the Consent Decree states *"The City of Oakland shall monitor the water level in Maintenance Holes at the following locations:*

i. San Pablo at 60th Street

ii. San Pablo at 62nd Street

iii. Stanford Avenue at Gaskill Street

iv. 27th Street at Vernon Avenue

v. Harrison Street at 27th Avenue

vi. Grand Avenue at Harrison Street

vii. 19th Street at Jackson Street

viii. Park Boulevard at Spruce Street

ix. *18th Avenue at 4th Avenue*

x. *Maybelle Avenue at Masterson Street*

xi. *76th Avenue at Garfield Avenue*

xii. *Trestle Glen at Creed Road."*

The City has installed electronic maintenance hole (MH) covers at these twelve locations to monitor the level of flow at each MH and notify maintenance staff when the water level rises within three feet of the MH rim. Maintenance staff responds to these alarms to prevent SSO's at these locations.

If the water level in any of these MH's rises to within one foot of the rim due to lack of capacity, the City is required to increase capacity of the affected main within 24 months of the incident. This sewer main replacement is further discussed in Section 4.5 of this AMIP.

OPERATIONS AND MAINTENANCE

3.1 SEWER MAINTENANCE

This section incorporates and replaces the Sewer Cleaning and Inspection Work Plan, which was submitted to the Environmental Protection Agency (EPA) in March 2011. The objectives of this sewer cleaning plan are to:

- Reduce Sanitary Sewer Overflows; and
- Comply with the sewer cleaning regulatory requirements in EPA's Consent Decree.

Sewer maintenance crews perform maintenance duties with the following priorities:

- Reports of sanitary sewer overflows;
- "Hot Spot" cleaning;
- Customer service requests;
- Requests for CCTV inspection before street paving; and
- Scheduled preventive maintenance.

3.1.1 Sewer Cleaning Methods

The City of Oakland (City) performed several sewer cleaning and closed circuit television (CCTV) inspection Pilot Projects within the City in different Sub-Basins. Based on the results of this work, the City identified which cleaning methods were most effective.

For gravity sewers up to 15 inches in diameter, the most effective sewer cleaning method is the use of a high-velocity cleaner (hydro-flushing), or a mechanical rodding machine used on a preventive maintenance schedule.

For gravity sewers over 15 inches in diameter, two methods are used to clean these larger-diameter pipe segments. One cleaning method uses a mechanical bucket machine. The second method uses Storm Sewer Nozzles powered by a hydro-flusher. Both cleaning methods are used on a preventive maintenance schedule and can be extremely effective when used properly.

3.1.2 Sewer Cleaning Quality Assurance/Quality Control

Quality assurance/quality control (QA/QC) is an essential element of the City's sewer cleaning program. The effectiveness of the cleaning program in meeting its stated objectives is directly related to the quality of work being performed. For this reason, the City's new sewer cleaning quality control program includes the following:

- Operator Training: The City's sewer system maintenance staff receives training through the California Water Environment Association's (CWEA) Collection System Maintenance Certification Program for future Grade 1 thru 4 Collection System

certification. Key City staff also receives training from the National Association of Sewer Service Companies (NASSCO) Pipeline Assessment and Certification Program (PACP). In addition, periodic classroom and field training covering cleaning methods, proper tool selection, and proper reporting of cleaning findings/observations is provided to maintenance staff on an on-going basis.

- Post-Cleaning CCTV Inspection: For QA/QC the City's Sewer Maintenance Supervisor will select two percent of the cleaned pipes at random and inspect them with CCTV. If any pipes are found to be inadequately cleaned, the City will correct the deficiencies within 30 days and re-inspect the pipe. This process will continue until the line has passed its post-cleaning CCTV inspection. In addition, if deficiencies are found the City will immediately increase its random QA/QC inspection to four percent.

  Note: Since the City is required to inspect the entire collection system within ten years, the City's post-cleaning CCTV inspection QA/QC will effectively approach 100 percent.
- Data Analysis: The City analyzes its computerized maintenance management system (CMMS) data related to the sewer cleaning program on a continuing basis to provide decision makers with the relevant data on the quality and effectiveness of recent sewer cleaning activities.

3.1.3 Staffing Duties

The City of Oakland's Sewer Maintenance Division has six types of work crews, with each crew receiving assignments on a daily basis. The types and number of work crews in the Sewer Maintenance Division are:

- Five hydro-flusher crews;
- Four power-rodding crews;
- Three complaint/hand rodding crews;
- Five closed circuit television (CCTV) inspection crews;
- Two construction crews; and
- One drag machine crew.

Three hydro-flusher crews are assigned to one of three work zones within the city for preventive maintenance activities; the fourth and fifth crews operate citywide to handle complaints. Hydro-flushers (high-velocity cleaners) are the most effective tools for removing grease blockages and debris.

Three power-rodding crews are assigned to one of three work zones within the city for preventive maintenance activities; the fourth crew operates citywide to handle complaints. Mechanical power rodders are the most effective tools for removing root blockages and debris.

Three complaint/hand rodding crews are assigned to one of three work zones within the city. Each complaint crew responds to all complaints received within their zone. These crews also perform Hand Rodding as preventive maintenance on sewer easements. Work on easements is primarily related to root removal since no mechanical devices can be used for this operation.

Three CCTV inspection crews are assigned to one of three work zones within the city for preventive maintenance CCTV inspections; the fourth and fifth CCTV crews assist with engineering and design projects. All CCTV crews televise sewers after sanitary sewer overflows and as part of on-going sewer inspection.

Two construction crews are assigned to the East and West Oakland areas to make spot repairs to compromised sections of the collection system. The construction crews are also responsible for making repairs to existing manhole and lamp hole structures.

One Drag Machine Crew is a citywide crew assigned to clean and remove heavy debris as well as sediment from our larger diameter gravity sewers (15 inch diameter and larger). The Mechanical Drag Machine is used to keep effluent levels low so that the wastewater can flow smoothly through the collection system.

Note: All staff and crews are interchangeable; emergency response crews are on call 24/7.

3.1.4 Work Order System

The City's uses Cityworks CMMS to plan and schedule sewer cleaning activities, as well as to record completed work. When an individual sewer line segment has been cleaned, the data regarding the cleaning activity is recorded in the CMMS. Section 3.5 contains a description of the City's CMMS.

3.1.5 Sewer Cleaning Schedule

Paragraph 92.a. of the Consent decree states: *"The City of Oakland shall complete the cleaning of its entire Collection System program, which began in 2010, by June 30, 2018. By June 30, 2014, the City will have cleaned 1,900,800 feet of Sewer Mains. Beginning July 1, 2014, the City shall clean its remaining Sewer Mains at the rate of 739,200 feet per Fiscal Year on a cumulative basis (i.e., 2,640,000 by June 30, 2015; 3,379,200 by June 30, 2016; etc.)*

As of June 30, 2014, the city had cleaned 2,085,942 feet (395.1 miles) of the estimated 4,907,000 feet (929 miles) in its sewer system which exceeds the Consent Decree requirement. The City is ahead of schedule in its sewer cleaning program and intends to continue complying with this requirement.

Requirements for cleaning beyond July 1, 2018 will be incorporated in this Asset Management Implementation Plan (AMIP) as part of a future biennial update.

3.1.6 Modification of Sewer Cleaning Frequency

Once all City Sewer Mains have been cleaned (June 30, 2018), the City will be required to clean 971,520 feet of Sewer Main per Fiscal Year. However, selection of which Sewer Mains to clean will be at the discretion of the City. As the City implements this sewer cleaning program, modifications to the cleaning frequencies may be necessary. The conditions in any sanitary sewer system are dynamic and are subject to weather cycles, asset deterioration, asset damage, human activity, and other factors. The City's sewer system maintenance crews will record their observations regarding the nature and extent of materials that are removed during the sewer cleaning program using the electronic form in our CMMS presented in Table 3.1. These observations, in addition to information obtained from the sewer inspection program, will be used by the City to optimize the frequency of sewer cleaning. City crews have been trained to use the cleaning observation codes. All recorded observations are added to the City's CMMS database and the GIS system. Determination of which Sewer Mains need to be cleaned more or less often will be determined based on lessons learned during the first cleaning cycle. These changes will be incorporated in subsequent updates to this AMIP.

Table 3.1 Sewer Cleaning Observation Code

Material	Clear	Light	Moderate	Heavy
Debris	Code: **CL** • No observable debris	Code: **DL** • Minor amount of debris • 15 minutes or less to clean • 1 pass	Code: **DM** • Less than 5 gallons of debris per line segment • 15-30 minutes to clean • 2-3 passes	Code: **DH** • More than 5 gallons of debris per line segment • More than 30 minutes to clean • More than 4 passes • Operator concern for future stoppages
Grease	Code: **CL** • No observable grease	Code: **GL** • Minor amount of grease • 15 minutes or less to clean • 1 pass	Code: **GM** • Small "chunks" • No "logs" • 15-30 minutes to clean • 2-3 passes	Code: **GH** • Big "chunks" or "logs" • More than 30 minutes to clean • More than 4 passes • Operator concern for future stoppages
Roots	Code: **CL** • No observable roots	Code: **RL** • Minor amount of roots • 15 minutes or less to clean • 1 pass	Code: **RM** • Thin stringy roots • No "clumps" • 15-30 minutes to clean • 2-3 passes	Code: **RH** • Thick roots • Large "clumps" • More than 30 minutes to clean • More than 4 passes • Operator concern for future stoppages

Table 3.1 Sewer Cleaning Observation Code				
Material	**Clear**	**Light**	**Moderate**	**Heavy**
Other: Pipe Wall Fragments, Soil/Dirt/ Rock	Code: **CL** • No observable materials	Code: **OL** • Specify material (if possible) • Minor amounts of material	Code: **OM** • Specify material • Less than 5 gallons of material per line segment	Code: **OH** • Specify material • More than 5 gallons of material per line segment • Operator concern for future stoppages
Note: This table was adapted from *Best Practices Manual: Hydroflush Cleaning of Small Diameter Sewers*, California Collection System Collaborative Benchmarking Group, February 2001.				

3.1.7 Hot Spot Cleaning

Paragraph 92.d of the Consent Decree states: *"The City of Oakland shall revise its hot spot cleaning program to ensure that Sewer Mains with a history of SSOs or that are at risk for SSOs are included in the program. For inclusion in the program, the City shall consider risk factors such as pipe age, pipe size, materials of construction, pipe slope, known poor condition from CCTV inspection, food service establishments that may contribute to FOG-related SSOs, and excessive root intrusion/grease/debris accumulation observed during cleaning. To the extent that the City does not have this information, it shall collect it during cleaning and CCTV inspection, and record it in its GIS. The City shall also add a location to its hot spot list if more than one SSO occurs within a 3-Year period at that location. Hot spot locations shall be cleaned at least annually, or more frequently based on information from previous cleanings or inspections. If an additional SSO occurs in the 3-Year period following inclusion on the hot spot list, the frequency of cleaning shall be increased. If no SSOs occur in a 3-Year period, the City may remove the location from its hot spot list.*

Any sewer pipe that experiences a sanitary sewer overflow (SSO) is cleaned and televised (CCTV) as described in the City's Overflow Response Plan (Section 3.4).

The City reviewed the risk factors listed above and found none of them to be statistically significant. In anticipation of the Consent Decree, City staff reviewed City records and created a new Hot Spot List containing 58 locations having more than one SSO in a 3-year period. Each of these Hot Spots was cleaned at least once in FY 2013-14.

Table 3.2 contains the Hot Spot List as of July 1, 2014. Figure 3.1 contains a map of Hot Spot locations.

Table 3.2 Hot Spot List

#	Location	Supervisor	Parent Work Order #	Footage	Zone #	Sub Basin #	Asset ID #s	Monthly Cleaning Cycle
1	36TH St & MLK Wy	David Amate	558726	769	1	5002	22607, 22606, 22605	3
2	7295 Saroni Drive	David Amate	558358	103	1	5612	26947	3
3	800 Creed Road	David Amate	558706	147	1	5612	17963, 17962	3
4	6636 Laird Ave	David Amate	558094	160	1	84104	8269	3
5	5200 Broadway	David Amate	558356	250	1	5005	25780	3
6	74 Beechwood Drive	David Amate	558220	161	1	5014	27692	3
7	600 Grand Ave	David Amate	558065	25	1	5409	31918	3
8	1125 Fleet Road	David Amate	557397	140	1	5416	17964	3
9	6929 Chabot Road	David Amate	557385	51	1	5019	30446	3
10	6330 Pinehaven	David Amate	557339	306	1	5021	28577	3
11	1957 Asilomar Drive	David Amate	557337	108	1	5610	24802, 24803, 24804	3
12	100 Gravatt Drive	David Amate	557328	165	1	17	30807	3
13	439 Alcatraz Ave	David Amate	557239	200	1	5009	30251	3
14	6245 Westover Drive	David Amate	556888	71	1	5610	25257	3
15	400 Alcatraz Ave	David Amate	556769	218	1	5009	30252	3
16	Shone & Mountain Blvd	Miguel Guzman	569796	232	3	85502	6843	6
17	33 Hegenberger Court	Miguel Guzman	569721	650	3	86002	749, 750, 751	6
18	11110 Kerrigan Drive	Miguel Guzman	558225	180	3	85232	2668	3
19	7018 Macarthur Blvd	Miguel Guzman	558090	164	3	84104	6566	3

Table 3.2 Hot Spot List

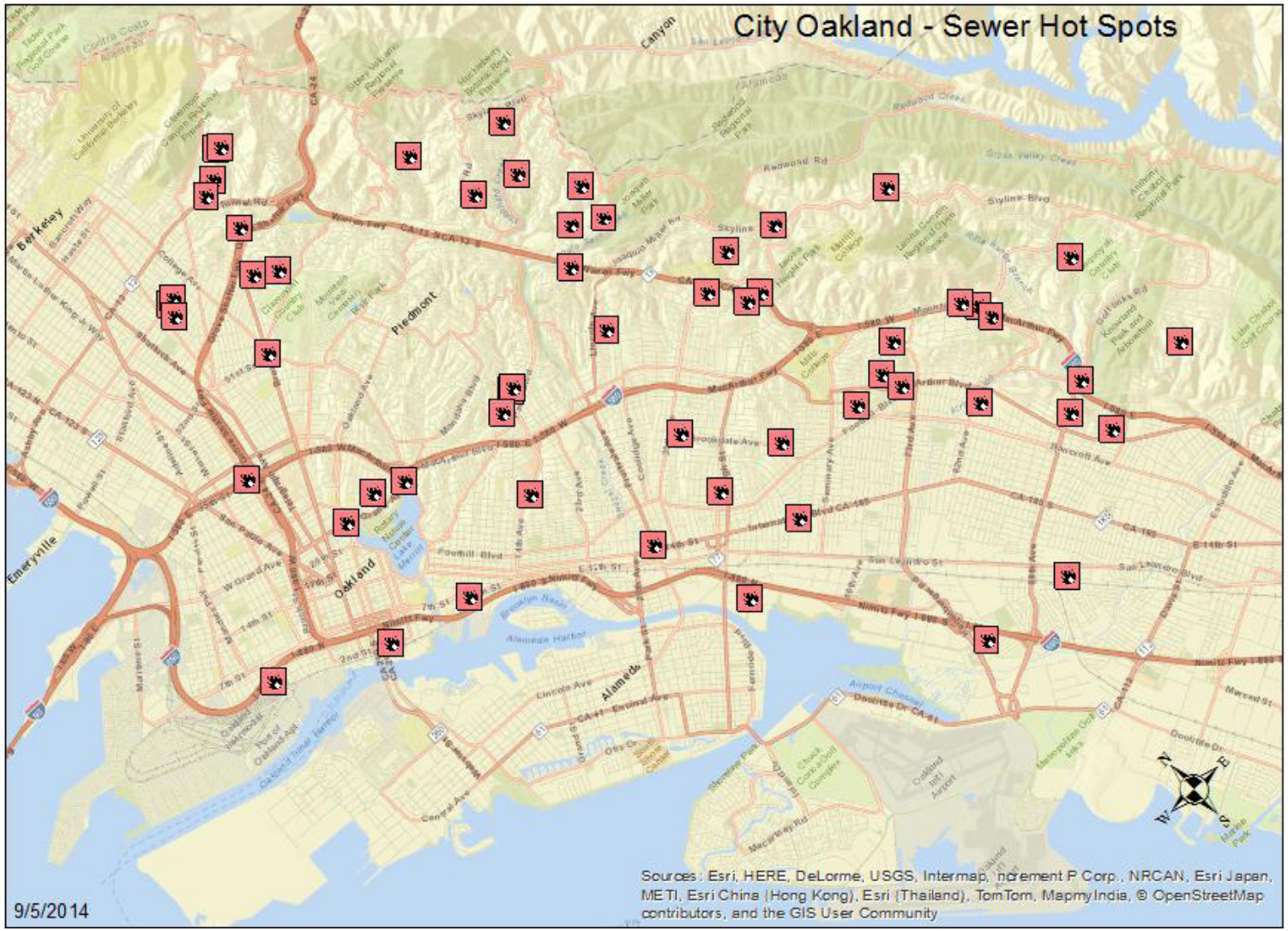
#	Location	Supervisor	Parent Work Order #	Footage	Zone #	Sub Basin #	Asset ID #s	Monthly Cleaning Cycle
20	4550 Sequoyah Road	Miguel Guzman	557402	155	3	85401	5740	3
21	4330 Mountain Blvd	Miguel Guzman	557391	150	3	83502	12162	3
22	8100 Fontaine Street	Miguel Guzman	557352	223	3	85502	6886	3
23	7844 Mountain Blvd	Miguel Guzman	557347	100	3	85502	6837	3
24	3914 Edgemoor Place	Miguel Guzman	557006	123	3	83403	8149	3
25	12980 Brookpark Road	Miguel Guzman	556757	140	3	83512	12496, 12507	3
26	4216 Carrington Street	Tony Jones	594700	1258	2	81011	7508, 9072	12
27	2600 Leimert Blvd	Tony Jones	567114	262	2	5606	20744, 20750, 20749	3
28	6000 Ascot Drive	Tony Jones	556780	159	2	5607	22039	3
29	6260 Castle Drive	Tony Jones	558365	50	2	5607	20992	3
30	9777 Golf Links Road	Tony Jones	558351	104	2	85301	3519	3
31	5707 Redwood Road	Tony Jones	558698	1077	2	83511	14477, 14291	3
32	4121 Laguna Ave	Tony Jones	557387	100	2	80113	16014	3
33	4300 Atlas	Tony Jones	556788	200	2	80012	14137	3
34	2633 Abbey Street	Tony Jones	575865	448	2	81201	10425	12
35	823 105TH Ave	Miguel Guzman	575904	1200	3	85101	1044, 881, 1054, 1056, 800	12
36	339 Union ST	David Amate	581142	10	1	6410	14668, 14651, 14670, 14671	6
37	2524 14th Ave	Tony Jones	598188	140	2	5802	13373, 13374,	6

Table 3.2 Hot Spot List

#	Location	Supervisor	Parent Work Order #	Footage	Zone #	Sub Basin #	Asset ID #s	Monthly Cleaning Cycle
							13385	
38	1479 Fruitvale Ave	Tony Jones	598332	300	2	5601	8772	6
39	374 Perkins ST	David Amate	598344	250	1	5407	14799, 19647, 19660	12
40	98th Ave & Burr ST	Miguel Guzman	598359	555	3	85206	2444, 2446, 2439	12
41	10306 Foothill Blvd	Miguel Guzman	598362	315	3	85221	1729, 1704	12
42	430 Lesser ST	Miguel Guzman	598468	525	3	81001	4696, 4697	12
43	6334 Camden ST	Miguel Guzman	598676	170	3	84103	6318	12
44	55th Ave & International Bl	Miguel Guzman	598648	325	3	82002	4847	12
45	2646 Cole ST	Miguel Guzman	598680	400	3	83202	7764, 7769	12
46	1092 Amito Ave	David Amate	598371	170	1	17	31394	12
47	6098 Rockridge Blvd	David Amate	598379	330	1	5014	29274, 29275	12
48	469 63rd ST	David Amate	598391	540	1	5009	29175	12
49	353 Crestmont	Tony Jones	598610	300	2	83503	14133	12
50	Grand Ave & Harrison ST	David Amate	598351	270	1	5205	19608	12
51	2926 Holyrood Dr	Tony Jones	598639	200	2	5607	23791, 31552	12
52	4515 Elinora Ave	Miguel Guzman	598000	400	3	83501	12124, 12125, 12126	12

Table 3.2 Hot Spot List

#	Location	Supervisor	Parent Work Order #	Footage	Zone #	Sub Basin #	Asset ID #s	Monthly Cleaning Cycle
53	740 E 8TH ST	Miguel Guzman	602889	1000	2	5402	11129,11095, 11097, 11098, 11088	12
54	111 Alvarado Road	David Amate	608235	876	1	17	30725, 30724, 30723, 30722, 30721	12
55	1301 Holman Rd	Tony Jones	608015	754	2	5412	18026, 18027, 18026, 18028, 18030, 18025	12
56	25 Dartmouth	David Amate	602282	165	1	17	31394	12
57	8301 Iris	Miguel Guzman	608020	710	3	85011	4241, 4235, 4239	12
58	220 Alice Street	Miguel Guzman	615007	567	1	64	1250, 1249, 11019, 11020, 11021	6



MAP OF HOT SPOT LOCATIONS

FIGURE 3.1

3.1.8 High Frequency Cleaning.

In addition to the Hot Spot List, after reviewing maintenance records and discussing results with maintenance personnel, the Sewer Maintenance Supervisor created a new High Frequency Cleaning List containing locations that he believed required special attention. These locations are being cleaned as frequently as necessary to minimize the occurrence of Sanitary Sewer Overflows.

3.2 ROOT CONTROL PROGRAM

The objectives of the Root Control Program are to:

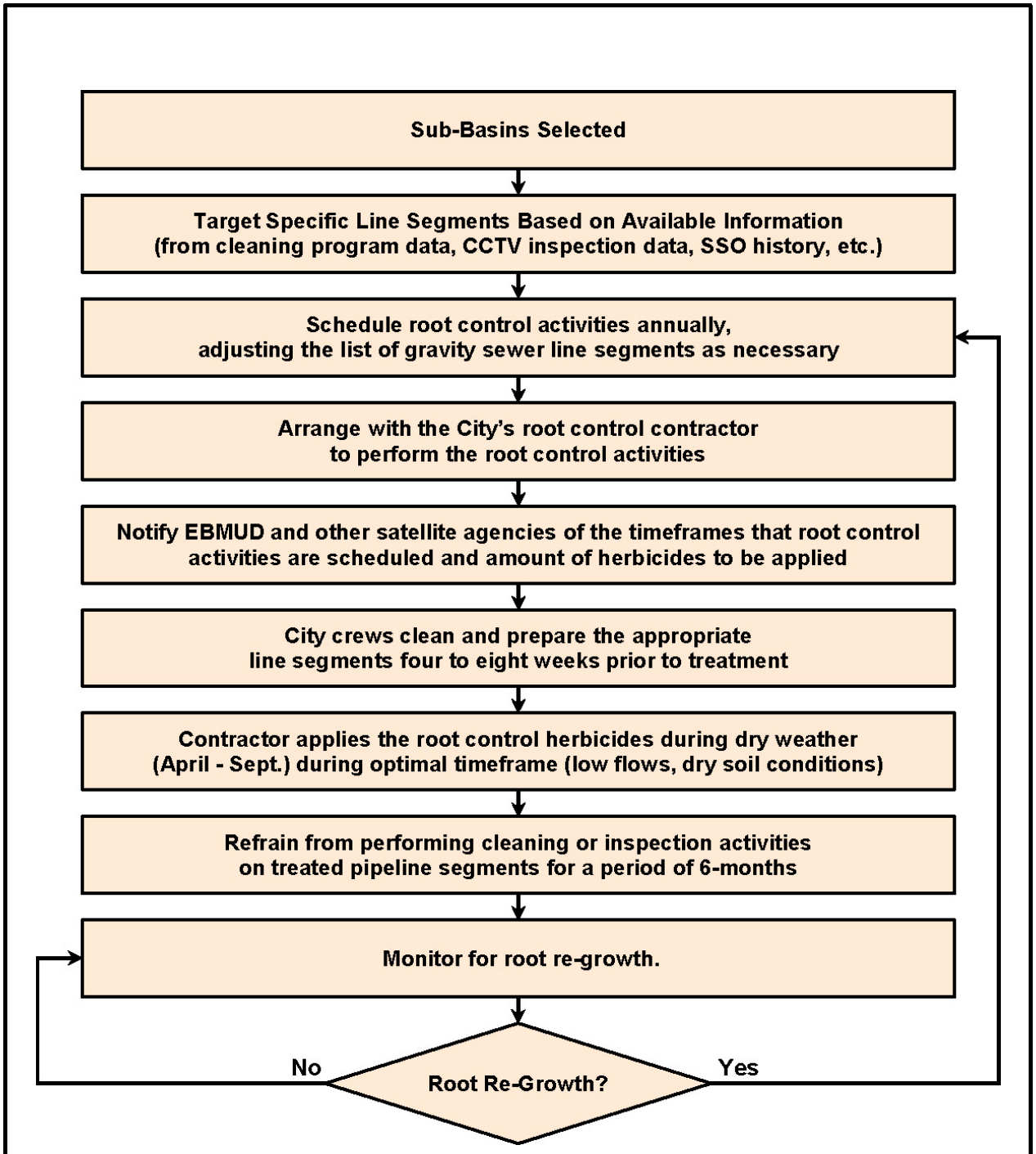
- Focus the use of root control herbicides on gravity sewer line segments with severe levels of root intrusion;
- Apply root control herbicides where it is economically justified;
- Extend the useful life of gravity sewers by minimizing damage from roots; and
- Coordinate with EBMUD to minimize the impact of the root control herbicides on the downstream wastewater treatment processes and receiving waters.

Paragraph 92.e. of The Consent decree states:

"Root Cleaning. The City of Oakland shall treat Sewer Mains to control excessive roots in the Collection System for the duration of the Consent Decree. For the first three Fiscal Years, the City of Oakland shall treat a minimum rate of 264,000 feet of Sewer Mains per Fiscal Year on a cumulative basis (i.e., 264,000 feet by June 30, 2014; 528,000 feet by June 30, 2015; and 792,000 feet by June 30, 2016; etc.). By December 31, 2016, the City shall submit an evaluation of its root control program to EPA for review and approval. The evaluation shall consider the need to treat additional or fewer Sewer Mains to address results from cleaning and CCTV. The evaluation shall propose refinements to the City's root control program in order to ensure excessive roots in the Collection System are controlled. The City of Oakland shall not treat less than 264,000 feet of Sewer Mains on a cumulative basis without approval from EPA, after consultation with the Regional Board. Any proposal to treat less than 264,000 feet of Sewer Mains shall be made in Oakland's Annual Report as a proposed modification to its AMIP. The proposal, if approved, shall be a non-material modification subject to the requirements of Section XXIX (Modification)."

3.2.1 Root Control Methods

The City uses a private contractor to perform root control activities on the collection system. Root control contracts are awarded annually to the lowest responsible bidder. The City's approach to performing the root control activities is summarized in Figure 3.2.



HERBICIDES ROOT CONTROL PROCESS

FIGURE 3.2

3.2.2 Staffing Duties

The City contracts with the lowest responsible bidder to perform root-control activities. City staff coordinates the contractor's activities with City maintenance staff, EBMUD, and other satellite agencies as appropriate. City maintenance staff cleans and prepares the line segments selected for treatment and implements quality-control measures to confirm that the treatment has been effectively applied.

3.2.3 Work Order System

An SSO overflow map was developed by the City that showed the SSOs in each sub-basin for the years 2008, 2009, and 2010. The sub-basins with the most overflows attributed to roots were selected for root control treatment. As root-control activities are completed on individual sewer line segments, results are documented in Cityworks CMMS. Figure 3.3 shows areas root foamed to date and planned for future root foaming.

3.2.4 Root Control Program Scheduling

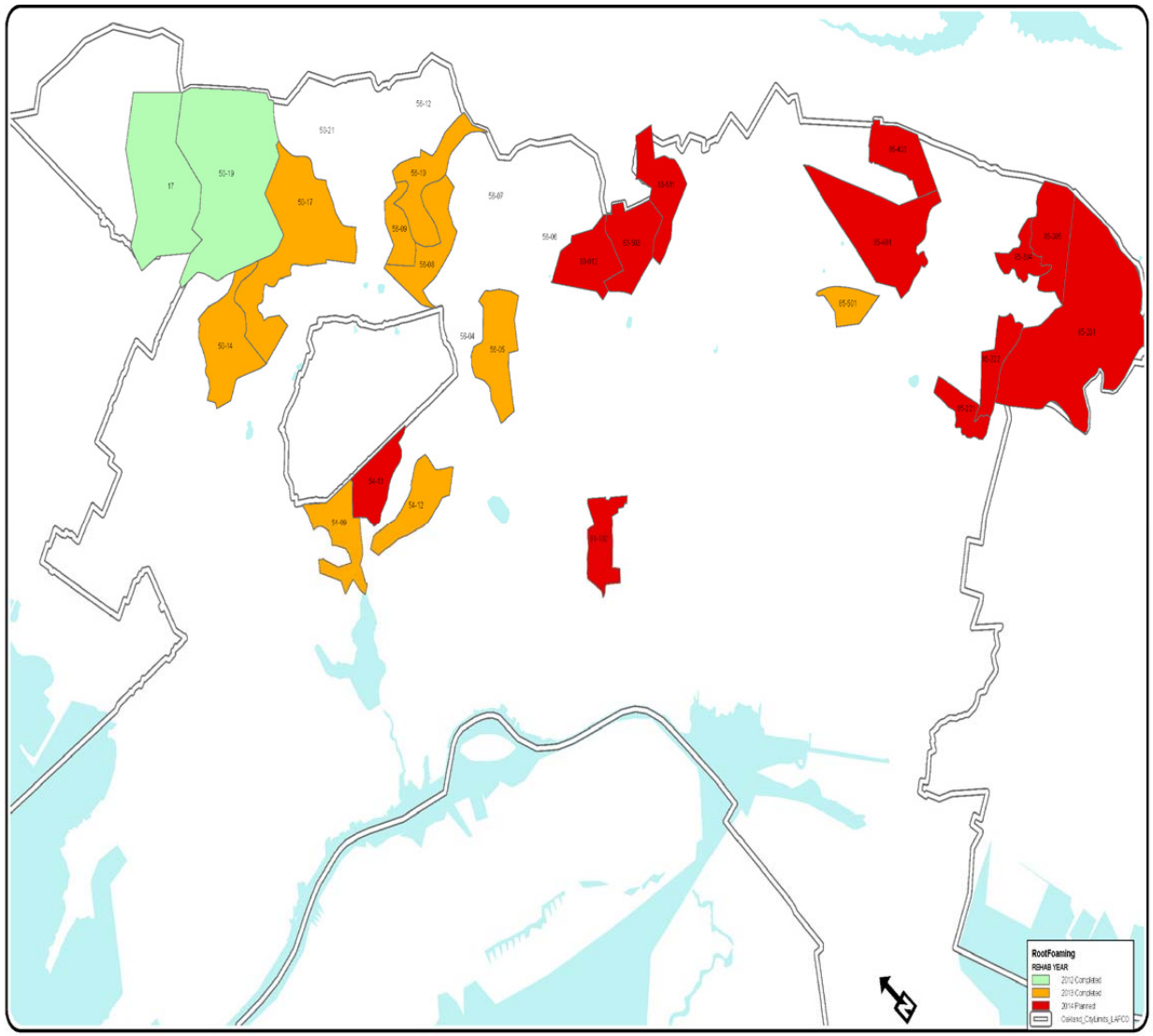
The relative success of herbicide root-control activities is sensitive to the time of year in which the herbicides are applied, as well as the condition of the roots at the time of the herbicide application. Because of this, proper scheduling of root-control work is important. Root-control work is based on an annual schedule in which individual sewer line segments are targeted for herbicide root-control activities during a given year. The City coordinates work with the root control contractor, City maintenance staff, EBMUD, and other satellite agencies to make sure that root-control activities are performed as scheduled.

Based on the new Consent Decree, the City continues to treat 50 miles (264,000 feet) of Sewer Mains per Fiscal Year. The root treatment continues to focus on treating entire sub-basins. At the same time sewer maintenance personnel are recording locations where they encounter tree roots as part of their maintenance work. A consultant will be hired to analyze our current root treatment approach to determine if work can be done more cost effectively.

On May 20, 2014, the City awarded a root foaming contract with Dukes Root Control, Inc. This contract will root foam 60 miles of sewer mains. The Notice to Proceed with root foaming was issued on August 18, 2014.

3.2.5 Root Control Quality Control

Quality Control is an important aspect of the root-control program. Quality Control helps prevent root re-growth in treated sewers. For this reason, the City will perform CCTV inspections of selected sewer line segments that receive herbicide root treatment six months after the herbicides are applied. The information obtained will be used as a guide for City staff to determine whether additional root-control actions (e.g., mechanical root control, additional herbicide root control) should be taken.



ROOT FOAMING AREAS

FIGURE 3.3

3.3 FATS, OIL, AND GREASE (FOG) CONTROL

Paragraph 93 of the Consent decree states:

"FOG Control. The City shall continue to work with EBMUD in the implementation of the EBMUD Regional Fats, Oils and Grease (FOG) Control Program, and coordinate EBMUD's FOG activities within the City. The City shall refer FOG-related SSOs or excessive buildup of grease to EBMUD for investigation. If a food service establishment is determined to be contributing to FOG-related SSOs and does not implement recommendations made by EBMUD, the City shall take actions necessary to ensure that the food service establishment adequately controls FOG."

The City's FOG Control Program, in partnership with EBMUD, consists of investigations, inspections, and multiple language outreach to food service establishments (FSE) in the service area. The installation of a grease interceptor is required by the City's Uniform Plumbing Code. A key element of the program includes grease trouble spot response and a targeted response to grease related blockages and SSOs. Response activities include facility inspections at FSEs upstream of the problem area, CCTV investigations, and corrective actions and enforcement procedures as needed.

The FOG Control Program includes:

- Source identification.
- Legal authority.
- Program structure/requirements.
- Grease removal device technologies for FSEs.
- Inspections and monitoring of FSEs.
- FOG control enforcement of FSEs.
- FOG disposal.
- Public education and outreach.

3.3.1 Source Identification

Locations of SSO's suspected to be caused by FOG discharges are referred to EBMUD for investigation and corrective action.

3.3.2 Legal Authority for FOG Program Requirements

Existing codes and ordinances, plumbing codes, and other local regulations, such as the health code, provide the City legal authority to control FOG discharge by FSE's.

3.3.3 Program Structure/Requirements

Grease control devices are required for all new FSE's. FSEs are also required to keep and maintain maintenance contract and hauling logs.

While residential customers do not have discharge permits, educational mailers are provided to educate individuals on prohibited discharge items.

3.3.4 Grease Removal Device Technology for FSEs

Grease-control device installation, design, and sizing follow plumbing code requirements. Device type, installation, design, and sizing are coordinated with the local health authority and building department.

3.3.5 Inspections/Monitoring for FSEs

Identification and inspection of grease trouble spot areas includes the following:

- Identification of FOG-related blockages by City staff.
- Reporting of FOG-related blockages to EBMUD for further investigation.
- Inspections by EBMUD target FSEs upstream of the reported location. Grease control devices are inspected and a measurement of grease, water, and solids is taken. Additional follow-up actions may be required based on data collected. Both mainline and lateral camera inspections may be performed. When the cause has been found, EBMUD inspectors meet with FSEs and provide educational materials.
- EBMUD conducts follow-up inspections to assure the problem is resolved.

3.3.6 Enforcement for FSEs

An initial non-compliance action by a FSE results in progressive enforcement. Additional notices are sent to a non-compliant FSE until the problem is corrected.

3.3.7 FOG Disposal (Grease Trap and Grease Interceptor Waste)

The EBMUD wastewater treatment plant is the receiving facility for waste grease from inside and outside the EBMUD service area.

3.3.8 Public Education and Outreach

FSEs are provided with program brochures, a best management practices (BMP) chart, a BMP poster, "How to Maintain a Grease Interceptor" flyers, "Do Not Pour" posters, and access to the EBMUD FOG web page.

Residential customers are provided with brochures, grease scrapers, flyers, access to used cooking oil collection centers, and access to the EBMUD FOG web page. Public information events are also held to educate people about FOG disposal.

3.4 OVERFLOW EMERGENCY RESPONSE

The City's Sanitary Sewer Overflow Response Plan (SSORP) was submitted to the EPA on August 20, 2010 and approved by the EPA on November 30, 2010. This section contains the updated SSORP which includes procedures for:

- Planning and resources for responding to SSOs.
- Learning about and responding to SSOs.
- Containing overflows from the collection system and force mains.
- Containing overflows from lift stations.
- Estimating overflow volumes.
- Notifying regulatory agencies.
- Notifying the public.
- Responding to media requests.
- Sampling affected surface waters.
- Analyzing causes of SSOs.
- Record keeping.
- Updating the SSORP.

3.4.1 Responding to Sanitary Sewer Overflows

During normal business hours (Monday through Friday - 8:00 a.m. to 4:30 p.m.) the Oakland Public Works (OPW) Department Call Center (510-615-5566) notifies the Sewer Maintenance Division Supervisor and dispatch crews of any reported sanitary sewer overflows (SSOs). Sewer Maintenance Crew(s) will make their best efforts to arrive at the SSO location and initiate response activities as soon as possible with a goal of initiating response no later than 60 minutes after initial receipt of the SSO report by the Call Center.

During non-business hours (Saturday, Sunday, Monday through Friday - 4:30 p.m. to 8:00 a.m. and Holidays), calls to the Call Center are forwarded to the Oakland Fire Department (OFD) Dispatch Center (510-238-4036). The OFD Dispatch Center notifies the scheduled OPW General Standby Supervisor, who dispatches the Standby Sewer Maintenance Crew to investigate and resolve any reported SSO. The Standby Sewer Maintenance Crew(s) makes their best efforts to arrive at the SSO location and initiate response activities as soon as possible, with a goal of initiating response activities no later than 60 minutes after the initial receipt of the SSO report by the OFD Dispatch Center. Concurrently, the Sewer Maintenance Crew(s) will notify a Sewer Maintenance Supervisor to initiate the regulatory reporting process. The Sewer Maintenance Supervisor monitors the SSO response and provides additional help if necessary.

3.4.2 Containing Overflows from the Collection System and Force Mains

Sewer Maintenance Division crews begin SSO containment immediately upon arrival at the reported SSO site. Cleaning equipment such as hydro flushers, power rodders, or hand

rods are used to clear the blockage(s). If hydro flushers or power rodders are used, these are set up at a downstream manhole and run upstream to eliminate blockages. If potable water is used for flushing or cleanup, a dechlorinator is used to eliminate chlorine from the water.

If the SSO is on a surface street, spill containment rubber mats are used to cover catch basins or storm inlets to prevent sewage from entering the storm drain system and nearby waterways, and to divert sewage away from sensitive areas such as schools, day care facilities, and playgrounds. Bypass pumps are used to pump sewage around the blockage until the overflow can be cleared. Berms and channels are used to channel flows to a downstream sanitary sewer wherever possible.

If an SSO reaches a storm drain catch basin or drainage inlet, the SSO is traced to the farthest unaffected end of the specific storm drain line, and the storm drain conduit is plugged to contain the overflow. Sewage material is then vacuumed from infrastructure using a VAC-Truck, and all impacted sections of the storm drain system are flushed using dechlorinated potable water. As a final step, flush wash water is vacuumed out of the storm drain infrastructure using a VAC-Truck and returned to the sanitary sewer collection system.

Every effort is made to contain, collect, and return sewage from a SSO incident to the sanitary sewer collection system to prevent sewage from reaching the storm drain system and receiving waters such as local creeks, lakes, and the San Francisco Estuary or Bay.

When an SSO reaches a water body, creek or tributary, City crews remove all visible signs of fecal matter or organic material on both sides of the bank upstream and downstream of any watercourse. Solid material is returned to the sewer collection system. City crews then use a dechlorination device to flush any unseen organic material throughout the water course.

Warning signs, barricades, and caution tape are used to ensure that public contact with sewage does not occur.

SSO incidents are photo-documented to record the SSO incident including, but not limited to the following:

- Date/Time and location of SSO incident
- Potential causes of the SSO incident
- Impacted infrastructure
- Containment and cleanup methods implemented

Since the City has less than 1,500 feet of force mains and since there have been no overflows from these force mains in the last several years, the containment process described above is also used to respond to any force main-related SSOs.

3.4.3 Containing Overflows from Pump/Lift Stations

3.4.3.1 Sewer Pump/Lift Stations

If a pump/lift station failure occurs, Sewer Maintenance Division crews immediately bypass the pump/lift station until the issue causing the pump/lift station overflow is resolved.

The City of Oakland currently uses a private contractor for the operation and maintenance (O&M) of the pump stations, including emergency repairs and troubleshooting pump station equipment problems.

In the event a pump/lift station failure cannot be immediately resolved, the On-Duty Supervisor contacts the private contractor to notify them of the SSO incident location of the pump/lift station emergency.

3.4.3.2 Bypassing Pump/Lift Stations

Bypassing the pump/lift station is accomplished using one of three approaches:

1. Bypassing using the combination hydro-flusher/vacuum trucks to vacuum flow and dispose collected sewage at a downstream manhole. Using this approach, sewage is either vacuumed directly from the pump station wet well or the manhole immediately upstream of the pump station. In some cases, the distance to the nearest downstream manhole will be close enough to decant from the hydro-flusher/vacuum truck tank directly into the nearest downstream manhole. This is the preferred initial approach for bypassing all pump station failures until the pump station issue is resolved or until bypass pumps and/or generators owned by the City can be delivered and set up.
2. In the case of a pump station power failure, power can be restored using a portable generator. The City owns the bypass equipment listed in Table 3.3.

Table 3.3 Bypass Equipment List

Equipment Type	Quantity
Bypass Pumps	Two (2) 4-inch trash pumps and one (1) 6-inch trash pump
Hose/Piping	Seventy-five (75) feet of intake pipe and 1,800 feet of discharge pipe
Generators	Three (3) portable gas-powered generators

   The bypass pumps and portable generators are stored at 7101 Edgewater Drive in Oakland and kept in a state of operational readiness. To confirm their operational readiness, bypass pump and generator testing are performed monthly.

3. Should City equipment not be available or not suitable for the emergency, bypass pumps and portable generators can be obtained from United Rentals on a contingency basis. The City has an open purchase order with United Rentals that can

be used under emergency conditions to obtain bypass pumping equipment and portable generators.

Table 3.4 shows the recommended bypass approach for each lift/pump station.

3.4.3.3 Wet Well Capacity and Storage Time

The wet well capacity for each pump station is provided in Table 3.5 along with an estimate of the amount of storage time these wet wells provide under different flow conditions.

3.4.4 Estimating Overflow Volume

A variety of approaches exist for estimating the volume of sanitary sewer spills. This section documents the three methods that are most often employed by City staff. The person preparing the estimate uses the method most appropriate to the sewer overflow event in question and uses the best information available.

Method 1: Measured Volume

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

Step 1 - Sketch the shape of the contained sewage.

Step 2 - Measure or pace off the dimensions.

Step 3 - Measure the depth in at least two locations within the pooled area of sewage and at locations that appear to be the deepest within the pooled area. Calculate an average depth for the entire area by adding the measured depths together and dividing by the number of measurements taken.

Step 4 - Convert the dimensions, including depth, to units of feet.

Step 5 - Calculate the area in square feet using the following formulas:
Rectangle: Area = length (feet) x width (feet)
Circle: Area = diameter (feet) x diameter (feet) x 0.785
Triangle: Area = base (feet) x height (feet) x 0.5

Step 6 - Multiply the area (square feet) times the depth (in feet) to obtain the volume in cubic feet.

Step 7 - Multiply the volume in cubic feet by 7.48 to convert it to units of gallons.

Table 3.4 Lift Station and Force Main Recommended Bypass Approaches

Pump Station Name and Location	Map Page	Overflow Location	Bypass Intake Location	Bypass Discharge Location	Bypass Distance	Flusher/ Vacuum Units Needed	# and Size of Bypass Pumps
Denton Place LS 5610 Denton Place	176	Wet Well	Wet Well	MH at Denton Place and Weaver	90	1	4-inch
Hegenberger LS 201 Hegenberger Road	31	Wet Well	Wet Well MH# 87-002-08	MH# 87-002-35	180	1-3	6-inch and/or 4-inch
Laney LS 900 Fallon Street	185	Wet Well	Wet Well MH# 64-600-17	MH# 64-600-16	50	1-3	6-inch and/or 4-inch
Parkridge Drive LS 5195 Parkridge Drive	176	Wet Well	Wet Well MH# 83-512-37	MH# 83-512-35	650	1	4-inch
Shepherd Canyon LS Shepherd Canyon Road	274	Wet Well	Wet Well	MH# 56-220-25	190	1	4-inch
Skyline LS Skyline Road and Parkridge Drive	159	Wet Well	Wet Well	MH# 83-512-71	260	1	4-inch
Tidewater LS 4575 Tidewater Avenue	97	Wet Well	Wet Well MH# 81-001-88	MH# 81-001-80	20	1-3	6-inch

Table 3.5 Wet Well Capacity and Storage Time				
Lift Station	Wet Well Operating Volume (gal)	Total Wet Well, Piping, and Manhole Retained Volume (gal)	Average Flow Rate[2] (gpm)/ Storage Time (min)	High Flow Rate[1] (gpm)/ Storage Time (min)
900 Fallon Street	5,181	27,603	35 gpm/ 12 hours	69 gpm/ 6 hours
5195 Parkridge Drive	3,071	5,996	1.5 gpm/ 66 hours	2.98 gpm/ 33 hours
201 Hegenberger Road	4,606	66,714	17 gpm/ 96 hours	33 gpm/ 48 hours
Skyline Boulevard	2,303	4,412	0.57 gpm/ 96 hours	1.14 gpm/ 48 hours
Shepherd Canyon Road	2,303	4,038	0.59 gpm/ 96 hours	1.18 gpm/ 48 hours
4575 Tidewater Avenue	3,454	16,032	3.75 gpm/ 72 hours	7.5 gpm/ 36 hours
5610 Denton Place	2,303	2,799	0.46 gpm/ 96 hours	0.92 gpm/ 48 hours

Notes:
(1) High flow rates were estimated using the City of Oakland Sanitary Sewer Design Guidelines: http://www.oaklandpw.com/Page261.aspx.
(2) Average flow rates were estimated by dividing the high flow rates in half. This is considered a conservative estimate of the average flow rate at these lift stations. Under average flow conditions, it is likely that the storage time at these lift stations will exceed the values included in this table.

Method 2: Eyeball Estimate

The volume of small spills can be assessed using an "eyeball estimate." To use this method, imagine the amount of water that would spill from a bucket or barrel. A bucket contains 5 gallons and a barrel contains 50 gallons. If the spill is larger than 50 gallons, try to mentally break the standing water into barrels and then multiply by 50 gallons. This method should only be used for contained spills up to approximately 200 gallons.

Training for use of this method is performed annually for Sewer Division staff by first spilling the contents of a 5-gallon bucket filled with water onto the pavement to see the area affected by a 5-gallon overflow. An additional 45 gallons of water are then spilled into the same area so that responders can see the area affected by a 50-gallon overflow.

Method 3: Duration and Flow Rate

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

Estimating Duration: The duration is the elapsed time from the time the overflow started to the time that the overflow was stopped.

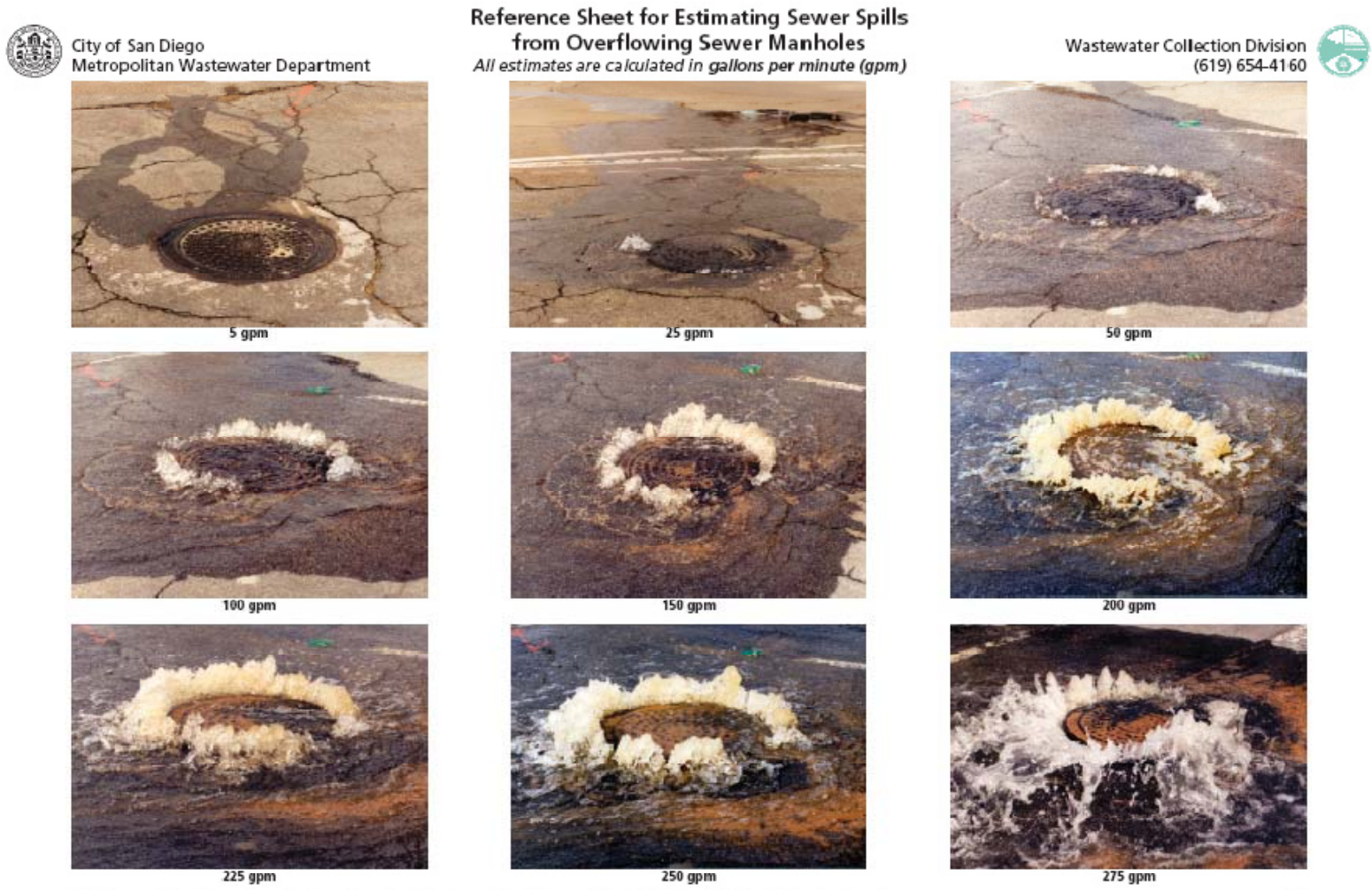
Estimating Start Time: The start time is sometimes difficult to establish. Here are some recommended approaches:

1. The start time may be estimated as the time the incident was initially reported to the Call Center or Fire Dispatch Center.
2. Local residents can be used to establish the start time if they are readily available while the crew is on site. Spills that occur in a right-of-way are usually observed and reported promptly. Spills that occur out of the public view can go on longer before being observed and reported. Sometimes observations like odors or sounds (e.g., water running in a normally dry creek bed) can be used to estimate the start time.
3. Conditions at the spill site change over time and can be used to establish the start time. Initially, there will be limited deposits of toilet paper and other sewage solids. After a few days to a week the sewage solids form a light colored residue. After a few weeks to a month the sewage solids turn dark. The quantity of accumulated toilet paper and other materials increases over time. These observations can be used to estimate the start time in the absence of other information. Taking photographs to document the observations can be helpful if questions arise later in the process. This method is valid for spills that have been occurring for a long time and may be used in conjunction with either of the above methods.
4. It is important to remember that spills may not be continuous. Blockages are not usually complete (some flow continues). In this case, the spill will only occur during the peak flow periods Spills that occur due to peak flows in excess of capacity will occur only during, and for a short period after, heavy rainfall.

Estimating End Time: The end time is usually much easier to establish. Field crews on-site observe the "blow down" that occurs when the blockage is removed.

Estimating Flow Rate: The flow rate is the average flow that left the sewer system during the time of the spill. The following are three common ways to estimate the flow rate:

Use the San Diego Manhole Flow Rate Chart (Figure 3.4). This chart specifies sewage flowing from manhole covers at a variety of flow rates. The observations of the field crew can be used to select the appropriate flow rate from the chart. If available, photographs can also be helpful in documenting the basis for the flow rate estimate.



SAN DIEGO MANHOLE FLOW RATE CHART

FIGURE 3.4

1. Use the California Wastewater Environmental Association's (CWWEA) Maintenance Hole Flow Estimation Table (Figure 3.5). Field crews can remove the maintenance hole cover at the site of the SSO and measure the height of the water flowing above the manhole (MH) frame. Using the table for either a 24-inch MH or a 36-inch MH, the volume of the flow can be measured in gallons per minute.
2. Count Connections. Once the location of the spill is known, the number of upstream connections can be determined from the sewer maps. The flow rate can be calculated by multiplying the number of connections by 200 to 250 gallons per day per connection or 8 to 10 gallons per hour per connection.

   For example:

   - 22 upstream connections x 9 gallons per hour per connection = 198 gallons per hour / 60 minutes per hour = 3.3 gallons per minute.

Estimating Spill Volume: Once duration and flow rate have been estimated, the volume of the spill can be calculated as the product of the spill duration (hours or days) and the flow rate (gallons per hour or gallons per day).

For example:

- Spill start time = 1100 hours.
- Spill end time = 1400 hours.
- Spill flow rate = 3.3 gallons per minute.
- Spill volume = 3.3 gallons per minute x 3 hours x 60 minutes per hour = 594 gallons.

3.4.5 Notifying Regulatory Agencies

3.4.5.1 Sanitary Sewer Overflow Categories

A SSO is any unauthorized discharge of sewage from the City-owned sewage collection system including all City-owned sewers in the public right-of-way and sewer easements, and City-owned pump/lift stations and force mains. SSOs as described in this document do not include overflows due to blockages in or damage to private sanitary sewer laterals.

3.4.5.1.1 *Category 1 SSOs*

All discharges of sewage from the City-owned sewage collection system that:

- Equal or exceed 1,000 gallons, and
- Result in a discharge into a drainage channel and/or surface water, or
- Discharge to a storm drainpipe that was not fully captured and returned to the sanitary sewer system.

Collection System Collaborative Benchmarking Group
Best Practices for Sanitary Sewer Overflow (SSO) Prevention and Response Plan

ESTIMATED SSO FLOW OUT OF M/H WITH COVER REMOVED

24" FRAME

Water Height above M/H frame H in Inches	S S O FLOW Q in gpm	in MGD	Min. Sewer size in which these flows are possible
1/8	28	0.04	
1/4	62	0.09	
3/8	111	0.16	
1/2	160	0.23	
5/8	215	0.31	6"
3/4	354	0.51	8"
7/8	569	0.82	10"
1	799	1.15	12"
1 1/8	1,035	1.49	
1 1/4	1,340	1.93	15"
1 3/8	1,660	2.39	
1 1/2	1,986	2.86	
1 5/8	2,396	3.45	18"
1 3/4	2,799	4.03	
1 7/8	3,132	4.51	
2	3,444	4.96	21"
2 1/8	3,750	5.4	
2 1/4	3,986	5.74	
2 3/8	4,215	6.07	
2 1/2	4,437	6.39	
2 5/8	4,569	6.58	24"
2 3/4	4,687	6.75	
2 7/8	4,799	6.91	
3	4,910	7.07	

36" FRAME

Water Height above M/H frame H in Inches	S S O FLOW Q in gpm	in MGD	Min. Sewer size in which these flows are possible
1/8	49	0.07	
1/4	111	0.16	
3/8	187	0.27	6"
1/2	271	0.39	
5/8	361	0.52	8"
3/4	456	0.66	
7/8	556	0.8	10"
1	660	0.95	12"
1 1/8	1,035	1.49	
1 1/4	1,486	2.14	15"
1 3/8	1,951	2.81	
1 1/2	2,424	3.49	18"
1 5/8	2,903	4.18	
1 3/4	3,382	4.87	
1 7/8	3,917	5.64	21"
2	4,458	6.42	
2 1/8	5,000	7.2	24"
2 1/4	5,556	8	
2 3/8	6,118	8.81	
2 1/2	6,764	9.74	
2 5/8	7,403	10.66	
2 3/4	7,972	11.48	30"
2 7/8	8,521	12.27	
3	9,062	13.05	
3 1/8	9,604	13.83	
3 1/4	10,139	14.6	
3 3/8	10,625	15.3	36"
3 1/2	11,097	15.98	
3 5/8	11,569	16.66	
3 3/4	12,035	17.33	
3 7/8	12,486	17.98	
4	12,861	18.52	
4 1/8	13,076	18.83	
4 1/4	13,285	19.13	
4 3/8	13,486	19.42	

CALIFORNIA WASTEWATER ENVIRONMENTAL ASSOCIATION MAINTENANCE HOLE FLOW ESTIMATION TABLE

FIGURE 3.5

3.4.5.1.2 *Category 2 SSOs*

Discharges of untreated or partially treated wastewater greater than or equal to 1,000 gallons resulting from an enrollee's sanitary sewer system failure or flow condition that does not reach surface water, a drainage channel, or the municipal separate storm sewer system unless the entire SSO volume discharged to the storm drain system is fully recovered and disposed of properly.

3.4.5.1.3 *Category 3 SSOs*

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

All other discharges from the City-owned sanitary sewer collection system that do not meet the criteria for Category 1 discharges.

3.4.5.2 Reporting Category 1 Sanitary Sewer Overflows

Category 1 overflows are reported according to the following protocol:

Immediately (within 2 hours):

- Notify the State Office of Emergency Management (OEM) (800-852-7550).
  - Provide the SSO location and an estimate of the volume of the overflow.
  - Obtain a control number.
- Notify the Alameda County Environmental Health Department (510-567-6700).
  - Provide the SSO location and an estimate of volume of the overflow.
- Call the Regional Water Quality Control Board (510-622-2369). If voicemail is full, fax a copy to 510-622-2460:
  - A description of what happened (i.e., the cause).
  - The location of threatened or involved waterway(s) or storm drains.
  - The date and time the unauthorized discharge is known to have started.
  - The estimated quantity and duration of the unauthorized discharge so far, and the estimated amount recovered.
  - The level of treatment the discharge had received prior to its release (e.g., raw wastewater).
  - The identity of the person reporting the unauthorized discharge.
  - The OEM control number and a certification that the State Office of Emergency Services and the Alameda County Environmental Health Department have been notified of the discharge.
- If sewage from a SSO is discharged into the storm drain system, natural watercourse such as a creek, lake, the Oakland Estuary, or the San Francisco Bay contact the

OPW-Environmental Services Division (ESD), Protection and Compliance Unit distribution list. Provide the location and estimated volume of the SSO.

- If a kill is observed, notify the California Department of Fish and Wildlife (916-445-0380, Press 2 to report).

Within three (3) business days:

- Submit an initial SSO report to the California Integrated Water Quality System (CIWQS) at http://www.swrcb.ca.gov/ciwgs/.
- Create a CIWQS report (enter user name and password and enter requested information using information in the completed Sanitary Sewer Overflow Report).

Within 15 calendar days of completing the SSO response:

- Submit a final SSO report to the California Integrated Water Quality System (CIWQS) at http://www.swrcb.ca.gov/ciwgs/.
- Have the final report certified by the Legally Responsible Official. In OPW, this authority has been delegated to the following individuals:
  - Supervisors, Sewer Maintenance Division.
  - Operations Manager.
  - Assistant Director, Infrastructure and Operations.

3.4.5.3 Reporting Category 2 Sanitary Sewer Overflows

Category 2 SSOs must be reported to http://www.swrcb.ca.gov/ciwgs/ within 15 days after the end of the calendar month in which the SSO occurs.

3.4.5.4 Reporting Category 3 Sanitary Sewer Overflows

Category 3 SSOs shall be reported to the CIWQS Online SSO Database and certified within 30 calendar days after the end of the calendar month in which the SSO occurs (e.g., all Category 3 SSOs occurring in the month of February shall be entered into the database and certified by March 30th).

3.4.5.5 Authority

The following Sewer Maintenance Division personnel are authorized to report all categories of Sanitary Sewer Overflows:

- Public Works Supervisor II Kenneth Patton - 510-615-5984
- Public Works Supervisor II Loren Little - 510-615-5570.
- Public Works Supervisor I Anthony Jones - 510-615-5561.
- Public Works Supervisor I Johnny Nicks - 510-615-5941.
- Public Works Supervisor I Ameal McLaurin - 510-615-5590.

- Public Works Supervisor I Dave Amate - 510-615-5985.
- Public Works Supervisor I Miguel Guzman - 510-615-5409
- Administrative Assistant I (Vacant) - 510-615-5715.

3.4.5.6 Notification of Regulatory Agencies

Additional information regarding notification of regulatory agencies is shown in Table 3.6.

3.4.6 Notifying the Public

If an SSO occurs because of problems caused by a City-owned sewer, the Sewer Maintenance Division Supervisor is to ensure that the affected public is informed of what happened and of their rights to seek reimbursement for damages. As with other sewer maintenance activities, sewer maintenance workers are encouraged to listen to customers and express sympathy and concern.

A "Customer Service Packet" (Appendix G) has been prepared to inform property owners in cases where the sewer may have caused damage, and where the damage could be the responsibility of the City. Claim forms, clean-up recommendations, and an explanation of what to do if there is a spill are provided to affected property owners as soon as the overflow is contained or resolved.

3.4.7 Responding to Media Requests

As for other sewer maintenance events, media requests for video, photos or interviews for media coverage shall follow the existing media policy of both the City and the OPW. Sewer Maintenance Division staff shall contact their supervisor.

Only staff at or above the Division Manager level may respond to media requests. Before speaking to or arranging a media interview, staff shall contact the Director of Public Works, Assistant Director, and/or the Media Coordinator to ensure continuity and consistency in communications. If an immediate response is necessary, staff should respond as appropriate, but respond only about things they know. Staff should not speculate or guess about issues with which they are not familiar. "I don't know" is an acceptable answer. Following the interview, staff should immediately inform the Media Coordinator of the interview and the information provided to the media.

OPW's Standard Operating Procedure addresses how Sewer Maintenance Division staff is to respond to public inquiries and media requests.

Table 3.6 Notification of Regulatory Agencies

Regulatory Agency	Contact Information	Report if the Back up or Overflow meets any of the following conditions	Timeframe
Governor's Office of Emergency Services	**Telephone:** 800-852-7550	• Results in a discharge into a drainage channel or surface water. • Discharged to a storm drain and not fully recovered (regardless of volume)	**Immediate Reporting Required (within 2 hours)**
		• 1,000 gallons • Imminently endangered human health	**Immediate Reporting Required**
Regional Water Quality Control Board: *SFRWQCB* 1. Complete the website's SSO notification form. 2. If no access to the internet, call and leave a voicemail with spill details. 3. If the voicemail box is full, use the fax form in the Regulatory Notifications envelope.	**Website:** www.wbers.net/ **Main Telephone:** 510-622-2369 **Main Fax:** 510-622-2460 **City Contact:** Claudia E. Villacorta: 510-622-2485	• Results in a discharge into a drainage channel of a surface water • Discharged to a storm drain and not fully recovered (regardless of volume) • Reached Receiving Waters	**Immediate Reporting Required (within 2 hours)**
		• 1,000 gallons • Imminently endangered human health • Killed fish	**Immediate Reporting Required**
		• Required Posting of Public Warning Signs	**Reporting Required within 24 hours**
		• Was caused by problems with a private service lateral	**Optional Reporting within 30 days**

Table 3.6 Notification of Regulatory Agencies

Regulatory Agency	Contact Information	Report if the Back up or Overflow meets any of the following conditions	Timeframe
State Water Resources Control Board 1. Go to the CIWQS online SSO Reporting Database. 2. Enter User Name & Password. 3. Enter requested information using information on the completed Sewer Overflow Report.	**Website:** http://www.swrcb.ca.gov/ciwqs/ **Note:** All electronic reports must be certified by the Legally Responsible Official: Director of Public Works. **OPTIONAL:** If SSO was from a private service lateral, provide all information available, indicate cause as being a private service lateral, and identify the responsible party (other than the City), if known.	• 1,000 gallons • Imminently endangered human health • Discharged to a storm drain and not fully recovered • Reached Receiving Waters	**Immediate Reporting Required. If you leave any requested information blank, then you must return within 15 days and complete**
		• All SSOs and Backups	**Reporting Required within 30 days after the end of the month in which the SSO occurs**
		• Was caused by problems with a private service lateral	**Optional Reporting within 30 days**

Table 3.6 Notification of Regulatory Agencies

Regulatory Agency	Contact Information	Report if the Back up or Overflow meets any of the following conditions	Timeframe
County Health Department: Alameda County Environmental Health Department	**Telephone:** 510-567-6700 **Fax:** 510-337-9335	• Results in a discharge into a drainage channel or a surface water	**Immediate Reporting Required (within 2 hours)**
		• 1,000 gallons, and/or • Imminently and substantially endangered human health and or killed fish	**Immediate Reporting Required**
		• Discharge to a storm drain and not fully recovered (regardless of volume) • Reached receiving waters, and/or • Required posting of public warning signs	**Reporting Required within 24 hours**
California Department of Fish and Game	**24-Hour Dispatch:** 916-445-0380 Press 2 to report	• Reached receiving waters, and/or killed fish	**Immediate Reporting Required**

Table 3.6 Notification of Regulatory Agencies

Regulatory Agency	Contact Information	Report if the Back up or Overflow meets any of the following conditions	Timeframe
East Bay Regional Park District (EBRPD): At a minimum, notify EBRPD Public Safety and one member from EBRPD. Lake Temescal Operations and Water Management Department.	**Public Safety Dispatch:** 510-881-1833 **Lake Temescal Operations:** Dan Cunning, Park Supervisor Office: 510-652-1165 Pager: 510-702-2152 Cell: 510-715-6806 Home: 707.451.8150 *If unable to reach Dan, contact one of the following:* Darrell Jones, Park Ranger, Cell: 510-715-8026 Tim Keefe, Park Ranger, Cell: 510-715-8025 Britt Thorsnes, Park Ranger, Cell: 510-715-6025 **Water Management Dept:** Neal Fujita, Water Resources Manager Office: 510-649-3313 Pager: 510-702-3123 Cell: 510-258-2207 Home: 510-923-1286	• Any sanitary sewer overflow spill that may in any way affect Lake Temescal. This includes, but is not limited to, all spills not completely captured prior to entering into a water course of storm drain occurring in Sewer Map Sheet 302, 303, 314, 315, 323, 324, 325, 334, or 339.	**Immediate Reporting Required**

3.4.8 Sampling Affected Surface Waters

3.4.8.1 Sampling Protocol

In compliance with the California State Resource Control Board (SWRCB) / Regional Water Quality Control Board (RWQCB) Waste Discharge Requirements (WDRs) for Sanitary Sewer System (SSS) Requirements (WQO-2013.0058-EXEC), the City conducts water quality monitoring and sampling of surface water impacted by SSOs for the following:

- SSO discharges over 1,000 gallons discharged into the storm drain system or natural watercourse, as identified in Oakland's Geographic Information System (GIS), which contain water at the time of discharge.
- SSO discharges into Lake Temescal, as agreed between the City and the East Bay Regional Parks District (EBRPD).
- SSO discharges into Lake Merritt.

General protocols for all sampling are as follows:

- The Sewer Maintenance Division will contact the Protection and Compliance Unit Supervisor in OPW – ESD to arrange for a Registered Environmental Professional (REP) to conduct monitoring, sampling and analysis of impacted receiving water.
- Following the stoppage of the SSO and subsequent cleanup, the REP will conduct water quality monitoring and sampling of impacted receiving water.
- Samples will be taken against the direction of water flow, and to the extent possible, six inches below the water surface at a location where water is visibly flowing. Sampling locations are documented by photographs.
- All samples are analyzed for Fecal Coliform, Escherichia *Coli* (E. *Coli* bacteria*,* and Ammonia, by a State-certified laboratory. In addition, surface water samples collected in a saline environment will be analyzed for Enterococcus bacteria instead of E. *Coli* bacteria. Samples shall be handled and analyzed in accordance with:
  - Standard Method 9221 for Fecal Coliform and E-*Coli* – by Multiple Tube Fermentation Technique for Members of the Coliform Group
  - Standard Method 4500 for Ammonia (NH3-B)
  - Standard Method 9230B for Enterococcus – by Multiple Tube Fermentation Technique

Laboratory analytical results will be compared to thresholds established in the following documents and summarized in Table 3.7 below.

1. *San Francisco Bay Basin (Region 2) Water Quality Control Plan (Basin Plan)* regulated by the SF Bay Regional Water Quality Control Board (RWQCB) for the specified Beneficial Use

2. Draft Guidance for Salt and Freshwater Beaches - Appendix B. US EPA Guidance for Recreational Waters and Beaches (Last update—July 27, 2000).

Table 3.7 Summary of Table 3-1 / 3-2 of the Basin Plan and US EPA Guidance for Recreational Waters and Beaches

Beneficial Use	Fecal Coliform (MPN/100 mL)	E. *Coli* (MPN/100 mL)	Salt Water Enterococci (MPN/100 ml)	Ammonia (Mg/L)
Infrequent Contact Water Recreation	2,000	576	500	1.9

3. Fecal Colifor*m* and E. *Coli* thresholds were established by the RWQCB for noncontact/infrequent contact water recreation activities.

3.4.8.2 Sampling Water in Lake Merritt

The City has developed and implemented the following water quality monitoring and sampling protocols and procedures in response to SSOs impacting Lake Merritt. Sampling protocols and procedures have been reviewed by the Alameda County Health Department.

- Water quality monitoring and sampling will be conducted for SSOs of any volume that discharge sewage into Lake Merritt.
- One sample is taken at the point of discharge and one sample is collected in each lateral direction from the point of discharge and then every 50 feet from there until the furthest sample in each lateral direction is at least 50 feet beyond the visible extent of the discharge at the time of stoppage.
- All samples are analyzed for Fecal Coliform, E-*Coli*, Enterococcus bacteria, and Ammonia by a State-certified laboratory. Samples shall be handled in accordance with:
  - Standard Method 9221 for Fecal Coliform and E-*Coli* – by Multiple Tube Fermentation Technique for Members of the Coliform Group;
  - Standard Method 4500 for Ammonia (NH3-B); and
  - Standard Method 9230B for Enterococcus – by Multiple Tube Fermentation Technique.
- If laboratory analytical results show levels at or below regulatory thresholds, the Protection and Compliance staff of the OPW-ESD will notify Sewer Maintenance Division staff that warning signs may be removed.
- If laboratory analytical results show levels above regulatory thresholds, the ESD will arrange for additional sampling and analysis by an REP, to be conducted within 72 hours of initial receipt of the analytical report.

- If laboratory analytical results from a second sampling event show levels still above regulatory thresholds, an REP under employment or contract with the City will determine whether the observed levels are attributable to factors other than the specific SSO discharge, in which case the Sewer Maintenance Division will be notified to remove warning notification signs. The criteria for such a determination is: (a) results from two consecutive rounds of sampling reveal levels are consistent with documented background levels in Lake Merritt; and (b) a site inspection by an REP under employment or contract to the City reveals no visual or olfactory evidence of the release.
- If persistent levels above regulatory thresholds are determined to be attributable to the specific SSO discharge, the ESD will arrange for an REP to conduct additional rounds of sampling and analysis until levels are equal to or below regulatory thresholds, at which time the Sewer Maintenance Division may remove warning notification signs.

3.4.8.3 Sampling Water in Lake Temescal

Lake Temescal is part of the EBRPD, and is open to the public for recreation. The EBRPD conducts regular testing for bacteria levels in this lake. In order to address potential sanitary sewer overflows into Lake Temescal, the City of Oakland had discussions with the EBRPD, and developed a draft protocol as described below:

- If an SSO is detected/reported either by the City or by the EBRPD, both entities will notify each other immediately. The phone number for the City's call center is 510-615-5566, and the EBRP's dispatch phone number is 510-881-1833.
- The City will have the right and responsibility to enter Lake Temescal property and post warning signs. The City staff will post signs at locations as recommended by the EBRPD.
- EBRPD will close the lake for recreation, as necessary.
- The City will conduct initial water sampling and analysis for bacteria (fecal coliforms, and E-*Coli*), and ammonia. This is to confirm that an SSO has entered into the lake, and to use as the baseline numbers for further testing. The City will provide the test results to EBRPD.
- EBRPD will conduct successive tests to evaluate the bacteria levels, and will provide the test results to the City.
- Once the bacteria levels are below the thresholds, EBRPD will notify the City that the levels are safe and the warning signs can be removed.
- The City crew will remove the signs.

3.4.8.4 Sampling Water in Creeks

Category 1 SSO (>50,000 gallons)

- **Within First 48 Hours of Receipt of Initial SSO Report**
  - Monitor for pH, temperature, and Dissolved Oxygen (D.O.)
  - Sample for Fecal Coliform, E. *Coli*, Ammonia, and, if the surface water is saline, Enterococci
  - Additional monitoring and sampling as requested by Regulatory Agency staff (e.g. RWQCB, ACEH)
- **Post Cleanup Operations and Activities**
  - Conduct confirmation monitoring and sampling (same parameters, sample analysis, and protocols/procedures as above)
  - Additional monitoring and sampling as requested by Regulatory Agency staff (e.g. RWQCB, ACEH)

Category 1 SSO (>1,000 gallons, but <50,000 gallons)

- **Post-Cleanup Operations and Activities**
  - Monitor for pH, temperature, and D.O.
  - Sample for Fecal Coliform, E. *Coli*, Ammonia, and if the surface water is saline, Enterococci
  - Additional monitoring and sampling as requested by Regulatory Agency staff (e.g. RWQCB, ACEH)

Category 1 SSO (<1,000 gallons)

- **Post-Cleanup Operations and Activities**
  - Additional monitoring and sampling as requested by Regulatory Agency staff (e.g. RWQCB, ACEH)
- One sample is taken at the point of discharge, one sample 50 feet upstream of the point of discharge, and one sample 50 feet downstream of the point of discharge. In addition, if any common downstream points of access to the creek (such as a park) are potentially affected by the release, a minimum of one sample is collected from each of these locations.
- If the laboratory analytical results show point of discharge and downstream samples at levels equal to or below regulatory thresholds, the Sewer Maintenance Division may remove any warning notification signs.
- If the laboratory analytical results show point of discharge or downstream levels above regulatory thresholds, OPW-ESD will arrange for additional sampling and

analysis by an REP, to be conducted within 72 hours of initial receipt of the laboratory analytical report.

- If the laboratory analytical results from a second sampling event show that levels are still above regulatory thresholds, an REP under employment or contract to the City will determine whether the observed levels are attributable to factors other than the sewage release, in which case the Sewer Maintenance Division may remove warning notification signs. The criteria for such a determination is: (a) results from two consecutive rounds of sampling reveal upstream levels are generally equivalent or higher than the point-of-discharge and downstream levels; and (b) a site inspection by an REP under employment or contract to the City reveals no visual or olfactory evidence of the release.
- If persistent levels above regulatory thresholds are determined to be attributable to the specified SSO discharge, the ESD will arrange for a REP to conduct additional rounds of sampling and analysis until levels are equal to or below regulatory thresholds, at which time the Sewer Maintenance Division may remove any warning notification signs.

3.4.9 Analyzing the Causes of Sanitary Sewer Overflows

The Sewer Maintenance Division Supervisor is responsible for ensuring that each SSO event is analyzed to determine its "root cause" and to identify and recommend corrective action(s) needed to reduce the risk of recurrence.

The Sewer System Maintenance Supervisor shall review the relevant data to determine corrective action(s) for the line segment. This review will include:

- Reviewing/correcting the Sanitary Sewer Overflow Report.
- Discussing SSO response and findings with the sewer crew and its supervisor.
- Reviewing past maintenance records.
- Reviewing available photographs.
- Conducting a CCTV inspection to determine the condition of the line segment where the SSO occurred.
- Assuring that all regulatory reporting requirements have been met.
- Completing the "Corrective Action" portion of the Sanitary Sewer Overflow Report (Appendix I, Side B).

The Sewer Maintenance Division Supervisor will consult with departmental engineers when pipe failures are identified and where engineering judgment is needed.

3.4.10 Record Keeping

3.4.10.1 SSO File

The Sewer Maintenance Division maintains separate files for each SSO. Each file contains:

- The Sanitary Sewer Overflow Report.
- A copy of the California Integrated Water Quality System (CIWQS) Report.
- The CCTV Report, if the SSO resulted in the pipe section being televised.
- The CMMS work order(s).
- Photographs and sketches, if available.
- Water Sampling Results, if available.

3.4.10.2 Sanitary Sewer Overflow Report

Field crews responding to an SSO fill out a Sanitary Sewer Overflow Report (Appendix K, Side A), which contains the following information:

- Spill location.
- Spill description.
- Spill occurring time.
- Cause of spill.
- Spill response.
- Notification details.

3.4.10.3 CIWQS Report

The Sewer Maintenance Supervisor is responsible for ensuring that a copy of the California Integrated Water Quality System (CIWQS) Report is included in the file and entered in the Sewer Maintenance Division's MS Access™ database.

3.4.10.4 CCTV Report

The Sewer Maintenance Supervisor is responsible for ensuring that a copy of the California Integrated Water Quality System report (CIWQS – Figure 3.6) is included in the file.

3.4.10.5 CMMS Work Order(s)

Cityworks CMMS is used to record all pertinent overflow information input by sewer staff daily.

3.4.10.6 Photographs

Any photographs or sketches related to the SSO are also stored in the SSO file.

City of Oakland Public Works Agency Department of Infrastructure and Operations SSO/Backup Response Plan	Sanitary Sewer Overflow Report	OP-2 Side A

This Report is (check one) ☐Preliminary ☐Final ☐Revised Final

SPILL LOCATION

Spill Location Name _____

Address _____ Street Direction (e.g., N, S, W, NE, SW, etc.)

Cross Street _____ Zip Code _____

Location Description _____

SPILL DESCRIPTION

Spill Appearance Point: ☐Building/Structure ☐Force Main ☐Gravity Sewer ☐ Pump Station
☐Other Sewer System Structure ☐ Other (specify):_____

Line Segment Choices: 1.M/H to M/H 2.L/H to M/H 3. C/O to M/H 4. L/H to C/O Distance: _____

Manhole-Structure ID#_____ to _____ Map # _____

Did the spill reach a drainage channel and/or surface water? ☐ Yes ☐ No

Spill caused from: ☐ Main Sewer ☐ Lateral Sewer If lateral, name of responsible party: _____

Final Spill Destination: ☐ Building Structure ☐ Other paved surface ☐ Storm drain ☐ Street/curb & gutter
☐ Surface water ☐ Unpaved surface ☐ other _____

Est. spill volume (gal) _____ Est. spill recovered _____ Method calculated _____

Est. spill volume reaching surface water, drainage channel, or not recovered from a storm drain _____

SPILL OCCURRING TIME

SSO Reported to: _____ SSO Reported by: _____ Phone: _____

Date/time reported _____ Spill start date/time _____

Date /time Sewer crew arrived _____ Spill end date /time _____

Weather Conditions ☐ Sunny ☐ Cloudy ☐ Rain

CAUSE OF SPILL

SSO cause (check all that apply) ☐ Debris-General ☐ Flow exceeded capacity ☐ Grease ☐ Roots

☐ Pipe problem/failure ☐ Pump station failure☐ Vandalism ☐Rainfall exceeded design

☐ Other _____

Size and Material of Sewer Main: _____

SPILL RESPONSE

Spill response activities: ☐Cleaned up ☐ Contained all/portion of spill ☐ TV inspection

☐ Restored flow ☐ Returned all/portion of spill to sanitary sewer ☐ other _____

Name of Impacted waters _____

Any fish killed? ☐ Yes ☐ No Any ongoing investigation? ☐ Yes ☐ No

Were health warnings posted ☐ Yes ☐ No Were samples of impacted waters collected?☐ Yes☐ No

Report Completed by:_____ **Date:**_____

(OVER)

SANITARY SEWER OVERFLOW REPORT

FIGURE 3.6 (page 1 of 2)

City of Oakland Public Works Agency Department of Infrastructure and Operations SSO/Backup Response Plan	Sanitary Sewer Overflow Corrective Action	OP-2 Side B

This Report is (check one) ☐Preliminary ☐Final ☐Revised Final

SPILL TRACKING INFO

CIWQS SSO EVENT ID #: _____

Cityworks Tracking #: _____

HISTORICAL SSO/BACKUPS, SERVICE CALLS, OTHER PROBLEMS

Date: _____ Cause: _____ Date Last Cleaned: _____ Crew: _____

Date: _____ Cause: _____ Date Last Cleaned: _____ Crew: _____

Date: _____ Cause: _____ Date Last Cleaned: _____ Crew: _____

CCTV INFORMATION

CCTV Inspection Date: _____ Tape Name/ Number: _____

CCTV Tape Reviewed By: _____ CCTV Review Date: _____

Observation: _____

_____

_____

RECOMMENDED CORRECTIVE ACTION

☐ No Changes or Repairs Required

☐ Add to Preventive Maintenance Program

☐ Adjust Preventive Maintenance Schedule

☐ Repair (location & type): _____

☐ Add to Capital Improvement Rehabilitation

Supervisor Review: _____ **Review Date:** _____

Assistant Director Review: _____ **Review Date:** _____

SANITARY SEWER OVERFLOW REPORT

FIGURE 3.6 (page 2 of 2)

3.4.10.7 Water Sampling Results

If water samples are collected in response to a SSO, OPW-ESD will maintain the records of such sampling, including the following information:

- The date, location, and time of sampling.
- The individual(s) who performed the sampling.
- The date(s) analyses were performed.
- The individual(s) who performed the analyses.
- The analytical method(s) used.
- The results of the analyses.

3.5 DATA MANAGEMENT

This section incorporates and replaces the Maintenance Management System Plan, which was submitted to the EPA in October 2010 and was approved by the EPA on December 6, 2010. It describes the functions available to maintenance workers for maintenance data management.

Cityworks CMMS is a state-of-the art, GIS-centric maintenance management system. It is used by over 500 public works agencies and utilities to manage work on public works assets.

The City of Oakland purchased and began using Cityworks CMMS in March 2008. Implementation of its use for service requests was completed in March 2009. Implementation of its use for sewer work orders was completed in January 2010.

A Sewer Maintenance Planner and a Program Analyst have been hired in the Sewer Maintenance Division to assist with data management.

3.5.1 Scheduling and Tracking Completion

Cityworks CMMS is capable of scheduling and tracking the completion of sewer cleaning, maintenance, repairs, and SSO responses. The City has configured Cityworks CMMS with work order templates specific to the work performed by OPW. This specifically includes the Sewer Maintenance Division.

Cityworks CMMS allows work to be scheduled for immediate action or to be completed in the future. Work can be scheduled as a one-time action (e.g., spill response) or on a cyclical basis (e.g., maintenance).

For work scheduled for immediate action, a work order is created in CityWorks CMMS and assigned to a crew leader. For work scheduled for future action, a work order is created in

Cityworks CMMS and given a Projected Start Date and a Projected Finish Date in Cityworks CMMS.

For work in Cityworks CMMS, an asset (or assets) is selected using any criteria and/or the GIS map. The asset can be a segment of sewer pipe, a sewer structure (e.g., maintenance hole), a pump station, etc. After the asset is selected, the type of work is identified (e.g., clear main).

Completion of the work is tracked in Cityworks CMMS. For each work order, a Sewer Maintenance Division staff member:

- Identifies the asset in the GIS maps, and associates that asset(s) with the work order in Cityworks CMMS.
- Enters the Actual Start Date and Actual Finish Date.
- Enters the crew leader who completed the work.
- Enters the Units Accomplished (e.g., 500 linear feet).
- Enters labor information (who did the work and how much time it took).
- Enters equipment information (what vehicle(s) were used and for how long).
- Enters additional information as needed (e.g., if it was caused by roots, caused by fats, oil and grease, if it was at a hot spot, etc.).

Cityworks CMMS was configured with work order templates to meet the needs of the Sewer Maintenance Division. The following lists give examples of the topics included in work order templates created for sewer collection system maintenance:

<u>Sewer Cleaning</u>

- Sewers – CCTV
- Sewers – CCTV PM
- Sewers – Clean – Drag
- Sewers – Clean – Flush
- Sewers – Clean – Hand Rod
- Sewers – Clean – Power Rod
- Sewers - Clean PM – Flush
- Sewers - Clean PM – Hand Rod
- Sewers - Clean PM – Hi-Freq 12 Month
- Sewers - Clean PM – Hi-Freq 3 Month
- Sewers - Clean PM – Power Rod

- Sewers – Clean-By Contractor

Maintenance

- Sewers – Back Up
- Sewers – CCTV
- Sewers – CCTV PM
- Sewers – Depression Investigate
- Sewers – Health Sign Removal
- Sewers – Human Waste Remove
- Sewers – Inspect Main
- Sewers – Lift Station Inspect
- Sewers – Locate Structures
- Sewers – Manhole Cover Replace.
- Sewers – Odor Investigate
- Sewers – Private Lateral Discharge
- Sewers – Root Foam-By Contractor
- Sewers – Smoke Testing-By Contractor

Repairs

- Building Maintenance – Misc. Repair – Pump Station [work done by another City entity]
- Sewers – Misc. Construction – Pump Station
- Sewers – Manhole Casting and Cover Replacement
- Sewers – Repair – Sewer Spot Repair
- Sewers – Repair – Temporary Sewer Line Repair
- Sewers – Replace – Maint Hole Cover Replace + Seal (INI)
- Sewers – Replace – Missing Manhole Cover

SSOs

- Sewers – Overflow

For SSO work orders, additional fields corresponding to Sanitary Sewer Overflow Reports are used, including:

- Did it reach a drain or gutter?
- Was the destination a storm drain?
- Was the destination surface water?
- Volume of the spill
- Volume recovered

- Method used to calculate volume
- Date reported
- Time reported
- Date crew arrived
- Time crew arrived
- Spill end date
- Spill end time
- Spill duration
- Were any fish killed?
- CIWQS tracking ID#

3.5.2 Record Keeping

Information acquired through the work order is recorded in Cityworks CMMS. This information includes but is not limited to what asset was inspected, who did the work, what vehicles they used, and when the work was performed. Sewer maintenance hole condition ratings are stored in Cityworks CMMS and can be used to update the City's Enterprise GIS.

The Cityworks CMMS can also be used to record work done by outside contractors, such as capital improvement projects. Relevant attribute information can be updated in the GIS. This includes but is not limited to installation and warranty dates. Updating the information in GIS makes the information immediately available in Cityworks CMMS; Cityworks CMMS accesses the Enterprise GIS data directly (there is no replication involved).

3.5.3 Report Generation

Cityworks CMMS has extensive querying, exporting, and reporting capabilities. These functions are primarily used to summarize SSOs and to identify hot spots.

3.5.4 Geographic Information System (GIS) Coordination

Cityworks CMMS uses the enterprise GIS database as an asset inventory. The enterprise GIS contains the City's sewer pipes, structures, and pump stations. Cityworks CMMS does not contain separate asset tables that have to be integrated, synchronized, or linked to the enterprise GIS; the inventory of capital assets and infrastructure is maintained in the enterprise GIS system.

All Sewer Maintenance Division Cityworks CMMS users have access to the GIS map of the sewage collection system; it is part of Cityworks CMMS and has been since March 2009. The City's Enterprise GIS contains the capability to record asset age, material, and dimensions. Where these fields are populated with data, the data is immediately available to Cityworks CMMS users.

3.6 STAFFING AND EQUIPMENT

3.6.1 Staff

The Sewer Maintenance Division is responsible for maintaining Oakland's sewer collection system and for responding to sewer overflows and service calls related to the system. During normal business hours (8:00 am to 4:30 pm), the full staff of the Sewer Maintenance Division is available. This staff currently consists of 69 employees:

- One (1) Operations Manager
- Two (2) Public Works Supervisor II's
- Five (5) Public Works Supervisor I's
- Twenty-two(22) Sewer Maintenance Leaders
- Thirty-two (32) Sewer Maintenance Workers
- Two (2) Heavy Equipment Operators
- One (1) Electrician
- One (1) Sewer Maintenance Planner
- One (1) Program Analyst
- Two (2) Administrative Assistant I

During non-business hours (4:30 p.m. to 8:00 a.m.), one General Standby Supervisor and one two-person Sewer Maintenance Crew are on call to respond to reports of SSOs. Additional employees can be called as necessary. Historically, these resources have always been sufficient to respond to SSOs within the City of Oakland.

All Sewer Maintenance Division employees have been professionally trained to respond to, contain, report, and mitigate SSOs.

3.6.2 Equipment

Major equipment used for sewer system operation and maintenance includes:

- Five (5) Hydro-flusher Trucks
- Four (4) Power-rodder Trucks
- Three (3) Complaint Crew Trucks with blockage removal equipment
- Five (5) CCTV Trucks
- Two (2) Construction Utility Trucks with equipment to perform minor spot repairs
- One (1) Emergency SSO Response Truck for containing major SSO's
- Two (2) Backhoes

- One (1) 10 Wheeled Dump Truck
- One (1) Four yard Dump Truck
- One (1) Three Yard Dump Truck
- Two (2) 2-inch trash pumps
- Two (2) 4-inch trailer-mounted diesel powered pump
- One (1) 6-inch trailer-mounted diesel powered pump
- Three (3) portable generators

All Sewer Maintenance Division equipment is available 24 hours per day. Additional equipment can be rented if necessary.

3.7 TRAINING

Paragraph 89 of the Consent Decree provides, in part*: "The City of Oakland shall continue to ensure that agency staff and responders are adequately trained to perform the procedures outlined in its AMIP, and to retain appropriate records and evaluate on a Fiscal Year basis agency staff's and responders' adherence to the AMIP as approved."*

The City requires all staff in Oakland Public Works to complete a set of specific training activities related to their respective job classifications. Continuous training is provided through Oakland's Citywide Training Program. Training on contents of the new Consent Decree was provided to all sewer maintenance staff and sewer design engineers and inspectors on September 18, 2014.

The City also holds an annual Safety Academy featuring many job-related safety training sessions.

The City intends to provide additional training/certification related to sewer system maintenance and inspection to appropriate City staff. Specifically, appropriate City staff will pursue training/certification through the CWEA Collection System Maintenance Certification program, and have received training on NASSCO's PACP certification program.

3.7.1 CWEA Collection System Maintenance Training

CWEA's Collection System Maintenance Certification program offers multi-level technical certification training for sewer system maintenance personnel. Tests are written by specialists in the field and administered throughout the year.

To become certified, all applicants must complete the Application for Technical Certification, pay an application fee, have suitable experience and education, and pass the computer-based test. The Collection System Maintenance Certification program is divided into four separate grades, based on the experience of the applicant. Table 3.8 summarizes the eligibility requirements for each grade.

Table 3.8 Eligibility Criteria for Collection System Maintenance Certification		
Grade	**Eligibility Criteria**	**Knowledge, Skills, and Abilities for Each Grade**
I	No Requirements Recommend one year of experience working as a technologist(1)	Possess acceptable competency to perform tasks necessary for entry level technologists(1)
II	Meet <u>one</u> of the following combinations: A. 4 years full-time experience in collection system maintenance B. 2 years full-time experience in collection system maintenance + Grade I Certificate for 1 year C. 2 years full-time experience in collection system maintenance + AA/AS degree in a related field D. 1 year full-time experience in collection system maintenance + BA/BS degree or higher in a related field	Possess acceptable competency to perform tasks necessary for skilled or journey level technologists(1)
III	Meet <u>one</u> of the following combinations: A. 6 years full-time experience in collection system maintenance B. 4 years full-time experience in collection system maintenance + Grade II Certificate for 2 years C. 4 years full-time experience in collection system maintenance + AA/AS degree in a related field D. 3 year full-time experience in collection system maintenance + BA/BS degree or higher, in a related field	Possess acceptable competency to perform tasks necessary for lead or advanced level technologists(1)
IV	Meet <u>one</u> of the following combinations: A. 8 years full time experience in collection system maintenance w/one year supervising others B. 6 years full time experience in collection system maintenance w/one year supervising others + Grade III Certificate for 2 years C. 6 years full time experience in collection system maintenance w/one year supervising others + Associate's degree in a related field D. 5 years full time experience in collection system maintenance + BA/BS degree or higher in a related field	Possess acceptable competency to perform tasks necessary for lead or management level technologists(1)
<u>Note:</u> (1) The term "Technologist" refers to a Collection System Maintenance Technologist.		

3.7.2 NASSCO PACP Training

The PACP program was developed by NASSCO to provide a reliable and standardized approach to characterize pipeline conditions. PACP assigns defect severity grades from one to five (both structural and O&M) for observed conditions in a pipe segment. The entire pipeline segment is then assigned a structural, O&M, and overall rating based on the number and severity of the observed defects.

NASSCO offers training courses for the PACP program throughout the country that familiarize the student with the PACP coding procedures, provide opportunities for students to ask questions and clarify various aspects of the program, and ensure the contents of the PACP have been adequately conveyed to the student through the successful completion of the certification examination.

City staff members completed NASSCO PACP training in late January and early February 2011, as well as NASSCO's Manhole Assessment and Certification Program (MACP) and Lateral Assessment and Certification Program (LACP). City staff were recertified on February 4, 2014, and a Master Roster has been created to ensure that staff is recertified every three (3) years as required to maintain NASSCO PACP, MACP and LACP certification. The next NASSCO training for City staff is scheduled for December 3 – 5, 2014.

CAPITAL IMPROVEMENTS

4.1 DESIGN AND CONSTRUCTION STANDARDS

4.1.1 Standards for Installation, Rehabilitation, and Repair

The City of Oakland (City) uses the statewide *Standard Specifications for Public Works Construction* (the "Green Book") for installation, rehabilitation, and repair of sewers. These standards are updated, adopted, and published every three years. These standards are supplemented by Special Provisions for each contract to reflect local conditions.

The City also publishes *Standard Detail Drawings for Public Works Construction* for sanitary sewer work. These drawings are available online at http://www2.oaklandnet.com/Government/o/PWA/o/EC/s/DGP/OAK025902.

Sanitary sewer design is controlled by the City's *Sanitary Sewer Design Guidelines*. This document is available online at http://www.oaklandnet.com/government/ceda/docs/guidelines_sanitary_sewer_design.pdf.

Requirements for building sewers are also provided in the Oakland Municipal Code Section 13.08 (Appendix C).

4.1.2 Standards for Inspection and Testing of New and Rehabilitated Facilities

The City's construction testing and inspection standards are in the *Green Book*. The City has a full-time inspection staff (Resident Engineers) who inspect new construction and sewer rehabilitation work. Resident Engineers insure that all Collection System construction meets the City's standards and codes. All sewers constructed by contractors are tested and video inspected before acceptance.

The Project Delivery and Construction Management Division of the Bureau of Engineering and Construction maintains the *Manual of Construction* for the construction management staff. This document provides training and guidance to inspection staff and establishes the standards for the inspection of all construction work.

4.1.3 Development of Regional Standards

Paragraph 83.d of the Consent Decree states:

"*The City shall work with the other Defendants to create Regional Standards for sewer installation, Rehabilitation and Repair and participate in submitting a group report of the recommended Regional Standards for EPA's review and approval by June 30, 2016, and for review, every five years thereafter."*

As part of updating the *Green Book* described in Section 4.1.1 above, the City plans to work with other Defendants to develop Regional Standards and to modify its Standard Specifications and special provisions for sewer work.

4.2 SEWER MAIN AND MAINTENANCE HOLE REHABILITATION

The City's sanitary sewer capital improvements address two objectives: 1) infiltration/inflow (I/I) correction; and 2) emergency and major defect Repair/Rehabilitation. The I/I correction program was established in response to the 1980's regional I/I program and will continue under the 2014 Consent Decree. The City's emergency and major defect Repair/Rehabilitation responds to the findings of the City's Sewer Inspection Program. In general, Repair/Rehabilitation locations are categorized as either minor repairs ("dig-ups") or major repairs. Minor repairs are usually performed by in-house maintenance staff. Major repairs and emergencies are normally corrected through capital improvements.

4.2.1 State Cease and Desist Order Requirements

In 1986, the California Regional Water Quality Control Board (CRWQCB) issued Cease and Desist Order (CDO) 93-134 to eight agencies including the City of Oakland. Since that time, the City has continued to address the issues in the CDO with its 25-year I/I program[1]. This program identified capacity deficient pipe reaches and sub-basins with the most I/I problems. These pipe reaches and sub-basins were then prioritized for correction and rehabilitation and subsequently rehabilitated or improved.

In 2009, the CRWQCB revised Oakland's CDO. As part of that revision, five additional rehabilitation projects were added to Oakland's I/I Correction Program and its completion was extended from 2014 to 2019.

Paragraph 82 of the Consent Decree states:

"…The Oakland CDO requires specified sewer projects to be completed by June 30, 2014, to reduce I/I. In addition, the CDO requires the City of Oakland to spend $2,500,000 per Fiscal Year for the next five (5) Fiscal Years. After the Effective Date of this Consent Decree, the staff of the Regional Water Board will bring to the Regional Water Board for consideration an order ("Rescission Order") to rescind the Oakland CDO and allow the remaining Oakland CDO work to be completed under the terms of this Consent Decree."

The "specified projects to be completed by June 30, 2014" mentioned in the CD have been completed. A letter has been sent to the CWRQCB informing them that Oakland has successfully completed its 25 year I/I Program. Work consisted of rehabilitating 75 sewer basins and adding capacity at over 120 locations at a cost of approximately $300 million[2].

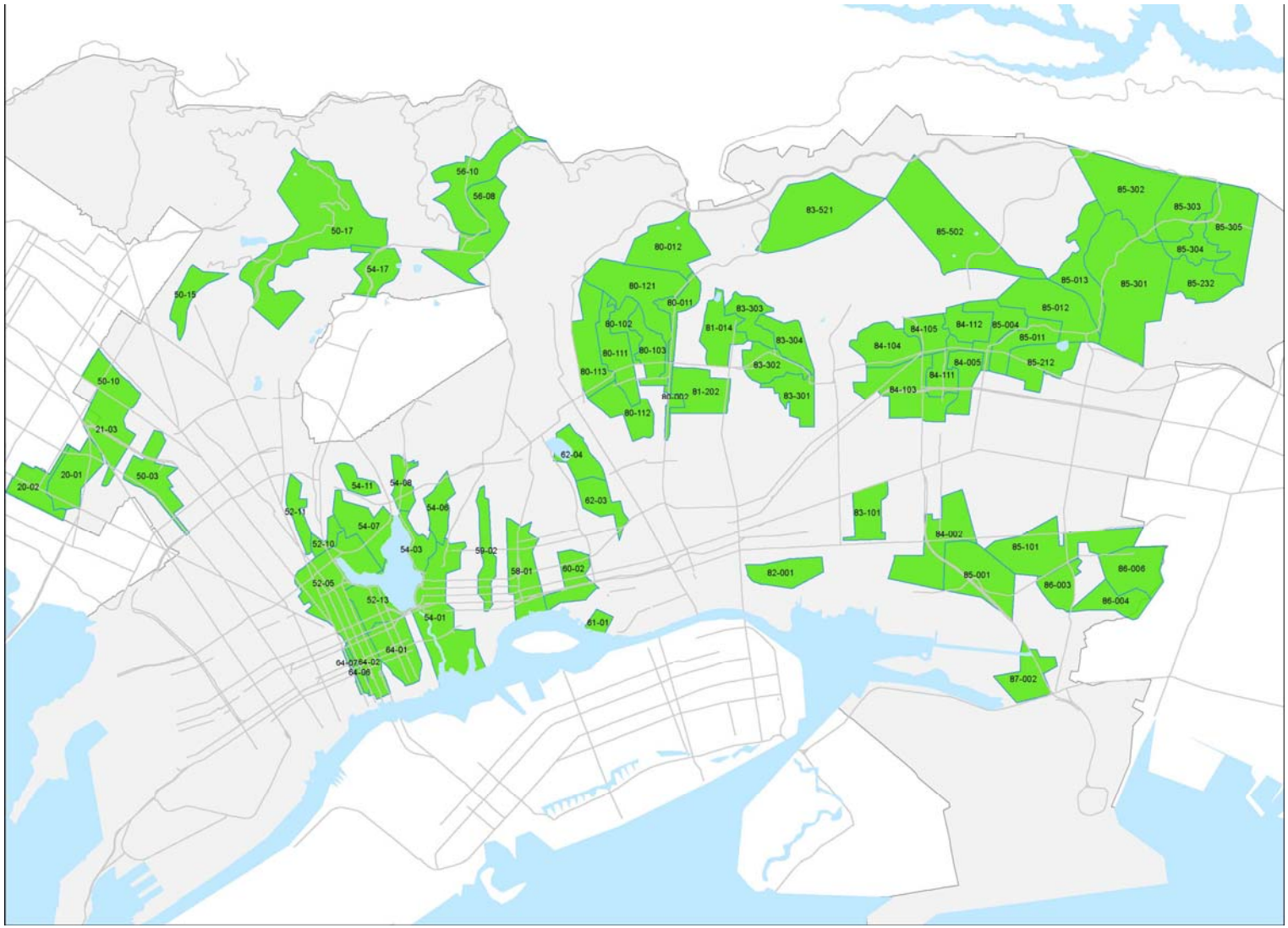
[1] The 1986 CDDO was a 20-year compliance plan. It was revised to a 25-year plan in 1993.
[2] Program cost includes project delivery costs such as design, construction management, administration, etc.

This work resulted in a 29 percent reduction in flows to EBMUD's Wastewater Treatment Plant.

Table 4.1 lists those completed rehabilitation projects. Figure 4.1 shows a map of Completed Sub-Basin Rehabilitation Projects.

Table 4.1 Completed CDO Rehabilitation Projects

No.	Basin	Sub-Basin	Project No.	No.	Basin	Sub-Basin	Project No.
1	20		C165210	39		80-112	C267210
2			C158310	40		80-113	C312410
3	21		C96010	41		80-121	C52230
5	50		C65110	42	81	81-014	C157910
6			C312310	43		81-202	G21610
7			C44210	44	82	82-001	C95810
8			C61210	45	83	83-101	C267310
9			C61210	46		83-301	C47410
10	52		C79410	47		83-302	C47610
11			C227210	48		83-303	G22610
12			C39610	49		83-304	C47510
13			C65210	50		83-521	C47310
14	54		C59310	51	84	84-002	C44410
15			G22110	52		84-005	G22010
16			G30610	53		84-103	C47210
17			G31110	54		84-104	C312210
18			G22210	55		84-105	C158010
19			G22310	56		84-111	C51910
20			G22410	57		84-112	C158110
21	56		G22510	58	85	85-001	C52310
22			C52610	59		85-004	C96210
23	58		C70010	60		85-011	C80110
24	59		C96110	61		85-012	C312810
25	60		C59610	62		85-013	C44110
26	61		C69710	63		85-101	C268310
27	62		C329140	64		85-212	C72910
28			C74510	65		85-232	C312010
29	64		C79610	66		85-301	C65310
30			C267110	67		85-302	C79110
31			C74710	68		85-303	C227810
32			C227710	69		85-304	G29510
33	80		C95910	70		85-305	G29510
34			C74910	71		85-502	C312510
35			C69910	72	86	86-003	C268410
36			C52010	73		86-004	C47110
37			C329141	74		86-006	C59810
38			C227310				



MAP OF COMPLETED SUB-BASIN REHABILITATION PROJECTS

FIGURE 4.1

4.2.2 Inflow and Infiltration Rehabilitation Requirements

Paragraph 83.a of the Consent Decree states:

"Between January 1, 2014 and June 30, 2016, the City of Oakland shall rehabilitate 158,400 feet of Sewer Main [30 miles]. *Beginning on July 1, 2016, the City of Oakland shall complete, by the end of each Fiscal Year, rehabilitation of no less than 63,360 feet* [12 miles] *of Sewer Mains identified in Appendix E based on a cumulative total (i.e. 221,760 feet* [42 miles] *by June 30, 2017; 285,120 feet* [54 miles] *by June 30, 2018; 348,480 feet* [66 miles] *by June 30, 2019; etc.) for the duration of the Consent Decree. When the City rehabilitates a Sewer Main, it shall also Rehabilitate, as needed, all Maintenance Holes associated with the Sewer Main and ensure that abandoned Sewer Laterals are not connected to that Sewer Main."*

Paragraph 83.a i. further states:

"*Effective July 1, 2016, the City shall prioritize those Sewer Mains for Rehabilitation that are located within the Sub-Basins specified in Appendix H."* (Table 4.2)

The City is ahead of schedule in complying with these requirements as documented in our Annual Report submitted on September 26, 2014.

The City's Sanitary Sewer 10 Year CIP Project Schedule and Ten Year Financial Plan are shown in Section 4.7 below.

4.2.3 Additional Rehabilitation Requirements

Paragraph 83.b states:

"In addition to the Work required under Paragraph 83(a), beginning on July 1, 2014, the City shall complete, by the end of each Fiscal Year, Rehabilitation of no less than 5,280 feet [1 mile] of Sewer Main, anywhere within the City's Collection System, based on a cumulative total (i.e. 5,280 feet [1 mile] by June 30, 2015; 10,560 feet [2 miles] by June 30, 2016; 15,840 feet [3 miles] by June 30, 2017; etc.) for the duration of the Consent Decree."

Based on results of the sewer inspection program, the City plans to rehabilitate at least one mile of Sewer Main per Fiscal Year consisting of minor, major, and emergency sewer work to reduce the occurrence of Sanitary Sewer Overflows.

Table 4.2 CD Appendix H: Oakland Sub-Basin Rehabilitation Priorities

Basin 50	Basin 52	Basin 54	Basin 56	Basin 58	Basin 59	Basin 60	Basin 61	Basin 80	Basin 81	Basin 82	Basin 83	Basin 84	Basin 85	Basin 86	Basin 87
50L-1	**52-1**	**54-1_2**	**56-1**	**58-1**	**59-1**	**60-1**	**61-1**	**80-1**	**81-1_2**	**82L-1**	**83L-1**	**84L-1**	**85L-1**	**86-1**	**87-1**
5010	52 *	5414/5415*	5602	5802	5901	6007	6101	80102	81201	82003	83001	84101	85101	86002	87001
50U-1		5408 *	5601	5804		6006	6102	80101	81102	82001	**83U-1_2_4**	84102	85102	86001	
5014 *		5416 *	5606			6008	61	80113	81012	82002	83202	84003	85202	**86-2**	
5016 *			5607			6003	**62-2**	80001	81101	**82L-2**	83002	**84L-4**	**85U-1**	86002	
5020 *						6004	6202	**80-2**	81013	82001	83201	84101	85502		
5022 *						**60-2**	**62-3**	80113	81015	**82U-1**	83303 *	**84U-1**	85012		
						6001	6202	80022	81002	82005	83013	84102	**85U-2A**		
								80021	**81-3**	82004	83012	**84U-3**	85211		
									81001		83402	84004	**85U-2B**		
									81-4		83011		85231		
									81001		83503		85232		
											83404		85205		
											83501				
											83403				
											83502				
											83401 *				
											83U-3				
											83102				
											83103				

* Partial rehabilitation in this Sub-basin is expected in the earlier years of the Consent Decree. No additional rehabilitation, including City facility lateral rehabilitation work as stated in Paragraph 84.d, is expected in this Sub-basin.

4.2.3.1 Minor Repairs and Improvements

Sewer maintenance crews report Sewer Main and Maintenance Hole defects requiring Repair or Rehabilitation to the Sanitary Sewer Maintenance Supervisor II. The Supervisor determines whether the Repair/Rehabilitation can be done by in-house employees. If the work is within the City's in-house capabilities, it is placed on the Sewer Maintenance Repair List ("Dig-up List") and addressed in the order in which the work request was received.

Minor Repair/Rehabilitation is normally completed within a one-year period. If the work exceeds the City's in-house capabilities, the Sewer Maintenance Supervisor refers the work to the Bureau of Engineering and Construction (BEC) for Repair/Rehabilitation by contract. After July 1, 2016, this work may be counted toward the City's 12 mile per year Rehabilitation requirement (Paragraph 4.2.2 above) if it is located in the Sub-Basins listed in Table 4.2. If work is done in Sub-Basins outside those listed in Table 4.2, the work may be counted as part of the additional mile of required work discussed in Section 4.2.3.

4.2.3.2 Major Repairs and Emergencies

The Bureau of Engineering and Construction (BEC) maintains an annual sewer on-call construction contract to provide quick response to emergencies and other urgent major repair requests, including Acute Defects referred by the Sanitary Sewer Maintenance Supervisor. Other less urgent repair locations are repaired through a design-bid-build process that follows the City's Design and Construction Standards. The City budgets $2,500,000 annually for such projects. Staff from engineering and maintenance hold regular monthly meetings to discuss, monitor, and coordinate respective activities. After July 1, 2016, the work described in this paragraph may be counted toward the City's 12 mile per year Rehabilitation requirement if it is located in the Sub-Basins listed in Table 4.2. If work is done in Sub-Basins outside Table 4.2, the work may be counted as part of the additional mile of required work.

4.2.4 Lower Lateral Rehabilitation Requirements

Paragraph 86.a. of the Consent Decree states:

"The City of Oakland shall continue its existing practice of, when Rehabilitating Sewer Mains, evaluating the condition of Lower Laterals connected to those Sewer Mains and Rehabilitating or requiring Rehabilitation of defective Lower Laterals."

The City is continuing its practice of inspecting and, where needed, rehabilitating Lower Laterals as part of Sewer Main Rehabilitation, except where Lower Laterals are constructed within sub-sidewalk basements and other occasions where Lower Laterals are not readily accessible. Under those conditions, property owners are issued Notices to Repair their Lower Laterals, if defective.

4.3 ELIMINATION OF ACUTE DEFECTS

Paragraph 8 of the Consent Decree defines Acute Defects as:

"…a failure in a sewer pipe in need of an urgent response to address an imminent risk of an SSO."

Paragraph 91 states:

"The City of Oakland shall continue to Repair Acute Defects as soon as possible, but no later than within one Year of identification."

The City recognizes the need for quick response and has performed most repairs to Acute Defects within one year of completion of identification as described in our Annual Report. Additional emphasis is now being given to assure **all** Acute Defects are repaired within 12 months.

The City repairs Acute Defects using in-house crews and on-call contractors. In addition to in-house forces, the City has an annual budget in its Ten Year Financial Plan for emergency sewer work. This funding has always proven sufficient. If the amount of Acute Defects increases to a level that cannot be repaired within one year, the City will consult with EPA to determine future actions.

Repair/Rehabilitation of acute defects may be counted toward the City's 12 mile per fiscal year rehabilitation requirement if the entire sewer segment (maintenance hole to maintenance hole) is replaced and the segment is located in the Sub-Basins listed in Table 4.2. If work is done in Sub-Basins outside Table 4.2, the work may be counted as part of the additional mile of required work.

4.4 PUMP/LIFT STATION AND FORCE MAIN IMPROVEMENTS

This section incorporates and replaces the City's Pump Station Reliability Plan, which was approved by EPA on March 14, 2011. The Pump Station Reliability Plan is based upon an update of the work completed in the City's September 2007 Pump Station Master Plan.

The 2007 Pump Station Master Plan recommended a number of improvements to the City's sewer pump/lift stations. Table 4.3 summarizes costs of the Pump Station Master Plan's recommended improvements for each pump station with its corresponding priority ranking.

The Pump Station Master Plan analyzed each pump/lift station service area, land uses, influent and effluent piping, design flows, and pump size and capacity, and concluded that all existing pump stations are adequately sized for current design flows. The scope of work for all future pump station upgrades will include replacing pumps, mechanical piping, electrical components, providing stand-by power for portable back-up generators or hook-ups, and a remote auto-dialer alarm system.

Table 4.3 Pump Station Preliminary Improvement Costs		
Priority	**Pump Station**	**Cost**
1	Tidewater Avenue	$948,000
2	Fallon Street	$138,000
3	Hegenberger Road	$120,500
4	Parkridge Drive	$127,000
5	Shepherd Canyon Road	$289,300
6	Skyline Boulevard	$92,400
7	Denton Place	$65,300
Engineering, CM, and Contingency (40%)		$712,500
Total		**$2,493,000**
Note: Costs are based on *Engineering News Record* (ENR) 20-City Construction Cost Index of 8049.65 (Sep 2007)		

Paragraph 94 of the Consent Decree states:

"On March 14, 2011, EPA approved the City of Oakland's Pump Station Reliability Plan. The City shall complete the improvements described in the Plan by October 15, 2022."

Work on the Tidewater Pump Station has been completed. Planning and design of improvements to the other pump stations has begun. The City is significantly ahead of schedule with its Pump Station Improvement Program, with completion planned for 2017, five years ahead of schedule.

The City owns approximately 500 linear feet of force mains. The force mains will be inspected as the pump stations are constructed. As these pipelines are inspected, future pipeline rehabilitation projects may be identified. At this time, no force main improvement projects are scheduled.

4.5 CAPACITY IMPROVEMENTS

Paragraph 89.a of the Consent Decree requires the City to monitor twelve Maintenance Holes at locations where computer modeling suggests capacity may be deficient. Paragraph 89.b states:

"In the event that the City at any of the locations in subparagraph 89(a): (i) experiences an SSO caused by lack of capacity; (ii) determines that the water level reaches within one (1) foot of the Maintenance Hole rim due to a lack of capacity, except during a rain event that is greater than the December 5, 1952 Storm; or (iii) has reason to believe a capacity related SSO is likely to occur, the City shall implement improvements to address the capacity

deficiency within twenty four months of the SSO, the date when the water level reached within one (1) foot of the Maintenance Hole rim, or the event triggering the likelihood of an SSO."

The City will continue to monitor water levels at the specified Maintenance Holes and take corrective action as required. The City has budgeted a million dollars per Fiscal Year as contingency to fund this or other work that may be required.

4.6 REHABILITATION OF CITY OWNED SEWER LATERALS

Paragraph 84.d of the Consent Decree states:

"The City agrees to inspect and Repair or Rehabilitate, as necessary, all Sewer Laterals owned by the City of Oakland identified in Appendix H.1 within a period of ten (10) Calendar Years from the Effective Date."

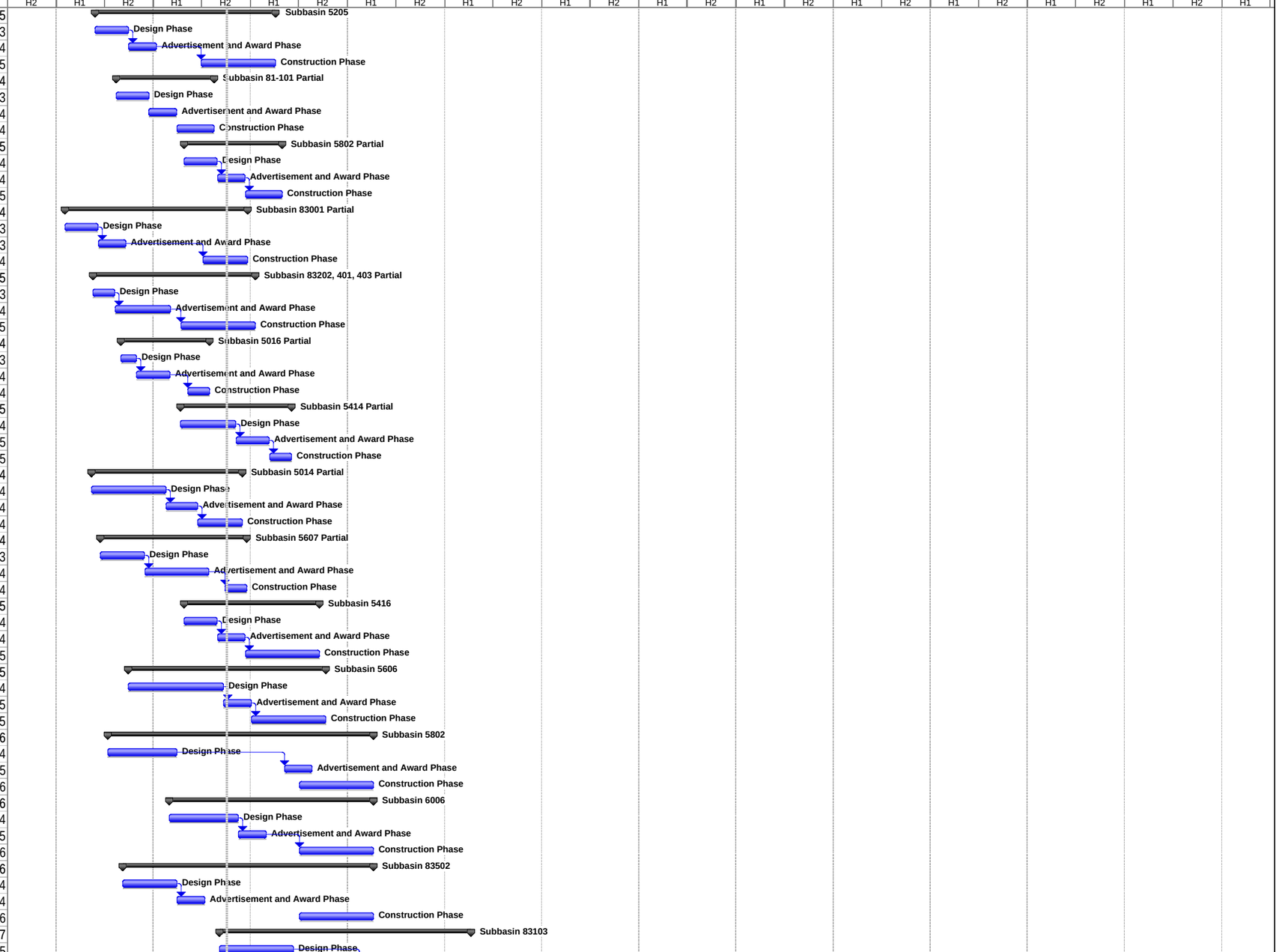
The City has begun collecting As-Built drawings for the 95 buildings listed in Appendix H-1 of the Consent Decree in order to identify and locate City owned sewer laterals. Within five years of the Effective Date, the City will identify, test and inspect Sewer Laterals associated with these buildings. A Repair/Rehabilitation schedule will be developed and included in future updates of this AMIP/SSMP once inspection results are known.

4.7 TEN-YEAR CAPITAL IMPROVEMENT PROGRAM (CIP)

The City's Sanitary Sewer 10 Year CIP Project Schedule is shown in Figure 4.2. The Ten Year Financial Plan is provided in Table 4.7. Both the Ten Year CIP Schedule and Ten Year Financial Plan will be updated each time the AMIP/SSMP is updated to reflect progress, findings of EBMUD's Regional Technical Support Program, and other developments which may occur during the life of the Consent Decree.

City of Oakland Sanitary Sewer 10 Year CIP Tentative Project Schedule

ID	Task Name	Duration	Start	Finish
1	Subbasin 5205	485 days?	Tue 5/28/13	Mon 4/6/15
2	Design Phase	90 days?	Tue 5/28/13	Mon 9/30/13
3	Advertisement and Award Phase	75 days?	Tue 10/1/13	Mon 1/13/14
4	Construction Phase	200 days	Tue 7/1/14	Mon 4/6/15
5	Subbasin 81-101 Partial	262 days?	Fri 8/16/13	Mon 8/18/14
6	Design Phase	87 days?	Fri 8/16/13	Mon 12/16/13
7	Advertisement and Award Phase	75 days?	Mon 12/16/13	Sun 3/30/14
8	Construction Phase	100 days?	Tue 4/1/14	Mon 8/18/14
9	Subbasin 5802 Partial	265 days?	Mon 4/28/14	Fri 5/1/15
10	Design Phase	90 days?	Mon 4/28/14	Fri 8/29/14
11	Advertisement and Award Phase	75 days?	Mon 9/1/14	Fri 12/12/14
12	Construction Phase	100 days	Mon 12/15/14	Fri 5/1/15
13	Subbasin 83001 Partial	491 days?	Mon 2/4/13	Mon 12/22/14
14	Design Phase	90 days?	Mon 2/4/13	Fri 6/7/13
15	Advertisement and Award Phase	75 days?	Mon 6/10/13	Fri 9/20/13
16	Construction Phase	120 days?	Tue 7/8/14	Mon 12/22/14
17	Subbasin 83202, 401, 403 Partial	437 days?	Mon 5/20/13	Tue 1/20/15
18	Design Phase	60 days?	Mon 5/20/13	Fri 8/9/13
19	Advertisement and Award Phase	150 days?	Mon 8/12/13	Fri 3/7/14
20	Construction Phase	200 days	Wed 4/16/14	Tue 1/20/15
21	Subbasin 5016 Partial	240 days?	Mon 9/2/13	Fri 8/1/14
22	Design Phase	43 days?	Mon 9/2/13	Wed 10/30/13
23	Advertisement and Award Phase	90 days?	Thu 10/31/13	Wed 3/5/14
24	Construction Phase	60 days	Mon 5/12/14	Fri 8/1/14
25	Subbasin 5414 Partial	300 days?	Mon 4/14/14	Fri 6/5/15
26	Design Phase	150 days?	Mon 4/14/14	Fri 11/7/14
27	Advertisement and Award Phase	90 days?	Mon 11/10/14	Fri 3/13/15
28	Construction Phase	60 days	Mon 3/16/15	Fri 6/5/15
29	Subbasin 5014 Partial	405 days?	Wed 5/15/13	Tue 12/2/14
30	Design Phase	200 days?	Wed 5/15/13	Tue 2/18/14
31	Advertisement and Award Phase	85 days?	Wed 2/19/14	Tue 6/17/14
32	Construction Phase	120 days	Wed 6/18/14	Tue 12/2/14
33	Subbasin 5607 Partial	395 days?	Mon 6/17/13	Fri 12/19/14
34	Design Phase	120 days?	Mon 6/17/13	Fri 11/29/13
35	Advertisement and Award Phase	172 days?	Mon 12/2/13	Tue 7/29/14
36	Construction Phase	60 days	Mon 9/29/14	Fri 12/19/14
37	Subbasin 5416	365 days?	Mon 4/28/14	Fri 9/18/15
38	Design Phase	90 days?	Mon 4/28/14	Fri 8/29/14
39	Advertisement and Award Phase	75 days?	Mon 9/1/14	Fri 12/12/14
40	Construction Phase	200 days	Mon 12/15/14	Fri 9/18/15
41	Subbasin 5606	531 days?	Mon 9/30/13	Mon 10/12/15
42	Design Phase	256 days?	Mon 9/30/13	Mon 9/22/14
43	Advertisement and Award Phase	75 days?	Tue 9/23/14	Mon 1/5/15
44	Construction Phase	200 days?	Tue 1/6/15	Mon 10/12/15
45	Subbasin 5802	715 days?	Mon 7/15/13	Fri 4/8/16
46	Design Phase	186 days?	Mon 7/15/13	Mon 3/31/14
47	Advertisement and Award Phase	75 days?	Mon 5/11/15	Fri 8/21/15
48	Construction Phase	200 days?	Mon 7/6/15	Fri 4/8/16
49	Subbasin 6006	550 days?	Mon 3/3/14	Fri 4/8/16
50	Design Phase	186 days?	Mon 3/3/14	Mon 11/17/14
51	Advertisement and Award Phase	75 days?	Tue 11/18/14	Mon 3/2/15
52	Construction Phase	200 days?	Mon 7/6/15	Fri 4/8/16
53	Subbasin 83502	675 days?	Mon 9/9/13	Fri 4/8/16
54	Design Phase	146 days?	Mon 9/9/13	Mon 3/31/14
55	Advertisement and Award Phase	75 days?	Tue 4/1/14	Mon 7/14/14
56	Construction Phase	200 days?	Mon 7/6/15	Fri 4/8/16
57	Subbasin 83103	676 days?	Mon 9/8/14	Mon 4/10/17
58	Design Phase	200 days?	Mon 9/8/14	Fri 6/12/15

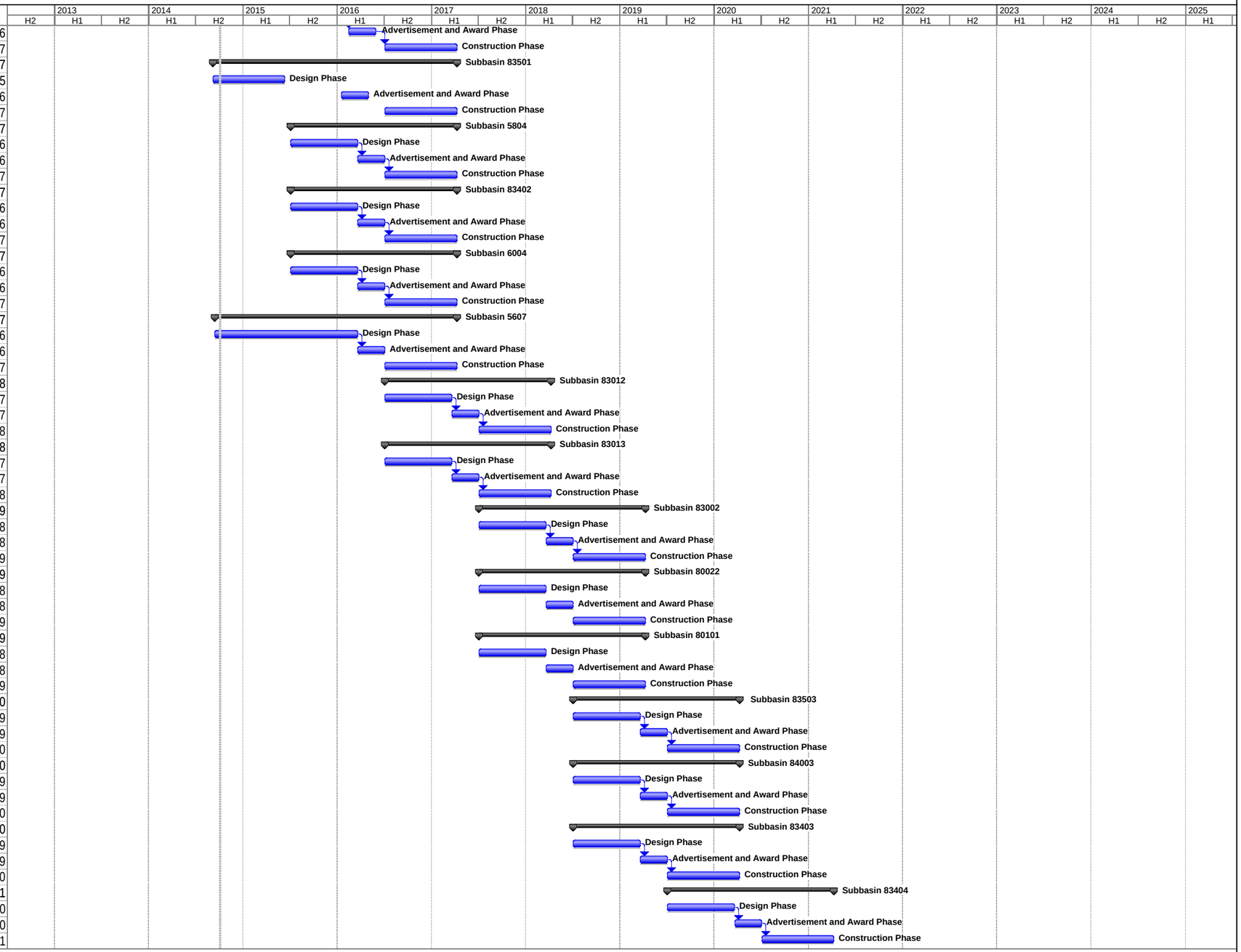


Project: SS 10 Year CIP MS Project 10
Date: Fri 10/3/14

Task | Split | Progress | Milestone | Summary | Project Summary | External Tasks | External Milestone | Deadline

City of Oakland Sanitary Sewer 10 Year CIP Tentative Project Schedule

ID	Task Name	Duration	Start	Finish
59	Advertisement and Award Phase	75 days?	Tue 2/16/16	Mon 5/30/16
60	Construction Phase	200 days?	Tue 7/5/16	Mon 4/10/17
61	Subbasin 83501	676 days?	Mon 9/8/14	Mon 4/10/17
62	Design Phase	200 days?	Mon 9/8/14	Fri 6/12/15
63	Advertisement and Award Phase	75 days?	Tue 1/19/16	Mon 5/2/16
64	Construction Phase	200 days?	Tue 7/5/16	Mon 4/10/17
65	Subbasin 5804	461 days?	Mon 7/6/15	Mon 4/10/17
66	Design Phase	186 days?	Mon 7/6/15	Mon 3/21/16
67	Advertisement and Award Phase	75 days?	Tue 3/22/16	Mon 7/4/16
68	Construction Phase	200 days?	Tue 7/5/16	Mon 4/10/17
69	Subbasin 83402	461 days?	Mon 7/6/15	Mon 4/10/17
70	Design Phase	186 days?	Mon 7/6/15	Mon 3/21/16
71	Advertisement and Award Phase	75 days?	Tue 3/22/16	Mon 7/4/16
72	Construction Phase	200 days?	Tue 7/5/16	Mon 4/10/17
73	Subbasin 6004	461 days?	Mon 7/6/15	Mon 4/10/17
74	Design Phase	186 days?	Mon 7/6/15	Mon 3/21/16
75	Advertisement and Award Phase	75 days?	Tue 3/22/16	Mon 7/4/16
76	Construction Phase	200 days?	Tue 7/5/16	Mon 4/10/17
77	Subbasin 5607	671 days?	Mon 9/15/14	Mon 4/10/17
78	Design Phase	396 days?	Mon 9/15/14	Mon 3/21/16
79	Advertisement and Award Phase	75 days?	Tue 3/22/16	Mon 7/4/16
80	Construction Phase	200 days?	Tue 7/5/16	Mon 4/10/17
81	Subbasin 83012	461 days?	Tue 7/5/16	Tue 4/10/18
82	Design Phase	186 days?	Tue 7/5/16	Tue 3/21/17
83	Advertisement and Award Phase	75 days?	Wed 3/22/17	Tue 7/4/17
84	Construction Phase	200 days?	Wed 7/5/17	Tue 4/10/18
85	Subbasin 83013	461 days?	Tue 7/5/16	Tue 4/10/18
86	Design Phase	186 days?	Tue 7/5/16	Tue 3/21/17
87	Advertisement and Award Phase	75 days?	Wed 3/22/17	Tue 7/4/17
88	Construction Phase	200 days?	Wed 7/5/17	Tue 4/10/18
89	Subbasin 83002	461 days?	Wed 7/5/17	Wed 4/10/19
90	Design Phase	186 days?	Wed 7/5/17	Wed 3/21/18
91	Advertisement and Award Phase	75 days?	Thu 3/22/18	Wed 7/4/18
92	Construction Phase	200 days?	Thu 7/5/18	Wed 4/10/19
93	Subbasin 80022	461 days?	Wed 7/5/17	Wed 4/10/19
94	Design Phase	186 days?	Wed 7/5/17	Wed 3/21/18
95	Advertisement and Award Phase	75 days?	Thu 3/22/18	Wed 7/4/18
96	Construction Phase	200 days?	Thu 7/5/18	Wed 4/10/19
97	Subbasin 80101	461 days?	Wed 7/5/17	Wed 4/10/19
98	Design Phase	186 days?	Wed 7/5/17	Wed 3/21/18
99	Advertisement and Award Phase	75 days?	Thu 3/22/18	Wed 7/4/18
100	Construction Phase	200 days?	Thu 7/5/18	Wed 4/10/19
101	Subbasin 83503	461 days?	Thu 7/5/18	Thu 4/9/20
102	Design Phase	186 days?	Thu 7/5/18	Thu 3/21/19
103	Advertisement and Award Phase	75 days?	Fri 3/22/19	Thu 7/4/19
104	Construction Phase	200 days?	Fri 7/5/19	Thu 4/9/20
105	Subbasin 84003	461 days?	Thu 7/5/18	Thu 4/9/20
106	Design Phase	186 days?	Thu 7/5/18	Thu 3/21/19
107	Advertisement and Award Phase	75 days?	Fri 3/22/19	Thu 7/4/19
108	Construction Phase	200 days?	Fri 7/5/19	Thu 4/9/20
109	Subbasin 83403	461 days?	Thu 7/5/18	Thu 4/9/20
110	Design Phase	186 days?	Thu 7/5/18	Thu 3/21/19
111	Advertisement and Award Phase	75 days?	Fri 3/22/19	Thu 7/4/19
112	Construction Phase	200 days?	Fri 7/5/19	Thu 4/9/20
113	Subbasin 83404	461 days?	Fri 7/5/19	Fri 4/9/21
114	Design Phase	186 days?	Fri 7/5/19	Fri 3/20/20
115	Advertisement and Award Phase	75 days?	Mon 3/23/20	Fri 7/3/20
116	Construction Phase	200 days	Mon 7/6/20	Fri 4/9/21

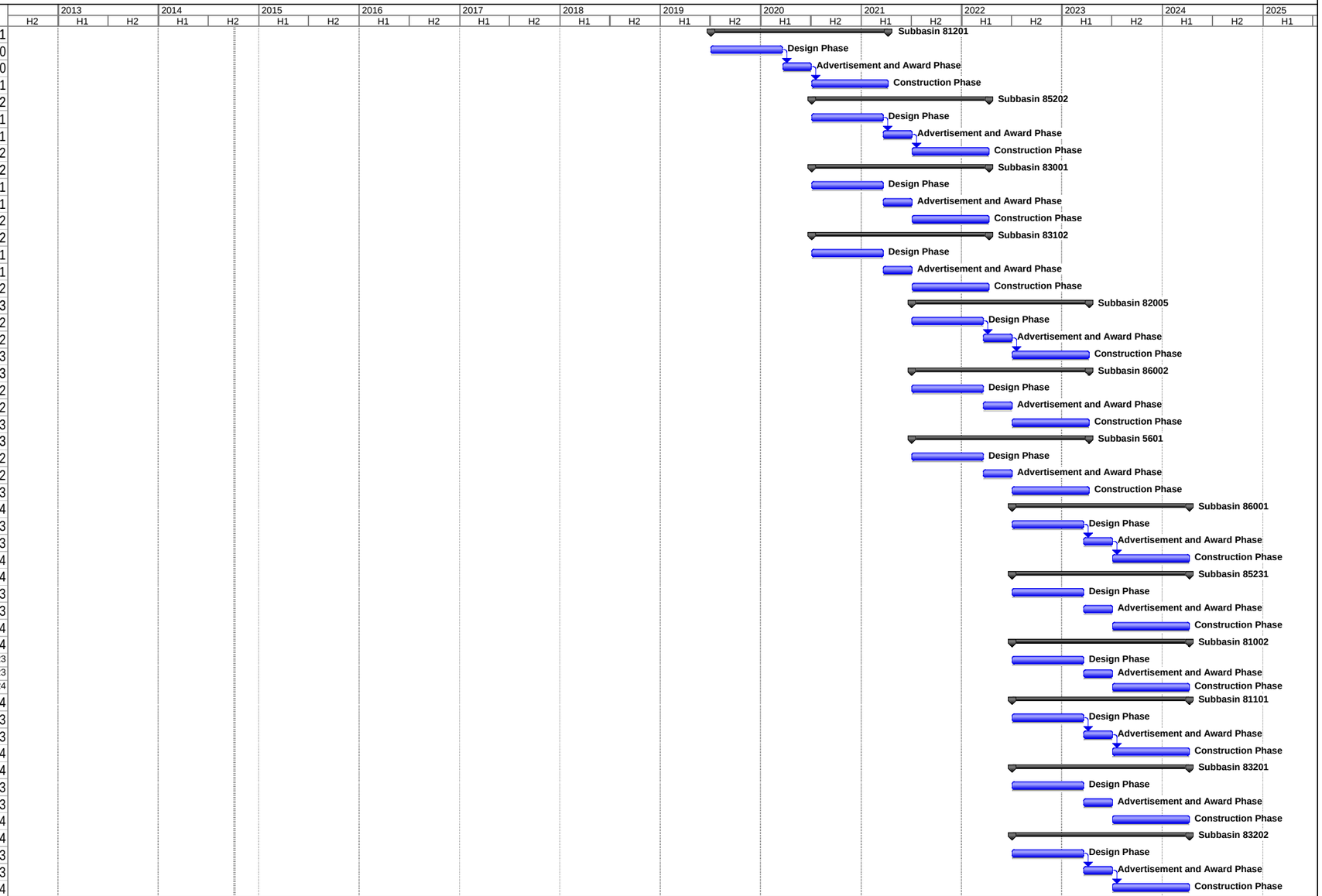


Project: SS 10 Year CIP MS Project 10
Date: Fri 10/3/14

Task | Split | Progress | Milestone | Summary | Project Summary | External Tasks | External Milestone | Deadline

City of Oakland Sanitary Sewer 10 Year CIP Tentative Project Schedule

ID	Task Name	Duration	Start	Finish
117	Subbasin 81201	461 days?	Fri 7/5/19	Fri 4/9/21
118	Design Phase	186 days?	Fri 7/5/19	Fri 3/20/20
119	Advertisement and Award Phase	75 days?	Mon 3/23/20	Fri 7/3/20
120	Construction Phase	200 days?	Mon 7/6/20	Fri 4/9/21
121	Subbasin 85202	461 days?	Mon 7/6/20	Mon 4/11/22
122	Design Phase	186 days?	Mon 7/6/20	Mon 3/22/21
123	Advertisement and Award Phase	75 days?	Tue 3/23/21	Mon 7/5/21
124	Construction Phase	200 days?	Tue 7/6/21	Mon 4/11/22
125	Subbasin 83001	461 days?	Mon 7/6/20	Mon 4/11/22
126	Design Phase	186 days?	Mon 7/6/20	Mon 3/22/21
127	Advertisement and Award Phase	75 days?	Tue 3/23/21	Mon 7/5/21
128	Construction Phase	200 days?	Tue 7/6/21	Mon 4/11/22
129	Subbasin 83102	461 days?	Mon 7/6/20	Mon 4/11/22
130	Design Phase	186 days?	Mon 7/6/20	Mon 3/22/21
131	Advertisement and Award Phase	75 days?	Tue 3/23/21	Mon 7/5/21
132	Construction Phase	200 days?	Tue 7/6/21	Mon 4/11/22
133	Subbasin 82005	461 days?	Mon 7/5/21	Mon 4/10/23
134	Design Phase	186 days?	Mon 7/5/21	Mon 3/21/22
135	Advertisement and Award Phase	75 days?	Tue 3/22/22	Mon 7/4/22
136	Construction Phase	200 days?	Tue 7/5/22	Mon 4/10/23
137	Subbasin 86002	461 days?	Mon 7/5/21	Mon 4/10/23
138	Design Phase	186 days?	Mon 7/5/21	Mon 3/21/22
139	Advertisement and Award Phase	75 days?	Tue 3/22/22	Mon 7/4/22
140	Construction Phase	200 days?	Tue 7/5/22	Mon 4/10/23
141	Subbasin 5601	461 days?	Mon 7/5/21	Mon 4/10/23
142	Design Phase	186 days?	Mon 7/5/21	Mon 3/21/22
143	Advertisement and Award Phase	75 days?	Tue 3/22/22	Mon 7/4/22
144	Construction Phase	200 days?	Tue 7/5/22	Mon 4/10/23
145	Subbasin 86001	461 days?	Tue 7/5/22	Tue 4/9/24
146	Design Phase	186 days?	Tue 7/5/22	Tue 3/21/23
147	Advertisement and Award Phase	75 days?	Wed 3/22/23	Tue 7/4/23
148	Construction Phase	200 days?	Wed 7/5/23	Tue 4/9/24
149	Subbasin 85231	461 days?	Tue 7/5/22	Tue 4/9/24
150	Design Phase	186 days?	Tue 7/5/22	Tue 3/21/23
151	Advertisement and Award Phase	75 days?	Wed 3/22/23	Tue 7/4/23
152	Construction Phase	200 days?	Wed 7/5/23	Tue 4/9/24
153	Subbasin 81002	461 days?	Tue 7/5/22	Tue 4/9/24
154	Design Phase	186 days?	Tue 7/5/22	Tue 3/21/23
155	Advertisement and Award Phase	75 days?	Wed 3/22/23	Tue 7/4/23
156	Construction Phase	200 days?	Wed 7/5/23	Tue 4/9/24
157	Subbasin 81101	461 days?	Tue 7/5/22	Tue 4/9/24
158	Design Phase	186 days?	Tue 7/5/22	Tue 3/21/23
159	Advertisement and Award Phase	75 days?	Wed 3/22/23	Tue 7/4/23
160	Construction Phase	200 days?	Wed 7/5/23	Tue 4/9/24
161	Subbasin 83201	461 days?	Tue 7/5/22	Tue 4/9/24
162	Design Phase	186 days?	Tue 7/5/22	Tue 3/21/23
163	Advertisement and Award Phase	75 days?	Wed 3/22/23	Tue 7/4/23
164	Construction Phase	200 days	Wed 7/5/23	Tue 4/9/24
165	Subbasin 83202	461 days?	Tue 7/5/22	Tue 4/9/24
166	Design Phase	186 days?	Tue 7/5/22	Tue 3/21/23
167	Advertisement and Award Phase	75 days?	Wed 3/22/23	Tue 7/4/23
168	Construction Phase	200 days?	Wed 7/5/23	Tue 4/9/24



Project: SS 10 Year CIP MS Project 10
Date: Fri 10/3/14

Task | Split | Progress | Milestone | Summary | Project Summary | External Tasks | External Milestone | Deadline

Table 4.4 10-Year Financial Plan (Figures shown below are estimates based on various assumptions and actual may vary significantly.)

September 2013	FY 14-15	FY 15-16	FY 16-17	FY 17-18	FY 18-19	FY 19-20	FY 20-21	FY 21-22	FY 22-23	FY 23-24	Notes
Opening Balance	**$55,500,000**	**$41,255,896**	**$30,085,891**	**$19,059,352**	**$8,160,152**	**$(1,137,337)**	**$(13,358,366)**	**$(27,518,820)**	**$(42,144,135)**	**$(52,057,312)**	**1**
Revenues											
Sewer Fee	$56,700,000	$57,834,000	$58,991,000	$60,171,000	$61,374,000	$62,601,000	$63,853,000	$65,130,000	$66,433,000	$67,762,000	
Other Revenue	$100,000	$100,000	$100,000	$100,000	$100,000	$100,000	$100,000	$100,000	$100,000	$100,000	
% Increase	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	
Rate Increases	$1,134,000	$1,157,000	$1,180,000	$1,203,000	$1,227,000	$1,252,000	$1,277,000	$1,303,000	$1,329,000	$1,355,000	
Total Revenues	**$57,934,000**	**$59,091,000**	**$60,271,000**	**$61,474,000**	**$62,701,000**	**$63,953,000**	**$65,230,000**	**$66,533,000**	**$67,862,000**	**$69,217,000**	
Existing Expenses											
O&M	$27,700,000	$28,583,000	$29,390,000	$30,270,000	$31,180,000	$32,120,000	$33,080,000	$34,070,000	$35,090,000	$36,140,000	
EBMUD Fee	$1,100,000	$1,133,000	$1,166,990	$1,202,000	$1,238,060	$1,275,201	$1,313,458	$1,352,861	$1,393,447	$1,435,251	2
Capital – CDO	$2,500,000	$2,500,000	$2,500,000	$2,500,000	$2,500,000						
Capital – Major Repairs	$2,500,000	$2,500,000	$2,500,000	$2,500,000	$2,500,000	$2,500,000	$2,500,000	$2,500,000	$2,500,000	$2,500,000	
Capital – Rehabilitation	$9,360,000	$7,750,000	$7,400,000	$7,450,000	$7,000,000	$9,050,000	$8,600,000	$8,000,000	$8,000,000	$8,000,000	
Rate Stabilization	$500,000	$500,000	$500,000								
Debt Service	$4,500,000	$4,500,000	$4,500,000	$4,500,000	$4,500,000	$4,500,000	$4,500,000	$4,500,000	$4,500,000	$4,500,000	
Franchise Fee	$5,670,000	$5,783,400	$5,899,100	$6,017,100	$6,137,400	$6,260,100	$6,385,300	$6,513,000	$6,643,300	$6,776,200	
Total Existing Expenses	**$53,830,000**	**$53,196,400**	**$53,856,090**	**$54,439,100**	**$55,055,460**	**$55,705,301**	**$56,378,758**	**$56,935,861**	**$58,126,747**	**$59,351,451**	
Carry Forwards	**$5,203,104**	**$5,203,104**	**$5,203,104**	**$5,203,104**	**$5,203,104**	**$5,203,104**	**$5,203,104**	**$5,203,104**			
New Expenses											
BIO – Additional Personnel Cost	$1,250,000	$1,287,500	$1,326,125	$1,365,909	$1,406,886	$1,449,093	$1,492,565	$1,537,342	$1,583,463	$1,630,966	
BIO – Additional O&M Cost	$2,475,000	$4,475,000	$4,475,000	$4,475,000	$2,475,000	$2,475,000	$4,475,000	$4,475,000	$4,475,000	$2,475,000	3
BIO – Additional Equipment	$1,505,000										3
BEC – Personnel	$800,000	$824,000	$848,720	$874,182	$900,407	$927,419	$955,242	$983,899	$1,013,416	$1,043,819	4
Capital – City Laterals		$500,000				$2,000,000	$2,000,000	$2,000,000	$2,000,000	$2,000,000	
Capital – Add Sewer Rehabilitation	$3,840,000	$2,700,000	$3,513,500	$3,940,905	$4,882,632	$6,339,111	$6,810,784	$7,948,108	$8,501,551	$9,071,598	5
Regional Technical Support Program	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	
FOG O&M	$75,000	$75,000	$75,000	$75,000	$75,000	$75,000	$75,000	$75,000	$75,000	$75,000	
Legal Fees	$200,000										
Contingency	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	
EPA Penalty	$1,000,000										
Total New Expenses	**$13,145,000**	**$11,861,500**	**$12,238,345**	**$12,730,955**	**$11,739,925**	**$15,265,623**	**$17,808,592**	**$19,019,349**	**$19,648,430**	**$18,296,383**	
Ending Cash Balance	**$41,255,896**	**$30,085,891**	**$19,059,352**	**$8,160,152**	**$(1,137,337)**	**$(13,358,366)**	**$(27,518,820)**	**$(42,144,135)**	**$(52,057,312)**	**$(60,488,145)**	

Notes:

(1) Estimated unencumbered cash balance as of 7-1-14.
(2) Assumes increase at inflation rate.
(3) Includes new equipment, additional personnel and contracts required to meet EPA requirements.
(4) Additional staff for scheduling and enforcement of illegal connections.
(5) Assumes inflation increase on entire Capital amount, including on major repairs, rehabilitation, and additional sewer rehabilitation.

Rate Increase = 0.0 %
Inflation = 3.0 %
CPI = 2.0%

Chapter 5

MONITORING, MEASUREMENT, REPORTING, AND PROGRAM MODIFICATION

5.1 MEASURING PROGRESS

The effectiveness of the City's Asset Management Improvement Plan/Sanitary Sewer Management Plan (AMIP/SSMP) is tracked through Oakland Public Works' (OPW's) Asset Management Program by reviewing scheduled and completed work.

CityWorks Computerized Maintenance Management Software (CMMS) is used to log service requests and track preventive and corrective maintenance activities. The sewer inspection history of any segment of pipe is electronically retrievable. This data will be used to develop condition ratings to aid in prioritizing future sewer rehabilitation projects, maintenance activities, and updating future AMIP/SSMP.

5.2 PROGRAM MONITORING

OPW produces monthly Asset Management Reports for each infrastructure element (streets, street lights, traffic signals, etc.) which describe the work done during the previous month and progress toward achieving annual goals. The Asset Management Report for sewers has been modified to include reporting on the goals specified in Section 1.3.1. The Director of Public Works holds monthly meetings with each Asset Manager to review progress. This progress is and will continue to be used to monitor work on implementing this AMIP/SSMP.

5.3 ANNUAL REPORTS

Paragraph 139 of the Consent Decree states:

"By September 30th of each Fiscal Year [sic]… each Defendant shall submit to Plaintiffs, with a copy to Intervenors, an annual progress report ("Annual Report") covering the period July 1st through June 30th of the prior Fiscal Year."

Beginning September 30, 2015, and by September 30th of each year thereafter, the City of Oakland will submit Annual Reports to the USEPA summarizing implementation of this AMIP/SSMP. Copies of the signed report will be sent to:

- State Water Resources Control Board (SWRCB);
- Regional Water Quality Control Board (RWQCB);
- Baykeeper and Our Children's Earth; and
- East Bay Municipal Utilities District (EBMUD).

Paragraphs 141 – 145, 165 – 167 and 172 -176 of the Consent Decree contain details of approximately 90 items to be monitored and reported in the Annual Report. Systems have been established to track these items.

A copy of the Annual Report will be posted on the City's website and kept in the City's files.

ASSET MANAGEMENT IMPROVEMENT PLAN/SANITARY SEWER MANAGEMENT PLAN REVIEW

Once this Asset Management Improvement Plan/Sanitary Sewer Management Plan (AMIP/SSMP) has been approved by regulatory agencies, the Consent Decree will govern actions taken by the City of Oakland to maintain its Sewer Collection System.

6.1 REVIEW

Section XVIII of the Consent Decree contains Annual Reporting Requirements

6.2 PROGRAM MODIFICATIONS

If deficiencies or modifications are identified as part of the Annual Report, the AMIP/SSMP will be updated or changes will be cataloged, assigned a lead person, a priority, and a schedule for implementation. Major modifications to the program will be submitted to EPA and other regulatory agencies for approval in accordance with Section XXIX, Modification, of the Consent Decree.

COMMUNICATION PLAN

Oakland's Public Works (OPW) understands it is important to clearly and effectively communicate with its residential and commercial customers. The public communication activities described here are in addition to the standard regulatory reporting efforts outlined in other parts of this plan.

7.1 INFORMATIONAL WEBSITE

The City of Oakland (City) maintains a website (www.oaklandnet.com) to inform the public about City activities. The website is updated often to make sure that it can be the first place the public can search on a particular issue.

Paragraph 4 of the Consent Decree states:

"Each Defendant shall provide a copy of this Consent Decree to all officers, employees, and agents whose duties might reasonably include compliance with any provision of this Consent Decree. Defendants may comply with the preceding sentence by providing a link to a web site."

The Consent Decree has been posted on the web site. This Asset Management Implementation Plan/Sanitary Sewer Management Plan (AMIP/SSMP) will be added to the City's website once it is approved.

7.2 ANNUAL REPORT

The Annual Report submitted to EPA on September 26, 2014, has also been posted on the City's web site. The report will be presented to the City Council's Public Works Committee at the same time as the AMIP/SSMP.

7.3 COMMUNICATION WITH EMPLOYEES

On September 17, 2014, an "All Hands" meeting was held with all engineering, inspection, maintenance, and other employees who work on the sewer collection system. Employees were briefed on contents and requirements of the Consent Decree. Over 100 employees attended the meeting.

7.4 COORDINATION WITH OTHER AGENCIES AND CITIES

As a member of the Technical Advisory Board (TAB) and in a joint powers agreement with East Bay Municipal Utility District (EBMUD), the City communicates and works with other

East Bay collection agencies on a quarterly basis. At the Bay Area Clean Water Agency (BACWA), local agencies meet monthly to discuss relevant issues.

APPENDIX A – CONSENT DECREE AMIP CROSS REFERENCE

APPENDIX A. CONSENT DECREE/AMIP CROSS REFERENCE

CD Paragraph	WORK	AMIP Section
81	Revise **AMIP** as necessary to match CD.	
82	Complete work required by **State's CDO.**	4.2.1
83.a	Rehabilitate 158,400' (30 miles) of **Sewer Mains** between 1/1/14 and 6/30/16.	4.2.2
83.a	After 7/1/16 rehabilitate 63,360' (12 miles) of **Sewer Mains** from Sub-Basins in Appendix H annually on a cumulative basis.	4.2.2
83.a	Rehabilitate **MH's** when rehabilitating Sewer Mains.	4.2.2
83.a	When Rehabilitating Sewer Mains, ensure **abandoned Sewer Laterals** are not connected to Sewer Mains.	4.2.2
83.b	After 7/1/14 rehabilitate an additional 5280' (one mile) of **Sewer Mains** per year anywhere in Oakland on a cumulative basis.	4.2.3
83.c.	**CCTV** and document condition of 10% of Sewer Mains per FY (242,880' [46 miles] by 6/30/14; 485,760' [92 miles] per FY thereafter) on a cumulative basis.	2.2.1
83.c	**Inspect MH** when inspecting Sewer Mains.	2.2.3
83.d	Work with other Defendants to create **Regional Standards** for sewer installation, rehabilitation and repair by 6/30/16.	4.1.3
84.b	Require applicants for building permits for remodelling in excess of $100k to obtain sewer lateral **Compliance Certificates** from EBMUD.	2.4.1
84.c	Provide spreadsheet to EBMUD each FY showing building permits issued, **Certificates of Ocupancy** issued, and whether Compliance Certifcate was submitted.	2.4.1
84.d	Inspect and repair where necessary all **Sewer Laterals owned by City** listed in Appendix H.1 within 10 years.	4.6
84.e	Report **defective Sewer Laterals owned by state, federal or Public Entities** in Annual Report.	2.3
85.a	Notify owners of **defective Sewer Lateral** within 90 days of identifying defect.	2.4.2
85.b	Assist EBMUD in the development of a Sewer Lateral **education and outreach program**.	2.4.3
86.a	Rehabilitate or require **rehabilitation of Lower Laterals** when rehabilitating Sewer Mains.	4.2.4
86.b	Consider condition of **Lower Laterals** in planning Collection System Rehabilitation.	n/a

87.a	**Determine** which sources of I/RI identified by EBMUD are **High Priority Sources** and notify Plaintiffs by December 31st of each year.	not yet
87.b	Eliminate **Linear High Priority Sources** of I/RI within 24 months as part of Para 83a or 83b.	not yet
87.c	Submit **Non-Linear High Priority Source Plan** by December 31st of each year.	not yet
87.c	Eliminate **Non-Linear High Priority Sources** of I/RI within 24 months.	not yet
87.c.i.E	Show **continuous improvement** in I/RI reduction.	not yet
87.c.iv	Give first priority to eliminating Non-Linear High Priority sources of I/RI in **Sub-Basins 80-011 and 80-111**.	not yet
87.d.i	Notify owners of designated **Private High Priority Sources** within 90 days of designation as PHPS. Initiate all necessary administrative, civil or criminal actions to eliminate **PHPS** within 24 months.	not yet
87.d.ii	Notify State, Federal or **Public Entity's owning High Priority Sources** of I/RI of the need to correct their problem, with copy to Plaintiffs.	not yet
87.d.iii	Notify owners of **other Private sources** of I/RI within 90 days; initiate all necessary administrative actions to eliminate such sources as expeditiously as possible.	not yet
89	**Train staff** in AMIP requirements regarding **SSO's.**	3.7
89.a	**Monitor** water level in 12 specified Maintenance Holes.	2.6
89.b	Incease **capacity** of Sewer Main within 24 months if water level in Para 89a rises within 1' of MH.	4.5
90	**CCTV** immediately downstream of any SSO to determine cause of SSO.	3.1.7
91	Repair **Acute Defects** (failing in a sewer pipe in need of urgent response to address imminent risk of SSO) within 12 months of identification.	4.3
92.a	**Clean** all Sewer Mains between January 1, 2010 and June 30, 2018.	3.1.5
92.a	**Clean** 1,900,800' (360 miles) of Sewer Main by 6/30/14.	3.1.5
92.a	After 7/1/14 **clean** 739,200' (140 miles) of Sewer Main each FY on a cumulative basis.	3.1.5
92.b	After 7/1/18, **clean** 971,520' (184 miles) of Sewer Main each FY on a cumulative basis.	3.1.6
92.c	Clean sewer mains with diameter 15" or greater based on condition assessment.	n/a
92.d	Add locations to SSO **Hot Spot** list when more than one SSO occurs in a 3-Year period. Remove from list if no SSO's in 3-Year period.	3.1.7
92.d	Add locations to **Hot Spot** list based on consideration of risk factors such as pipe age, pipe size, materials, slope, CCTV inspection, FSE location, or root intrusion	3.1.7
92.d	Clean **Hot Spots** annually. Increase frequency if additional SSO's occur.	3.1.7

92.e	For first three years, apply **root control** to 264,000' (50 miles) of Sewer Mains on a cumulative basis.	3.2
92.e	Submit a **Root Control Evaluation Repor**t to Plaintiffs by December 31, 2016.	3.2
93	Refer **FOG**-related SSO's or excessive buildup of grease to EBMUD.	3.3
93	Take enforcement action against FSE's which do not implement EBMUD **FOG** recommendations.	3.3
94	Complete improvements in **Pump Station** Reliability Plan by 10/15/22.	4.4

OTHER REQUIREMENTS

4	Put Consent Decree (CD) on web site. Provide link to all involved with CD. Require contractors and consultants to work in compliance with CD	7.1
27	Work with EBMUD on development of **RTSP Plan**. Meet quarterly to review progress.	2.5.2
139	Submit **Annual Reports** by September 30th of each year addressing CD para 141-144 & 165-168 for previous FY.	5.3

vbt 10/17/14

APPENDIX B – CONSENT DECREE, SECTION XII WORK – CITY OF OAKLAND

XII. WORK – CITY OF OAKLAND

A. IMPLEMENTATION OF EXISTING PROGRAM AND IMPROVEMENTS

81. On December 28, 2012, after consultation with the Regional Water Board, EPA conditionally approved the City of Oakland's AMIP. For the duration of the Consent Decree, the City shall implement the programs set forth in its SSMP and AMIP for controlling SSOs and reducing I&I. The City shall implement the Work set forth in this Section to accomplish the goal of eliminating SSOs and further reduce I&I. The City shall revise its AMIP as necessary, so that it is consistent with the requirements of this Section, and to ensure that Repair and Rehabilitation projects continue to be adequately identified and planned for.

B. I&I REDUCTION WORK

82. Work Under Regional Water Board Cease and Desist Order. The City of Oakland is subject to the Regional Water Board's Cease and Desist Order No. 93-134, as amended by Order No. R2-2009-0087 ("Oakland CDO"). The Oakland CDO requires specified sewer projects to be completed by June 30, 2014, to reduce I&I. In addition, the CDO requires the City of Oakland to spend $2,500,000 per Fiscal Year for the next five (5) Fiscal Years. After the Effective Date of this Consent Decree, the staff of the Regional Water Board will bring to the Regional Water Board for consideration an order ("Rescission Order") to rescind the Oakland CDO and allow the remaining Oakland CDO work to be completed under the terms of this Consent Decree. If the City is not in compliance with the Oakland CDO, the Regional Water Board staff may defer bringing the Rescission Order to the Board until such time as the City is in compliance. If the Regional Water Board does not adopt the Rescission Order, the City of Oakland shall continue to comply with the Oakland CDO. In either case, the money spent under the CDO shall be part of the Sewer Main Rehabilitation discussed in Paragraph 83(a), below.

83. Sewer Main and Maintenance Hole Rehabilitation.

    a. Between January 1, 2014 and June 30, 2016, the City of Oakland shall

rehabilitate 158,400 feet of Sewer Main. Beginning on July 1, 2016, the City of Oakland shall complete, by the end of each Fiscal Year, Rehabilitation of no less than 63,360 feet of Sewer Main as identified in Appendix E based on a cumulative total (i.e., 221,760 feet by June 30, 2017; 285,120 feet by June 30, 2018; 348,480 feet by June 30, 2019; etc.) for the duration of the Consent Decree. When the City rehabilitates a Sewer Main, it shall also Rehabilitate, as needed, all Maintenance Holes associated with the Sewer Main and ensure that abandoned Sewer Laterals are not connected to that Sewer Main.

i. Effective July 1, 2016, the City shall prioritize those Sewer Mains for Rehabilitation that are located within the Sub-Basins specified in Appendix H. The City may modify Appendix H by substituting alternative Sub-Basins or portions of Sub-Basins in order to increase the rate of I&I reduction, if the total feet of Sewer Mains to be Rehabilitated in Appendix E is not reduced and the City receives written concurrence from EBMUD prior to the modification. Such a modification of Appendix H may be considered a non-material modification to this Consent Decree.

ii Any Sewer Main Rehabilitation done after July 1, 2016, in accordance with requirements of paragraphs 82, 83, 87 or 91, and located in the Sub-Basins identified in Appendix H, shall count toward the requirements of this paragraph 83(a).

iii. If all Sewer Mains in the Sub-Basins in Appendix H are Rehabilitated before the end of this Consent Decree, the City shall continue Sewer Main Rehabilitation pursuant to Paragraph 83(a) until it completes Rehabilitation of the total feet of Sewer Mains identified in Appendix E (i.e., 1,393,920 feet).

b. Additional 5,280 Feet of Sewer Main Rehabilitation. In addition to the Work required under Paragraph 83(a), beginning on July 1, 2014, the City shall complete, by the end of each Fiscal Year, Rehabilitation of no less than 5,280 feet of Sewer Main, anywhere within the City's Collection System, based on a cumulative total (i.e., 5,280 feet by June 30, 2015; 10,560 feet by June 30, 2016; 15,840 feet by June 30, 2017; etc.) for the duration of

the Consent Decree.

c. For the duration of this Consent Decree, the City of Oakland shall inspect, using CCTV or other equally effective methods, and document condition assessment of, its Collection System at an annual rate of no less than 10 percent of its Sewer Mains per Fiscal Year (at least 485,760 feet of Sewer Mains per Fiscal Year) on a cumulative basis (i.e., 242,880 feet by June 30, 2014; 728,640 feet by June 30, 2015; 1,214,400 feet by June 30, 2016; etc.). When the City inspects a Sewer Main, it shall also inspect all Maintenance Holes associated with that Sewer Main.

d. The City shall work with the other Defendants to create Regional Standards for sewer installation, Rehabilitation, and Repair and participate in submitting a group report of the recommended Regional Standards for EPA's review and approval by June 30, 2016, and for review, every five years thereafter.

84. Sewer Lateral Inspection and Repair or Rehabilitation Program

a. On July 28, 2011, EPA approved the City's request to participate in the EBMUD Regional Sewer Lateral Program beginning January 16, 2012. The City has been cooperating with EBMUD in the implementation of that program since that time.

b. The City of Oakland shall cooperate with EBMUD in the administration of the Regional Sewer Lateral Program pursuant to the terms of the agreement among Defendants. At a minimum, the City shall include as part of its application process for building permits and approvals for construction or remodeling projects in excess of $100,000 a requirement that the applicant submit a valid Compliance Certificate.

c. The City of Oakland shall continue providing to EBMUD the information required by and at the frequency reasonably determined necessary by EBMUD for implementation of the Regional Ordinance program. The City of Oakland has implemented a building permit process that requires permittees to submit Compliance Certificates before being issued certificates of occupancy for construction or remodeling projects in excess of $100,000. The City, to satisfy the requirements of this subparagraph, shall document, in

spreadsheet format, the building permits issued during the Fiscal Year, the certificates of occupancy issued, and whether a Compliance Certificate was submitted prior to issuance of the certificate(s) of occupancy.

d. The City agrees to inspect and Repair or Rehabilitate, as necessary, all Sewer Laterals owned by the City of Oakland identified in Appendix H.1 within a period of ten (10) Calendar Years from the Effective Date.

e. In the event that the City identifies a property owned by a Public Entity or the State or federal government that has an identified defective Sewer Lateral, the City shall report the address of the property and the name of the owner to the Plaintiffs as part of its Annual Report, and provide a description of the Sewer Lateral defect.

85. Sewer Laterals

a. Within 90 Days of identifying a Sewer Lateral as defective the City of Oakland shall notify the affected owner in writing. The notice shall provide the owner with all information necessary for prompt correction of the defect, including a list of contractors, and information about how to apply for any grant or loan programs for which the owner may be eligible. The notice shall also provide a discussion of the environmental and legal consequences of failing to correct the defect.

b. The City of Oakland shall assist EBMUD in the development, pursuant to Paragraph 32 above, of an education and outreach program encouraging Sewer Lateral owners to inspect and, if necessary, Repair or Rehabilitate Sewer Laterals before owners are required to under the Regional or Local Ordinances.

86. Lower Laterals

a. The City of Oakland shall continue its existing practice of, when Rehabilitating Sewer Mains, evaluating the condition of Lower Laterals connected to those Sewer Mains and Rehabilitating or requiring Rehabilitation of defective Lower Laterals.

b. If Lower Laterals in a particular area of the Collection System are a potential source of excessive I&I, the City of Oakland shall include such considerations in its

planning and scheduling of Collection System Rehabilitation.

87. Inflow and Rapid Infiltration Identification and Reduction. On March 1, 2011, after consultation with the Regional Water Board, EPA approved the City of Oakland's Inflow Identification and Reduction Plan (IIRP). The IIRP was subsequently included in the City's AMIP. In lieu of further implementation of the Inflow identification portions of the IIRP, the City shall cooperate with EBMUD's implementation of the RTSP. The City shall continue to implement the AMIP, with revisions as needed to ensure conformity with this Paragraph. The City of Oakland shall eliminate all sources of Inflow and Rapid Infiltration in the Collection System identified through the RTSP as follows:

a. The City shall, at its sole discretion, determine which sources of Inflow and Rapid Infiltration are High Priority Sources and, by December 31st of each Year, the City shall submit a formal notification to Plaintiffs, with copies to all other Parties, that shall include:

i. A determination of which sources of Inflow and Rapid Infiltration, identified by EBMUD pursuant to Paragraph 28(b), that the City designated as High Priority Sources. This shall be in the form of a table that identifies a list of all of the sources of Inflow and Rapid Infiltration identified by EBMUD in that year and which of those sources have been designated by the City to be High Priority Sources;

ii. Identification by the City of the category of each designated High Priority Source as a Linear High Priority Source, a Non-Linear High Priority Source, or a Private High Priority Source. Once the City has designated a source of Inflow and Rapid Infiltration as a Linear High Priority Source, a Non-Linear High Priority Source, or a Private High Priority Source that designation cannot be changed without review and approval by Plaintiffs.

iii. The Non-Linear High Priority Source plan as described in Paragraph 87(d).

b. The City shall eliminate High Priority Sources within twenty-four (24)

months of the December 31st formal notification to Plaintiffs, except as further described below, or if Plaintiffs grant a requested time extension. A time extension request shall include an explanation for why the City cannot eliminate the High Priority Source within twenty-four (24) months and an explanation for why the specific additional time that is being requested is appropriate. Time extensions pursuant to this subparagraph may be considered non-material modifications to this Consent Decree.

c. Linear High Priority Sources

For Linear High Priority Sources, the City does not need to Rehabilitate more than 63,360 feet of Sewer Main in any Fiscal Year as required by Paragraph 83(a), or to Rehabilitate more than 5,280 feet of Sewer Main in any Fiscal Year as required by Paragraph 83(b), to comply with Paragraph 87(a).

d. Non-Linear High Priority Sources

i. As part of the December 31st formal notification described in Paragraph 87(a), above, the City shall submit a Non-Linear High Priority Source Plan, for Plaintiffs' review and comment, that contains:

A. A list of the Non-Linear High Priority Sources designated by the City and the estimated cost of the Work that is necessary to eliminate the designated Non-Linear High Priority Sources;

B. An explanation of why those sources of Inflow and Rapid Infiltration were determined by the City to be Non-Linear High Priority Sources;

C. A cumulative list of the Non-Linear High Priority Sources the City has designated and the date the City expects to complete the Work to eliminate each Non-Linear High Priority Source;

D. An explanation of how the elimination of the designated Non-Linear High Priority Source will help achieve an adequate reduction of Inflow and Rapid Infiltration to comply with the next

Mid-Course Check-In WWF Output Test or Compliance WWF Output Test under the Consent Decree; and

E. A showing of the City's substantial continuous improvement toward the necessary Inflow and Rapid Infiltration reductions as assumed by the Flow Model.

ii. The Non-Linear High Priority Source plan may address any source of Inflow and Rapid Infiltration identified by EBMUD, regardless of when it was identified.

iii. If the aggregate estimated cost to eliminate the Non-Linear High Priority Sources selected in a Fiscal Year equals or exceeds the costs in the table below, the City shall take actions to eliminate the Non-Linear High Priority Source(s) no later than the corresponding deadline in the table. The appropriate deadline shall begin on December 31st of each Year.

Aggregated Cost to Eliminate Non-Linear High Priority Sources	Deadline to Eliminate Non-Linear High Priority Sources (from December 31st)
Less than $3,000,000	24 months
$3,000,000 - $3,999,999	36 months
$4,000,000 - $5,000,000	48 months
Over $5,000,000	60 months

iv. As part of the Work required under Paragraph 87, the City shall give first priority to eliminating defects in Sub-Basins 80-011 and 80-111 of the City's Collection System.

e. Private High Priority Sources

i. For all sources that are designated by the City as Private High Priority Sources, the City shall within twenty-four (24) months of making the designation:

A. Notify the owner of the Private High Priority Source within 90 Days, with an identification of the physical location and a description of the source and the defect;

B. Notify the owner that they are responsible to eliminate said source; and

C. Initiate all necessary administrative, civil, or criminal enforcement action(s) to eliminate the Private High Priority Source.

ii. The twenty-four (24) month deadline is not applicable if the owner of the Private High Priority Source is the State or federal government or a Public Entity other than the City. In such a case, the City shall notify the State or federal government or Public Entity of the identified Private High Priority Source, copying Plaintiffs, EBMUD and the Intervenors on each such notice.

iii. For all other sources of private Inflow and Rapid Infiltration (including illicit connections) not in the Collection System, the City shall:

A. Notify the owner of the source within 90 Days, with an identification of the physical location and a description of the source and the defect; and

B. Initiate all necessary administrative enforcement action(s) to eliminate the source of Inflow and Rapid Infiltration (including illicit connections) not in the Collection System, as expeditiously as possible.

f. No presumption or inference shall arise, either positively or negatively, in arbitration or dispute resolution, from the fact a particular source of Inflow or Rapid Infiltration is identified by EBMUD pursuant to Paragraph 28(b), and is not designated by the City pursuant to Paragraphs 87(a)-(e) as a High Priority Source to be eliminated. This prohibition of presumption or inference does not limit Plaintiffs, an arbitrator, or the Court from concluding that such a source should be eliminated to achieve the Consent Decree's performance criteria.

88. EBMUD Modeling. To facilitate EBMUD's performance of its obligations under the "Flow Model Calibration Plan Preparation" and "Flow Model Calibration Plan Implementation"

paragraphs of the EBMUD Work, Section VII, the City shall provide, by May 1st of 2022 and 2030 – and by July 15 of each other Year – information or data necessary to implement the Flow Model Calibration Plan, such as: (a) for the prior Calendar Year in 2022 and 2030 (for other years for the prior Fiscal Year), the location and length of specific reaches of Rehabilitated Sewer Mains; (b) for the prior Calendar Year in 2022 and 2030 (for other years for the prior Fiscal Year), the location and type of corrected Inflow and Rapid Infiltration sources; (c) for the prior Calendar Year in 2022 and 2030 (for other years for the prior Fiscal Year), any operational or physical changes in the Satellite's Collection System; and (d) for agencies not participating in the Regional Sewer Lateral Program, for the prior Calendar Year in 2022 and 2030 (for other years for the prior Fiscal Year), the location and address of all Sewer Laterals Repaired or Rehabilitated. In all Years, any flow data or rainfall data collected between April 15 of the prior Year and April 15 of the current Year shall be provided by July 15. For any data provided to EBMUD, the City shall also provide information on any known limitations of such data. The City shall not be required to provide any analysis of, or attorney work product related to, the information or data provided under this Paragraph.

C. SSO WORK

89. On November 30, 2010, after consultation with the Regional Water Board, EPA approved the City of Oakland's Sanitary Sewer Overflow Response Plan, which was subsequently included in its AMIP. The City of Oakland shall continue to implement its AMIP. The City of Oakland shall continue to ensure that agency staff and responders are adequately trained to perform the procedures outlined in its AMIP, and to retain appropriate records and evaluate on a Fiscal Year basis agency staff's and responders' adherence to the AMIP as approved. In addition, the City of Oakland shall implement the following SSO elimination measures:

a. Capacity Assurance. The City of Oakland shall monitor the water level in Maintenance Holes at the following locations:

i. San Pablo at 60th Street

ii. San Pablo at 62nd Street

iii. Stanford Avenue at Gaskill Street

iv. 27th Street at Vernon Street

v. Harrison Street at 27th Avenue

vi. Grand Avenue at Harrison Street

vii. 19th Street at Jackson Street

viii. Park Boulevard at Spruce Street

ix. 18th Avenue at 4th Avenue

x. Maybelle Avenue at Masterson Street

xi. 76th Avenue at Garfield Avenue

xii. Trestle Glen at Creed Road.

b. In the event that the City at any of the locations in subparagraph 89(a): (i) experiences an SSO caused by lack of capacity; (ii) determines that the water level reaches within one (1) foot of the Maintenance Hole rim due to a lack of capacity, except during a rain event that is greater than the December 5, 1952 Storm; or (iii) has reason to believe a capacity related SSO is likely to occur, the City shall implement improvements to address the capacity deficiency within twenty-four (24) months of the SSO, the date when the water level reached within one (1) foot of the Maintenance Hole rim, or the event triggering the likelihood of an SSO. If the City has reason to believe an SSO is likely to occur, the City shall respond to prevent the SSO from occurring.

c. The City shall utilize a water level sensing device in order to determine the water levels in the Maintenance Holes in subparagraph 89(a). The water level sensing device shall monitor on a continuous basis and send an alarm when: (i) the water level reaches one (1) foot of the Maintenance Hole rim, triggering the Work requirements in subparagraph 89(b) and (ii) the water level reaches three (3) feet of the Maintenance Hole rim, in order to assist the City in preventing SSOs. The City shall make available to Plaintiffs, upon their

request, monitoring data gathered pursuant to this paragraph within fourteen (14) Days of such request.

d. Oakland shall ensure that any improvements completed pursuant to this Paragraph do not cause other capacity-related bottlenecks. Regardless of whether the City experiences an SSO in these locations, or believes an SSO is likely to occur, the City shall consider the potential capacity deficiency of these locations as a factor in prioritizing these lines in upcoming capital improvement projects. Assessment may be discontinued for any location where a Sewer Main is replaced by a larger capacity Sewer Main and the City assesses the location for at least two (2) Wet Weather Seasons following such replacement and there is no evidence of a potential capacity deficiency.

90. Sewer Main Inspection After SSO. In addition to the Sewer Main inspection requirements set forth in Paragraph 83(c) above (I&I Reduction Work), for any SSO caused by conditions in a Sewer Main, including FOG-related SSOs, the City of Oakland shall CCTV inspect immediately downstream of the SSO location for purposes of determining the cause of the SSO.

91. Acute Defects. The City of Oakland shall continue to Repair Acute Defects as soon as possible, but no later than within one Year of identification.

92. Sewer Main Cleaning

a. The City of Oakland shall complete the cleaning of its entire Collection System program, which began in 2010, by June 30, 2018. By June 30, 2014, the City will have cleaned 1,900,800 feet of Sewer Mains. Beginning July 1, 2014, the City shall clean its remaining Sewer Mains at the rate of 739,200 feet per Fiscal Year on a cumulative basis (i.e., 2,640,000 feet by June 30, 2015; 3,379,200 feet by June 30, 2016; etc.).

b. Beginning July 1, 2018, and for the duration of the Consent Decree, the City shall clean at least 971,520 feet of Sewer Main per Fiscal Year on a cumulative basis (i.e., 971,520 feet by June 30, 2019; 1,943,040 by June 30, 2020; etc.). The City will determine which sewers to clean as long as a cumulative total of 971,520 feet of Sewer Main is cleaned

each Fiscal Year. The cleaning frequency shall prevent the buildup of debris, roots, grease, or other material.

c. Large trunk lines fifteen (15) inches or greater in diameter may be cleaned based on the results of condition assessment, which shall, at a minimum, take into consideration any information concerning the accumulation of FOG and debris derived from CCTV inspection or cleaning history.

d. The City of Oakland shall revise its hot spot cleaning program to ensure that Sewer Mains with a history of SSOs or that are at risk for SSOs are included in the program. For inclusion in the program, the City shall consider risk factors such as pipe age, pipe size, materials of construction, pipe slope, known poor condition from CCTV inspection, food service establishments that may contribute to FOG-related SSOs, and excessive root intrusion/grease/debris accumulation observed during cleaning. To the extent that the City does not have this information, it shall collect it during cleaning and CCTV inspection, and record it in its GIS. The City shall also add a location to its hot spot list if more than one SSO occurs within a 3-Year period at that location. Hot spot locations shall be cleaned at least annually, or more frequently based on information from previous cleanings or inspections. If an additional SSO occurs in the 3-Year period following inclusion on the hot spot list, the frequency of cleaning shall be increased. If no SSOs occur in a 3-Year period, the City may remove the location from its hot spot list.

e. Root Cleaning. The City of Oakland shall treat Sewer Mains to control excessive roots in the Collection System for the duration of the Consent Decree. For the first three Fiscal Years, the City of Oakland shall treat a minimum rate of 264,000 feet of Sewer Mains per Fiscal Year on a cumulative basis (i.e., 264,000 feet by June 30, 2014; 528,000 feet by June 30, 2015; and 792,000 feet by June 30, 2016; etc.). By December 31, 2016, the City shall submit an evaluation of its root control program to EPA for review and approval. The evaluation shall consider the need to treat additional or fewer Sewer Mains to address results from cleaning and CCTV. The evaluation shall propose refinements to the City's root

control program in order to ensure excessive roots in the Collection System are controlled. The City of Oakland shall not treat less than 264,000 feet of Sewer Mains on a cumulative basis without approval from EPA, after consultation with the Regional Board. Any proposal to treat less than 264,000 feet of Sewer Mains shall be made in Oakland's Annual Report as a proposed modification to its AMIP. The proposal, if approved, shall be a non-material modification subject to the requirements of Section XXIX (Modification).

93. FOG Control. The City shall continue to work with EBMUD in the implementation of the EBMUD Regional Fats, Oils and Grease (FOG) Control Program, and coordinate EBMUD's FOG activities within the City. The City shall refer FOG-related SSOs or excessive buildup of grease to EBMUD for investigation. If a food service establishment is determined to be contributing to FOG-related SSOs and does not implement recommendations made by EBMUD, the City shall take actions necessary to ensure that the food service establishment adequately controls FOG.

94. Pump Station Performance and Assessment. On March 14, 2011, EPA approved the City Oakland's Pump Station Reliability Plan. The City shall complete improvements described in the Plan by October 15, 2022.

XIII. WORK – CITY OF PIEDMONT

A. IMPLEMENTATION OF EXISTING PROGRAM AND IMPROVEMENTS

95. On May 13, 2013, after consultation with the Regional Water Board, EPA conditionally approved the City of Piedmont's AMIP. For the duration of the Consent Decree, the City shall implement the programs set forth in its SSMP and AMIP for controlling SSOs and reducing I&I. In addition, the City shall implement the Work set forth in this Section to accomplish the goal of eliminating SSOs and further reduce I&I. The City shall revise its AMIP as necessary, so that it is consistent with the requirements of this Section, and to ensure that Repair and Rehabilitation projects continue to be adequately identified and planned for.

B. I&I REDUCTION WORK

APPENDIX C – STATE WATER RESOURCES CONTROL BOARD'S ORDER NO. 2006-0003-DWQ STATEWIDE GENERAL WASTE DISCHARGE REQUIREMENTS FOR SANITARY SEWER SYSTEMS AND ORDER NO. WQ 2013-0058-EXEC AMENDING MONITORING AND REPORTING PROGRAM

STATE WATER RESOURCES CONTROL BOARD
ORDER NO. 2006-0003-DWQ

STATEWIDE GENERAL WASTE DISCHARGE REQUIREMENTS FOR SANITARY SEWER SYSTEMS

The State Water Resources Control Board, hereinafter referred to as "State Water Board", finds that:

1. All federal and state agencies, municipalities, counties, districts, and other public entities that own or operate sanitary sewer systems greater than one mile in length that collect and/or convey untreated or partially treated wastewater to a publicly owned treatment facility in the State of California are required to comply with the terms of this Order. Such entities are hereinafter referred to as "Enrollees".

2. Sanitary sewer overflows (SSOs) are overflows from sanitary sewer systems of domestic wastewater, as well as industrial and commercial wastewater, depending on the pattern of land uses in the area served by the sanitary sewer system. SSOs often contain high levels of suspended solids, pathogenic organisms, toxic pollutants, nutrients, oxygen-demanding organic compounds, oil and grease and other pollutants. SSOs may cause a public nuisance, particularly when raw untreated wastewater is discharged to areas with high public exposure, such as streets or surface waters used for drinking, fishing, or body contact recreation. SSOs may pollute surface or ground waters, threaten public health, adversely affect aquatic life, and impair the recreational use and aesthetic enjoyment of surface waters.

3. Sanitary sewer systems experience periodic failures resulting in discharges that may affect waters of the state. There are many factors (including factors related to geology, design, construction methods and materials, age of the system, population growth, and system operation and maintenance), which affect the likelihood of an SSO. A proactive approach that requires Enrollees to ensure a system-wide operation, maintenance, and management plan is in place will reduce the number and frequency of SSOs within the state. This approach will in turn decrease the risk to human health and the environment caused by SSOs.

4. Major causes of SSOs include: grease blockages, root blockages, sewer line flood damage, manhole structure failures, vandalism, pump station mechanical failures, power outages, excessive storm or ground water inflow/infiltration, debris blockages, sanitary sewer system age and construction material failures, lack of proper operation and maintenance, insufficient capacity and contractor-caused damages. Many SSOs are preventable with adequate and appropriate facilities, source control measures and operation and maintenance of the sanitary sewer system.

SEWER SYSTEM MANAGEMENT PLANS

5. To facilitate proper funding and management of sanitary sewer systems, each Enrollee must develop and implement a system-specific Sewer System Management Plan (SSMP). To be effective, SSMPs must include provisions to provide proper and efficient management, operation, and maintenance of sanitary sewer systems, while taking into consideration risk management and cost benefit analysis. Additionally, an SSMP must contain a spill response plan that establishes standard procedures for immediate response to an SSO in a manner designed to minimize water quality impacts and potential nuisance conditions.

6. Many local public agencies in California have already developed SSMPs and implemented measures to reduce SSOs. These entities can build upon their existing efforts to establish a comprehensive SSMP consistent with this Order. Others, however, still require technical assistance and, in some cases, funding to improve sanitary sewer system operation and maintenance in order to reduce SSOs.

7. SSMP certification by technically qualified and experienced persons can provide a useful and cost-effective means for ensuring that SSMPs are developed and implemented appropriately.

8. It is the State Water Board's intent to gather additional information on the causes and sources of SSOs to augment existing information and to determine the full extent of SSOs and consequent public health and/or environmental impacts occurring in the State.

9. Both uniform SSO reporting and a centralized statewide electronic database are needed to collect information to allow the State Water Board and Regional Water Quality Control Boards (Regional Water Boards) to effectively analyze the extent of SSOs statewide and their potential impacts on beneficial uses and public health. The monitoring and reporting program required by this Order and the attached Monitoring and Reporting Program No. 2006-0003-DWQ, are necessary to assure compliance with these waste discharge requirements (WDRs).

10. Information regarding SSOs must be provided to Regional Water Boards and other regulatory agencies in a timely manner and be made available to the public in a complete, concise, and timely fashion.

11. Some Regional Water Boards have issued WDRs or WDRs that serve as National Pollution Discharge Elimination System (NPDES) permits to sanitary sewer system owners/operators within their jurisdictions. This Order establishes minimum requirements to prevent SSOs. Although it is the State Water Board's intent that this Order be the primary regulatory mechanism for sanitary sewer systems statewide, Regional Water Boards may issue more stringent or more

prescriptive WDRs for sanitary sewer systems. Upon issuance or reissuance of a Regional Water Board's WDRs for a system subject to this Order, the Regional Water Board shall coordinate its requirements with stated requirements within this Order, to identify requirements that are more stringent, to remove requirements that are less stringent than this Order, and to provide consistency in reporting.

REGULATORY CONSIDERATIONS

12. California Water Code section 13263 provides that the State Water Board may prescribe general WDRs for a category of discharges if the State Water Board finds or determines that:

    - The discharges are produced by the same or similar operations;
    - The discharges involve the same or similar types of waste;
    - The discharges require the same or similar treatment standards; and
    - The discharges are more appropriately regulated under general discharge requirements than individual discharge requirements.

    This Order establishes requirements for a class of operations, facilities, and discharges that are similar throughout the state.

13. The issuance of general WDRs to the Enrollees will:
    a) Reduce the administrative burden of issuing individual WDRs to each Enrollee;
    b) Provide for a unified statewide approach for the reporting and database tracking of SSOs;
    c) Establish consistent and uniform requirements for SSMP development and implementation;
    d) Provide statewide consistency in reporting; and
    e) Facilitate consistent enforcement for violations.

14. The beneficial uses of surface waters that can be impaired by SSOs include, but are not limited to, aquatic life, drinking water supply, body contact and non-contact recreation, and aesthetics. The beneficial uses of ground water that can be impaired include, but are not limited to, drinking water and agricultural supply. Surface and ground waters throughout the state support these uses to varying degrees.

15. The implementation of requirements set forth in this Order will ensure the reasonable protection of past, present, and probable future beneficial uses of water and the prevention of nuisance. The requirements implement the water quality control plans (Basin Plans) for each region and take into account the environmental characteristics of hydrographic units within the state. Additionally, the State Water Board has considered water quality conditions that could reasonably be achieved through the coordinated control of all factors that affect

water quality in the area, costs associated with compliance with these requirements, the need for developing housing within California, and the need to develop and use recycled water.

16. The Federal Clean Water Act largely prohibits any discharge of pollutants from a point source to waters of the United States except as authorized under an NPDES permit. In general, any point source discharge of sewage effluent to waters of the United States must comply with technology-based, secondary treatment standards, at a minimum, and any more stringent requirements necessary to meet applicable water quality standards and other requirements. Hence, the unpermitted discharge of wastewater from a sanitary sewer system to waters of the United States is illegal under the Clean Water Act. In addition, many Basin Plans adopted by the Regional Water Boards contain discharge prohibitions that apply to the discharge of untreated or partially treated wastewater. Finally, the California Water Code generally prohibits the discharge of waste to land prior to the filing of any required report of waste discharge and the subsequent issuance of either WDRs or a waiver of WDRs.

17. California Water Code section 13263 requires a water board to, after any necessary hearing, prescribe requirements as to the nature of any proposed discharge, existing discharge, or material change in an existing discharge. The requirements shall, among other things, take into consideration the need to prevent nuisance.

18. California Water Code section 13050, subdivision (m), defines nuisance as anything which meets all of the following requirements:
    a. Is injurious to health, or is indecent or offensive to the senses, or an obstruction to the free use of property, so as to interfere with the comfortable enjoyment of life or property.
    b. Affects at the same time an entire community or neighborhood, or any considerable number of persons, although the extent of the annoyance or damage inflicted upon individuals may be unequal.
    c. Occurs during, or as a result of, the treatment or disposal of wastes.

19. This Order is consistent with State Water Board Resolution No. 68-16 (Statement of Policy with Respect to Maintaining High Quality of Waters in California) in that the Order imposes conditions to prevent impacts to water quality, does not allow the degradation of water quality, will not unreasonably affect beneficial uses of water, and will not result in water quality less than prescribed in State Water Board or Regional Water Board plans and policies.

20. The action to adopt this General Order is exempt from the California Environmental Quality Act (Public Resources Code §21000 et seq.) because it is an action taken by a regulatory agency to assure the protection of the environment and the regulatory process involves procedures for protection of the environment. (Cal. Code Regs., tit. 14, §15308). In addition, the action to adopt

this Order is exempt from CEQA pursuant to Cal.Code Regs., title 14, §15301 to the extent that it applies to existing sanitary sewer collection systems that constitute "existing facilities" as that term is used in Section 15301, and §15302, to the extent that it results in the repair or replacement of existing systems involving negligible or no expansion of capacity.

21. The Fact Sheet, which is incorporated by reference in the Order, contains supplemental information that was also considered in establishing these requirements.

22. The State Water Board has notified all affected public agencies and all known interested persons of the intent to prescribe general WDRs that require Enrollees to develop SSMPs and to report all SSOs.

23. The State Water Board conducted a public hearing on February 8, 2006, to receive oral and written comments on the draft order. The State Water Board received and considered, at its May 2, 2006, meeting, additional public comments on substantial changes made to the proposed general WDRs following the February 8, 2006, public hearing. The State Water Board has considered all comments pertaining to the proposed general WDRs.

IT IS HEREBY ORDERED, that pursuant to California Water Code section 13263, the Enrollees, their agents, successors, and assigns, in order to meet the provisions contained in Division 7 of the California Water Code and regulations adopted hereunder, shall comply with the following:

A. DEFINITIONS

1. **Sanitary sewer overflow (SSO)** - Any overflow, spill, release, discharge or diversion of untreated or partially treated wastewater from a sanitary sewer system. SSOs include:
   (i) Overflows or releases of untreated or partially treated wastewater that reach waters of the United States;
   (ii) Overflows or releases of untreated or partially treated wastewater that do not reach waters of the United States; and
   (iii) Wastewater backups into buildings and on private property that are caused by blockages or flow conditions within the publicly owned portion of a sanitary sewer system.

2. **Sanitary sewer system** – Any system of pipes, pump stations, sewer lines, or other conveyances, upstream of a wastewater treatment plant headworks used to collect and convey wastewater to the publicly owned treatment facility. Temporary storage and conveyance facilities (such as vaults, temporary piping, construction trenches, wet wells, impoundments, tanks, etc.) are considered to be part of the sanitary sewer system, and discharges into these temporary storage facilities are not considered to be SSOs.

For purposes of this Order, sanitary sewer systems include only those systems owned by public agencies that are comprised of more than one mile of pipes or sewer lines.

3. **Enrollee** - A federal or state agency, municipality, county, district, and other public entity that owns or operates a sanitary sewer system, as defined in the general WDRs, and that has submitted a complete and approved application for coverage under this Order.

4. **SSO Reporting System** – Online spill reporting system that is hosted, controlled, and maintained by the State Water Board. The web address for this site is http://ciwqs.waterboards.ca.gov. This online database is maintained on a secure site and is controlled by unique usernames and passwords.

5. **Untreated or partially treated wastewater** – Any volume of waste discharged from the sanitary sewer system upstream of a wastewater treatment plant headworks.

6. **Satellite collection system** – The portion, if any, of a sanitary sewer system owned or operated by a different public agency than the agency that owns and operates the wastewater treatment facility to which the sanitary sewer system is tributary.

7. **Nuisance** - California Water Code section 13050, subdivision (m), defines nuisance as anything which meets all of the following requirements:
    a. Is injurious to health, or is indecent or offensive to the senses, or an obstruction to the free use of property, so as to interfere with the comfortable enjoyment of life or property.
    b. Affects at the same time an entire community or neighborhood, or any considerable number of persons, although the extent of the annoyance or damage inflicted upon individuals may be unequal.
    c. Occurs during, or as a result of, the treatment or disposal of wastes.

B. APPLICATION REQUIREMENTS

1. Deadlines for Application – All public agencies that currently own or operate sanitary sewer systems within the State of California must apply for coverage under the general WDRs within six (6) months of the date of adoption of the general WDRs. Additionally, public agencies that acquire or assume responsibility for operating sanitary sewer systems after the date of adoption of this Order must apply for coverage under the general WDRs at least three (3) months prior to operation of those facilities.

2. Applications under the general WDRs – In order to apply for coverage pursuant to the general WDRs, a legally authorized representative for each agency must submit a complete application package. Within sixty (60) days of adoption of the general WDRs, State Water Board staff will send specific instructions on how to

apply for coverage under the general WDRs to all known public agencies that own sanitary sewer systems. Agencies that do not receive notice may obtain applications and instructions online on the Water Board's website.

3. Coverage under the general WDRs – Permit coverage will be in effect once a complete application package has been submitted and approved by the State Water Board's Division of Water Quality.

C. PROHIBITIONS

1. Any SSO that results in a discharge of untreated or partially treated wastewater to waters of the United States is prohibited.

2. Any SSO that results in a discharge of untreated or partially treated wastewater that creates a nuisance as defined in California Water Code Section 13050(m) is prohibited.

D. PROVISIONS

1. The Enrollee must comply with all conditions of this Order. Any noncompliance with this Order constitutes a violation of the California Water Code and is grounds for enforcement action.

2. It is the intent of the State Water Board that sanitary sewer systems be regulated in a manner consistent with the general WDRs. Nothing in the general WDRs shall be:

    (i) Interpreted or applied in a manner inconsistent with the Federal Clean Water Act, or supersede a more specific or more stringent state or federal requirement in an existing permit, regulation, or administrative/judicial order or Consent Decree;
    (ii) Interpreted or applied to authorize an SSO that is illegal under either the Clean Water Act, an applicable Basin Plan prohibition or water quality standard, or the California Water Code;
    (iii) Interpreted or applied to prohibit a Regional Water Board from issuing an individual NPDES permit or WDR, superseding this general WDR, for a sanitary sewer system, authorized under the Clean Water Act or California Water Code; or
    (iv) Interpreted or applied to supersede any more specific or more stringent WDRs or enforcement order issued by a Regional Water Board.

3. The Enrollee shall take all feasible steps to eliminate SSOs. In the event that an SSO does occur, the Enrollee shall take all feasible steps to contain and mitigate the impacts of an SSO.

4. In the event of an SSO, the Enrollee shall take all feasible steps to prevent untreated or partially treated wastewater from discharging from storm drains into

flood control channels or waters of the United States by blocking the storm drainage system and by removing the wastewater from the storm drains.

5. All SSOs must be reported in accordance with Section G of the general WDRs.

6. In any enforcement action, the State and/or Regional Water Boards will consider the appropriate factors under the duly adopted State Water Board Enforcement Policy. And, consistent with the Enforcement Policy, the State and/or Regional Water Boards must consider the Enrollee's efforts to contain, control, and mitigate SSOs when considering the California Water Code Section 13327 factors. In assessing these factors, the State and/or Regional Water Boards will also consider whether:

   (i) The Enrollee has complied with the requirements of this Order, including requirements for reporting and developing and implementing a SSMP;

   (ii) The Enrollee can identify the cause or likely cause of the discharge event;

   (iii) There were no feasible alternatives to the discharge, such as temporary storage or retention of untreated wastewater, reduction of inflow and infiltration, use of adequate backup equipment, collecting and hauling of untreated wastewater to a treatment facility, or an increase in the capacity of the system as necessary to contain the design storm event identified in the SSMP. It is inappropriate to consider the lack of feasible alternatives, if the Enrollee does not implement a periodic or continuing process to identify and correct problems.

   (iv) The discharge was exceptional, unintentional, temporary, and caused by factors beyond the reasonable control of the Enrollee;

   (v) The discharge could have been prevented by the exercise of reasonable control described in a certified SSMP for:
   - Proper management, operation and maintenance;
   - Adequate treatment facilities, sanitary sewer system facilities, and/or components with an appropriate design capacity, to reasonably prevent SSOs (e.g., adequately enlarging treatment or collection facilities to accommodate growth, infiltration and inflow (I/I), etc.);
   - Preventive maintenance (including cleaning and fats, oils, and grease (FOG) control);
   - Installation of adequate backup equipment; and
   - Inflow and infiltration prevention and control to the extent practicable.

   (vi) The sanitary sewer system design capacity is appropriate to reasonably prevent SSOs.

(vii) The Enrollee took all reasonable steps to stop and mitigate the impact of the discharge as soon as possible.

7. When a sanitary sewer overflow occurs, the Enrollee shall take all feasible steps and necessary remedial actions to 1) control or limit the volume of untreated or partially treated wastewater discharged, 2) terminate the discharge, and 3) recover as much of the wastewater discharged as possible for proper disposal, including any wash down water.

   The Enrollee shall implement all remedial actions to the extent they may be applicable to the discharge and not inconsistent with an emergency response plan, including the following:

   (i) Interception and rerouting of untreated or partially treated wastewater flows around the wastewater line failure;
   (ii) Vacuum truck recovery of sanitary sewer overflows and wash down water;
   (iii) Cleanup of debris at the overflow site;
   (iv) System modifications to prevent another SSO at the same location;
   (v) Adequate sampling to determine the nature and impact of the release; and
   (vi) Adequate public notification to protect the public from exposure to the SSO.

8. The Enrollee shall properly, manage, operate, and maintain all parts of the sanitary sewer system owned or operated by the Enrollee, and shall ensure that the system operators (including employees, contractors, or other agents) are adequately trained and possess adequate knowledge, skills, and abilities.

9. The Enrollee shall allocate adequate resources for the operation, maintenance, and repair of its sanitary sewer system, by establishing a proper rate structure, accounting mechanisms, and auditing procedures to ensure an adequate measure of revenues and expenditures. These procedures must be in compliance with applicable laws and regulations and comply with generally acceptable accounting practices.

10. The Enrollee shall provide adequate capacity to convey base flows and peak flows, including flows related to wet weather events. Capacity shall meet or exceed the design criteria as defined in the Enrollee's System Evaluation and Capacity Assurance Plan for all parts of the sanitary sewer system owned or operated by the Enrollee.

11. The Enrollee shall develop and implement a written Sewer System Management Plan (SSMP) and make it available to the State and/or Regional Water Board upon request. A copy of this document must be publicly available at the Enrollee's office and/or available on the Internet. This SSMP must be approved by the Enrollee's governing board at a public meeting.

12. In accordance with the California Business and Professions Code sections 6735, 7835, and 7835.1, all engineering and geologic evaluations and judgments shall be performed by or under the direction of registered professionals competent and proficient in the fields pertinent to the required activities. Specific elements of the SSMP that require professional evaluation and judgments shall be prepared by or under the direction of appropriately qualified professionals, and shall bear the professional(s)' signature and stamp.

13. The mandatory elements of the SSMP are specified below. However, if the Enrollee believes that any element of this section is not appropriate or applicable to the Enrollee's sanitary sewer system, the SSMP program does not need to address that element. The Enrollee must justify why that element is not applicable. The SSMP must be approved by the deadlines listed in the SSMP Time Schedule below.

Sewer System Management Plan (SSMP)

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

(ii) **Organization**: The SSMP must identify:

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

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

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

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

(a) Prevent illicit discharges into its sanitary sewer system (examples may include I/I, stormwater, chemical dumping, unauthorized debris and cut roots, etc.);

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

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

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

(e) Enforce any violation of its sewer ordinances.

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

(a) Maintain an up-to-date map of the sanitary sewer system, showing all gravity line segments and manholes, pumping facilities, pressure pipes and valves, and applicable stormwater conveyance facilities;

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

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

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

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

(v) **Design and Performance Provisions**:

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

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

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

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

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

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

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

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

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

(vii) **FOG Control Program:** Each Enrollee shall evaluate its service area to determine whether a FOG control program is needed. If an Enrollee determines that a FOG program is not needed, the Enrollee must provide justification for why it is not needed. If FOG is found to be a problem, the Enrollee must prepare and implement a FOG source control program to reduce the amount of these substances discharged to the sanitary sewer system. This plan shall include the following as appropriate:

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

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

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

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

(e) Authority to inspect grease producing facilities, enforcement authorities, and whether the Enrollee has sufficient staff to inspect and enforce the FOG ordinance;

(f) An identification of sanitary sewer system sections subject to FOG blockages and establishment of a cleaning maintenance schedule for each section; and

(g) Development and implementation of source control measures for all sources of FOG discharged to the sanitary sewer system for each section identified in (f) above.

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

(a) **Evaluation**: Actions needed to evaluate those portions of the sanitary sewer system that are experiencing or contributing to an SSO discharge caused by hydraulic deficiency. The evaluation must provide estimates of peak flows (including flows from SSOs

that escape from the system) associated with conditions similar to those causing overflow events, estimates of the capacity of key system components, hydraulic deficiencies (including components of the system with limiting capacity) and the major sources that contribute to the peak flows associated with overflow events;

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

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

(d) **Schedule:** The Enrollee shall develop a schedule of completion dates for all portions of the capital improvement program developed in (a)-(c) above. This schedule shall be reviewed and updated consistent with the SSMP review and update requirements as described in Section D. 14.

(ix) **Monitoring, Measurement, and Program Modifications:** The Enrollee shall:

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

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

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

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

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

(x) **SSMP Program Audits** - As part of the SSMP, the Enrollee shall conduct periodic internal audits, appropriate to the size of the system and the number of SSOs. At a minimum, these audits must occur every two years and a report must be prepared and kept on file. This audit shall focus on evaluating the effectiveness of the SSMP and the

Enrollee's compliance with the SSMP requirements identified in this subsection (D.13), including identification of any deficiencies in the SSMP and steps to correct them.

(xi) **Communication Program** – The Enrollee shall communicate on a regular basis with the public on the development, implementation, and performance of its SSMP. The communication system shall provide the public the opportunity to provide input to the Enrollee as the program is developed and implemented.

The Enrollee shall also create a plan of communication with systems that are tributary and/or satellite to the Enrollee's sanitary sewer system.

14. Both the SSMP and the Enrollee's program to implement the SSMP must be certified by the Enrollee to be in compliance with the requirements set forth above and must be presented to the Enrollee's governing board for approval at a public meeting. The Enrollee shall certify that the SSMP, and subparts thereof, are in compliance with the general WDRs within the time frames identified in the time schedule provided in subsection D.15, below.

    In order to complete this certification, the Enrollee's authorized representative must complete the certification portion in the Online SSO Database Questionnaire by checking the appropriate milestone box, printing and signing the automated form, and sending the form to:

    State Water Resources Control Board
    Division of Water Quality
    Attn: SSO Program Manager
    P.O. Box 100
    Sacramento, CA 95812

    The SSMP must be updated every five (5) years, and must include any significant program changes. Re-certification by the governing board of the Enrollee is required in accordance with D.14 when significant updates to the SSMP are made. To complete the re-certification process, the Enrollee shall enter the data in the Online SSO Database and mail the form to the State Water Board, as described above.

15. The Enrollee shall comply with these requirements according to the following schedule. This time schedule does not supersede existing requirements or time schedules associated with other permits or regulatory requirements.

Sewer System Management Plan Time Schedule

Task and Associated Section	**Completion Date**			
	Population > 100,000	Population between 100,000 and 10,000	Population between 10,000 and 2,500	Population < 2,500
Application for Permit Coverage ***Section C***	6 months after WDRs Adoption			
Reporting Program ***Section G***	6 months after WDRs Adoption[1]			
SSMP Development Plan and Schedule ***No specific Section***	9 months after WDRs Adoption[2]	12 months after WDRs Adoption[2]	15 months after WDRs Adoption[2]	18 months after WDRs Adoption[2]
Goals and Organization Structure ***Section D 13 (i) & (ii)***	12 months after WDRs Adoption[2]		18 months after WDRs Adoption[2]	
Overflow Emergency Response Program ***Section D 13 (vi)***	24 months after WDRs Adoption[2]	30 months after WDRs Adoption[2]	36 months after WDRs Adoption[2]	39 months after WDRs Adoption[2]
Legal Authority ***Section D 13 (iii)***				
Operation and Maintenance Program ***Section D 13 (iv)***				
Grease Control Program ***Section D 13 (vii)***				
Design and Performance ***Section D 13 (v)***	36 months after WDRs Adoption	39 months after WDRs Adoption	48 months after WDRs Adoption	51 months after WDRs Adoption
System Evaluation and Capacity Assurance Plan ***Section D 13 (viii)***				
Final SSMP, incorporating all of the SSMP requirements ***Section D 13***				

1. In the event that by July 1, 2006 the Executive Director is able to execute a memorandum of agreement (MOA) with the California Water Environment Association (CWEA) or discharger representatives outlining a strategy and time schedule for CWEA or another entity to provide statewide training on the adopted monitoring program, SSO database electronic reporting, and SSMP development, consistent with this Order, then the schedule of Reporting Program Section G shall be replaced with the following schedule:

Reporting Program ***Section G***	
Regional Boards 4, 8, and 9	8 months after WDRs Adoption
Regional Boards 1, 2, and 3	12 months after WDRs Adoption
Regional Boards 5, 6, and 7	16 months after WDRs Adoption

If this MOU is not executed by July 1, 2006, the reporting program time schedule will remain six (6) months for all regions and agency size categories.

2. In the event that the Executive Director executes the MOA identified in note 1 by July 1, 2006, then the deadline for this task shall be extended by six (6) months. The time schedule identified in the MOA must be consistent with the extended time schedule provided by this note. If the MOA is not executed by July 1, 2006, the six (6) month time extension will not be granted.

E. WDRs and SSMP AVAILABILITY

1. A copy of the general WDRs and the certified SSMP shall be maintained at appropriate locations (such as the Enrollee's offices, facilities, and/or Internet homepage) and shall be available to sanitary sewer system operating and maintenance personnel at all times.

F. ENTRY AND INSPECTION

1. The Enrollee shall allow the State or Regional Water Boards or their authorized representative, upon presentation of credentials and other documents as may be required by law, to:

    a. Enter upon the Enrollee's premises where a regulated facility or activity is located or conducted, or where records are kept under the conditions of this Order;

    b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this Order;

c. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Order; and

d. Sample or monitor at reasonable times, for the purposes of assuring compliance with this Order or as otherwise authorized by the California Water Code, any substances or parameters at any location.

G. GENERAL MONITORING AND REPORTING REQUIREMENTS

1. The Enrollee shall furnish to the State or Regional Water Board, within a reasonable time, any information that the State or Regional Water Board may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this Order. The Enrollee shall also furnish to the Executive Director of the State Water Board or Executive Officer of the applicable Regional Water Board, upon request, copies of records required to be kept by this Order.

2. The Enrollee shall comply with the attached Monitoring and Reporting Program No. 2006-0003 and future revisions thereto, as specified by the Executive Director. Monitoring results shall be reported at the intervals specified in Monitoring and Reporting Program No. 2006-0003. Unless superseded by a specific enforcement Order for a specific Enrollee, these reporting requirements are intended to replace other mandatory routine written reports associated with SSOs.

3. All Enrollees must obtain SSO Database accounts and receive a “Username” and “Password” by registering through the California Integrated Water Quality System (CIWQS). These accounts will allow controlled and secure entry into the SSO Database. Additionally, within 30days of receiving an account and prior to recording spills into the SSO Database, all Enrollees must complete the “Collection System Questionnaire”, which collects pertinent information regarding a Enrollee’s collection system. The “Collection System Questionnaire” must be updated at least every 12 months.

4. Pursuant to Health and Safety Code section 5411.5, any person who, without regard to intent or negligence, causes or permits any untreated wastewater or other waste to be discharged in or on any waters of the State, or discharged in or deposited where it is, or probably will be, discharged in or on any surface waters of the State, as soon as that person has knowledge of the discharge, shall immediately notify the local health officer of the discharge. Discharges of untreated or partially treated wastewater to storm drains and drainage channels, whether man-made or natural or concrete-lined, shall be reported as required above.

   Any SSO greater than 1,000 gallons discharged in or on any waters of the State, or discharged in or deposited where it is, or probably will be, discharged in or on any surface waters of the State shall also be reported to the Office of Emergency Services pursuant to California Water Code section 13271.

H. CHANGE IN OWNERSHIP

1. This Order is not transferable to any person or party, except after notice to the Executive Director. The Enrollee shall submit this notice in writing at least 30 days in advance of any proposed transfer. The notice must include a written agreement between the existing and new Enrollee containing a specific date for the transfer of this Order's responsibility and coverage between the existing Enrollee and the new Enrollee. This agreement shall include an acknowledgement that the existing Enrollee is liable for violations up to the transfer date and that the new Enrollee is liable from the transfer date forward.

I. INCOMPLETE REPORTS

1. If an Enrollee becomes aware that it failed to submit any relevant facts in any report required under this Order, the Enrollee shall promptly submit such facts or information by formally amending the report in the Online SSO Database.

J. REPORT DECLARATION

1. All applications, reports, or information shall be signed and certified as follows:

    (i) All reports required by this Order and other information required by the State or Regional Water Board shall be signed and certified by a person designated, for a municipality, state, federal or other public agency, as either a principal executive officer or ranking elected official, or by a duly authorized representative of that person, as described in paragraph (ii) of this provision. (For purposes of electronic reporting, an electronic signature and accompanying certification, which is in compliance with the Online SSO database procedures, meet this certification requirement.)

    (ii) An individual is a duly authorized representative only if:

        (a) The authorization is made in writing by a person described in paragraph (i) of this provision; and

        (b) The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity.

K. CIVIL MONETARY REMEDIES FOR DISCHARGE VIOLATIONS

1. The California Water Code provides various enforcement options, including civil monetary remedies, for violations of this Order.

2. The California Water Code also provides that any person failing or refusing to furnish technical or monitoring program reports, as required under this Order, or

falsifying any information provided in the technical or monitoring reports is subject to civil monetary penalties.

L. SEVERABILITY

1. The provisions of this Order are severable, and if any provision of this Order, or the application of any provision of this Order to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this Order, shall not be affected thereby.

2. This order does not convey any property rights of any sort or any exclusive privileges. The requirements prescribed herein do not authorize the commission of any act causing injury to persons or property, nor protect the Enrollee from liability under federal, state or local laws, nor create a vested right for the Enrollee to continue the waste discharge.

CERTIFICATION

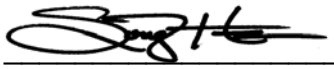
The undersigned Clerk to the State Water Board does hereby certify that the foregoing is a full, true, and correct copy of general WDRs duly and regularly adopted at a meeting of the State Water Resources Control Board held on May 2, 2006.

AYE: Tam M. Doduc
Gerald D. Secundy

NO: Arthur G. Baggett

ABSENT: None

ABSTAIN: None



Song Her
Clerk to the Board

STATE WATER RESOURCES CONTROL BOARD

MONITORING AND REPORTING PROGRAM NO. 2006-0003-DWQ
STATEWIDE GENERAL WASTE DISCHARGE REQUIREMENTS
FOR
SANITARY SEWER SYSTEMS

This Monitoring and Reporting Program (MRP) establishes monitoring, record keeping, reporting and public notification requirements for Order No. 2006-2003-DWQ, "Statewide General Waste Discharge Requirements for Sanitary Sewer Systems." Revisions to this MRP may be made at any time by the Executive Director, and may include a reduction or increase in the monitoring and reporting.

A. SANITARY SEWER OVERFLOW REPORTING

SSO Categories

1. Category 1 - All discharges of sewage resulting from a failure in the Enrollee's sanitary sewer system that:
   A. Equal or exceed 1000 gallons, or
   B. Result in a discharge to a drainage channel and/or surface water; or
   C. Discharge to a storm drainpipe that was not fully captured and returned to the sanitary sewer system.

2. Category 2 – All other discharges of sewage resulting from a failure in the Enrollee's sanitary sewer system.

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

SSO Reporting Timeframes

4. Category 1 SSOs – All SSOs that meet the above criteria for Category 1 SSOs must be reported as soon as: (1) the Enrollee has knowledge of the discharge, (2) reporting is possible, and (3) reporting can be provided without substantially impeding cleanup or other emergency measures. Initial reporting of Category 1 SSOs must be reported to the Online SSO System as soon as possible but no later than 3 business days after the Enrollee is made aware of the SSO. Minimum information that must be contained in the 3-day report must include all information identified in section 9 below, except for item 9.K. A final certified report must be completed through the Online SSO System, within 15 calendar days of the conclusion of SSO response and remediation. Additional information may be added to the certified report, in the form of an attachment, at any time.

   The above reporting requirements do not preclude other emergency notification requirements and timeframes mandated by other regulatory agencies (local

County Health Officers, local Director of Environmental Health, Regional Water Boards, or Office of Emergency Services (OES)) or State law.

5. Category 2 SSOs – All SSOs that meet the above criteria for Category 2 SSOs must be reported to the Online SSO Database within 30 days after the end of the calendar month in which the SSO occurs (e.g. all SSOs occurring in the month of January must be entered into the database by March 1st).

6. Private Lateral Sewage Discharges – All sewage discharges that meet the above criteria for Private Lateral sewage discharges may be reported to the Online SSO Database based upon the Enrollee's discretion. If a Private Lateral sewage discharge is recorded in the SSO Database, the Enrollee must identify the sewage discharge as occurring and caused by a private lateral, and a responsible party (other than the Enrollee) should be identified, if known.

7. If there are no SSOs during the calendar month, the Enrollee will provide, within 30 days after the end of each calendar month, a statement through the Online SSO Database certifying that there were no SSOs for the designated month.

8. In the event that the SSO Online Database is not available, the enrollee must fax all required information to the appropriate Regional Water Board office in accordance with the time schedules identified above. In such event, the Enrollee must also enter all required information into the Online SSO Database as soon as practical.

Mandatory Information to be Included in SSO Online Reporting

All Enrollees must obtain SSO Database accounts and receive a "Username" and "Password" by registering through the California Integrated Water Quality System (CIWQS). These accounts will allow controlled and secure entry into the SSO Database. Additionally, within thirty (30) days of receiving an account and prior to recording SSOs into the SSO Database, all Enrollees must complete the "Collection System Questionnaire", which collects pertinent information regarding an Enrollee's collection system. The "Collection System Questionnaire" must be updated at least every 12 months.

At a minimum, the following mandatory information must be included prior to finalizing and certifying an SSO report for each category of SSO:

9. Category 2 SSOs:

   A. Location of SSO by entering GPS coordinates;
   B. Applicable Regional Water Board, i.e. identify the region in which the SSO occurred;
   C. County where SSO occurred;
   D. Whether or not the SSO entered a drainage channel and/or surface water;
   E. Whether or not the SSO was discharged to a storm drain pipe that was not fully captured and returned to the sanitary sewer system;

F. Estimated SSO volume in gallons;
G. SSO source (manhole, cleanout, etc.);
H. SSO cause (mainline blockage, roots, etc.);
I. Time of SSO notification or discovery;
J. Estimated operator arrival time;
K. SSO destination;
L. Estimated SSO end time; and
M. SSO Certification. Upon SSO Certification, the SSO Database will issue a Final SSO Identification (ID) Number.

10. Private Lateral Sewage Discharges:

A. All information listed above (if applicable and known), as well as;
B. Identification of sewage discharge as a private lateral sewage discharge; and
C. Responsible party contact information (if known).

11. Category 1 SSOs:

A. All information listed for Category 2 SSOs, as well as;
B. Estimated SSO volume that reached surface water, drainage channel, or not recovered from a storm drain;
C. Estimated SSO amount recovered;
D. Response and corrective action taken;
E. If samples were taken, identify which regulatory agencies received sample results (if applicable). If no samples were taken, NA must be selected.
F. Parameters that samples were analyzed for (if applicable);
G. Identification of whether or not health warnings were posted;
H. Beaches impacted (if applicable). If no beach was impacted, NA must be selected;
I. Whether or not there is an ongoing investigation;
J. Steps taken or planned to reduce, eliminate, and prevent reoccurrence of the overflow and a schedule of major milestones for those steps;
K. OES control number (if applicable);
L. Date OES was called (if applicable);
M. Time OES was called (if applicable);
N. Identification of whether or not County Health Officers were called;
O. Date County Health Officer was called (if applicable); and
P. Time County Health Officer was called (if applicable).

Reporting to Other Regulatory Agencies

These reporting requirements do not preclude an Enrollee from reporting SSOs to other regulatory agencies pursuant to California state law. These reporting requirements do not replace other Regional Water Board telephone reporting requirements for SSOs.

1. The Enrollee shall report SSOs to OES, in accordance with California Water Code Section 13271.

Office of Emergency Services
Phone (800) 852-7550

2. The Enrollee shall report SSOs to County Health officials in accordance with California Health and Safety Code Section 5410 et seq.

3. The SSO database will automatically generate an e-mail notification with customized information about the SSO upon initial reporting of the SSO and final certification for all Category 1 SSOs. E-mails will be sent to the appropriate County Health Officer and/or Environmental Health Department if the county desires this information, and the appropriate Regional Water Board.

B. Record Keeping

1. Individual SSO records shall be maintained by the Enrollee for a minimum of five years from the date of the SSO. This period may be extended when requested by a Regional Water Board Executive Officer.

3. All records shall be made available for review upon State or Regional Water Board staff's request.

4. All monitoring instruments and devices that are used by the Enrollee to fulfill the prescribed monitoring and reporting program shall be properly maintained and calibrated as necessary to ensure their continued accuracy;

5. The Enrollee shall retain records of all SSOs, such as, but not limited to and when applicable:

   a. Record of Certified report, as submitted to the online SSO database;
   b. All original recordings for continuous monitoring instrumentation;
   c. Service call records and complaint logs of calls received by the Enrollee;
   d. SSO calls;
   e. SSO records;
   f. Steps that have been and will be taken to prevent the SSO from recurring and a schedule to implement those steps.
   g. Work orders, work completed, and any other maintenance records from the previous 5 years which are associated with responses and investigations of system problems related to SSOs;
   h. A list and description of complaints from customers or others from the previous 5 years; and
   i. Documentation of performance and implementation measures for the previous 5 years.

6. If water quality samples are required by an environmental or health regulatory agency or State law, or if voluntary monitoring is conducted by the Enrollee or its agent(s), as a result of any SSO, records of monitoring information shall include:

a. The date, exact place, and time of sampling or measurements;
b. The individual(s) who performed the sampling or measurements;
c. The date(s) analyses were performed;
d. The individual(s) who performed the analyses;
e. The analytical technique or method used; and,
f. The results of such analyses.

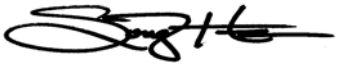
C. Certification

1. All final reports must be certified by an authorized person as required by Provision J of the Order.
2. Registration of authorized individuals, who may certify reports, will be in accordance with the CIWQS' protocols for reporting.

Monitoring and Reporting Program No. 2006-0003 will become effective on the date of adoption by the State Water Board.

CERTIFICATION

The undersigned Clerk to the Board does hereby certify that the foregoing is a full, true, and correct copy of a resolution duly and regularly adopted at a meeting of the State Water Board held on May 2, 2006.



Song Her
Clerk to the Board

STATE OF CALIFORNIA
WATER RESOURCES CONTROL BOARD
ORDER NO. WQ 2013-0058-EXEC

AMENDING MONITORING AND REPORTING PROGRAM
FOR
STATEWIDE GENERAL WASTE DISCHARGE REQUIREMENTS FOR
SANITARY SEWER SYSTEMS

The State of California, Water Resources Control Board (hereafter State Water Board) finds:

1. The State Water Board is authorized to prescribe statewide general Waste Discharge Requirements (WDRs) for categories of discharges that involve the same or similar operations and the same or similar types of waste pursuant to Water Code section 13263(i).

2. Water Code section 13193 *et seq.* requires the Regional Water Quality Control Boards (Regional Water Boards) and the State Water Board (collectively, the Water Boards) to gather Sanitary Sewer Overflow (SSO) information and make this information available to the public, including but not limited to, SSO cause, estimated volume, location, date, time, duration, whether or not the SSO reached or may have reached waters of the state, response and corrective action taken, and an enrollee's contact information for each SSO event. An enrollee is defined as the public entity having legal authority over the operation and maintenance of, or capital improvements to, a sanitary sewer system greater than one mile in length.

3. Water Code section 13271, *et seq.* requires notification to the California Office of Emergency Services (Cal OES), formerly the California Emergency Management Agency, for certain unauthorized discharges, including SSOs.

4. On May 2, 2006, the State Water Board adopted Order 2006-0003-DWQ, "Statewide Waste Discharge Requirements for Sanitary Sewer Systems"[1] (hereafter SSS WDRs) to comply with Water Code section 13193 and to establish the framework for the statewide SSO Reduction Program.

5. Subsection G.2 of the SSS WDRs and the Monitoring and Reporting Program (MRP) provide that the Executive Director may modify the terms of the MRP at any time.

6. On February 20, 2008, the State Water Board Executive Director adopted a revised MRP for the SSS WDRs to rectify early notification deficiencies and ensure that first responders are notified in a timely manner of SSOs discharged into waters of the state.

7. When notified of an SSO that reaches a drainage channel or surface water of the state, Cal OES, pursuant to Water Code section 13271(a)(3), forwards the SSO notification information[2] to local government agencies and first responders including local public health officials and the applicable Regional Water Board. Receipt of notifications for a single SSO event from both the SSO reporter

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[1] Available for download at:
http://www.waterboards.ca.gov/board_decisions/adopted_orders/water_quality/2006/wqo/wqo2006_0003.pdf

[2] Cal OES Hazardous Materials Spill Reports available Online at:
http://w3.calema.ca.gov/operational/malhaz.nsf/$defaultview and http://w3.calema.ca.gov/operational/malhaz.nsf

and Cal OES is duplicative. To address this, the SSO notification requirements added by the February 20, 2008 MRP revision are being removed in this MRP revision.

8. In the February 28, 2008 Memorandum of Agreement between the State Water Board and the California Water and Environment Association (CWEA), the State Water Board committed to re-designing the CIWQS[3] Online SSO Database to allow "event" based SSO reporting versus the original "location" based reporting. Revisions to this MRP and accompanying changes to the CIWQS Online SSO Database will implement this change by allowing for multiple SSO appearance points to be associated with each SSO event caused by a single asset failure.

9. Based on stakeholder input and Water Board staff experience implementing the SSO Reduction Program, SSO categories have been revised in this MRP. In the prior version of the MRP, SSOs have been categorized as Category 1 or Category 2. This MRP implements changes to SSO categories by adding a Category 3 SSO type. This change will improve data management to further assist Water Board staff with evaluation of high threat and low threat SSOs by placing them in unique categories (i.e., Category 1 and Category 3, respectively). This change will also assist enrollees in identifying SSOs that require Cal OES notification.

10. Based on over six years of implementation of the SSS WDRs, the State Water Board concludes that the February 20, 2008 MRP must be updated to better advance the SSO Reduction Program[4] objectives, assess compliance, and enforce the requirements of the SSS WDRs.

IT IS HEREBY ORDERED THAT:

Pursuant to the authority delegated by Water Code section 13267(f), Resolution 2002-0104, and Order 2006-0003-DWQ, the MRP for the SSS WDRs (Order 2006-0003-DWQ) is hereby amended as shown in Attachment A and shall be effective on September 9, 2013.

8/6/13
Date

Thomas Howard
Executive Director

[3] California Integrated Water Quality System (CIWQS) publicly available at http://www.waterboards.ca.gov/ciwqs/publicreports.shtml

[4] Statewide Sanitary Sewer Overflow Reduction Program information is available at: http://www.waterboards.ca.gov/water_issues/programs/sso/

ATTACHMENT A

STATE WATER RESOURCES CONTROL BOARD
ORDER NO. WQ 2013-0058-EXEC

AMENDING MONITORING AND REPORTING PROGRAM
FOR
STATEWIDE GENERAL WASTE DISCHARGE REQUIREMENTS FOR
SANITARY SEWER SYSTEMS

This Monitoring and Reporting Program (MRP) establishes monitoring, record keeping, reporting and public notification requirements for Order 2006-0003-DWQ, "Statewide General Waste Discharge Requirements for Sanitary Sewer Systems" (SSS WDRs). This MRP shall be effective from September 9, 2013 until it is rescinded. The Executive Director may make revisions to this MRP at any time. These revisions may include a reduction or increase in the monitoring and reporting requirements. All site specific records and data developed pursuant to the SSS WDRs and this MRP shall be complete, accurate, and justified by evidence maintained by the enrollee. Failure to comply with this MRP may subject an enrollee to civil liabilities of up to $5,000 a day per violation pursuant to Water Code section 13350; up to $1,000 a day per violation pursuant to Water Code section 13268; or referral to the Attorney General for judicial civil enforcement. The State Water Resources Control Board (State Water Board) reserves the right to take any further enforcement action authorized by law.

A. SUMMARY OF MRP REQUIREMENTS

Table 1 – Spill Categories and Definitions

CATEGORIES	DEFINITIONS [see Section A on page 5 of Order 2006-0003-DWQ, for Sanitary Sewer Overflow (SSO) definition]
CATEGORY 1	Discharges of untreated or partially treated wastewater of **any volume** resulting from an enrollee's sanitary sewer system failure or flow condition that: • Reach surface water and/or reach a drainage channel tributary to a surface water; or • Reach a Municipal Separate Storm Sewer System (MS4) and are not fully captured and returned to the sanitary sewer system or not otherwise captured and disposed of properly. Any volume of wastewater not recovered from the MS4 is considered to have reached surface water unless the storm drain system discharges to a dedicated storm water or groundwater infiltration basin (e.g., infiltration pit, percolation pond).
CATEGORY 2	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 MS4 unless the entire SSO discharged to the storm drain system is fully recovered and disposed of properly.
CATEGORY 3	All other discharges of untreated or partially treated wastewater resulting from an enrollee's sanitary sewer system failure or flow condition.
PRIVATE LATERAL SEWAGE DISCHARGE (PLSD)	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 California Integrated Water Quality System (CIWQS) Online SSO Database.

Table 2 – Notification, Reporting, Monitoring, and Record Keeping Requirements

ELEMENT	REQUIREMENT	METHOD
NOTIFICATION **(see section B of MRP)**	• Within two hours of becoming aware of any Category 1 SSO **greater than or equal to 1,000 gallons discharged to surface water or spilled in a location where it probably will be discharged to surface water**, notify the California Office of Emergency Services (Cal OES) and obtain a notification control number.	Call Cal OES at: **(800) 852-7550**
REPORTING **(see section C of MRP)**	• Category 1 SSO: Submit draft report within three business days of becoming aware of the SSO and certify within 15 calendar days of SSO end date. • Category 2 SSO: Submit draft report within 3 business days of becoming aware of the SSO and certify within 15 calendar days of the SSO end date. • Category 3 SSO: Submit certified report within 30 calendar days of the end of month in which SSO the occurred. • SSO Technical Report: Submit within 45 calendar days after the end date of any Category 1 SSO in which 50,000 gallons or greater are spilled to surface waters. • "No Spill" Certification: Certify that no SSOs occurred within 30 calendar days of the end of the month or, if reporting quarterly, the quarter in which no SSOs occurred. • Collection System Questionnaire: Update and certify every 12 months.	Enter data into the CIWQS Online SSO Database (http://ciwqs.waterboards.ca.gov/), certified by enrollee's Legally Responsible Official(s).
WATER QUALITY MONITORING **(see section D of MRP)**	• Conduct water quality sampling **within 48 hours** after initial SSO notification for Category 1 SSOs in which 50,000 gallons or greater are spilled to surface waters.	Water quality results are required to be uploaded into CIWQS for Category 1 SSOs in which 50,000 gallons or greater are spilled to surface waters.
RECORD KEEPING **(see section E of MRP)**	• SSO event records. • Records documenting Sanitary Sewer Management Plan (SSMP) implementation and changes/updates to the SSMP. • Records to document Water Quality Monitoring for SSOs of 50,000 gallons or greater spilled to surface waters. • Collection system telemetry records if relied upon to document and/or estimate SSO Volume.	Self-maintained records shall be available during inspections or upon request.

B. NOTIFICATION REQUIREMENTS

Although Regional Water Quality Control Boards (Regional Water Boards) and the State Water Board (collectively, the Water Boards) staff do not have duties as first responders, this MRP is an appropriate mechanism to ensure that the agencies that have first responder duties are notified in a timely manner in order to protect public health and beneficial uses.

1. For any Category 1 SSO greater than or equal to 1,000 gallons that results in a discharge to a surface water or spilled in a location where it probably will be discharged to surface water, either directly or by way of a drainage channel or MS4, the enrollee shall, as soon as possible, but not later than two (2) hours after (A) the enrollee has knowledge of the discharge, (B) notification is possible, and (C) notification can be provided without substantially impeding cleanup or other emergency measures, notify the Cal OES and obtain a notification control number.

2. To satisfy notification requirements for each applicable SSO, the enrollee shall provide the information requested by Cal OES before receiving a control number. Spill information requested by Cal OES may include:

    i. Name of person notifying Cal OES and direct return phone number.
    ii. Estimated SSO volume discharged (gallons).
    iii. If ongoing, estimated SSO discharge rate (gallons per minute).
    iv. SSO Incident Description:
        a. Brief narrative.
        b. On-scene point of contact for additional information (name and cell phone number).
        c. Date and time enrollee became aware of the SSO.
        d. Name of sanitary sewer system agency causing the SSO.
        e. SSO cause (if known).
    v. Indication of whether the SSO has been contained.
    vi. Indication of whether surface water is impacted.
    vii. Name of surface water impacted by the SSO, if applicable.
    viii. Indication of whether a drinking water supply is or may be impacted by the SSO.
    ix. Any other known SSO impacts.
    x. SSO incident location (address, city, state, and zip code).

3. Following the initial notification to Cal OES and until such time that an enrollee certifies the SSO report in the CIWQS Online SSO Database, the enrollee shall provide updates to Cal OES regarding substantial changes to the estimated volume of untreated or partially treated sewage discharged and any substantial change(s) to known impact(s).

4. PLSDs: The enrollee is strongly encouraged to notify Cal OES of discharges greater than or equal to 1,000 gallons of untreated or partially treated wastewater that result or may result in a discharge to surface water resulting from failures or flow conditions within a privately owned sewer lateral or from other private sewer asset(s) if the enrollee becomes aware of the PLSD.

C. REPORTING REQUIREMENTS

1. **CIWQS Online SSO Database Account:** All enrollees shall obtain a CIWQS Online SSO Database account and receive a "Username" and "Password" by registering through CIWQS. These accounts allow controlled and secure entry into the CIWQS Online SSO Database.

2. **SSO Mandatory Reporting Information:** For reporting purposes, if one SSO event results in multiple appearance points in a sewer system asset, the enrollee shall complete one SSO report in the CIWQS Online SSO Database which includes the GPS coordinates 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 provide descriptions of the locations of all other discharge points associated with the SSO event.

3. **SSO Categories**

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

      a. Reach surface water and/or reach a drainage channel tributary to a surface water; or

      b. Reach a MS4 and are not fully captured and returned to the sanitary sewer system or not otherwise captured and disposed of properly. Any volume of wastewater not recovered from the MS4 is considered to have reached surface water unless the storm drain system discharges to a dedicated storm water or groundwater infiltration basin (e.g., infiltration pit, percolation pond).

   ii. **Category 2** – Discharges of untreated or partially treated wastewater greater than or equal to 1,000 gallons resulting from an enrollee's sanitary sewer system failure or flow condition that does not reach a surface water, a drainage channel, or the MS4 unless the entire SSO volume discharged to the storm drain system is fully recovered and disposed of properly.

   iii. **Category 3** – All other discharges of untreated or partially treated wastewater resulting from an enrollee's sanitary sewer system failure or flow condition.

4. **Sanitary Sewer Overflow Reporting to CIWQS - Timeframes**

   i. **Category 1 and Category 2 SSOs** – All SSOs that meet the above criteria for Category 1 or Category 2 SSOs shall be reported to the CIWQS Online SSO Database:

      a. Draft reports for Category 1 and Category 2 SSOs shall be submitted to the CIWQS Online SSO Database within three (3) business days of the enrollee becoming aware of the SSO. Minimum information that shall be reported in a draft Category 1 SSO report shall include all information identified in section 8.i.a. below. Minimum information that shall be reported in a Category 2 SSO draft report shall include all information identified in section 8.i.c below.

      b. A final Category 1 or Category 2 SSO report shall be certified through the CIWQS Online SSO Database within 15 calendar days of the end date of the SSO. Minimum information that shall be certified in the final Category 1 SSO report shall include all information identified in section 8.i.b below. Minimum information that shall be certified in a final Category 2 SSO report shall include all information identified in section 8.i.d below.

ii. **Category 3 SSOs** – All SSOs that meet the above criteria for Category 3 SSOs shall be reported to the CIWQS Online SSO Database and certified within 30 calendar days after the end of the calendar month in which the SSO occurs (e.g., all Category 3 SSOs occurring in the month of February shall be entered into the database and certified by March 30). Minimum information that shall be certified in a final Category 3 SSO report shall include all information identified in section 8.i.e below.

iii. **"No Spill" Certification** – If there are no SSOs during the calendar month, the enrollee shall either 1) certify, within 30 calendar days after the end of each calendar month, a "No Spill" certification statement in the CIWQS Online SSO Database certifying that there were no SSOs for the designated month, or 2) certify, quarterly within 30 calendar days after the end of each quarter, "No Spill" certification statements in the CIWQS Online SSO Database certifying that there were no SSOs for each month in the quarter being reported on. For quarterly reporting, the quarters are Q1 - January/ February/ March, Q2 - April/May/June, Q3 - July/August/September, and Q4 - October/November/December.

If there are no SSOs during a calendar month but the enrollee reported a PLSD, the enrollee shall still certify a "No Spill" certification statement for that month.

iv. **Amended SSO Reports** – The enrollee may update or add additional information to a certified SSO report within 120 calendar days after the SSO end date by amending the report or by adding an attachment to the SSO report in the CIWQS Online SSO Database. SSO reports certified in the CIWQS Online SSO Database prior to the adoption date of this MRP may only be amended up to 120 days after the effective date of this MRP. After 120 days, the enrollee may contact the SSO Program Manager to request to amend an SSO report if the enrollee also submits justification for why the additional information was not available prior to the end of the 120 days.

5. **SSO Technical Report**

The enrollee shall submit an SSO Technical Report in the CIWQS Online SSO Database within 45 calendar days of the SSO end date for any SSO in which 50,000 gallons or greater are spilled to surface waters. This report, which does not preclude the Water Boards from requiring more detailed analyses if requested, shall include at a minimum, the following:

i. **Causes and Circumstances of the SSO:**

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 methodology employed and available data used to calculate the volume of the SSO and, if applicable, the SSO volume recovered.

d. Detailed description of the cause(s) of the SSO.

e. Copies of original field crew records used to document the SSO.

f. Historical maintenance records for the failure location.

ii. **Enrollee's Response to SSO:**

a. Chronological narrative description of all actions taken by enrollee to terminate the spill.

b. Explanation of how the SSMP Overflow Emergency Response plan was implemented to respond to and mitigate the SSO.

c. Final corrective action(s) completed and/or planned to be completed, including a schedule for 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.

6. **PLSDs**

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 sanitary sewer system assets may be voluntarily reported to the CIWQS Online SSO Database.

i. The enrollee is also encouraged to provide notification to Cal OES per section B above when a PLSD greater than or equal to 1,000 gallons has or may result in a discharge to surface water. For any PLSD greater than or equal to 1,000 gallons regardless of the spill destination, the enrollee is also encouraged to file a spill report as required by Health and Safety Code section 5410 et. seq. and Water Code section 13271, or notify the responsible party that notification and reporting should be completed as specified above and required by State law.

ii. If a PLSD is recorded in the CIWQS Online SSO Database, the enrollee must identify the sewage discharge as occurring and caused by a private sanitary sewer system asset and should identify a responsible party (other than the enrollee), if known. Certification of PLSD reports by enrollees is not required.

7. **CIWQS Online SSO Database Unavailability**

In the event that the CIWQS Online SSO Database is not available, the enrollee must fax or e-mail all required information to the appropriate Regional Water Board office in accordance with the time schedules identified herein. In such event, the enrollee must also enter all required information into the CIWQS Online SSO Database when the database becomes available.

8. **Mandatory Information to be Included in CIWQS Online SSO Reporting**

All enrollees shall obtain a CIWQS Online SSO Database account and receive a "Username" and "Password" by registering through CIWQS which can be reached at CIWQS@waterboards.ca.gov or by calling (866) 792-4977, M-F, 8 A.M. to 5 P.M. These accounts will allow controlled and secure entry into the CIWQS Online SSO Database. Additionally, within thirty (30) days of initial enrollment and prior to recording SSOs into the CIWQS Online SSO Database, all enrollees must complete a Collection System Questionnaire (Questionnaire). The Questionnaire shall be updated at least once every 12 months.

i. **SSO Reports**

At a minimum, the following mandatory information shall be reported prior to finalizing and certifying an SSO report for each category of SSO:

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

1. SSO Contact Information: Name and telephone number of enrollee contact person who can answer specific questions about the SSO being reported.
2. SSO Location Name.
3. Location of the overflow event (SSO) by entering GPS coordinates. If a single overflow event results in multiple appearance points, provide GPS coordinates for the appearance point closest to the failure point and describe each additional appearance point in the SSO appearance point explanation field.
4. Whether or not the SSO reached surface water, a drainage channel, or entered and was discharged from a drainage structure.
5. Whether or not the SSO reached a municipal separate storm drain system.
6. Whether or not the total SSO volume that reached a municipal separate storm drain system was fully recovered.
7. Estimate of the SSO volume, inclusive of all discharge point(s).
8. Estimate of the SSO volume that reached surface water, a drainage channel, or was not recovered from a storm drain.
9. Estimate of the SSO volume recovered (if applicable).
10. Number of SSO appearance point(s).
11. Description and location of SSO appearance point(s). If a single sanitary sewer system failure results in multiple SSO appearance points, each appearance point must be described.
12. SSO start date and time.
13. Date and time the enrollee was notified of, or self-discovered, the SSO.
14. Estimated operator arrival time.
15. For spills greater than or equal to 1,000 gallons, the date and time Cal OES was called.
16. For spills greater than or equal to 1,000 gallons, the Cal OES control number.

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

1. Description of SSO destination(s).
2. SSO end date and time.
3. SSO causes (mainline blockage, roots, etc.).
4. SSO failure point (main, lateral, etc.).
5. Whether or not the spill was associated with a storm event.
6. Description of spill corrective action, including steps planned or taken to reduce, eliminate, and prevent reoccurrence of the overflow; and a schedule of major milestones for those steps.
7. Description of spill response activities.
8. Spill response completion date.
9. Whether or not there is an ongoing investigation, the reasons for the investigation and the expected date of completion.

10. Whether or not a beach closure occurred or may have occurred as a result of the SSO.
11. Whether or not health warnings were posted as a result of the SSO.
12. Name of beach(es) closed and/or impacted. If no beach was impacted, NA shall be selected.
13. Name of surface water(s) impacted.
14. If water quality samples were collected, identify parameters the water quality samples were analyzed for. If no samples were taken, NA shall be selected.
15. If water quality samples were taken, identify which regulatory agencies received sample results (if applicable). If no samples were taken, NA shall be selected.
16. Description of methodology(ies) and type of data relied upon for estimations of the SSO volume discharged and recovered.
17. SSO Certification: Upon SSO Certification, the CIWQS Online SSO Database will issue a final SSO identification (ID) number.

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

1. Items 1-14 in section 8.i.a above for Draft Category 1 SSO.

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

1. Items 1-14 in section 8.i.a above for Draft Category 1 SSO and Items 1-9, and 17 in section 8.i.b above for Certified Category 1 SSO.

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

1. Items 1-14 in section 8.i.a above for Draft Category 1 SSO and Items 1-5, and 17 in section 8.i.b above for Certified Category 1 SSO.

ii. **Reporting SSOs to Other Regulatory Agencies**

These reporting requirements do not preclude an enrollee from reporting SSOs to other regulatory agencies pursuant to state law. In addition, these reporting requirements do not replace other Regional Water Board notification and reporting requirements for SSOs.

iii. **Collection System Questionnaire**

The required Questionnaire (see subsection G of the SSS WDRs) provides the Water Boards with site-specific information related to the enrollee's sanitary sewer system. The enrollee shall complete and certify the Questionnaire at least every 12 months to facilitate program implementation, compliance assessment, and enforcement response.

iv. **SSMP Availability**

The enrollee shall provide the publicly available internet web site address to the CIWQS Online SSO Database where a downloadable copy of the enrollee's approved SSMP, critical supporting documents referenced in the SSMP, and proof of local governing board approval of the SSMP is posted. If all of the SSMP documentation listed in this subsection is not publicly available on the Internet, the enrollee shall comply with the following procedure:

a. Submit an **electronic** copy of the enrollee's approved SSMP, critical supporting documents referenced in the SSMP, and proof of local governing board approval of the SSMP to the State Water Board, within 30 days of that approval and within 30 days of any subsequent SSMP re-certifications, to the following mailing address:

State Water Resources Control Board
Division of Water Quality
Attn: SSO Program Manager
1001 I Street, 15th Floor, Sacramento, CA 95814

D. WATER QUALITY MONITORING REQUIREMENTS:

To comply with subsection D.7(v) of the SSS WDRs, the enrollee shall develop and implement an SSO Water Quality Monitoring Program to assess impacts from SSOs to surface waters in which 50,000 gallons or greater are spilled to surface waters. The SSO Water Quality Monitoring Program, shall, at a minimum:

1. Contain protocols for water quality monitoring.

2. Account for spill travel time in the surface water and scenarios where monitoring may not be possible (e.g. safety, access restrictions, etc.).

3. Require water quality analyses for ammonia and bacterial indicators to be performed by an accredited or certified laboratory.

4. Require monitoring instruments and devices used to implement the SSO Water Quality Monitoring Program to be properly maintained and calibrated, including any records to document maintenance and calibration, as necessary, to ensure their continued accuracy.

5. Within 48 hours of the enrollee becoming aware of the SSO, require water quality sampling for, at a minimum, the following constituents:
   i. Ammonia
   ii. Appropriate Bacterial indicator(s) per the applicable Basin Plan water quality objective or Regional Board direction which may include total and fecal coliform, enterococcus, and e-coli.

E. RECORD KEEPING REQUIREMENTS:

The following records shall be maintained by the enrollee for a minimum of five (5) years and shall be made available for review by the Water Boards during an onsite inspection or through an information request:

1. General Records: The enrollee shall maintain records to document compliance with all provisions of the SSS WDRs and this MRP for each sanitary sewer system owned including any required records generated by an enrollee's sanitary sewer system contractor(s).

2. SSO Records: The enrollee shall maintain records for each SSO event, including but not limited to:
   i. Complaint records documenting how the enrollee responded to all notifications of possible or actual SSOs, both during and after business hours, including complaints that do not

result in SSOs. Each complaint record shall, at a minimum, include the following information:

a. Date, time, and method of notification.

b. Date and time the complainant or informant first noticed the SSO.

c. Narrative description of the complaint, including any information the caller can provide regarding whether or not the complainant or informant reporting the potential SSO knows if the SSO has reached surface waters, drainage channels or storm drains.

d. Follow-up return contact information for complainant or informant for each complaint received, if not reported anonymously.

e. Final resolution of the complaint.

ii. Records documenting steps and/or remedial actions undertaken by enrollee, using all available information, to comply with section D.7 of the SSS WDRs.

iii. Records documenting how all estimate(s) of volume(s) discharged and, if applicable, volume(s) recovered were calculated.

3. Records documenting all changes made to the SSMP since its last certification indicating when a subsection(s) of the SSMP was changed and/or updated and who authorized the change or update. These records shall be attached to the SSMP.

4. Electronic monitoring records relied upon for documenting SSO events and/or estimating the SSO volume discharged, including, but not limited to records from:

i. Supervisory Control and Data Acquisition (SCADA) systems

ii. Alarm system(s)

iii. Flow monitoring device(s) or other instrument(s) used to estimate wastewater levels, flow rates and/or volumes.

F. CERTIFICATION

1. All information required to be reported into the CIWQS Online SSO Database shall be certified by a person designated as described in subsection J of the SSS WDRs. This designated person is also known as a Legally Responsible Official (LRO). An enrollee may have more than one LRO.

2. Any designated person (i.e. an LRO) shall be registered with the State Water Board to certify reports in accordance with the CIWQS protocols for reporting.

3. Data Submitter (DS): Any enrollee employee or contractor may enter draft data into the CIWQS Online SSO Database on behalf of the enrollee if authorized by the LRO and registered with the State Water Board. However, only LROs may certify reports in CIWQS.

4. The enrollee shall maintain continuous coverage by an LRO. Any change of a registered LRO or DS (e.g., retired staff), including deactivation or a change to the LRO's or DS's contact information, shall be submitted by the enrollee to the State Water Board within 30 days of the change by calling (866) 792-4977 or e-mailing help@ciwqs.waterboards.ca.gov.

5. A registered designated person (i.e., an LRO) shall certify all required reports under penalty of perjury laws of the state as stated in the CIWQS Online SSO Database at the time of certification.

CERTIFICATION

The undersigned Clerk to the Board does hereby certify that the foregoing is a full, true, and correct copy of an order amended by the Executive Director of the State Water Resources Control Board.

7/30/13
Date

Jeanine Townsend
Clerk to the Board

APPENDIX D – CITY OF OAKLAND'S MUNICIPAL CODE SECTIONS 13.04 & 13.08

Chapter 13.04 - SEWER SYSTEM FUNDING

Sections:

13.04.010 - Definitions.

As used in this chapter:

"City" means the city of Oakland.

"District" means the East Bay municipal utility district.

"Person" means and includes any person, firm, association, organization, partnership, corporation, public corporation, political subdivision, (including the city of Oakland and the Port of Oakland), county, district, the state of California, or the United States of America, or any department or agency thereof.

"Sewer facilities" means and includes both the sanitary sewer collection system and the storm sewer collection system. For purposes of this chapter, storm drain system shall have the same meaning as storm sewer system.

(Ord. 11801 § 2, 1995; prior code § 6-7.01)

13.04.020 - Imposition of sewer service charge.

Every party in whose name sewage disposal service of the East Bay Municipal Utility District (District) is granted shall pay a sewer service charge according to the rates as follows, beginning with the first billing period following January 1, 2011:

A. A monthly charge of $25.80 is established and assessed for the use of sewer facilities for every single-family residence as defined by the District's Business Classification Code 8800, Private Residence.

B. For multiple-family dwellings, as defined by the District's Business Classification Code 6513, Multiple Dwelling, the following monthly charges are established and assessed for the use of sewer facilities:

1. Duplexes: $28.95 per month;

2. Triplexes: $43.43 per month;

3. Fourplexes: $57.92 per month.

C. For residential premises not included in Subsections A. or B., a charge based upon the cubic feet of water used on the premises will be made for the use of sewer facilities, which charge shall be computed and levied as follows:

1. $1.76 per 100 cubic feet per month.

In no case shall the total monthly charge be less than $25.80.

D. For premises in the district's "commercial," "industrial," and "public authority" business certifications, a charge based on cubic feet of water used upon the premises will be made for the use of sewer facilities, which charge shall be computed and levied as specified below:

1. Industrial accounts: $1.60 per 100 cubic feet per month;

2. Commercial accounts: $1.76 per 100 cubic feet per month;

3. Restaurants/hotels: $1.82 per 100 cubic feet per month;

4. Hospitals: $1.96 per 100 cubic feet per month;

5. Laundromats/car washes: $2.06 per 100 cubic feet per month.

In no case shall the total monthly charge be less than $25.80.

E. For premises with a sewage meter for measuring actual sewage flow from such premises, a charge based on cubic feet of measured sewage flow from the premises, and applicable to all buildings for water consumption cycles commencing on and after January 1, 2011, will be made for the use of sewer facilities, which charge shall be computed and levied as follows:

1. $2.13 per 100 cubic feet of sewage flow per month.

In no case shall the total monthly charge be less than $25.80.

F. The sewer service charges established and assessed in Subsections C. and D. shall be applicable to premises where no meter is installed or available in said premises for measuring the volume of sewage from such premises into sewers. The sewer service charge for these premises shall be based upon the total amount of water used from all sources, as ascertained by the district, for sewage disposal service charges imposed by such district within the City.

G. The sewer service charge established and assessed in Subsection E. shall be applicable to premises where a portion of the water received from any source does not flow into sewers because of manufacturing or removal by other means and a meter is installed or available in said premises for measuring the volume of sewage from such premises into sewers. The sewer service charge for these premises shall be based upon the volume of sewage discharging from such premises into the sewers, as ascertained by the district for sewage disposal service charges imposed by the district within the City.

H. The charges established and assessed in Subsections A. through E. shall become due and payable on receipt of bill therefore. Such charges shall be paid directly to the City or to the district, as directed upon the bill.

I. Beginning with annual billing period that begins on or after January 1, 2012, the sewer service charge rates established above shall be increased by 16 percent annually through the annual billing period that begins on or after January 1, 2013.

J. For the annual billing period that begins on or after January 1, 2014, the sewer service charge rates shall be increased at an annual rate equal to but not to exceed the prior years percentage change in the Consumer Price Index for the San Francisco Bay Area, compiled by the United States Department of Labor, Bureau of Labor Statistics, or successor thereto, between such Index as of June in the year prior to the year in which rates are being increased and June 12 months earlier, as provided for the use of sewer facilities owned and operated by the City.

(Ord. No. 13035, § 1, 7-27-2010; Ord. 12540 § 1, 2003; Ord. 11801 § 1 Attachment A, 1995: prior code § 6-7.02)

ATTACHMENT A

SEWER SERVICE CHARGE VOLUME RATES BASED ON WATER CONSUMPTION

EFFECTIVE JANUARY 01, 2004

BCC (1)	Description	Metered Rate Per ccf (2)
.....		
0100	Agriculture	$0.82
0700	Veterinarian Services	$0.90
1200	Mining and Quarrying	$0.82
1500	Construction	$0.82
2010	Meat Products/Process/Packaging	$0.82
2020	Dairy Product Processing	$0.82
2030	Fruit & Vegetable Canning	$0.82
2040	Grain Mills	$0.82
2050	Bakeries (including pastries)	$0.82
2051	Bakeries—Bread Only	$0.82
2060	Sugar Processing	$0.82
2070	Fats and Oils	$0.82
2077	Rendering Tallow	$0.82
2080	Beverage Mfg.	$0.82
2090	Specialty Food Mfg.	$0.82
2091	Seafood Processing	$0.82
2300	Textile Goods Mfg.	$0.82
2400	Lumber & Wood Mfg.	$0.82
2500	Furniture	$0.82

2600	Pulp & Paper Prod Mfg	$0.82
2700	Printing Publishing	$0.82
2810	Inorganic Chemicals Mfg.	$0.82
2820	Synthetic Material Mfg.	$0.82
2830	Drugs Mfg.	$0.82
2840	Clean & Sanitary Prod Mfg.	$0.82
2850	Paint Mfg.	$0.82
2860	Organic Chemicals Mfg.	$0.82
2870	Agricultural & Chemical Mfg.	$0.82
2891	Adhesive & Gelatin Mfg.	$0.82
2893	Ink & Pigment Mfg.	$0.82
2900	Petroleum Prod Mfg.	$0.82
3000	Rubber Products	$0.82
3110	Leather Tanning	$0.82
3200	Earthenware Mfg.	$0.82
3300	Primary Metals Mfg.	$0.82
3400	Metal Prod Fabrication	$0.82
3410	Drum & Barrels Mfg.	$0.82
3470	Metal Finishing	$0.82
3500	Machinery Mfg.	$0.82
3590	Machine Shop Repair	$0.82
3600	Electric Machine Mfg.	$0.82
3700	Trans Equip Mfg.	$0.82
3730	Shipbuilding	$0.82
3800	Precision Equip Mfg.	$0.82
3900	Miscellaneous Mfg.	$0.82
4000	Railroad Transportation	$0.82
4100	Local/Suburb Transportation	$0.82
4200	Warehousing	$0.82
4400	Water Transportation	$0.82
4500	Air Transportation	$0.82
4700	Transportation Services	$0.82
4800	Elect Communications	$0.82
4900	Elec., Steam, Nat Gas	$0.82
4950	Sanitary Collection & Disposal	$0.82
5000	Wholesale Trade	$0.90
5300	Retail Trade	$0.90
5400	Food Sales	$0.90
5540	Gas/Oil Dealers	$0.90
5811	Restaurant—Fast Food	$0.94
5812	Restaurant	$0.94
5813	Drinking Bar/Club	$0.94
6500	Cemeteries	$0.90
6513	Apt Bldg—5 or More	$0.90
6800	Offices	$0.90
7000	Hotels with Food	$0.94
7001	Hotels without Food	$0.94
7020	Boarding Houses	$0.94
7200	Personal Services	$0.90
7210	Commercial Laundries	$1.05
7215	Coin Laundromats	$1.05
7216	Clean & Dye Fabrics	$1.05
7218	Industrial Laundries	$1.05
7260	Crematory, Funeral Homes	$0.90
7300	Laboratories	$0.90
7342	Fumigating	$0.90

7500	Automobile Repair Services	$0.90
7539	Battery Services	$0.90
7542	Auto Laundries	$1.05
7600	Misc. Repair Services	$0.90
7699	Septic Tank Cleaning	$0.90
7900	Amusement Services	$0.90
7940	Equestrian Activities	$0.90
7950	Irrigation Use Only	Exempt
7990	Parks and Gardens	$0.90
8000	Health Services	$0.90
8060	Hospitals	$1.00
8200	Schools	$0.90
8600	Non-Profit Organizations	$0.90

(1) EBMUD's Business Classification Cost Number

(2) Hundred cubic feet

13.04.030 - When due.

Upon the expiration of fifteen (15) days after billing for sewer service charges as herein provided, the charges shall become delinquent if the bill, or that portion thereof which is not in bona fide dispute, remains unpaid.

(Prior code § 6-7.03)

13.04.040 - Imposition of lien.

Delinquent sewer service charges which are payable directly to the city are made a lien upon the real property served by a connection to the city sewer system and such lien shall continue until the charges thereon are fully paid.

(Prior code § 6-7.04)

13.04.050 - Remedies.

In addition to other remedies provided by law including the discontinuance of water service in accordance with district procedure, an action may be brought in the name of the city in any court of competent jurisdiction for the collection of delinquent charges and to enforce the lien of the charges thereon. The remedies herein established shall be cumulative and in addition to any or all other remedies available to the city for the collection of said charges.

(Prior code § 6-7.05)

13.04.060 - Sewer service charge fund.

A. The fund theretofore established and known as the "sewer service charge fund" is continued. All moneys received from the charges established by this chapter shall be deposited in such fund. The moneys in this fund shall be used only for the payment of the costs in connection with acquisition, construction, reconstruction, relocation, maintenance, operation, and repair of the sewer facilities of the city and for the administration of this chapter; provided, however, that the moneys in said fund shall not be used for the acquisition or construction of new sewer facilities in unsewered areas.

B. The moneys received from the charges established by this chapter, after deposit in the sewer service charge fund, shall be distributed as follows:

At least ninety-five (95) percent shall be for the sanitary sewer system; and, up to five percent shall be for the storm sewer system.

The intent of this provision is to have the distribution made on the basis of the amount collected. For accounting purposes, the division of moneys collected may occur at the time that such moneys are deposited in said fund. However, the establishment of separate funds or accounts shall not be required.

(Prior code § 6-7.06)

13.04.070 - Payment, enforcement.

The sewer service charges herein established shall be paid to the Treasurer of the city or to any other

person authorized by the Council to receive payment thereof. It shall be the duty of the Treasurer to enforce collection of said sewer service charges, and to act as the representative of the city for liaison with the district in the disposition of disputed accounts and other matters relating to billing and collecting the sewer service charge by district.

(Prior code § 6-7.07)

Chapter 13.08 - BUILDING SEWERS

Sections:

13.08.010 - Purpose.

The purpose of this chapter is to regulate the size, extent, use, construction, maintenance, and abandonment of building sewers, sometimes referred to elsewhere in this code and other codes and ordinances of the city as "building sewer," "house sewer," "side sewer," "sewer lateral," or "building sewer lateral," and to provide for the administration of such regulations by the Director of Public Works.

(Prior code § 6-6.020)

13.08.020 - Definitions.

The following words and phrases, wherever used in this Chapter, shall be construed as defined in this Section unless otherwise required by the context. The singular shall be taken to mean the plural and the plural shall mean the singular when required by the context of this Chapter. The following definitions will not necessarily apply to other Chapters of this Code:

"Building sewer" means that particular sanitary sewer which lies between a point two feet from the building or structure it serves, to and including its connection with the sewer system or other point of discharge and which carries sewage and liquid wastes from public or private premises to a public or private sewer system, individual sewage disposal system or other point of discharge or point of disposal.

"Common private sewer" means any privately-owned and maintained sewer which serves as the disposal point for two or more building sewers. A common private sewer is either a sanitary sewer or a storm water sewer, but it cannot be used as a combination of both.

"Inflow/infiltration correction program" (also called "I/I correction program" and "infiltration/inflow correction program") means those particular projects being designed, or designed and being constructed, constructed or proposed to be constructed by the City and/or its agents for the purpose of complying with the requirements of that certain order issued by the California Regional Water Quality Control Board and being Order No. 84-67 and any other state, federal, or local legislation related thereto.

"Lower building sewer lateral" means all that portion of the building sewer lateral which lies within a public right-of-way or lies within an easement granted for the purpose of constructing or maintaining a sanitary sewer or some such other similar purpose.

"Manhole" means an underground structure large enough to be physically entered by a person for the purpose of inspecting and maintaining a sewer or a portion thereof.

"New sewer connection" means a connection to a public sewer or common private sewer which has not previously existed. This does not include reconnection, repair, or replacement of an existing sewer lateral either at the same or at a different location. An existing sewer lateral which would be going to a higher use (such as an increased number of dwelling units) would be subject to an increased sewer service charge and/or sewer

connection fee for the increase in use.

"Point of discharge" (also called "discharge point") means that point at which the materials conveyed by a sewer leave a specific section or length of sewer (by design or inadvertently).

"Point of disposal" (also called "disposal point") means the point at which any material conveyed by a sewer enters any facility for treatment or processing or otherwise leaves the sewer system by design.

"Point of origin" means that particular point on a building sewer which lies closest to the building or other structure which it serves.

"Project" means any portion of work including, but not limited to, the repair, construction and/or replacement of parts of the sewer system subject to the inflow/infiltration correction program which are accomplished under a specific project number issued by the City.

"Sanitary sewer" means any public or private sewer designed and/or constructed for the purpose of conveying sewage or other liquid waste from a building sewer to or toward a point of disposal or discharge.

"Sewage" means all liquid effluent, including any suspended solids therein, which is conveyed from all types of premises through a sewer system, for treatment and/or disposal, excepting flow from natural drainage and rainfall.

"Sewer" means any pipe conduit or channel, being either open or closed, the purpose of which is to convey sewage, liquid waste, other liquids or water from a collection point to or toward discharge point.

"Sewer main" (also commonly called "main sewer") means any public sewer or portion thereof which conveys sewage between the point of discharge of a building sewer and the point of disposal of said public sewer.

"Sewage overflow device" means an approved plumbing fitting that is installed at the top of an exterior cleanout riser for a sanitary sewer lateral and is activated by the hydraulic pressure of sewage and allows back flowing sewage to discharge over the ground surface and prevents the intrusion of rodents and other vector into the sewer piping system.

"Sewer System" means either the entire network or a portion of that network of sewers under the jurisdiction of the City and all the appurtenances thereto. This shall include both conveyances for sanitary flow and storm water and other liquid waste flows.

"Shall/will" means a determinative directive, which includes the ordinary accepted meaning of the word "must."

"Storm sewer" (also commonly called "storm drain" or "storm water conduit") means any public or private sewer designed and/or constructed for the purpose of conveying rainwater or other waters deposited by natural causes, but not including sewage and wastewater.

"Upper building sewer lateral" means all that portion of the building sewer as herein above defined which lies within the privately owned property abutting a public right-of-way or easement.

(Ord. No. 12993, § 3, 2-2-2010; Ord. 12886 § 1 (part), 2008; prior code § 6-6.030)

13.08.030 - Application.

The provisions of this chapter shall supersede all conflicting provisions of this code and other codes in effect and shall apply to all building sewers existing or hereafter constructed.

(Prior code § 6-6.040)

13.08.040 - Building sewers and building sewer connections—Permit required, to whom issued, exceptions.

It is unlawful for any person to make, cause or permit to be made, any work required for the construction, reconstruction, repair or abandonment of any building sewers or any portion thereof or for the re-use of existing building sewers or any building sewer connection, for the purpose of discharging sewage into the city's sewer system without first obtaining from the Director of Public Works a written permit to do such work and paying the fee required by this chapter. Provided, however, that:

A. No building sewer permit shall be required for the clearance of sewer stoppages which do not involve excavation in the street.

B. Provided further, however, that permits for building sewer work regulated by this chapter shall be issued only to persons entitled thereto under state law.

(Prior code § 6-6.050)

13.08.050 - Form and conditions of the permit.

The permit, when signed by the Director of Public Works or his or her authorized representative, shall constitute permission to do the work.

The permit shall be void if the work is not commenced and completed within the period specified on the permit unless an extension of time is granted in writing by the Director of Public Works.

Permit shall not be transferable.

(Prior code § 6-6.060)

13.08.060 - Notice of commencement of work.

At least forty-eight (48) hours before the work is started, the permittee shall give notice of time of commencement of the work to the Director of Public Works. Similar notice shall be given to the Police Department, Fire Department, and utility companies if required on the permit.

(Prior code § 6-6.070)

13.08.070 - Emergency work.

Nothing in Section 13.08.060, or elsewhere in this chapter, shall prevent any responsible person from doing such work and making such excavation as may be necessary for the preservation of life or property when such necessity arises; provided, however, that the person doing such work or excavations shall make application to obtain a permit therefor on the next working day.

(Prior code § 6-6.080)

13.08.080 - Authority of the Director of Public Works.

The Director of Public Works is authorized to enforce the provisions of this chapter and to approve deviations consistent with good practice under unusual circumstances where standard requirements are impractical in his or her opinion.

(Prior code § 6-6.090)

13.08.090 - Revocation of permit.

Any permit granted hereunder may be revoked by the Director of Public Works for noncompliance with any applicable laws or regulations.

(Prior code § 6-6.100)

13.08.100 - Emergency abatement, dangerous condition.

A. Order of Abatement. If after issuance of sewer permit an emergency condition exists or could develop because of the connection of a private sewer lateral to the public sewer, the Director of Public Works, or his or her designee, is authorized to order the separation of any lateral determined dangerous, or likely to become dangerous if not disconnected, from any public sewer main or from any private common sewer. An "emergency condition" is defined, for the purposes of this section, as any event, act, or occurrence, either natural or otherwise, which is contributory to, or could contribute to, a land stability problem or is an eminent threat to the public health, welfare, and safety. If circumstances permit, the Director's order of separation shall be delivered either personally or by certified mail, postage pre-paid to the property owner. Where the order is delivered to the property owner, the latter must comply with the order within the period established by the Director. If the property owner does not comply, the Director, or his or her designee, is authorized to have the work done at the expense of the property owner. Also, the work of emergency abatement shall be done at the property owner's expense, where circumstances do not permit prior notice.

B. Confirmation Hearing. The Director or his or her designee shall keep an itemized account of the costs of the abatement work. A report of the costs shall be submitted to the Council for confirmation. The property owner shall be given written notice of the confirmation hearing in the manner provided in Section 13.08.270

Upon the date and at the place and hour fixed for the confirmation hearing, the Council of the city shall receive the report and hear such evidence as may be presented by the property owner, including evidence that no emergency existed. Such hearing may be continued from time to time by the City Council. Upon completion of such hearing, the City Council shall either overrule the Director's report or shall confirm it; provided that the City

Council, if good cause exists, may adjust downward the costs of abatement. After the assessment is made and confirmed, it shall be a lien on the said real property.

Such lien attaches upon recordation in the Office of the County Recorder, Alameda County, by certified copy of the resolution of the confirmation. After confirmation of the report, a certified copy shall be filed with the County Auditor, Alameda County, on or before August 10th. The description of the parcel reported shall be that used for the same parcel as the County Assessor's map books for the current year. The County Assessor shall enter each assessment on the county tax roll opposite the parcel of land. The amount of the assessment shall be collected at the same time and in the same manner as ordinary municipal taxes are collected, and shall be subject to the same penalties and the same procedure for foreclosure and sale in case of delinquencies as provided for ordinary municipal taxes.

(Prior code § 6-6.110)

13.08.110 - Reimbursement to city—Responsibility determined after repairs made.

Whenever the location of a malfunction in a building sewer and the responsibility for the protection, repair, and/or reconstruction thereof shall be the subject of dispute between the city and a property owner or owners, the city may proceed to expose such parts of said building sewer as shall be necessary to determine the cause of said malfunction, and said city shall perform all necessary work thereon, and shall thereupon determine the person or persons responsible for said malfunction which said person or persons shall be liable, or jointly liable, respectively, for all costs necessarily incurred by the city in the performance of the work. Provided, however, that before the city undertakes the work herein mentioned, it shall give notice in writing to all persons concerned of its intentions. Provided, further, that the remedy provided in this section shall be independent of and shall not supersede those provisions in this chapter relating to dangerous and unsanitary conditions and to emergency work by the city.

(Prior code § 6-6.130)

13.08.120 - Responsibility of property owner.

The size, extent, construction, installation, operation, use, maintenance, and abandonment of building sewers, common private sewers, two-way and standard cleanout fittings and exterior risers, sewage overflow devices, and the connections thereto shall be in accordance with the provisions of this Chapter and shall be the responsibility of the owner of the property served or servable by the sewer system. All devices shall be maintained and repaired by the property owner and provide for their uninterrupted function and purpose for which they were designed.

(Ord. No. 12993, § 3, 2-2-2010; Prior code § 6-6.140)

13.08.130 - Use of public sanitary sewers.

Use of the sanitary sewer system is limited to the discharge of sewage and/or industrial wastes in such a quantity and of such a quality as shall not endanger the condition, operation, or capacity of the system.

(Prior code § 6-6.150)

13.08.140 - Prohibited use of public sanitary sewers and any private sanitary sewer or building sewer discharging, directly or indirectly, into said public sanitary sewers.

A. Illegal Connections. It shall be illegal for any person to discharge or permit the discharge of any storm water, surface water, ground water, roof runoff, yard drainage, or subsurface drainage into any building sewer, private sanitary sewer, or public sanitary sewer by either direct or indirect means.

B. Notification of Illegal Connection. When a connection permitting illegal discharge as defined in subsection A of this section has been detected and confirmed, the Director of Public Works or his or her authorized agent shall notify the owner of the property from which the discharge occurs to remove the connection within thirty days of said notification. Notification shall proceed in accordance with the provisions of Section 13.08.240

C. Abatement of Illegal Connection. The illegal connection shall be abated in accordance with the published standards and specifications in this code for the plugging and abandoning of a sewer line with the work to be accomplished under the proper permit and subject to the inspection and approval of the city prior to the filling of the trench containing the exposed pipe(s).

D. No New Illegal Connections. No new connections shall be made to any public sanitary sewer which shall discharge, directly or indirectly, any effluent prohibited by federal, state or local statutes.

(Prior code § 6-6.160)

13.08.150 - Prohibited uses generally—Wastewater.

No person shall discharge, deposit, throw, or cause, allow, or permit to be discharged, deposited, or thrown, into a building sewer or the sanitary sewer system, any substance of any kind whatsoever which shall cause or tend to cause an obstruction or damages to the sewer system, or which shall cause or tend to cause a nuisance or hazard, or which will in any manner obstruct or tend to obstruct the efficient operation or maintenance of the sewer system. Wastewater may not be discharged to the collection system that would cause a violation of the water quality limitations or preclude the selection of the most cost-effective alternative for wastewater treatment and sludge disposal.

Federal and state statutes governing wastewater and water discharges into the collection system supersede all requirements and provisions of this section and Sections 13.08.160 through 13.08.180, therefore, the Director of Public Works shall neither approve nor permit any wastewater discharges into the collection systems that are in violation of these statutes, notwithstanding any provisions in this chapter to the contrary.

(Prior code § 6-6.170)

13.08.160 - Additional prohibited uses—Waters and wastes.

No person shall discharge, or permit the discharge of, any of the following waters or wastes into a building sewer or the sanitary sewer system without prior written approval of the Director of Public Works:

A. Any unpolluted industrial process water;

B. Any liquid or vapor having a temperature detrimental to the sewer system;

C. Any gasoline, benzine, naphtha, fuel oil, or other flammable or explosive liquid, solid, or gas;

D. Any water or waste which contains excessive amounts of grease, oil, or fats as hereinafter defined by this code;

E. Any garbage, except garbage from dwellings and establishments where food is prepared and consumed on the premises, and which has been ground to such a degree that all particles will be carried freely under the flow conditions prevailing in the public sewers. No particle shall in any event be greater than three-eighths inch in any dimension;

F. Any sand, cement, lime, plaster, cinders, ashes, metal, glass, or other heavy solids; any straw, shavings, animal hair, feathers, paunch manure, or other fibrous matter; any tar, asphalt, resins, plastics or other viscous substance; or any other matter of such a nature as to obstruct the flow in sewers or cause other interference with the proper operations of the sewer system;

G. Any water or waste containing excessive amounts of acid, alkali, or dissolved sulfide, or having any other corrosive property capable of causing damage or hazard to structures, equipment or personnel;

H. Any waters or wastes containing a toxic or poisonous substance in sufficient quantity to injure or interfere with any sewer treatment process, to constitute a hazard to humans, animals, or fish, or to create a hazard in the waters receiving effluent from the sewage treatment plant;

I. Any waters or wastes containing suspended solids or dissolved matter of such character and quantity that unusual attention or expense is required to handle such materials in the sewer or at the sewage treatment plant;

J. Any noxious or malodorous gas or substance capable of creating a public nuisance;

K. Any radioactive wastes, except as hereinafter provided.

(Prior code § 6-6.171)

13.08.170 - Additional prohibited uses—Excessive volume.

No person shall discharge, or permit the discharge into a building sewer or the sanitary sewer system, without prior written approval of the Director of Public Works, and the agency providing sewage treatment facilities, any waters or wastes having an average daily flow greater than 0.75 million gallons per day and having any of the following characteristics:

A. Temperature in excess of one hundred fifty (150) degrees Fahrenheit;

B. Suspended solids, or matter which upon dilution with water or sewage results in the formation of suspended solids, in excess of five hundred (500) milligrams per liter and which adversely affects any part of the sewer system;

C. Biochemical Oxygen Demand in excess of four hundred (400) milligrams per liter;

D. Oils and greases of animal, vegetable, or mineral origin floating, dispersed, or emulsified in excess of one hundred (100) milligrams per liter or in any amount as to adversely affect any part of the sewer system;

E. A pH of less than five and five-tenths (5.5) or more than ten and five-tenths (10.5);

F. Dissolved sulfides in excess of one milligram per liter.

(Prior code § 6-6.172)

13.08.180 - Additional prohibited uses—Radioactive wastes.

A. Liability. No person shall discharge, or permit the discharge of, any radioactive wastes into the sewer system or appurtenances thereof, except where:

1. The waste is discharged in strict conformity with current Nuclear Regulatory Commission recommendations for safe disposal of radio-active wastes; and

2. The person discharging the radioactive wastes shall assume all liability for any injury to personnel or damage to the sewer system that may result from such discharge.

B. Reports. Any person discharging, or permitting the discharge of, a radioactive waste into the sewer system in accordance with the provisions of subsection A of this section shall submit such reports as the Director of Public Works may deem necessary. In the event of an accidental spilling or depositing of any radioactive material into the sewer system, the person who causes such occurrence, or who is responsible therefor, shall:

1. Immediately notify the Director of Public Works; and

2. Render such technical or other assistance as may be required to avoid any hazard from the radioactivity.

(Prior code §§ 6-6.173, 6-6.174)

13.08.190 - Special agreements.

Notwithstanding any provision of this chapter to the contrary, the city, the agency providing sewage treatment facilities, and any individual or industrial concern discharging any water or waste of unusual strength, character, composition, or volume into the sanitary sewers may enter into a contract permitting such discharge. In the event that any such discharge shall involve additional or extraordinary expenses to the city, such individual or industrial concern shall be required to reimburse the city therefor and shall be required to post with the city a bond or other guarantee in a form satisfactory to the City Attorney. Such agreements or contracts shall not be made when the provisions thereof would allow inflow sources or be in violation of state or federal categorical pretreatment standards.

(Prior code § 6-6.180)

13.08.200 - The right to limit discharge.

The Director of Public Works shall have the right to limit the rate of discharge of sewage from any premises into the sewer system when required for the protection of public or private property and to provide for the public health and safety.

(Prior code § 6-6.190)

13.08.210 - Sampling structures.

The City Council by resolution upon the recommendation of the Director of Public Works shall have the right to require any property owner to construct and maintain, at his or her own expense, a sampling structure in an accessible location for the purpose of sampling sewage or industrial wastes. The structure shall have a minimum diameter of 10,″ and shall be acceptable to the Director of Public Works.

(Prior code § 6-6.200)

13.08.220 - Right of entry—Suspected dangerous and insanitary condition.

Whenever the Director of Public Works shall have reasonable cause to believe that conditions which do not conform to this chapter exist in a particular building, structure or premises, or whenever the Director of Public Works authorizes and directs the inspection of all buildings, structures or premises subject to the provisions of this chapter in a defined area of the city, or whenever said Director of Public Works shall authorize and direct inspections of buildings, structures or premises as a part of a routine spot check, duly authorized representatives of the Director of Public Works of the city may enter and inspect any such building, structure or premises to secure compliance with, or prevent a violation of, any provision of this chapter.

No premises shall be inspected until a reasonable notice is given to the owner or occupant, or to the agent of either.

The owner or authorized agent of the owner of any building structure or premises may enter the building, structure or premises whenever necessary to carry out any instructions or perform any work required to be done pursuant to this chapter.

No person authorized by this section to enter and inspect any building, structure, or premises shall enter any dwelling unit between the hours of five p.m. of any day and eight-thirty a.m. of the succeeding day without the

consent of the owner or the occupants of the dwelling unit or enter any dwelling unit in the absence of the occupants, except when the structure is in such condition as to place in jeopardy the life or limb of the public, in which case entry may be made at any time.

If entry is refused, the Director of Public Works or such duly authorized representative of the Director of Public Works of the city shall have recourse to every remedy provided by law to secure entry.

(Prior code § 6-6.210)

13.08.230 - Right of entry—Inflow/infiltration correction program.

Whenever a building sewer lateral or common private sewer has a point of discharge into a public sanitary sewer which has undergone, is undergoing or will undergo rehabilitation or replacement pursuant to the requirements of the inflow/infiltration correction program, it may be tested, including the portions of the sewer or private property, without prior notice to the property owner or other persons having rights to the property, when such tests can be conducted solely from the public right-of-way without disturbance to persons having the right to enjoy the premises.

The tests conducted shall be standard tests adopted by the Office of Public Works specifically for testing with regard to the I/I correction program and the procedures and the record of tests shall be kept on file at said office.

(Prior code § 6-6.211)

13.08.240 - Dangerous and insanitary sewer conditions—Order to abate—Sewers not subject to the inflow/infiltration correction program.

The Director of Public Works or the Alameda County Health Officer, or their designee, shall investigate, or cause to be investigated, all dangerous and insanitary conditions existing in or about building sewers or connections thereto. If such a condition is a menace to life, health, safety, or property, or is in violation of law, the Director of Public Works or the Alameda County Health Officer shall, in writing, order the owner of the premises upon which said condition exists to discontinue the use of said sewer, or, when appropriate under the circumstances, to discontinue all construction work with respect thereto, and to abate said condition in such manner as shall comply with the law. Any stoppage in the building sewer or break in the watertight integrity of the building sewer shall be conclusively presumed to be a menace to life, health, safety or property for purposes of requiring abatement of such a condition. The order shall specify the dangerous and insanitary condition, the manner in which the same shall be abated, and the period within which such abatement shall be accomplished. In determining said period within which said owner shall abate said dangerous and insanitary condition, the Director of Public Works or the Alameda County Health Officer shall consider the nature of said condition and its effect on life, health, safety, and property, together with the time reasonably required by said owner to comply with such order of the Director of Public Works or the Alameda County Health Officer. It is unlawful for any owner to fail or neglect to comply with such order of the Director of Public Works or the Alameda County Health Officer. In the event the owner shall not promptly proceed to abate said dangerous and insanitary condition, as ordered by the Director of Public Works or the Alameda County Health Officer, the following abatement procedures will be undertaken.

(Prior code § 6-6.220)

13.08.250 - Dangerous and insanitary sewer conditions—Order to abate—Sewers subject to inflow/infiltration correction program.

Any building sewer or common private sanitary sewer found to have an existing dangerous or insanitary condition as a result of the testing performed as a part of the inflow/infiltration correction program shall be abated according to the order and procedure established by the Director of Public Works; provided that:

A. The property owner shall be notified in writing, by the Director of Public Works or his or her duly authorized representative of the existing condition and of the method by which the city determined that condition.

B. The written notification shall further state that the owner has eighteen (18) months to abate the problem which is existing on the upper lateral portion of the building sewer at his or her own expense.

C. The notification shall also make reference to financing methods and availability of same to low income property owners.

D. The notice shall contain such other information deemed necessary by the Director of Public Works or his or her duly authorized representative to fully inform the property owner of his or her rights and obligations.

(Prior code § 6-6.221)

13.08.260 - Dangerous and insanitary sewer condition—Notice of hearing, hearing, and appeal.

A. Notice of Hearing. The Director of Public Works or the Alameda County Health Officer, upon the failure of the owner to promptly proceed to abate said dangerous and insanitary condition as ordered, may forthwith fix a time and place for an administrative hearing of the matter. In all such cases, the Director of Public Works or the Alameda County Health Officer shall serve, or cause to be served, notice of said hearing upon the person in possession of such premises, or upon the owner thereof, not less than five days prior to the time fixed for such hearing. The notice shall specify the hour, date and place of the hearing and the dangerous and insanitary condition that is the subject of the hearing. Service of said notice may be made by delivery to the owner or person in possession personally or by enclosing the same in a sealed envelope, postage prepaid, addressed to the occupant at such premises, or to the owner at his or her last known address as the same appears on the last equalized assessment rolls of the city, and depositing same in the United States mail. Service shall be deemed complete at the time of the deposit in the United States mail.

B. Hearing. At the time and place set for the hearing, the Director of Public works or the Alameda County Health Officer, or a designee, shall hear such evidence as may be presented by said owner, person in possession or their representative. Such hearing may be continued from time to time by the Director of the Public Works or the Alameda County Health Officer, provided that notice is given to said owner or person in possession in the manner described in Section subsection A of this section. The findings of the Director of Public Works or the Alameda County Health Officer, or the designee, shall be rendered at the time of such hearing and thereupon shall be announced to such owner, person in possession or their representative, provided that such person(s) appears at the hearing.

C. Appeal. Within three days of hearing, the announced findings of the Director of Public Works or the Alameda County Health Officer or a designee, said owner or person in possession may notify the Director of Public Works that he or she wishes to appeal such findings to the City Council. Failure to give the required notice within the three-day period or failure to appear at the administrative hearing shall constitute, unless good cause is shown, a waiver of the right to appeal to the City Council. Upon timely receipt of notice of an intent to appeal, the Director of Public Works or Alameda County Health Officer shall give the appellant not less than three days' prior written notice of the date, place and hour of the appeal to the City Council. Service shall be made in the manner described in subsection A of this section.

The foregoing items apply except where they conflict with requirements for sewers subject to the inflow/infiltration correction program. In those instances, any requirements imposed by the I/I correction program supersede all other requirements, except those imposed by the code for public health and safety.

(Prior code § 6-6.222)

13.08.270 - Notice and hearing of dangerous and insanitary sewer condition—Confirmation of proceedings, abatement, prospective notice of lien.

A. Nonappearance and Untimely Appeals. In those cases where the owner or person in possession either does not appear for the administrative hearing or appears for the hearing but does not give timely notice of an intent to appeal, and there is no good cause shown, the Director of Public Works or the Alameda County Public Health Officer may present his or her report and findings to the City Council for confirmation at the earliest available City Council meeting after the date for the administrative hearing. Said reports and findings shall be placed on the City Council's Consent Calendar and be confirmed or overruled by the Council. If the reports and findings are confirmed, the City Council shall direct that the dangerous and insanitary condition be abated.

Thereafter the Director of Public Works or Alameda County Public Health Officer shall forthwith give or cause to be given, written notice in the manner provided in Section 13.08.260A, to the owner or person in possession of said premises to abate the condition. If such abatement is not commenced within five days thereafter, and diligently prosecuted to completion, the Director of Public Works or Alameda County Public Health Officer shall, at the owner's expense, cause the same to be abated.

B. Hearing of Appeal. Upon the date and at the place and hour fixed for the hearing of appeal and findings of the Director of Public Works or Alameda County Public Health Officer, the Council of the city shall hear such evidence as may be presented by said owner, person in possession or other representative. Such hearing may be continued from time to time by the City Council. Upon the completion of such hearing, the City Council shall either overrule the findings or shall direct that the dangerous and insanitary condition be abated.

The Director of Public Works shall give written notice, in the manner provided in Section 13.08.260A, to the owner or person in possession of said premises to abate such condition forthwith. If such abatement is not commenced within five days thereafter and diligently prosecuted to completion, the Director of Public Works shall at the owner's expense, cause the same to be abated.

C. Abatement. The Council shall order to be paid by the owner of said premises all sums which may be necessarily expended by the Director of Public Works in abating such condition. Said sums shall be in

accordance with the master fee schedule. Prior to the commencement of said work by the city, a prospective notice of lien may be filed by the Director of Public Works with the Alameda County Recorder against the property. In lieu of employing a contractor or other person to abate such condition, the Director of Public Works may call upon the maintenance services or other departments of the city to abate such condition.

D. Prospective Notice of Lien. The prospective notice of lien referenced in subsection C of this section shall take the following form:

PROSPECTIVE NOTICE OF LIEN

Pursuant to Chapter 13.08 of the Oakland Municipal Code, I caused a notice to repair a dangerous and insanitary sewer condition to be personally delivered or mailed to the subject property owner notifying the property owner of their responsibility to repair a dangerous and insanitary sewer. The owner of said property has failed to diligently and without interruption prosecute same to completion, nor has the property owner entered into an Agreement to allow the City and for its contractor to perform the necessary work. The estimated cost of said repairs, including collection costs, is $;#rule; and said amount has not been paid. The City of Oakland does hereby give public notice of its claim in said amount against subject property and of pending City action to record a lien against said property when the repairs have been completed. The real property herein referenced and upon which a prospective notice of lien is claimed, is that certain parcel of land lying and being in the City of Oakland, County of Alameda, State of California, and particularly described as follows, to-wit:

(insert Description of Property)

Dated this ;yrrule; day of ;daterule;, 19;yrrule;.

.....
Director of Public Works
City of Oakland

(Prior code § 6-6.223)

13.08.280 - Expense of mandatory abatement against property.

The costs outlined in Section 13.08.270 shall constitute a special assessment against that real property abated. The Director of Public Works shall cause a copy of the report of assessment to be served upon the owner of said property not less than five days prior to the time fixed for confirmation of said assessment; service may be by enclosing a copy of the report of assessment in a sealed envelope, postage prepaid, addressed to the owner at his or her last known address as the same appears on the last equalized assessment rolls of the city, and depositing the same in the United States mail; and service shall be deemed completed at the time of deposit in the United States mail.

A copy of the report of assessment shall be posted in the Office of the City Clerk at least three days prior to the time when the report will be submitted to the City Council. After the assessment is made and confirmed, it shall be a lien on the said real property.

Such lien attaches upon recordation in the Office of the County Recorder, Alameda County, by certified copy of the resolution of confirmation. After confirmation of the report, a certified copy shall be filed with the County Auditor, Alameda County, on or before August 10th. The description of the parcel reported shall be that used for the same parcel as the County Assessor's map books for the current year. The County Assessor shall enter each assessment on the county tax roll opposite the parcel of land. The amount of the assessment shall be collected at the same time and in the same manner as ordinary municipal taxes are collected, and shall be subject to the same penalties and the same procedure for foreclosure and sale in case of delinquencies as provided for ordinary municipal taxes.

(Prior code § 6-6.224)

13.08.290 - Notice of lien—Mandatory agreement.

The lien mentioned in Section 13.08.280 shall take the following form:

NOTICE OF LIEN

Pursuant to authority vested in me by Resolution No. ;#rule; C.M.S., of the Council of the City of Oakland, passed on the ;yrrule; day of ;#rule;, 19;yrrule;, and the provisions of Chapter 13.08 of the Oakland Municipal Code, I did, on the ;yrrule; day of ;#rule;, 19;yrrule;, cause a dangerous (insanitary) condition located upon the hereinafter described real property to be abated at the expense of the owners thereof, in the amount of $;#rule;, and that said amount has not been paid nor any part thereof, and the City of Oakland does hereby claim a lien upon the hereinafter described real property in Said amount; the same shall be a lien upon the said real property until said sum with interest thereon at the legally allowable rate from the date of the recordation of this lien in the Office of the County Recorder of the County of Alameda, State of California, has been paid in full. The real property hereinabove mentioned and upon which a lien is

claimed is that certain parcel of land lying and being in the City of Oakland, County of Alameda, State of California, and particularly described as follows, to wit:

(insert Description of Property)

Dated this ;yrrule; day of ;daterule;, 19;yrrule;.

.....

Director of Public Works

CITY OF OAKLAND

(Prior code § 6-6.225)

13.08.300 - Expense of voluntary abatement.

In order to fulfill the responsibility outlined in Section 13.08.270, owners may elect to have the city abate the dangerous or insanitary condition. The Director of Public Works is authorized and directed to execute an agreement on behalf of the city with such persons which would include the following conditions:

A. Agreement to allow city and/or its contractor to enter the property and perform the necessary work;

B. Agreement to pay the actual abatement cost, plus an additional charge to cover the city's cost of contract administration, engineering and inspection, plus interest; the interest rate shall be in accordance with the master fee schedule; the Director of Public Works may establish a program and eligibility requirements for low income property owners who reside at the location where the repair work is performed; the interest rate for persons qualifying for said program shall be in accordance with the master fee schedule;

C. Option to pay these costs in annual installments not to exceed five years with the ability to pay the balance at any time before the five-year period is completed;

D. A notice of lien will be filed by the Director of Public Works with the Alameda County Recorder against the property and will be released only when the charges have been paid in full. Such lien will take the form set forth herein; and

E. A waiver of all rights under Sections 13.08.240, 13.08.260 and 13.08.270

(Prior code § 6-6.226)

13.08.310 - Notice of lien—Voluntary abatement.

The lien mentioned in Section 13.08.300 shall take the following form:

NOTICE OF LIEN

Pursuant to the provisions of Chapter 13.08 of the Oakland Municipal Code, I did on the ;yrrule; day of ;#rule;, 19;yrrule;, cause a dangerous (insanitary) condition located upon the hereinafter described real property to be abated at the expense of the owner thereof, in the amount of $;#rule; and that said amount has not been paid nor any part thereof, and the city does hereby claim a lien upon the hereinafter described real property in said amount; the same shall be a lien upon the said real property until said sum with interest thereon at the rate of ;#rule; per annum from the date of the recordation of this lien in the Office of the County Recorder of the County of Alameda, State of California, has been paid in full. The real property hereinabove mentioned and upon which a lien is claimed, is that certain parcel of land lying and being in the city, County of Alameda, State of California, and particularly described as follows, to wit:

(insert Description of Property)

Dated this ;yrrule; day of ;daterule;, 19;yrrule;.

.....

Director of Public Works

CITY OF OAKLAND

(Prior code § 6-6.227)

13.08.320 - Failure to make payments.

An owner shall be deemed to be delinquent in the payment of voluntary abatement if said owner fails to make a required payment within three months of the due date. At the time of delinquency, the Director of Public Works shall proceed pursuant to Section 13.08.280.

(Prior code § 6-6.228)

13.08.330 - Notice of lien—Emergency work.

The lien mentioned in Section shall take the following form:

NOTICE OF LIEN

Pursuant to authority vested in me by Section 13.08.280 of the Oakland Municipal Code, I did on ;yrrule; day of ;#rule;, 19;yrrule;, cause a dangerous and insanitary condition located upon the hereinafter described real property to be abated at the expense of the owners thereof, in the amount of $_____, and that said amount has not been paid nor any part thereof, and the City of Oakland does hereby claim a lien on the hereinafter described real property in said amount; the same shall be a lien upon the said real property until said sum with interest thereon at the legally allowable rate from the date of the recordation of this lien in the office of the Recorder of Alameda County, State of California has been paid in full. The real property hereinabove mentioned and upon which a lien is claimed is that certain parcel of land lying and being in the City of Oakland, County of Alameda, State of California, and particularly described as follows, to wit:

.....

.....

.....

Dated this ;yrrule; day of ;#rule;, 19;yrrule;.

.....

Director of Public Works

CITY OF OAKLAND

(Prior code § 6-6.229)

13.08.340 - Connection to public sanitary sewer required.

Every building in which plumbing fixtures are installed and every premises having wastewater, liquid waste, or sewage piping thereon shall have connection to a public sanitary sewer or a private common sewer which has its point of discharge in a public sanitary sewer.

Whenever a public sanitary sewer is extended to within two hundred (200) feet of any premises having a private sewage disposal system thereon, said private disposal system shall be abandoned in accordance with the requirements of this code, and the building sewer connected to the public sanitary sewer within thirty (30) days of receipt of notice from the Director of Public Works.

Where the public sanitary sewer is in a street, alley, avenue or other public right-of-way upon which a premises abuts, the building sewer shall be installed in a direct line at right angles or radial to the centerline of right-of-way from the right-of-way line to the connection with the public sanitary sewer.

(Prior code § 6-6.230)

13.08.350 - Repair of lower lateral required—Right of the city to construct private laterals at city's expense—Inflow/infiltration correction program only.

Pursuant to the requirements of the inflow/infiltration correction program and for the general public health, safety and welfare, the city is empowered to repair and/or replace for one time only and at the expense of said city, every lower building sewer lateral within the public right-of-way on any rehabilitation project performed on a public sewer main for the purpose of compliance with the requirements of the I/I Correction Program. Such repair and/or replacement and expenses shall include a two-way cleanout or test-wye as required by other sections of this code. This one-time repair in no way abrogates the property owner's responsibility for maintaining his/her building sewer lateral in the future, nor does it obligate the city to perform any future maintenance on said private laterals repaired in compliance with this code section and the hereinabove mentioned program. The hereinabove repair shall include the construction of a two-way cleanout, when required, at the location(s) specified by other sections of this code.

(Prior code § 6-6.231)

13.08.360 - Two-way cleanout required—Point of discharge in public right-of-way.

Every building sewer and every private common sewer being constructed as the initial connection to any building, structure, or premises which shall have its point of discharge within a public right-of-way shall contain a two-way cleanout. The two-way cleanout required shall be located in the vicinity of the right-of-way line adjacent to the property being improved.

(Prior code § 6-6.240)

13.08.370 - Test-wye required—Point of discharge in easement.

Every new building sewer and every new private common sanitary sewer having its point of discharge in an

easement shall have a test-wye located within the easement.

(Prior code § 6-6.241)

13.08.380 - Two-way cleanout test-wye not required.

No two-way clean-out shall be required for any portion of any building sewer or any private common sanitary sewer which conveys wastes by means of a pressurized line (i.e., material is pumped rather than flowing due to the force of gravity).

The Director of Public Works or his or her duly authorized representative is authorized to delete the requirement for a two-way cleanout or test-wye when in his or her judgement no purpose would be served by the construction of same. This provision in no way affects the requirements imposed by this code for other cleanouts or other appurtenances.

(Prior code § 6-6.242)

13.08.390 - Two-way cleanout required—Reduction in size of building sewer.

Existing five-inch diameter building sewer may be reduced to four-inch diameter pipe when building sewer replacement occurs downstream and a new connection is made to the sanitary sewer main. A two-way cleanout shall be constructed between the dissimilar pipes to the specifications and standards of the city (unless this requirement is waived by the Director of Public Works or his or her authorized representative). This requirement is in addition to any other requirement for two-way cleanouts specified in this code. No two-way cleanout is required when there is an enlargement of pipe downstream for the existing building sewer.

(Prior code § 6-6.243)

13.08.400 - Two-way cleanout required—Replacement of existing building sewers or portion(s) thereof.

Whenever an existing building sewer or common private sewer with existing connection to any building, structure or premises which has its point of discharge within the public right-of-way is wholly or partially replaced, a two-way cleanout shall be constructed in the vicinity of the right-of-way line adjacent to the property wherefrom the building sewer originates.

Partial replacement under this section shall mean the replacement of either the upper or lower sewer lateral, as said upper and lower sewer laterals are defined under Section 13.08.020.

Partial replacement shall also mean the replacement of any portion(s) of the building sewer, combined length of which exceeds ten feet.

(Prior code § 6-6.244)

13.08.410 - Two-way cleanout required—Rehabilitation of existing building sewers or portion(s) thereof.

Whenever an existing building sewer or common private sewer with existing connection to any building, structure or premises which has its point or discharge within the public right-of-way is wholly or partially rehabilitated, a two-way cleanout shall be constructed in the vicinity of the right-of-way line adjacent to the property wherefrom the building sewer originates.

Partial rehabilitation under this section shall mean the rehabilitation of either the upper or lower sewer lateral, as said upper and lower sewer laterals are defined under Section 13.08.020.

Partial rehabilitation shall also mean the rehabilitation of any portion(s) of the building sewer, combined length of which exceeds ten feet.

(Prior code § 6-6.245)

13.08.420 - Connections to public or common private sewers to be made in presence of Director of Public Works.

All connections to public or common private sewers shall be made in the presence of the Director of Public Works or his or her authorized representative, and shall be made by using a Wye branch, Tee branch, or drilled tap. Other connections may be allowed or required by the Director of Public Works to meet specific conditions of a project.

The diameter of drilled taps shall not exceed two-thirds the outside diameter of the pipe tapped, except that a tap for a six-inch pipe will be permitted on an eight-inch sewer.

(Prior code § 6-6.250)

13.08.430 - Manholes required.

Manholes are required for connecting building sewers to the public or common private sewer if the building sewer has the same, or larger, diameter as the public or private sewer.

(Prior code § 6-6.260)

13.08.440 - Common private sanitary sewer.

Building sewers from a building court may be connected to a public sewer through a common private sewer, provided that such common private sewer be not less than eight inches in diameter and shall be constructed to alignment, grades, and standards satisfactory to the Director of Public Works. Building sewers connecting to common private sewers shall meet the same requirements as building sewers connecting to public sewers. A common private sewer and the use thereof shall be subject to all of the provisions of this chapter pertaining to building sewers.

(Prior code § 6-6.270)

13.08.450 - Each building to have its own sanitary sewer—Exception.

Where real property is parceled or subdivided pursuant to the provisions of the Subdivision Map Act of the state of California and local ordinances or codes applicable thereto, each parcel created shall have direct access for the connection of a sewer lateral to a public sewer or may have access to said public sewer through a public sanitary sewer easement for private purposes where approved in writing by the Director of Public Works.

Exception. When additional buildings are to be placed on a parcel of land that is already being served by a building sewer and when the Director of Public Works determines that the parcel of land will not or cannot be divided into separate ownerships at a later date, then the additional buildings may be sewered by connecting them to the existing building sewer at some point within the parcel of land.

(Prior code § 6-6.280)

13.08.460 - Temporary building sewer connection—Revocation.

The Director of Public Works may, upon application containing such information as is required by him or her, issue a permit for a temporary building sewer. Said permit may be revoked by the Director of Public Works at any time upon thirty (30) days' notice posted upon the premises and mailed to the owner of the premises; and in the event said sewer is not disconnected in thirty (30) days, the Director of Public Works may disconnect the same and the owner shall be liable for the cost thereof. Such temporary permit shall contain an agreement signed by the applicant to hold the city and its officers and employees harmless from all damages caused by reason of such temporary sewer.

(Prior code § 6-6.290)

13.08.470 - Permission to use existing building sewers—Uncovering for inspection purposes.

A permit to use an existing building sewer or building sewer connection shall only be granted subject to the condition that said building sewer and building sewer connection conform to the standards of construction and quality of materials set forth in this chapter, as determined by the Director of Public Works. When required by the Director of Public Works, an existing building sewer or building sewer connection shall be exposed by the owner to permit inspection and testing of it before the re-use of said building sewer is permitted.

(Prior code § 6-6.300)

13.08.480 - Damaging existing building sewer—Authority of Director of Public Works.

Any person disturbing or damaging an existing building sewer shall protect and shall be responsible for the repair and/or reconstruction of said building sewer in the manner provided by this code. The Director of Public Works shall specify the materials, methods, and extent of such protection, repairs, and/or reconstruction. This provision shall not relieve the property owner of his or her obligations as set forth elsewhere in this chapter.

(Prior code § 6-6.310)

13.08.490 - Abandonment of existing building sewers and sewage disposal facilities—Exception.

An existing building sewer or its connection which is to be abandoned shall be sealed with a permanent, water-tight plug at the connection to the public sewer in a manner satisfactory to the Director of Public Works. All open ends of the abandoned building sewer shall also be similarly sealed.

Exception. Upon the approval of the Director of Public Works, an existing building sewer meeting all of the requirements of this chapter pertaining to re-use may be plugged at the property line if the size, condition, and location of said existing building sewer permit re-use.

Every cesspool, septic tank and seepage pit which has been abandoned or has been discontinued otherwise from further use or to which no waste or soil pipe from a plumbing fixture is connected shall have the sewage removed therefrom and be completely filled with earth, sand, gravel, concrete or other approved material.

The top cover or arch over the cesspool, septic tank, or seepage pit shall be removed before filling and the filling shall not extend above the top of the vertical portions of the sidewalls or above the level of any outlet pipe until inspection has been called and the cesspool, septic tank or seepage pit has been inspected. After such inspection, the cesspool, septic tank or seepage pit shall be filled to the level of the top of the ground.

No person owning or controlling any cesspool, septic tank, or seepage pit on the premises of such person or in that portion of any public street, alley or other public property abutting such premises, shall fail, refuse or neglect to comply with the provisions of this section or upon receipt of notice so to comply from the department having jurisdiction.

Where disposal facilities are abandoned consequent to connecting any premises with the public sewer, the permittee making the connection shall fill all abandoned facilities as required by the Director of Public Works within thirty (30) days from the time of connecting to the public sewer.

(Prior code § 6-6.320)

13.08.500 - Inspection and testing—Building sewer permits.

The Director of Public Works or his or her authorized representative shall make or require such inspections and tests as he or she deems necessary to be made before granting final approval of the work authorized by the building sewer permit. The equipment, material, power, and labor necessary for inspection and test shall be furnished by the applicant.

All measurements, tests, and analyses of the characteristics of liquids to which reference is made in this chapter shall be performed and determined in accordance with the standards prescribed in the latest edition of "Standard Methods for Examination of Water and Sewage," published jointly by the American Public Health Association, the American Water Works Association, and the American Society for Testing Materials.

Air Pressure Test. The building sewer may be tested in its entirety or in sections. The test shall consist of measuring the time interval necessary for a loss in air pressure, through a defined range in pressures, from the building sewer. The allowable rate of pressure loss and the detailed test procedure shall be established by the Director of Public Works, and if any building sewer or part thereof shall be covered or concealed before said inspection, testing, and approval as herein prescribed, it shall be uncovered, upon request of the Director of Public Works. Before granting final approval, further inspection and testing will be made after the sewer is backfilled to ascertain all requirements of the Director of Public Works have been met.

Water Test. The building sewer may be tested in its entirety or in sections. The building sewer will be completely filled with water under a head of five feet at the portions being tested and maintain a constant level for fifteen (15) minutes without further addition of water or showing of leaks. The provisions of this section are not intended to prevent the use of any other building sewer pipe test procedure not specifically prescribed in this section; provided, however, that such substitute test procedure shall be first approved by the Director of Public Works.

The testing required hereinabove shall not be applicable to laterals for which repair or replacement is required as part of the inflow/infiltration correction program which shall be subject to such testing and inspection as specifically required by that program.

(Prior code § 6-6.330)

13.08.510 - Inspection and testing—Inflow/ infiltration correction program—Building sewer laterals and common private sewers.

Inspection and testing of the upper building sewer laterals and private common sanitary sewers subject to correction under the requirements of the I/I correction program may occur at the time of, or subsequent to, each rehabilitation project. Such testing and inspection shall be standard tests approved by the Office of Public Works for said program.

(Prior code § 6-6.331)

13.08.520 - Requirement for standard cleanout fitting, exterior riser, and sewage overflow device adjacent to building—Inflow/infiltration correction program.

When the repair/replacement of any portion of an upper building sewer lateral is necessary pursuant to the findings of testing required by Section 13.08.510, an approved standard cleanout fitting, exterior riser, and sewage overflow device shall be installed in the upper building sewer lateral in the vicinity of the building drain.

The location of the cleanout riser shall be approved by the Director of Public Works or his or her duly authorized representative. This Section shall not apply to any building sewer or private common sanitary sewer which conveys sewage by means of a pressurized line.

(Ord. No. 12993, § 3, 2-2-2010; Prior code § 6-6.322)

Editor's note—

Ord. No. 12993, § 3, adopted February 2, 2010, changed the title of Section 13.08.520 from "Requirement for standard cleanout adjacent to building—Inflow/infiltration correction program" to "Requirement for standard cleanout fitting, exterior riser, and sewage overflow device adjacent to building—Inflow/infiltration correction program." The historical notation has been preserved for reference purposes.

13.08.522 - Installation and maintenance of sewage overflow devices.

Sewage overflow devices shall be installed at an elevation and subsequently adjusted to an elevation that protects the building for which it is installed from back flowing sewage. Sewage overflow devices shall be readily accessible for maintenance by the property owner.

(Ord. No. 12993, § 3, 2-2-2010)

13.08.530 - Standards of quality of materials and methods of construction.

A. General. All materials used and all joints made in, or entering into, the construction of sewer systems or parts thereof shall be water-tight and free from defects. The materials and joints specified in this code are the minimum approved standards that shall be used. Building sewer joints shall be of such design as will permit sealing and placement without appreciable irregularities in flow lines.

The provisions of this code are not intended to prevent the use of any material not specifically prescribed by this code; provided, however, that such substitute material shall be first approved by the Director of Public Works.

B. Materials. Pipe for building sewers shall be vitrified clay, cast iron, polyvinyl chloride plastic pipe or any other material approved by the Director of Public Works.

Vitrified clay pipe and fittings shall conform to ASTM Standard Specifications for "Extra Strength Unglazed Clay Pipe," Serial Designation C-700 as amended.

Cast iron soil pipe and fittings shall conform to ASTM Standard Specifications for "Cast Iron Soil Pipe and Fittings," ASTM Designation A 74, as amended, or by the United States Department of Commerce standard for service weight "Cast Iron Soil Pipe and Fittings," Designation Commercial Standard CS 188-59, as amended.

Polyvinyl Chloride plastic pipe shall conform to all of the standards set forth in Section 207-17, POLYVINYL CHLORIDE PLASTIC PIPE, as that particular section appears in the "Standard Specifications for Public Works Construction", as adopted by the city of Oakland.

C. Size of Pipe for Building Sewers.

1. Pipe Sizes, General. Pipe sizes mentioned within this chapter refer to the interior diameters of the pipes. The sizes of any building sewer shall be at least as large as the size of the sanitary building drain to which it will connect, but in no case less than four inches. Where more than one building drain connects to the building sewer, the size of the building sewer shall be determined by the Director of Public Works.

2. Pipe Sizes, Replacement of Existing Five-Inch Diameter Building Sewer. Where any premises is served by an existing five-inch diameter building sewer, the five-inch diameter sewer may be reduced to four-inch diameter pipe when building sewer replacement occurs and a new connection is made to the sanitary sewer main. A two-way cleanout shall be required in accordance with Section 13.08.390, two-way cleanout required—reduction in size of building sewer, when the

downstream size of the pipe is reduced.

D. Excavation, Backfilling, and the Protection of Building Sewer Trenches. Unless otherwise provided, the excavation, backfilling, and protection of building sewer trenches in public streets, sidewalks, alleys, or other public places shall be made in compliance with all the applicable requirements of this title.

All building sewers, other than metallic pipe, in private property shall be installed so that there will be at least twelve (12) inches of cover over the top of the pipe.

Tunneling of building sewer trenches, other than under concrete curb and gutter, will not be allowed without the prior approval of the Director of Public Works.

E. Construction of Building Sewers and Their Connections, Bends Prohibited, Cleanouts, Passage Through or Under Walls, Corrosive Materials. All building sewers shall be laid in a straight line with no horizontal or vertical bends. The horizontal alignment of the portion of any building sewer within a street area shall be perpendicular or radial to the centerline of the street right-of-way. Bends authorized or directed by the Director of Public Works shall be constructed as hereinafter described.

Sewer cleanouts shall be required at the connection of the building drain to the building sewer, grade changes, horizontal changes in direction in excess of twenty-two and one-half (22-1/2) degrees, and at intervals not to exceed one hundred (100) feet in straight runs. The minimum size of cleanouts shall be four inches and they shall be so placed as to be accessible at all times.

All building sewers passing through or under walls shall be protected from breakage in a manner approved by the Director of Public Works.

All building sewer pipes passing through corrosive materials shall be protected from external corrosion in a manner approved by the Director of Public Works.

Any cleanouts or other appurtenances required by this section are in addition to the two-way cleanouts required by another section in this code.

F. Protection of Piping. No building sewer piping other than cast iron or an approved equal shall be installed within two feet of any bearing or foundation wall. All building sewers installed below the footing of any building and paralleling the footing must be encased in concrete unless located outside the range of excessive footing pressure.

G. Construction of Building Sewers and Their Connection, Joints, Slope, Laying in Filled Ground, Depth at Curb. Vitrified clay or asbestos-cement pipe for building sewers shall be connected by flexible compression type joints or an approved equal.

Cast iron pipe for building sewers shall be connected only in the manner permitted for connections of case iron pipe under buildings.

The minimum slope of any building sewer shall be one-fourth inch per foot toward the public sewer or point of disposal; provided that where it is impractical due to the depth of the street sewer or to the structural features or to the arrangement of any building or structure, to obtain a slope of one-fourth of an inch per foot, any such building sewer may have a slope of not less than one-eighth of an inch per foot when approved by the Director of Public Works.

Where laid in filled ground with less than ninety (90) percent relative compaction, the building sewer shall be of cast iron or asbestos-cement; however, pipe may be of vitrified clay if approved flexible joints are used or if laid on a bed of approved material.

At the curbline, the outside top of the building sewer pipe shall be at least thirty-six (36) inches below the existing or proposed top of curb grade, whichever grade shall be lower.

(Prior code §§ 6-6.340—6-6.346)

13.08.540 - Emergency work by city—Notice—Liability for cost of work.

Whenever, in the opinion of the Director of Public Works, the public health, safety, or welfare shall require that repairs or protective measures to a building sewer be made or instituted immediately, he or she is authorized to proceed with all necessary work to abate the condition and may enter upon private property for such purposes. He or she may erect and maintain all necessary barricades, warning lights, and other protective devices upon public or private property. He or she shall give the owner of the premises upon which the repairs are to be made, or the protective measures to be instituted, such notice, if any, and by such means as the circumstances shall permit.

The owner of the property upon which the condition exists and the person creating such condition shall be jointly and severally liable to the city for all costs incurred by it in abating said emergency condition and erecting and maintaining said protective devices.

The cost of abating such condition shall constitute a special assessment against that real property on which

said condition was abated. The special assessment shall be made in the manner set forth in Section 13.08.280 using the notice of lien as found in Section 13.08.330.

(Prior code § 6-6.360)

13.08.550 - Pressurized building sewer or common pressurized common sanitary sewer.

When, in the opinion of the Director of Public Works, it shall be impossible or impractical to extend a public sewer main to provide for gravity flow service from a building sewer or common private sanitary sewer, the private sewer may be pressurized (i.e., sewage may be pumped through them to a private gravity flow sewer which will connect with the public sanitary sewer main).

The pressurized system shall conform to all requirements set forth in the appropriate section of the Plumbing Code and the gravity building sewer portion shall conform to all the requirements herein set forth for sewer laterals.

(Prior code § 6-6.370)

13.08.560 - Rehabilitation of damaged or defective building sewer by sliplining—Exceptions.

A. Rehabilitation of any building sewer in the city by sliplining shall only be allowed with the prior approval of the Director of Public Works. The property owner or his or her agent, at the time of requesting said permission, shall provide the Director of Public Works with video recording(s) of a television inspection of the section of the building sewer under the improved area of the public right-of-way. The Director shall not grant such permission to slipline the building sewer if, in his or her opinion based on the aforementioned video of television inspection or visual evidence of surficial subsidence or cracks in the vicinity of the building sewer, sliplining may not properly correct the existing dangerous and insanitary condition of the building sewer or may pose future dangerous and/or insanitary condition in or about the building sewers or any property in the vicinity of the building sewer.

B. Said requirement for the provision of video recordings of the television inspection of the building sewer by the contractor/owner to the Director of Public Works may be waived if the pipe section proposed to be sliplined measures twenty (20) feet or less and can be directly inspected with the "naked eye" to detect any obstruction or defects that may exist in said pipe section. Only the Director of Public Works or his or her representatives shall have the authority to determine if a pipe section can indeed be inspected effectively with the "naked eye."

(Prior code §§ 6-6.380, 6-6.381)

13.08.570 - Rehabilitation of damaged or defective building sewer by sliplining—Standards and quality of materials and method of construction—Exceptions.

A. Said rehabilitation by sliplining permitted pursuant to Section 13.08.560A shall be done in accordance with Sections 207-19 and 306-8 of the current Council adopted standard specifications for public works construction, pertinent sections of the modification thereof, and the following conditions:

1. If, in the opinion of the Director of Public Works, the video of the television inspection of the building sewer reveals any damage or defects in the building sewer that cannot be sufficiently repaired by sliplining alone or reveals any obstruction that may deter the proper installation of the liner, a point repair excavation to uncover and repair or remove said defect and obstructions, respectively, shall be made.

2. The connections at both ends of the building sewer shall be water tight and free of defects.

3. Inspections and testing as required under Section 13.08.500 shall be conducted upon the completion of the sliplining and prior to the final approval of said sliplining.

B. Contrary to the requirement under Section 306-8 of the Standard Specifications for Public Works Construction and/or its modification, the contractor/owner shall not be required to submit shop drawings of construction details to the City Engineer, prior to liner installation.

C. Materials for Sliplining Building Sewers. In addition to polyethylene (PE) wall pipe and resin impregnated polyester felt pipe liner allowed for use for sliplining by the standard specifications and its modification, polyvinyl chloride (PVC) plastic and cast iron pipes may be used for sliplining defective building sewers, when approved by the Director of Public Works.

(Prior code §§ 6-6.382—6-6.384)

13.08.580 - Violations—A continuing infraction.

The failure to comply with any of the provisions of this chapter is an infraction, and each day that said failure to comply continues shall be deemed a separate offense.

(Prior code § 6-6.350)

13.08.590 - Enforcement of East Bay Municipal Utility District (EBMUD) Ordinance No. 311, Title VIII, Regulation of Private Sewer Laterals.

The Building Official shall enforce the provisions of EBMUD Ordinance No. 311, Title VIII, Regulation of Private Sewer Laterals and any amendments or modifications to said ordinance, as may be adopted by the City Council. Any permit issued by the Building Official that is subject to compliance with said ordinance shall not be approved or made final by the Building Official unless a certificate of compliance from EBMUD for the sewer lateral is submitted by the applicant.

(Ord. No. 13026, § 1, 7-6-2010)

APPENDIX E – PUBLIC SEWER LATERAL ORDINANCE 13026

APPROVED AS TO FORM AND LEGALITY

INTRODUCED BY COUNCILMEMBER _____

City Attorney

Revised at Request of PWAC 6/14/2011

OAKLAND CITY COUNCIL

ORDINANCE NO. 13080 C.M.S.

ORDINANCE REVISION AMENDING OAKLAND MUNICIPAL CODE TITLE 13, CHAPTER 13.08 TO ADD NEW REGULATIONS REQUIRING OAKLAND PROPERTY OWNERS TO INSPECT AND CERTIFY LOWER SEWER LATERALS IN THE PUBLIC RIGHT-OF-WAY AT THE TIME OF PROPERTY TRANSFER, MAJOR REMODELING AND CHANGE IN WATER SERVICE

WHEREAS, the United States Environmental Protection Agency (EPA) requires the City of Oakland, other East Bay municipalities and the East Bay Municipal Utility District (EBMUD) to develop and implement a regional program to reduce infiltration and inflow (I/I) into the cities' sewer systems and EBMUD's collection and treatment system; and

WHEREAS, EPA is requiring Oakland's property owners to have private building sewers (both upper building sewer laterals on private property and lower building sewer laterals in the public right-of-way) inspected and certified at the time of property transfer, major remodeling, or changes in water service to address infiltration and inflow (I/I) into building sewers; and

WHEREAS, in February 2010 EBMUD adopted regional regulations (EBMUD Regional Private Sewer Lateral Ordinance No. 311) to inspect and certify upper building sewer laterals; and

WHEREAS, the City of Oakland passed an ordinance amending Oakland Municipal Code Chapter 13.08 to adopt EBMUD's upper building sewer lateral regulation in Oakland (Ordinance No. 13026 C.M.S., passed July 2010); and

WHEREAS, EPA is requiring the City of Oakland to further regulate lower building sewer laterals in the same manner as upper building sewer laterals; and

WHEREAS, the City of Oakland desires to have EBMUD inspect and certify lower building sewer laterals at the same time it inspects and certifies upper building sewer laterals; and

WHEREAS, EBMUD has agreed to inspect and certify lower building laterals at the same time it addresses upper building sewer laterals; now, therefore,

THE COUNCIL OF THE CITY OF OAKLAND DOES ORDAIN AS FOLLOWS:

Section 1.

Add the following definitions to Section 13.08.020 - Definitions.

"Compliance Certificate" means a certificate issued by EBMUD indicating that a building sewer (upper building sewer lateral and lower building sewer lateral) complies with the requirements as set forth in the EBMUD Regional PSL Ordinance, Title VIII and this Chapter.

"EBMUD" means the East Bay Municipal Utility District, Special District No.1.

"EBMUD Regional PSL Ordinance" means the East Bay Municipal Utility District Ordinance 311, Title VIII, Regulation of ~~Private~~ Upper Sewer Laterals, its implementation and any future amendments or modifications thereto.

"Exemption Certificate"- A certificate issued by EBMUD to property owners who can demonstrate that work on the lateral has been completed in accordance with local ordinance requirements within 10 years of the period of time set forth in the EBMUD Regional PSL Ordinance.

Section 2.

Section 13.08.600 of Chapter 13 of the Oakland Municipal Code is added now to read:

13.08.600 - Building Sewer Inspection, Replacement, Compliance with EBMUD Regional PSL Ordinance, and Compliance Certificates.

The property owner shall be responsible for inspecting building sewers, obtaining all required permits, performing all necessary building sewer repair or replacement, scheduling inspections with EBMUD, passing a verification test witnessed by EBMUD, obtaining and filing with the City a Compliance Certificate from EBMUD as set forth in the EBMUD Regional PSL Ordinance for the entire building sewer (upper building sewer lateral and lower building sewer lateral) when one or more of the following events occurs:

A. Title Transfer. Prior to transferring title associated with the sale of any real property that contains any structure with a building sewer. Title transfer means the sale or transfer of an entire real property estate or the fee interest in that real property estate and does not include the sale or transfer of partial interest, including a leasehold. In addition, the following shall not be included: (1) transfer by a fiduciary in the course of the administration of a decedent's estate, guardianship, conservatorship, or trust, (2) transfers from one co-owner to one or more other co-owners, or from one or more co-owners into or from a revocable trust, if the trust is for the benefit of the grantor or grantors, (3) transfers made by a trustor to fund an inter vivios trust. (4) transfers made to a spouse, to a registered domestic partner as defined in Section 297 of the Family Code, or to a person or persons in the lineal line of consanguinity of one or more of the transferors. (5) transfers between spouses or registered domestic partners resulting from a decree of dissolution of marriage or domestic partnership, or a decree of legal separation or from a property settlement agreement incidental to a decree. (6) transfers from property

owners to any financial institution as a result of a foreclosure or similar process.

B. Construction ~~and~~ or Remodeling. Whenever a property owner app~~h~~lies for any permit or other approval needed for construction, remodeling, modification or alteration of any structure with a building sewer where the cost of the work is estimated to exceed $100,000.

C. Change in Water Services. Whenever a property owner applies for any permit or other approval from the EBMUD for an increase or decrease in size of the owner's water meter.

D. An Individually-Owned Unit in a Multi-Unit Structure Served by a Common Private Sewer or Shared Laterals such as condominium or other common interest development. Within the period of time set forth in the EBMUD Regional Ordinance, the homeowners' association or a responsible party- for this type of multi-unit structure shall determine if the sewer lateral(s) is(are) in compliance with the EBMUD Regional PSL Ordinance and perform any necessary repair or replacement work to achieve compliance. Thereafter, re-certification of the sewer lateral shall occur at twenty (20) year intervals.

E. Property Developments Other Than Those Specified in (D) Above With Sanitary Sewers Totaling Greater Than 1000 Feet In Length. Within the period of time set forth in the EBMUD Regional PSL Ordinance, property owners or responsible parties for property developments with sanitary sewers totaling greater than 1000 feet in length, shall submit for EBMUD approval, a Condition Assessment Plan with a schedule to perform testing to assess the condition of all of the sewer laterals on the property to determine compliance with the EBMUD Regional PSL Ordinance. Within the period of time specified in the EBMUD Regional PSL Ordinance, property owners or responsible parties shall complete all condition assessment testing, and submit a ~~Final~~ Corrective Action Work Plan for EBMUD approval. ~~Thereafter,~~After the work is completed, re-certification of the sewer lateral shall occur at twenty (20) year intervals.

F. Exception. A property owner with an un-expired sewer lateral Compliance Certificate or similar documentation from another agency, or with a dated approved building/sewer permit from a permitting authority indicating that the sewer lateral was replaced in total within 10 years of the period of time set forth in the EBMUD Regional PSL Ordinance may submit the information to EBMUD along with a request for an Exemption Certificate. Upon review and approval, an Exemption Certificate will be issued by EBMUD. ~~A property owner of a structure with a building sewer that is less than 10 years old from the date of: (1) intended title transfer, (2) obtaining a permit for remodeling, or (3) obtaining an approval for the change in water service, and has appropriate evidence, such as a valid building permit showing that the sewer lateral was replaced in total and received a final inspection from the City, may request an Exemption Certificate from EBMUD and does not have to obtain a Compliance Certificate.~~

G. Dangerous and Insanitary Sewer Condition. Whenever a dangerous or insanitary sewer condition is found as set forth by this Chapter and a notice to abate is provided according to the procedure established by the Director of Public Works.

Section 3.

Section 13.08.610 of Chapter 13 of the Oakland Municipal Code is added now to read:

13.08.610 - Responsibility and Standards for Maintenance of Upper and Lower Building Sewer Laterals.

It shall be the responsibility of the property owner to perform all required maintenance, repairs and replacement of the upper and lower building sewer lateral in accordance with EBMUD's and the City of Oakland's ordinance requirements. Standards for maintenance of the upper and lower building sewer lateral are set forth below:

A. The upper and lower building sewer lateral shall be kept free from roots, grease deposits, and other solids, which may impede or obstruct the flow.
B. All joints shall be watertight and all pipes shall be sound.
C. The upper and lower building sewer lateral pipe shall be free of any structural defects such as fractures, cracks, breaks, openings, or missing portions.
D. All cleanouts shall be securely sealed with a proper cap or approved overflow device at all times.
E. There shall be no non-sanitary sewer connections to the upper or lower sewer lateral or to any plumbing that co~~mm~~nnects to the upper or lower sewer lateral.

Section 4.

Section 13.08.620 of Chapter 13 of the Oakland Municipal Code is added now to read:

13.08.620 - Adoption of the EBMUD Regional PSL Ordinance by Reference.

The East Bay Municipal Utility District Ordinance 311, Title VIII; Regulation of ~~Private~~ Upper Sewer Laterals is hereby adopted by reference. The City Council may adopt amendments or modifications to the ordinance thereto, as the ordinance may be amended or modified by EBMUD.

IN COUNCIL, OAKLAND, CALIFORNIA, JUL 19 2011

PASSED BY THE FOLLOWING VOTE:

AYES- BROOKS, BRUNNER, DE LA FUENTE, KAPLAN, KERNIGHAN, NADEL, SCHAAF, and PRESIDENT REID -8

NOES- 0

ABSENT- 0

ABSTENTION- 0

ATTEST: LaTonda Simmons
LaTonda Simmons
City Clerk and Clerk of the Council
of the City of Oakland, California

Introduction Date JUL 5 2011

DATE OF ATTESTATION: July 21, 2011

APPENDIX F - STATEMENT OF ROLES AND RESPONSIBILITIES

STATEMENT OF ROLES AND RESPONSIBILITIES BETWEEN THE CITY OF OAKLAND (OAKLAND) AND THE EAST BAY MUNICIPAL UTILITY DISTRICT (DISTRICT) FOR IMPLEMENTATION OF EAST BAY REGIONAL PRIVATE SEWER LATERAL PROGRAM

DEFINITIONS

1. Compliance Certificate: A certificate issued by the DISTRICT indicating that the private sewer lateral complies with the DISTRICT's verification test requirements.

2. Enforcement: Punitive measures taken by DISTRICT to achieve compliance by those failing to satisfy the Regional Private Sewer Lateral (PSL) Ordinance requirements.

3. Outreach Materials: Information prepared by DISTRICT, and mutually agreed to by OAKLAND and DISTRICT, about the Regional PSL Program describing procedures, processes, and fees for distribution to property owners, real estate and escrow professionals, contractors and other interested parties.

4. Regional Private Sewer Lateral (PSL) Ordinance: East Bay Municipal Utility District Ordinance No. 311 Section VIII titled "Regulation of Upper Sewer Laterals" that sets forth requirements for upper laterals to be inspected and if necessary repaired or replaced when certain triggers are met by a property owner.

5. OAKLAND'S Municipal Code: City of Oakland's local municipal ordinances and regulations.

6. Regional Private Sewer Lateral (PSL) Program: The comprehensive management effort to implement the requirements of both the Regional PSL Ordinance and related portions of OAKLAND'S Municipal Code. The Regional PSL Program requires the testing of privately owned sewer laterals and where needed, repair or replacement of defective laterals by property owners who are:
    - selling their homes;
    - performing building remodel projects in excess of $100,000; or
    - changing their water meter size.

7. Verification Test: A test consisting of a low pressure air or water exfiltration test conducted on a private sewer lateral to ensure that the lateral is free of leaks.

8. Waiver Process: OAKLAND'S process to enable a property owner to receive a waiver for performing work on the lower lateral under certain approved conditions.

9. Exemption Certificate: A certificate issued by the DISTRICT when the property owner provides appropriate evidence, such as a valid building permit, showing that the sewer lateral was replaced in total less than 10 years ago. When an Exemption Certificate is issued the property owner does not have to obtain a Compliance Certificate.

OUTREACH

1. DISTRICT agrees to produce and provide to OAKLAND (with replenishments as needed) outreach materials for the Regional PSL Program. DISTRICT agrees to maintain
    a. A website for the Regional PSL Program with appropriate referrals to OAKLAND'S web pages; and
    b. A Phone number and contact person where the public can get answers to questions about the program.

2. OAKLAND agrees to make available outreach materials, prepared by the DISTRICT for the Regional PSL Program at City Hall, Oakland's Permit Center and other locations as needed.

3. OAKLAND and DISTRICT shall assist each other in outreach activities, as needed.

PERMITTING AND INSPECTION

1. OAKLAND continues to be the permitting agency for all sewer lateral work in accordance with OAKLAND'S Municipal Code.

2. OAKLAND agrees to expeditiously issue sewer and encroachment permits for sewer lateral work that must be performed for the Regional PSL Program.

3. DISTRICT agrees to expeditiously schedule sewer lateral verification tests and issue Compliance Certificates when a sewer lateral passes such tests.

4. OAKLAND shall continue to perform construction and materials inspection for all sewer lateral work.

5. DISTRICT shall witness the verification test for the entire sewer lateral, consisting of the upper lateral and lower lateral and document compliance or non-compliance.

CERTIFICATES AND WAIVERS

1. DISTRICT shall issue a single Compliance Certificate valid for an entire sewer lateral that passes the verification test. The DISTRICT will not issue a Compliance Certificate in the event either an upper lateral or a lower lateral does not pass a verification test on a property, unless the upper lateral passes and a waiver from OAKLAND for the lower lateral work is granted.

   If OAKLAND wishes to issue a waiver, OAKLAND shall:
   a) fill out the DISTRICT provided waiver form (Attachment A),
   b) return the waiver form to the property owner, and
   c) direct the property owner to return the waiver form to the DISTRICT.

2. OAKLAND shall not complete a final inspection to finalize a project for remodeling projects in excess of $100,000 until the property owner produces a Compliance Certificate or Exemption Certificate for sewer lateral work required by the Regional PSL Program.

3. OAKLAND shall make available information to property owners about the benefits of obtaining a Regional PSL Program Compliance Certificate even where compliance is not mandated by the Regional PSL Program.

DATA SHARING and ANNUAL REPORTING

1. DISTRICT will prepare annual report as required by the regulatory agencies.

2. DISTRICT will develop and maintain a regional database of records for the Regional PSL Program and will share data, as reasonably requested, in a timely fashion.

3. As required by its Stipulated Order, beginning July 1, 2012, OAKLAND shall "submit to EBMUD [i.e., DISTRICT], in either electronic or hard copy format as the City [i.e., OAKLAND] chooses, a monthly log of all remodel permits for jobs greater than $100,000 where a final inspection has been completed to finalize the project;" the monthly log shall include the parcel number and address of each job where the final inspection was completed the prior month.

4. OAKLAND shall provide to DISTRICT a copy of its GIS based maps showing sub-basins in which sewers have been rehabilitated from calendar year 2000 to 2010. If property owners seeking Exemption Certificates ask OAKLAND for copies of historic sewer permits, OAKLAND shall utilize its best efforts to expeditiously provide copies of such permits, if available.

5. DISTRICT and OAKLAND agree to identify key staff contacts involved with the Regional PSL Program.

ENFORCEMENT

1. Enforcement actions for work to be performed on upper private sewer laterals under the Regional PSL Ordinance shall be the sole responsibility of the DISTRICT.

2. Enforcement actions for work not completed in accordance with OAKLAND'S Municipal Code shall be the sole responsibility of OAKLAND.

MODIFICATIONS

DISTRICT and OAKLAND may modify this Statement by written agreement at any time. Each party agrees to meet and confer in good faith upon request of the other party for a modification.

INSURANCE

The Parties to this Statement shall maintain during the life of the Statement Workers' Compensation, Commercial General and Automobile Liability Insurance or comparable self insurance.

TERM

This Statement may not be terminated prior to June 30, 2014, unless either (1) OAKLAND obtains EPA approval of a no-less-stringent application for an OAKLAND PSL ordinance or (2) the parties mutually agree to terminate. Thereafter, this Statement may be terminated by either (1) mutual agreement of the parties or (2) six months' written notice from the terminating party to the other party.

ADVICE OF COUNSEL:

Each of the signators to this Statement affirms and acknowledges that it has read and fully appreciates and understands the words, terms, conditions and provisions of this Statement applicable to such signator, is fully and entirely satisfied with the same, has had the opportunity to be represented by legal counsel of its choice in the negotiation, preparation and execution of this Statement, has had the opportunity to confer with its counsel prior to the execution of this Statement, and has executed this Statement voluntarily and of its own free will and act.

The signators specifically agree that any rule of construction, to the effect that ambiguities are to be resolved against the drafting party, shall not apply to the interpretation of this Statement.

ENTIRE STATEMENT

This Statement represents the entire understanding of DISTRICT and OAKLAND as to those matters contained herein. No prior oral or written understanding shall be of any force or effect with respect to those matters covered hereunder. This Statement may only be modified by amendment in writing signed by each party.

SEVERABILITY

Should any part, term, or provision of this Statement be decided or declared by the Courts to be, or otherwise found to be, illegal or in conflict with any laws of the State of California or the United States, or otherwise be rendered unenforceable, or ineffectual, the validity of the remaining parts, terms, portions or provisions shall be deemed severable and shall not be affected thereby, providing such remaining parts, terms, portions or provisions can be construed in substance to constitute the Statement that the Parties to this Statement intended to enter into in the first instance.

AUTHORITY TO EXECUTE STATEMENT

Each of the signators to this Statement warrant to each of the other signators that it has obtained the necessary consent and authority to execute this Statement and to make this Statement binding upon itself.

COUNTERPARTS

This Statement may be executed in one or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument.

IN WITNESS WHEREOF, the parties hereto each herewith subscribe to the same in duplicate.

EAST BAY MUNICIPAL UTILITY DISTRICT

By: _____ Date: 07/14/11
General Manager

CITY OF OAKLAND

By: _____ Date: 7/11/11
City Administrator

Regional Private Sewer Lateral Program

PRIVATE SEWER LATERAL WORK WAIVER

Parcel Address:

_____

Street Address **City**

Parcel Number: __ __ __ - __ __ __ __ - __ __ __ - __

Expiration: _____

Special Instructions:

Submit a copy of this document to EBMUD as evidence that requirements to comply with the Regional Private Sewer Lateral Program have been waived. Retain a copy of this waiver for your records for any future parcel sale, re-model greater than $100,000, or change of water meter size.

Waiver Number: _____

Issue Date: _____

Reason for Waiver (check one):

__ Paving Moratorium

__ Other – describe: _____

Issued by:

_____

City, Department, Employee Name and Title

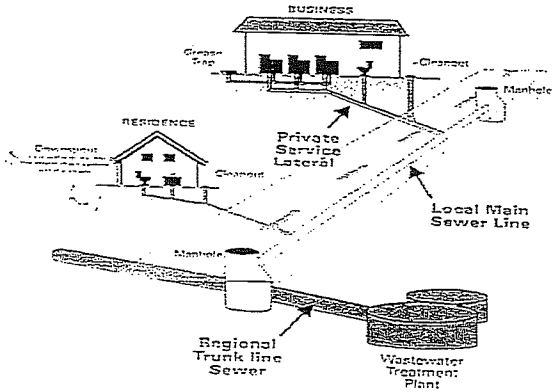
Signature: _____

APPENDIX G - CUSTOMER SERVICE PACKET

How a Sewer System Works

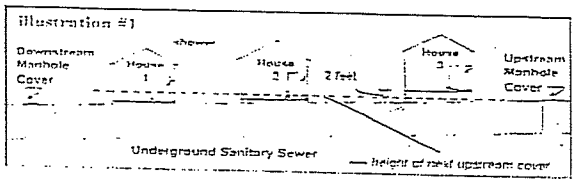
A property owner's sewer pipes are called *service laterals* and are connected to larger local main and regional trunk lines.

Service laterals run from the connection at the home to the connection with the public sewer.



Is My Home Required to Have a Backflow Prevention Device?

Section 710.1 of the Uniform Plumbing Code (U.P.C.) states: *"Drainage piping serving fixtures which have flood level rims located below the elevation of the next upstream manhole cover or private sewer serving such drainage piping shall be protected from backflow of sewage by installing an approved type of backwater valve."*



The intent of Section 710.1 is to protect the building interior from mainline sewer overflows or surcharges.

Additionally, U.P.C. 710.6 states: *"Backwater valves shall be located where they will be accessible for inspection and repair at all times and, unless continuously exposed, shall be enclosed in a masonry pit fitted with an adequately sized removable cover."*

If you have a sewage spill from your private sewer line, contact:

City of Oakland Public Works Agency Department of Infrastructure and Operations
510.615.5566 *(business hours)*
510.615.5566 *(after hours)*

Alameda County Environmental Health Department
510.567.6700

California Health and Safety Code Sections 5410-5416 requires:

- No person shall discharge raw or treated sewage or other waste in a manner that results in contamination, pollution, or a nuisance.
- Any person who causes or permits a sewage discharge to any state waters:
  - Must immediately notify the local health agency of the discharge.
  - Shall reimburse the local health agency for services that protect the public's health and safety.
  - Who fails to provide the required notice to the local health agency is guilty of a misdemeanor and shall be punished by a fine (between $500-$1,000) and/or imprisonment for less than one year.

San Francisco Regional Water Quality Control Board
(510) 622-2300
Requires the prevention, mitigation, response to, and reporting of sewage spills.

California Office of Emergency Services
(800) 852-7550

California Water Code, Article 4, Chapter 4, Sections 13268-13271 & California Code of Regulations, Title 23, Division 3, Chapter 9.2, Article 2, Sections 2250-2260 require:

- Any person who causes or permits sewage in excess of 1,000 gallons to be discharged to state waters shall immediately notify the Office of Emergency Services.
- Any person who fails to provide the notice required by this section is guilty of a misdemeanor and shall be punished by a fine (less than $20,000) and/or imprisonment for not more than one year.

Sewer Spill Reference Guide

Your Responsibilities as a Private Property Owner

Provided to you by:

City of Oakland Public Works Agency
Department of Infrastructure and Operations
7101 Edgewater Drive
Oakland CA 94621
510.615.5566

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Why do sewage spills happen?

Sewage spills occur when the wastewater in underground pipes overflows through a manhole, cleanout, or broken pipe. Most spills are relatively small and can be stopped and cleaned up quickly, but left unattended they can cause health hazards, damage to homes and businesses, and threaten the environment, local waterways, and beaches.

CAUTION!

When trying to locate a sewer problem, never open manholes or other City sewer structures. Only City personnel are allowed to open & inspect these structures.

Common causes of sewage spills:

- Grease build-up
- Tree roots
- Broken/cracked pipes
- Missing or broken cleanout caps
- Undersized sewers
- Groundwater/rainwater entering the sewer system through pipe defects and illegal connections

Prevent most sewage backups with a Backwater Overflow Device

This type of device can help prevent sewage backups into homes and businesses. If you don't already have a Backwater Overflow Device, contact a professional plumber or contractor to install one as soon as possible.

Protect the environment!

If you let sewage from your property discharge to a gutter or storm drain, you may be subject to penalties and/or out-of-pocket costs for clean-up and enforcement efforts. A property owner may be charged for costs incurred by agencies responding to spills from private properties.

What to look for:

Sewage spills can be a very noticeable gushing of water from a manhole or a slow water leak that may take time to be noticed. Don't dismiss unaccounted-for wet areas. Look for:

- Drain backups inside the building.
- Wet ground and/or water leaking around manhole lids onto your street.
- Leaking water from cleanouts or outside drains
- Unusual odorous wet areas: sidewalks, external walls, ground/landscape around a building.

The following are indicators of a possible obstruction in your sewer line:

- Water comes up in floor drains, showers or toilets.
- Toilets, showers or floor drains below ground level drain very slowly.

What to do if there is a spill:

Immediately notify the City. Our crews locate the blockage and determine if it is in the public sewer; if it is the crew removes the blockage and arranges for cleanup.

If the backup is in your private internal plumbing or in the service laterals, you are required to immediately:

- Control and minimize the spill by shutting off or not using the water
- Keep sewage out of the storm drain system using sandbags, dirt and/or plastic sheeting
- Call a plumbing professional to clear blockages and make repairs as needed. Look in the yellow pages under "Plumbing Drain & Sewer Cleaning" or "Sewer Contractors."
- Always notify your sewer/public works department or public sewer district of sewage spills. In addition, if it exceeds 1,000 gallons notify the Governor's Office of Emergency Services. See numbers listed on this pamphlet.

Spill cleanup inside the home:

For large clean ups, you should immediately contact a professional cleaning firm to clean up impacted areas, You can locate local firms by looking in the Yellow Pages under "Water Damage" or "Fire Damage." If you hire a contractor, it is recommended to get estimates from more than one company. Sometimes, homeowner's insurance will pay for the necessary cleaning due to sewer backups. Not all policies have this coverage, so check with your agent.

If you decide to clean up a small spill inside your home, protect yourself from contamination by observing the following safety measures. Those persons whose resistance to infection is comnpromised should not attempt this type of clean up.

Other Tips:

- Keep children and pets out of the affected area until cleanup has been completed.
- Turn off heating/air conditioning systems
- Wear rubber boots, rubber gloves, and goggles during cleanup of the affected area.
- Discard items that cannot be washed and disinfected (such as: mattresses, rugs, cosmetics, baby toys, etc.)
- Remove and discard drywall and insulation that has been contaminated with sewage or flood waters.
- Thoroughly clean all hard surfaces (such as flooring, concrete, molding, wood and metal furniture, countertops, appliances, sinks and other plumbing fixtures) with hot water and laundry or dish detergent.
- Help the drying process with fans, air conditioning units, and dehumidifiers.
- After completing cleanup, wash your hands with soap and water. Use water that has been boiled for 1 minute (allow the water to cool before washing your hands.) OR use water that has been disinfected (solution of 1/8 teaspoon of household bleach per 1 gallon of water). Let it stand for 30 min. If water is cloudy, use ¼ teaspoon of household bleach per 1 gallon of water.
- Wash clothes worn during cleanup in hot water and detergent (wash apart from uncontaminated clothes).
- Wash clothes contaminated with sewage in hot water and detergent. Consider using a laundromat until your onsite wastewater system has been professionally inspected and serviced.
- Seek immediate attention if you become injured or ill.

Spill cleanup outside the home:

- Keep children and pets out of the affected area until cleanup has been completed.
- Wear rubber boots, rubber gloves, and goggles during cleanup of affected area.
- Clean up sewage solids (fecal material) and place in properly functioning toilet or double bag and place in garbage container.
- On hard surfaces areas such as asphalt or concrete, it is safe to use a 2% bleach solutions, or ½ cup of bleach to 5 gallons of water, but don't allow it to reach a storm drain as the bleach can harm the environment.
- After cleanup, wash hands with soap and water. Use water that has been boiled for 1 minute (allow to cool before washing your hands.) OR use water that has been disinfected (solution of 1/8 teaspoon of household bleach per 1 gallon of water). Let it stand for 30 min. If water is cloudy, use ¼ teaspoon of household bleach per 1 gallon of water.
- Wash clothes worn during cleanup in hot water and detergent (wash apart from uncontaminated clothes).
- Wash clothes contaminated with sewage in hot water and detergent. Consider using a laundromat until your onsite wastewater system has been professionally inspected and serviced.

Seek immediate attention if you become injured/ill.

CLAIM AGAINST THE CITY OF OAKLAND

Please return the completed form to the Office of the City Attorney, One Frank H. Ogawa Plaza, 6th Floor, Oakland, CA 94612. Additional sheets may be attached as necessary. Enclose a postage paid envelope if you require a filing receipt.

1) CLAIMANT'S NAME: _____

2) ADDRESS: _____ City: _____ State: _____ Zip: _____
HOME #: _____ DRIVER'S LICENSE: _____
WORK #: _____ SOCIAL SECURITY#: _____
CELL #: _____
DATE OF BIRTH: _____ OCCUPATION: _____
INSURANCE NAME AND POLICY # IF APPLICABLE: _____

3) IF AMOUNT CLAIMED IS LESS THAN $10,000, AMOUNT OF CLAIM: $_____
(Attach copies of expenses substantiating the basis of computation for the amount being claimed)

IF AMOUNT CLAIMED EXCEEDS $10,000, WOULD THE CLAIM BE A LIMITED CIVIL CASE (Less than $25,000)?
Yes ____ No ____ Unsure ____

4) ADDRESS TO WHICH NOTICES ARE TO BE SENT, IF DIFFERENT FROM LINES 1 & 2:
NAME: _____
ADDRESS: _____ City: _____ State: _____ Zip: _____
PHONE#: _____

5) DATE OF INCIDENT: _____ TIME OF INCIDENT: _____
SPECIFIC LOCATION OF INCIDENT* (Address): _____
_____
DESCRIBE THE INCIDENT INCLUDING YOUR REASON FOR BELIEVING THE CITY IS LIABLE FOR YOUR DAMAGES: _____
_____

6) DESCRIBE ALL DAMAGES WHICH YOU BELIEVE YOU HAVE INCURRED AS A RESULT OF THE INCIDENT: _____
_____

7) NAME(S) OF PUBLIC EMPLOYEE(S) CAUSING THE DAMAGES OR TO WHOM YOU REPORTED THE INCIDENT:
_____

8) WERE PARAMEDICS CALLED? _____

9) IF YOU WENT TO A DOCTOR, LIST HIS NAME, ADDRESS & TELEPHONE NUMBER:
_____

Date of 1st Visit: _____ Is there a police report on file? _____

X _____ X _____
Signature of Claimant or Representative Date

****Complete the diagram on the back of this form showing the location of the incident****
Any person who, with the intent to defraud, presents any false or fraudulent claim may be punished by imprisonment or fine or both. Claims must be filed within 6 months of the incident. *See* Government Code §§ 900 et seq.* (Revised 12/18/07)

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