

CITY OF OAKLAND



Sanitary Sewer Collection System

Annual Report

July 1, 2014 to June 30, 2015

Consent Decree, Consolidated Case Nos. C 09-00186-RS and C 09-05684-RS

CITY OF OAKLAND



250 FRANK H. OGAWA PLAZA OAKLAND, CALIFORNIA 94612-2033

Oakland Public Works Department
Brooke A. Levin
Director

(510) 238-3961
FAX (510) 238-6428
TDD (510) 238-7644

September 30, 2015

Mr. Ken Greenberg
Chief, Clean Water Act
Water Section I, (ENF 3-1)
Enforcement Division
U.S. Environmental Protection Agency, Region 9
75 Hawthorne Street
San Francisco, CA 94105

Mr. Bruce Wolfe
Executive Officer
San Francisco Bay Regional
Water Quality Control Board
1515 Clay Street, Suite 1400
Oakland, CA 94612

Mr. Patricia Hurst
Chief, Environmental Enforcement Section
Environment and Natural Resources Division
U.S. Department of Justice
Box 7611 Ben Franklin Station
Washington, D.C. 20044-7611
Re: DOJ No. 90-5-1-1-09361/2

Ms. Yuri Won
Legal Counsel
San Francisco Bay Regional
Water Quality Control Board
1515 Clay Street, Suite 1400
Oakland, CA 94612

Mr. Thomas Howard
Executive Director
State Water Resources Control Board
P.O. Box 100
Sacramento, CA 95812-0100

Mr. Daniel S. Harris
Deputy Attorney General
455 Golden Gate Avenue, Suite 11000
San Francisco, CA 94102

RE: Consent Decree--City of Oakland Annual Report

Dear Mr. Greenberg, et al.:

In accordance with the 2014 Consent Decree, enclosed is the City of Oakland's Annual Report for the period from July 1, 2014 to June 30, 2015.

If you have any questions about this report, please contact Mr. Gus Amirzehni, Principal Civil Engineer, at 510-238-6601.

Sincerely,

Brooke A. Levin
Director, Public Works

cc: Nicole C. Sasaki (Bay Keeper)
Christopher A. Sproul (Environmental Advocates)
Christopher Dinsmore (EBMUD)
Chris Chan (Port of Oakland)

Attachments: 2014-15 Annual Report

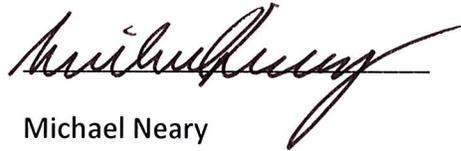
Certification

I certify under penalty of law that this document and its attachments were prepared either by me personally or under my direction or supervision in a manner designed to assure that qualified and knowledgeable personnel properly gathered and presented the information contained herein. I further certify, based on my personnel knowledge or on my inquiry of the individuals immediately responsible for obtaining the information, that to the best of my knowledge and belief the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing and willful submission of a materially false statement.

Reviewed by:



Jason Mitchell
Assistant Director
Bureau of Infrastructure & Operations



Michael Neary
Assistant Director
Bureau of Engineering & Construction



Brooke A. Levin
Director of Public Works

9-30-15

Date

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Executive Summary

The City of Oakland's Consent Decree for operation and maintenance of its Sewer Collection System was approved by state and federal regulatory agencies with an Effective Date of September 22, 2014. The City is pleased to submit this Annual Report as required by the Consent Decree (CD) for Fiscal Year 2014-15 (July 1, 2014 to June 30, 2015).

Sanitary Sewer Overflows (SSO). The City of Oakland's Sewer Collection System had 104 SSO events during FY 2014-15. This is a 29% reduction compared to the number of SSO events in FY 2010-11.

Asset Management Implementation Program (AMIP). On October 31, 2014, the City submitted a new AMIP which had been revised to comply with the new Consent Decree. The AMIP provided new maintenance, construction and rehabilitation schedules, as well as a revised financial plan. The City is implementing both the new AMIP and the Consent Decree.

Sewer Main and Maintenance Hole Rehabilitation. As of June 30, 2015, the City of Oakland had Rehabilitated 194,434 feet (36.8 miles) of Sewer Main. This exceeds the Consent Decree requirement to rehabilitate 158,400 feet (30 miles) by June 30, 2016. The City's Sewer Main Rehabilitation Program is ahead of schedule.

Sewer Main and Maintenance Hole Inspection. As of June 30, 2015, 801,926 feet (151.9 miles) of sewer mains in the City of Oakland have been inspected and assessed using CCTV inspection. This exceeds the Consent Decree requirement to inspect 728,640 feet (138 miles) by June 30, 2015. The City of Oakland is in full compliance in regards to maintenance hole inspections. Between July 1, 2014 and June 30, 2015, 3,001 maintenance hole inspections were performed.

Development of Regional Standards. The City bases its construction plans and specifications on The "Greenbook": Standard Specifications for Public Works Construction, a statewide standard for the municipal construction industry. The Greenbook is updated every three years.

A Regional Standards committee (RSC) was formed in May 2015 by all Defendants for the review and development of Regional Standards regarding the work on sewer mains, manholes, and sewer laterals. In April 2015 a consultant (Humphrey Consulting) was contracted to assist the Defendants and the RSC in the development of standards. The City (District) has assigned a representative to the RSC and has actively participated in the first two meetings of the RSC, held in June and July 2015. The City will continue participation in the development of Standards through attendance at these RSC meetings, which will be held on generally a monthly basis until Regional Standards are completed. Completion of a report on recommended standards will be submitted to EPA by the June 30, 2016 deadline as required in the Consent Decree.

EBMUD's Sewer Lateral education and Outreach Program. The City assisted EBMUD in the development of the Sewer Lateral education and outreach program. The City participated in a meeting with EBMUD in January 2015, when the development of the program and educational materials was reviewed and discussed. Additional review and comments occurred in February 2015, prior to EBMUD's submittal of the plan to EPA for review and comment in March 2015. The City will continue to work with EBMUD in implementation of the program.

Sewer Lateral Inspection and Repair. In FY 2014-15, the City finalized 49 building permits which required certificates of occupancy for construction or remodeling permits in excess of \$100,000, 49 of which had Compliance Certificates issued by EBMUD. This met the Consent Decree requirement to limit the number of building permits issued without Compliance Certificates to less than 25 per Fiscal Year.

Inflow and Rapid Infiltration Identification and Elimination. By a letter dated January 20, 2015 EBMUD provided a draft of its Regional Technical Support program (RTSP) plan to the East Bay Collection System Advisory Committee (EBCSAC) for review and comment. EBCSAC's comments on the EBMUD draft RTSP were provided to EBMUD by a letter dated February 19, 2015. EBMUD submitted the RTSP Plan to EPA, RWQCB, SWRCB, and DOJ on March 23, 2015. Based on comments from EPA received on May 19, 2015, EBMUD resubmitted a revised RTSP Plan on July 20, 2015. As of the date of preparing this report, the revised RTSP Plan has not been approved. EBCSAC agencies have also discussed RTSP issues with EBMUD at monthly meetings from January 2015 to the present time. The City of Oakland will continue to work with EBMUD in implementation of the program.

Capacity Assurance. The Consent Decree requires the City to increase sewer capacity in certain locations when sewer flows reach within one foot of the Maintenance Hole rim. There were a total of five locations that reached within one foot of the Maintenance Hole rim. Three locations were suspected to be capacity related and two locations were suspected of existing sags. The City is currently providing design work to increase pipe diameters and correct sags. Capacity upgrade projects are scheduled to be completed within twenty four (24) months of the time an alarm was first triggered.

Acute Defects. In FY 2014-15, 35 Acute Defects were Identified. The City repaired 8 Acute Defects within the required twelve (12) months. Remaining 27 Acute Defects will be repaired within One Year of Identification. Improvements to the City's processes were implemented. It should be noted that no Sanitary Sewer Overflows occurred because of delays in Repair of Acute Defects.

Sewer Main Cleaning. As of June 30, 2015, 2,864,495 unique feet (543 miles) of sewer mains in the City of Oakland have been cleaned. This exceeds the Consent Decree requirement of 2,640,000 feet (500 miles).

Root Cleaning (Foaming). As of June 30, 2015, the City had root foamed 656,987' (124.4 miles) of Sewer Mains, which exceeds the Consent Decree requirement of 528,000' feet (100 miles).

Hot Spot Cleaning. The Consent Decree changed both the definition of "Hot Spot" and the cleaning requirements. In anticipation of the CD, staff reviewed City records and created a new High Frequency Preventive Maintenance List in a three year period (Hot Spots) and other locations identified by staff. The list now contains 99 locations. Each of these locations was cleaned at least once in FY 2014-15.

Fats, Oil and Grease (FOG) Control. In FY 2014-15, 40 SSOs were thought to be associated with FOG. These locations were referred to EBMUD for investigation.

Pump Station Renovation. The City is significantly ahead of schedule with its Pump Station Improvement Program, with completion planned for 2018, five years ahead of schedule.

Known Noncompliance with Consent Decree. The City is well ahead of schedule in sewer rehabilitation, sewer cleaning, root control, CCTV inspection, and pump station rehabilitation and is fully compliant with the Consent Decree. The City has increased its sewer service budget, staffing, and equipment and intends to continue to meet its obligations under the Consent Decree.

Assessment of Stipulated Penalties. In FY 2014-15, the City added seven new sewer service positions through the budget process and is now fully staffed. The City added eight new pieces of equipment to enhance collection maintenance. Funding was provided and allocated for proper handling and disposal of sewer spoils. Additional funding was also provided and allocated for the City to enter into contracts for Contractors to perform Closed Circuit Television (CCTV) and sewer main cleaning. The City moved the Sewer Services Unit from within the Infrastructure Division to create a new Sewer Service Division and assigned a new Operations Manager solely committed to the Sewer Service Division. The production rate of cleaning increased by 43% and CCTV inspection productivity increased 69%. This increase in production has contributed to a positive trend of reducing sanitary sewer over flows in the City's collection system. The City believes that it is fully compliant with the Consent Decree and that no penalties should be assessed for the City's Collection System. If Plaintiffs disagree with this position, the City would appreciate the opportunity to discuss potential penalties and provide additional explanations of its position.

Recommended Changes to Required Work. The City has no recommendations for changes to this Consent Decree.

Section 1. Introduction

Paragraph 139 of the Consent Decree (Case Nos. C09-00186 and C09-05684) requires:

“By September 30th of each Fiscal Year...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.”

This Annual Report has been prepared pursuant to the requirements of the Consent Decree. The following sections of this report present the required information for Fiscal Year 2014-15 (July 1, 2014 to June 30, 2015):

- Section 1. CD Para 139 Introduction, p.6
- Section 2. CD Para 144 Annual Report of Sanitary Sewer Overflows (SSO), p.7
- Section 3. CD Para 165 Asset Management Implementation Plan Status, p.10
- Section 4. CD Para 166 Infiltration and Inflow Reduction Work, p.11
 - 4.1 CD Para 166.a.i Sewer Main and Maintenance Hole Rehabilitation
 - 4.2 CD Para 166.a.ii Sewer Main and Maintenance Hole Inspection
 - 4.3 CD Para 166.a.iii Development of Regional Standards
 - 4.4 CD Para 166.b Sewer Lateral Inspection and Repair
 - 4.5 CD Para 166.c I&RI Identification and Elimination
- Section 5. CD Para 167 SSO Reduction Work, p.24
 - 5.1 CD Para 167.a Capacity Assurance
 - 5.2 CD Para 167.b Post SSO Inspection
 - 5.3 CD Para 167.c Acute Defects
 - 5.4 CD Para 167.d Sewer Main Cleaning
 - 5.5 CD Para 167.e Root Cleaning
 - 5.6 CD Para 167.f Hot Spot Cleaning
 - 5.7 CD Para 167.g Fats, Oil and Grease (FOG) Control
 - 5.8 CD Para 167.h Pump Station Renovation
- Section 6. CD Para 141 Deliverables, p.36
- Section 7. CD Para 142 Known Noncompliance with Consent Decree, p.36
- Section 8. CD Para 172 Assessment of Stipulated Penalties, p.36
- Section 9. CD Para 143 Recommended Changes to Required Work, p.36

Section 2. Annual Report of Sanitary Sewer Overflows

Paragraph 144 of the Consent Decree requires:

“A Sanitary Sewer Overflow Report that includes the location of SSOs; the start and end date and time of each SSO; the SSO volume including gross volume, amount recovered, and amount not recovered; the destination of each SSO; the probable cause(s) of the SSOs; the location(s) of repeat SSOs; a list of any SSOs at locations where the Sewer Main had been Rehabilitated in the previous ten (10) Fiscal Years; and a description of measures taken to help prevent these SSOs in the future.”

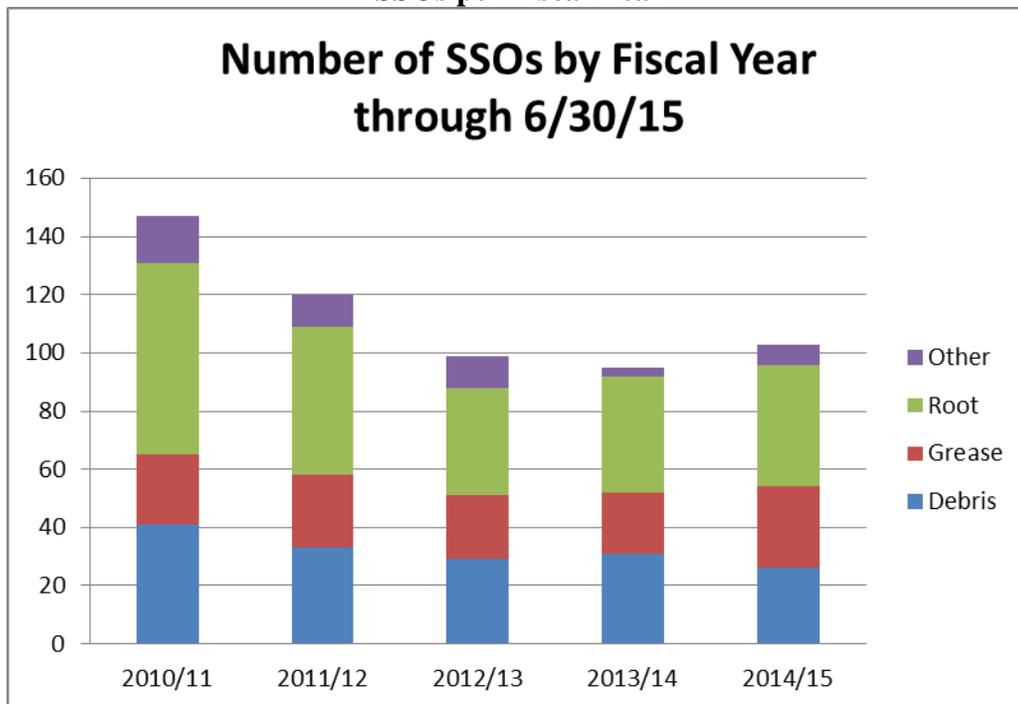
Number of SSOs

The City of Oakland’s Sewer Collection System had 104 SSO events during FY 2014-15. This is a 29% reduction compared to the 147 SSO events in FY 2010-11.

The total volume spilled in FY 2014-15 was 115,876 gallons, representing a 72% increase in volume compared to the previous Fiscal Year. Of the total amount spilled, 30% was contained and returned to the system.

Figure 2-1 shows the number of SSO events by Fiscal Year for the last 5 Fiscal Years, as well as the primary cause of the SSO.

Figure 2-1.
SSOs per Fiscal Year



A detailed list of SSOs is shown in Table 2-1 of **Appendix A**.

The City has made many improvements to its sewer program in order to continue reducing sanitary sewer overflows.

In FY 2014-15, the City added seven new sewer service positions through the budget process and is now fully staffed. The City added eight new pieces of equipment to enhance collection maintenance. Funding was provided and allocated for proper handling and disposal of sewer spoils. Additional funding was also provided and allocated for the City to enter into contracts for Contractors to perform Closed Circuit Television (CCTV) and sewer main cleaning. The City moved the Sewer Services Unit from within the Infrastructure Division to create a new Sewer Service Division and assigned a new Operations Manager solely committed to the Sewer Service Division. The production rate of cleaning increased by 43% and CCTV inspection productivity increased 69%. This increase in production has contributed to a positive trend of reducing sanitary sewer over flows in the City’s collection system.

The City increased the annual budget beginning in FY 2015-16 to clean major sewers which are beyond staff capabilities.

Number and Location of Repeat Overflows

In Fiscal Year 2014-15, the City had 6 locations in which a second sewer overflow occurred within a three year period. Table 2-2 below lists the number and location of overflows occurring at repeat locations along with a description of measures taken to prevent future SSO’s at these locations. All locations below have been added to the High Frequency Cleaning List ‘Hot Spots’.

**Table 2-2
Repeat SSO Locations**

SSO Location	CWIQS #	Cause	Date	Measure(s) to prevent SSO
3712 Loma Vista Ave [also shows as 3624 Loma Vista Ave, 3627 Loma Vista Ave; it’s all the same pipe]	814362, 807715, 779126	Debris Grease Roots	3/25/12, 4/2/2015, 7/7/2014	Added to 12 month high frequency PM schedule.
6975 Charing Cross Rd / 1801 Tunnel Rd (3 reaches)	813138, 809678, 797746	Roots	9/27/2014, 2/13/2015, 7/07/2015,	Added to 6 month high frequency PM schedule.
642 El Dorado Ave [also shows as “625 El Dorado”, it’s the same pipe]	814652, 792179	Roots	2/25/13, 10/5/14	Added to 12 month high frequency PM schedule.
5959 Westover Dr (2 reaches) [also shows as 5955 Westover, it’s all the same pipe]	815261, 784312	Debris Roots	7/24/2012, 5/12/2015	Added to 12 month high frequency PM schedule.

83 rd Ave & Iris St [8301 Iris St]	8113390, 788745	Roots	9/23/2014, 12/11/14	Added to 3 month high frequency PM schedule.
2058 Rosedale Ave	812884, 792740	Debris	3/18/13, 1/31/15	Added to 6 month high frequency PM schedule.

Sewer Overflows in Rehabilitated Areas

In FY 2014-15, 2 SSOs occurred in areas rehabilitated since July 1, 2005 (within the last ten years) as shown in Table 2-3 below. Of these locations, 2 SSO's were caused by debris or FOG related problems, and 1 location experienced SSOs due to root intrusion. Corrective actions, as detailed below, include cleaning, CCTV inspection, and addition to the "Hot Spot" list.

**Table 2-3
SSO Locations within Rehabilitated Areas**

SSO Location	CWIQS #	Cause	Date	Measure(s) to prevent SSO	Rehab Year
1225 Fallon St. (2 reaches)	809333	Grease, Roots	8/25/2015	Power rod, cleaned, and flushed Grease reported to EBMUD	2010
1520 Lakeside Dr.	813217	Heavy Grease	2/16/2015	Grease reported to EBMUD Added to 3 month high frequency PM schedule.	2011

Section 3. Implementation of Asset Management Implementation Plan (AMIP)

Paragraph 165 of the Consent Decree requires:

“The City shall summarize implementation of each element of its AMIP. The summary shall include any proposed revisions to the AMIP, including, but not limited to, revisions to maintenance, construction, and Rehabilitation schedules, along with any associated changes to its financial plan, and an explanation of how those revisions are consistent with its obligations under the Consent Decree.”

On October 31, 2014, the City submitted a new AMIP which had been revised to comply with the new Consent Decree. The AMIP provided new maintenance, construction and rehabilitation schedules, as well as a revised financial plan. The City is implementing both the new AMIP and the Consent Decree.

Chapter 1, Introduction, of the new AMIP presented revised goals, organization and responsibilities for implementation of the AMIP and CD.

Chapter 2, Condition Assessment, revised Sewer Main and Maintenance Hole inspection, Sewer Lateral inspection and capacity monitoring. Sections 4.2, 4.4 and 5.1 of this Annual Report describe work in these areas implemented during FY 2014-15.

Chapter 3, Operations and Maintenance, revised sewer maintenance, hot spot cleaning, root control, and FOG control. Sections 5.4, 5.5, 5.6 and 5.7 of this report describe work in these areas implemented during FY 2014-15.

Chapter 4, Capital Improvements, described revision of design and construction standards, Sewer Main Rehabilitation, elimination of Acute Defects, pump station and capacity improvements, Rehabilitation of City owned Sewer Laterals, and provided a ten year CIP and financial plan. Sections 4.1, 4.3, 5.3 and 5.8 of this report describe work implemented during FY 2014-15.

The City will continue to update the AMIP as necessary.

Section 4. Infiltration and Inflow Reduction Work

Oakland's previous Annual Report stated:

“A letter has been sent to the Regional Water Board informing them that Oakland has successfully completed its 25-year Compliance Plan. Work consisted of rehabilitating 75 sewer basins and adding additional capacity at over 120 locations at a cost of approximately \$300 million. This work resulted in a 29% reduction in flows to EBMUD's Wastewater Treatment Plant.”

On November 12, 2014, the Regional Water Board rescinded its Cease and Desist Order. Henceforth, the City's Annual Report will contain solely items required by the Consent Decree.

Paragraph 166 of the CD requires:

“The City shall summarize its work to reduce I&I in its service area in the reporting Fiscal Year.”

Work done by the City in FY 2014-15 to reduce Infiltration and Inflow is described below.

4.1 Sewer Main and Maintenance Hole Rehabilitation

Paragraph 166.a.i. of the Consent Decree requires that the Annual Report contain:

“Rehabilitation: all Sewer Main and Maintenance Hole Repair and Rehabilitation activities completed...”

Paragraph 83.a. of the Consent Decree requires:

“Between January 1, 2014 and June 30, 2016, the City of Oakland shall rehabilitate 158,400 feet [30 miles] of Sewer Main....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.”

Sewer Mains Rehabilitated

As of June 30, 2015, the City of Oakland had Rehabilitated 192,199 feet (36.4 miles) of Sewer Main as shown in Table 4-1. This exceeds the Consent Decree requirement to rehabilitate 158,400 feet (30 miles) by June 30, 2016. The City's Sewer Main Rehabilitation Program is ahead of schedule.

Table 4-1
Length of Rehabilitated Sewer Mains

Fiscal Year Requirement **	Mains Rehabilitated	Cumulative Total	CD
1/11/14-6/30/14	131,653' (24.9 miles)*	131,653' (24.9 miles)*	-----
FY 2014-15	60,546' (11.5 miles)	192,199' (36.4 miles)	-----
FY 2015-16	n/a	n/a	158,400' (30 miles)

* From previous Annual Report

**Cumulative total beginning 01/01/14

Table 4-2 provides details of projects completed in FY 2014-15.

Table 4-2
Sewer Main Rehabilitation Projects Completed in FY 2014-15

Project No	Description	SubBasi n No	Lateral Connections	Structure	Length (feet)	Length (Miles)	Construction Cost
C227230	RHS-20th St, San Pablo Ave, Telegraph Ave, Alice St, and 12th St	52-05	208	108	25,137	4.8	\$ 4,691,955
C329128	Rehabilitation of Sanitary Sewers in Rosedale Ave	81-101	119	21	3,392	0.6	\$ 395,071
C329129	Rehabilitation of Sanitary Sewers in Bridge Ave	81-002, 81-101	112	15	2,530	0.5	\$ 307,924
C329132	SS Rehab Easement Bet. Delmont Ave and Edgemoor Pl, Easement Bet. Majestic Ave and Laird Ave, and Easement Bet. Modesto St and Madera Ave	83-302, 83-401 & 83-403	50	18	2,137	0.4	\$ 283,569
C329134	SS Rehab By Broadway, Golden Gate Ave and Contra Costa Rd	50-16	170	62	5,402	1.0	\$ 957,035
C329135	SS Rehab Easement Bet. Clarendon Crescent Ave and Sunny Hills Rd	54-16	85	27	4,281	0.8	\$ 445,081
C329137	SS Rehab Ostrander Rd and Broadway Terr., Easement by Margarido Dr and Acacia Ave, and in the area by Broadway and Golden Gate Ave	50-17	78	17	1,563	0.3	\$ 293,452

Project No	Description	SubBasin No	Lateral Connections	Structure	Length (feet)	Length (Miles)	Construction Cost
C329143*	REHAB SS bounded by Park Blvd, Hollywood Ave, Sunnyhills Rd, and Brighton Ave	54-16	40	23	12,648	2.4	\$ 2,576,053
C461810	SS Rehab 57th Ave	83-001	25	19	2,694	0.5	\$ 397,305
C455610	SS On-Call: 3934 Brown Ave, I-880 Lisbon	81-015, 62-02	7	16	762	0.1	\$ 386,555
Total			894	326	60,546	11.5	\$ 10,734,000

Additional Sewer Mains Rehabilitated

Paragraph 83.b. of the Consent Decree requires:

“...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., 5280 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.”

The City rehabilitated an additional 5,539 feet of Sewer Main under Paragraph 83.b. as shown in Tables 4-3 and 4-4.

Table 4-3
Length of Additional Sewer Mains Rehabilitated

Fiscal Year Requirement	Mains Rehabilitated	Cumulative Total	CD
FY 2014-15	5,539’ (1.0 miles)	5,539’ (1.0 miles)	5280’ (1 mile)

Table 4-4
Additional Sewer Mains Rehabilitated in FY 2014-15

Project No	Description	Completion Date	SubBasin No	Lateral Connections	Structure	Length (feet)	Length (Miles)	Construction Cost
227230	RHS-20th St, San Pablo Ave, Telegraph Ave, Alice St, and 12th St	6/30/2015	85-011	0	2	151	0.03	\$ 47,790
C329134	SS Rehab By Broadway, Golden Gate Ave and Contra Costa Rd	6/30/2015	17,50-14,54-07	14	3	856	0.16	\$ 117,979
C329138	SS Rehab Easement Bet. Shepherd Canyon Rd and Moore Dr and in Larry Lane Bet. Ascot Dr and Maslands Dr	6/18/2015	56-05, 56-07	37	23	2,524	0.48	\$ 516,406
C455610	SS On-Call: 3640 Grand Ave, Perkins, 52nd & Telegraph, Fire Station No. 5, 6449 Chabot, Mills College, , 1020 Galvin, Glen Manor & Tunnel Rd, 1037 89th Ave, I-880 23rd Ave, 5521 Golden Gate Ave, 8647 Thermal	6/30/2015	54-09, 50-16,83-304,85-305,50-1985-201,50-15,85-212	35	14	2,008	0.38	\$ 310,855
Total				86	42	5,539	1.0	\$ 993,030

Maintenance Holes

Paragraph 166.a.i.C. of the Consent Decree requires that the Annual Report contain:

“...the number of Maintenance Holes associated with Rehabilitated Sewer Mains and the number of Maintenance Holes Rehabilitated;”

As shown in Tables 4-2 and 4-4, as part of its Sewer Main Rehabilitation Program in FY 2014-15 the City encountered 573 Maintenance Holes and Repaired or Rehabilitated 368 of them. Remaining Maintenance Holes were inspected and did not require Rehabilitation.

Abandoned Sewer Laterals

Paragraph 166.a.i.D. of the Consent Decree requires that the Annual Report contain:

“...a statement that the City did not reconnect any abandoned Sewer Laterals that the City found to be connected to the Sewer Main;”

The City sealed off any abandoned sewer laterals which were encountered during construction. No abandoned laterals were reconnected to Sewer Mains. Abandoned or inactive house connection sewers shall be cut back two feet from the main and plugged with Class C mortar, at least six inches into the abandoned/inactive house connection sewer.

Sewer Main Rehabilitation Budget and Expenditures

Paragraph 166.a.i.F. of the Consent Decree requires that the Annual Report contain:

“...the Rehabilitation budget and dollars spent on Sewer Main Rehabilitation;”

During FY 2014-15, the City budgeted \$14,360,000 for capital improvements of the sewer collection system. Improvements include rehabilitating or replacing sewer mains, lower laterals, and associated sewer structures. This budgeted amount is intended to cover hard construction costs and soft costs associated with design and construction management. During the same period, total expenditures spent on sewer capital improvements was \$13,538,988. It must be noted that capital budget is not typically spent in one fiscal year as project activities and expenditures span over 2 to 3 years.

2015-16 Proposed Sewer Main Rehabilitation Projects

Paragraph 166.a.i.G of the Consent Decree requires that the Annual Report contain:

“...the Sewer Mains targeted to be Rehabilitated in the next Fiscal Year;”

In FY 2015-16, the City plans to complete 6 Sewer Main Rehabilitation projects as listed in Table 4-6 below. These projects will rehabilitate approximately 12.8 miles of sewer mains. All appurtenant sewer structures will also be rehabilitated as needed as part of these projects. The locations of these projects are selected from Appendix H of the Consent Decree and various locations for the 1 mile of sewer main rehabilitation required under Paragraph 83.b. The locations for the 1 mile will be developed in response to complaints and requests from the acute defect list. Appendix H lists Oakland's Collection System sub-basin priorities.

**Table 4-6
FY 2015-16 Proposed Sewer Main Rehabilitation Projects**

No.	Project No.	Description	Length (Miles)
1	C329151	The Rehabilitation of SS in the Area Bounded by E24th St, 19th Ave, Beaumont, Ave, and E33rd St (58-02)	5.65
2	C329145	Rehabilitation of Sanitary Sewer in the Area bounded by 21st Avenue, 17th Street, 24th Avenue, and 27th Avenue (60-06)	3.58
3	C329149	Rehabilitation of Sanitary Sewer in the Area Bounded by Mountain Boulevard, Bernves Ct, Terrabella Way, and Redwood Rd (83-502)	2.73
4	C228920	Rehabilitation of Sanitary Sewer in the Easement by 4300 Sequoyah Rd	0.41
5	C228930	Rehabilitation of Sanitary Sewers at Potter St and Renwick St between Fairfax Ave and Brookdale Ave	0.22
6	C228940	Rehabilitation of Sanitary Sewers at 904 Alvarado Rd	0.21

Revisions to Appendix H

Paragraph 166.a.i.H. of the Consent Decree requires that the Annual Report contain:

“...an explanation of any revisions that were made to Appendix H, or the financial plan associated with future Sewer Main Repair and Rehabilitation...”

In FY 2014-15, no revisions were made to Appendix H. A new financial plan was developed and included in the City’s AMIP as described in Section 2 of this report.

4.2 Sewer Main and Maintenance Hole Inspection

Paragraph 83.c. of the Consent Decree requires:

“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.).”

Paragraph 166.a.ii. of the Consent Decree requires the Annual Report to contain:

“Inspections: inspections and condition assessment completed...”

Sewer Main Condition Assessment

As shown in Table 4-7, 801,926 feet (151.9 miles) of sewer mains have been inspected and assessed using CCTV inspection. This exceeds the Consent Decree requirement to inspect 728,640 feet (138 miles) by June 30, 2015.

**Table 4-7
Length of Sewer Mains Inspected and Assessed**

Fiscal Year Requirement	Mains Assessed	Cumulative Total	CD
FY 2013-14	182,935' (34.7 miles)*	182,935' (34.7 miles)*	242,880' (46 miles)
FY 2014-15	618,991 (117.2 miles)**	801,926' (151.9 miles)***	728,640' (138 miles)

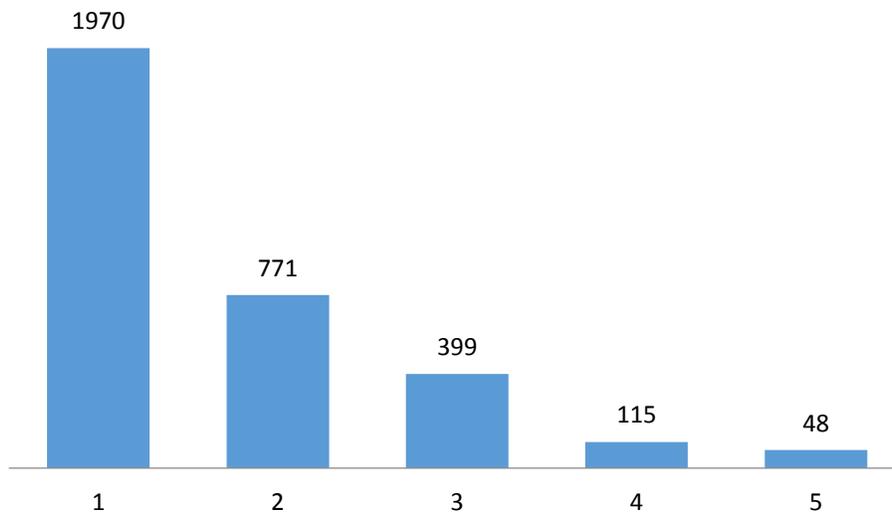
*Six months, January 1, 2014 – June 30, 2014

**Newly-unique feet

***Cumulatively-unique feet

Results of the inspections are summarized in Figure 4-1.

**Figure 4-1
Sewer Main Condition Grades (FY 2014-15)**



From a total of 3,330 pipe segments inspected, 1,970 segments were found to be in acceptable structural condition (Grade 1), 771 segments were found to be in minimal collapse risk condition (Grade 2), 399 segments were in collapse unlikely in near future condition (Grade 3), 115 segments were found to be in collapse likely in foreseeable future condition (Grade 4); and 48 segments were found to be in danger of imminent collapse (Grade 5).

Grade 5 defects are considered Acute Defects and are treated as described in Section 5-3.

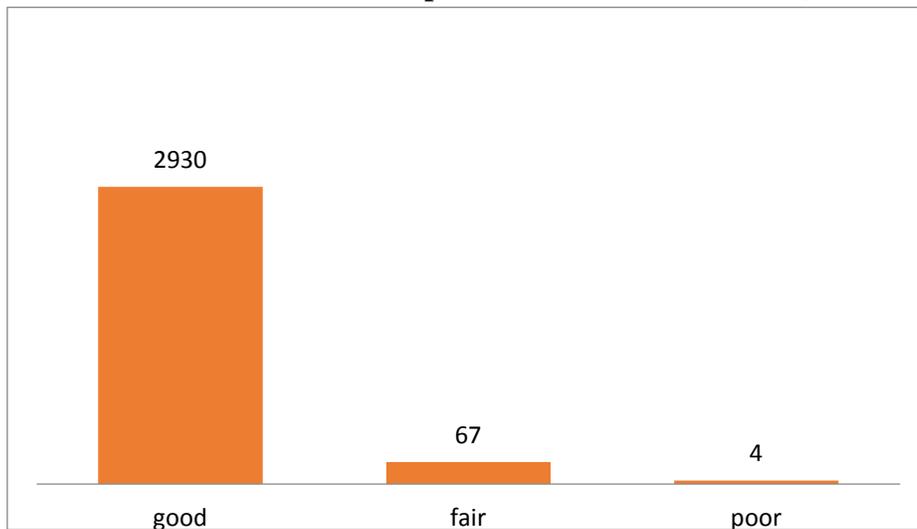
Maintenance Hole Inspection

Paragraph 83.c of the Consent Decree also requires:

“When the City inspects a Sewer Main, it shall also inspect all Maintenance Holes associated with that Sewer Main.”

Between July 1, 2014 and June 30, 2015, 3,001 maintenance-hole inspections were performed. Inspectors used a modified Manhole Assessment Certification Program (MACP) where field staff visually inspected the barrel of every maintenance hole and completed a computerized maintenance hole inspection form. Results of the inspections are summarized in Figure 4-2 below.

Figure 4-2
Maintenance Hole Inspection Results (FY 2014-15)



Of 3,001 Maintenance Hole inspections, 2,930 inspections found Maintenance Holes in good condition, 67 found Maintenance Holes in fair condition, and 4 found Maintenance Holes in poor condition. Table 4-8 contains a list of Maintenance Holes in poor condition.

**Table 4-8
Maintenance Holes in Poor Condition**

Inspection ID#	WO#	Inspection Type	Location	Condition	Depth
7229	676372	v2 Maintenance Hole Inspection	3039 WEBSTER STREET	Poor	10
7210	675991	v2 Maintenance Hole Inspection	2540 63RD AV	Poor	35
4932	626274	v2 Maintenance Hole Inspection	16TH ST AND POPLAR	Poor	6
4726	623264	v2 Maintenance Hole Inspection	102ND AV & PLYMOUTH ST	Poor	6

9 maintenance holes were found to be in poor condition in the last Annual Report (January 1, 2013 to June 30, 2014). 4 maintenance holes were found to be in poor condition this Fiscal Year. All are scheduled for repair in FY 2015-16.

4.3 Development of Regional Standards

Paragraph 166.1.iii. of the Consent Decree requires the Annual Report to contain:

“Regional Standards: a description of the activities to develop...Regional Standards.”

Paragraph 83.d. further requires:

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

The City bases its construction plans and specifications on The “Greenbook”: Standard Specifications for Public Works Construction, a statewide standard for the municipal construction industry. The Greenbook is updated every three years.

A Regional Standards committee (RSC) was formed in May 2015 by all Defendants for the review and development of Regional Standards regarding the work on sewer mains, manholes, and sewer laterals. In April 2015 a consultant (Humphrey Consulting) was contracted to assist the Defendants and the RSC in the development of standards. The City (District) has assigned a representative to the RSC and has actively participated in the first two meetings of the RSC, held in June and July 2015. The City will continue participation in the development of Standards through attendance at these RSC meetings, which will be held on generally a monthly basis until Regional Standards are completed. Completion of a report on recommended standards will be submitted to EPA by the June 30, 2016 deadline as required in the Consent Decree.

4.4 Sewer Lateral Inspection and Repair

Paragraph 166.b.i. of the Consent Decree requires the Annual Report to contain:

“Sewer Laterals: a description of the activities taken and materials used to notify property owners of defective sewer Laterals...”

Regional Private Sewer Lateral (PSL) Program

Paragraph 84.c of the Consent Decree requires:

“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.”

Oakland started its PSL program on January 16, 2012, in collaboration with the Regional PSL Program administered by the East Bay Municipal Utility District (EBMUD).

The City requires that persons seeking building permits which require certificates of occupancy for construction or remodeling exceeding \$100,000 test and, where necessary, replace defective private sewer laterals and obtain Compliance Certificates from EBMUD before being issued certificates of occupancy.

Table 4-3 below shows the City's compliance with the CD requirement to have “...permittees to submit Compliance Certificates before being issued certificates of occupancy for construction or remodeling permits in excess of \$100,000.” (Paragraph 84.c). Between January 16, 2012 and June 30, 2015, the City finalized 282 building permits for construction over \$100,000 as shown in Table 4-10 below.

Table 4-10
Permits Finalized, with EBMUD Certificates of Compliance

Fiscal Year	# Permits Final'ed	# with Compl Cert	# w/o Compl Cert
FY 2012-13	119	99	20
FY 2013-14	114	87	27
FY 2014-15	49	49	0

In FY 2014-15, the City finalized 49 building permits which required certificates of occupancy for construction or remodeling permits in excess of \$100,000, all of which had Compliance Certificates issued by EBMUD. This met the Consent Decree requirement to limit the number of building permits issued without Compliance Certificates to less than 25 per Fiscal Year. The City continues to share data with EBMUD and sends spreadsheets detailing Oakland’s activities.

Other Privately Owned Defective Sewer Laterals

Paragraph 85.a. of the Consent Decree requires:

“Within 90 days of identifying a Sewer Lateral as defective the City of Oakland shall notify the owner in writing.”

Paragraph 166.b.i. of the Consent Decree requires the Annual Report to contain:

- A. the number of sewer Laterals identified as defective;*
- B. the number of property owners notified that their Sewer Laterals are defective;*
- C. a copy of a representative notice that was sent to property owners notifying them that their Sewer Lateral is defective;*
- D. a description and the number of administrative enforcement actions taken against property owners for defective Sewer Laterals;”*

As shown in Table 4-11, during FY 2014-15 City crews identified an additional 48 defective Sewer Laterals. 41 property owners have corrected their defective Sewer Laterals. 7 property owners have not corrected the defect after notices were sent.

Table 4-11
Defective Sewer Laterals

# of Defective Sewer Laterals Identified in Fiscal Year 2014-15	# of Defective Sewer Laterals Repaired	# of Defective Sewer Laterals Not Repaired
11	8	3

Additional enforcement action is being taken against the 3 property owners who had not responded to the City’s letter directing them to take action to correct inflow problems in their private Sewer Laterals. Figure 4-3, shown on **Appendix C**, shows a sample notice to property owners.

Oakland Owned Sewer Laterals

Paragraph 166.b.i.E requires the Annual Report to contain:

“...the number of Oakland-owned Sewer Laterals inspected and Repaired or Rehabilitated and the cumulative number of Oakland-owned Sewer Laterals inspected and Repaired or rehabilitated from the Effective Date;”

On October of 2015, the City is planning to advertise bids to inspect and, where necessary, Repair or Rehabilitate defective City owned Sewer Laterals of 95 City facilities identified in Appendix H-1 of the Consent Decree. The City expects to complete inspection and repair of City owned Sewer Laterals well ahead of the September 21, 2024, completion date specified in the Consent Decree.

Defective Sewer Laterals Owned by Other Public Entities or Government Agencies

Paragraph 166.b.i.F. requires the Annual Report to contain:

“...the address and name of any property owned by a Public Entity, or the State or federal government, that has an identified defective Sewer Lateral, including a description of the defect;”

During FY 2014-15, the city did not identify any defective Sewer Laterals owned by other Public Entities or the State or federal government.

Sewer Lateral Education and Outreach Program

Paragraph 166.b.i.G. requires the Annual Report to contain:

“... a summary of the City’s assistance to EBMUD in the development of a Sewer Lateral education and outreach program:”

The City assisted EBMUD in the development of the Sewer Lateral education and outreach program. The City participated in a meeting with EBMUD in January 2015, when the development of the program and educational materials was reviewed and discussed. Additional review and comments occurred in February 2015, prior to EBMUD's submittal of the plan to EPA for review and comment in March 2015. The City will continue to work with EBMUD in implementation of the program.

Lower Sewer Laterals

Paragraph 166.b.i.G. requires the Annual Report to contain:

“Lower Sewer Laterals: the number of Sewer Laterals connected to the Rehabilitated Sewer Mains and the number of Lower Sewer Laterals Repaired or Rehabilitated.”

As shown in Table 4-2 and Table 4-3, as part of its Sewer Main Rehabilitation, the City reconnected all 980 encountered Sewer Lateral connections which included connections to laterals within easements. The City Repaired or Rehabilitated 557 Lower Sewer Laterals as part of the construction projects. Laterals within easements are within private properties and are not considered Lower Sewer Laterals.

4.5 Inflow and Rapid Infiltration Identification and Elimination

Paragraph 166.c.i. of the Consent Decree requires the Annual Report to contain:

“a description of the City’s cooperation with EBMUD’s implementation of the RTSP;...”

By a letter dated January 20, 2015, EBMUD provided a draft of its Regional Technical Support program (RTSP) plan to the East Bay Collection System Advisory Committee (EBCSAC) for review and comment. EBCSAC’s comments on the EBMUD draft RTSP were provided to EBMUD by letter dated February 19, 2015. EBMUD submitted the RTSP Plan to EPA, RWQCB, SWRCB, and DOJ on March 23, 2015. Based on comments from EPA received on May 19, 2015, EBMUD resubmitted a revised RTSP Plan on July 20, 2015. As of the date of preparing this report, the revised RTSP Plan has not been approved. EBCSAC agencies have also discussed RTSP issues with EBMUD at monthly meetings from January 2015 to the present time. The City will continue to work with EBMUD in implementation of the program.

Section 5. SSO Reduction Work

Paragraph 167 of the Consent Decree requires:

“The City shall summarize its Work to reduce SSOs in its service area in the reporting Fiscal Year.”

A summary of the City’s work is described below:

5.1 Capacity Assurance

Paragraph 167.a. of the Consent Decree requires that the Annual Report contain:

“Capacity Assurance: a description of the activities performed in order to monitor the locations in Paragraph 89(a) during rain events...”

During FY 2014-15, the City monitored water levels in Maintenance Holes listed in Paragraph 89(a) of the Consent Decree. Table 5-1 shows each location monitored, the highest water level recorded, and instances where the water level reached within one foot of the Maintenance Hole rim due to a lack of capacity.

**Table 5-1
Capacity Monitoring Results**

The City responded to water level alarms triggered when the water level reached within three (3) feet of the Maintenance Hole rim and took all steps necessary to prevent an SSO, as described in the SSO Response Plan in the City’s AMIP. In FY 2014-15 the City experienced a total of five locations that reached within one foot of the Maintenance Hole rim. Three locations were suspected to be capacity related and two locations were suspected of existing sags. The City is currently providing design work to increase pipe diameters and correct sags. One (1) foot water alarms were triggered at locations listed in Paragraph 89.a. on the dates shown in Table 5-1.

**Table 5-2
Capacity Related Alarms Triggered in FY 2014-15**

No.	Location	Event First Occurrence Time	Event	Reasons for High Level Alarm	Comment
i.	San Pablo Avenue at 60th Street	11 Dec 2014 08:23	High Level Alarm	Capacity	Planned for 2016 Construction
ii.	San Pablo Avenue at 62nd Street	NO HIGH LEVEL ALARM			N/A
iii.	Stanford Avenue at Gaskill Street	NO HIGH LEVEL ALARM			N/A
iv.	27th Avenue at Vernon Street	11 Dec 2014 08:13	High Level Alarm	Capacity	Planned for 2016 Construction
v.	Harrison Street at 27th Avenue	11 Dec 2014 08:16	High Level Alarm	Grease	N/A
vi.	Grand Avenue at Harrison Street	11 Dec 2014 08:16	High Level Alarm	Sag	Planned for 2016 Construction
vii.	19th Street at Jackson Street	NO HIGH LEVEL ALARM			N/A
viii.	Park Blvd at Spruce Street	11 Dec 2014 08:10	High Level Alarm	Capacity	Planned for 2016 Construction
ix.	East 18th Avenue at 4th Avenue	11 Dec 2014 08:19	High Level Alarm	Capacity	Planned for 2016 Construction
x.	Maybelle Avenue at Masterson Street	12 Dec 2014 00:15	High Level Alarm	Sag	Planned for 2016 Construction
xi.	76th Avenue at Garfield Avenue	NO HIGH LEVEL ALARM			N/A
xii.	Trestle Glen road at Creed Road	11 Dec 2014 08:33	High Level Alarm	Debris	N/A

The Consent Decree requires the City to increase sewer capacity in certain locations when sewer flows reach within one foot of the Maintenance Hole rim. The City has created a new capital improvement project (C329154 Citywide Sanitary Sewer Capacity Upgrades) to address the six locations where this occurred. Design work has begun. Capacity upgrade projects are scheduled to be completed within twenty four (24) months of the time an alarm was first triggered.

5.2 Post SSO Inspection

Paragraph 167.b. of the Consent Decree requires that the Annual Report contain:

“Inspections: a statement that Oakland completed CCTV inspections downstream of each SSO location.”

During FY 2014-15, the City completed CCTV inspections downstream of each SSO.

5.3 Acute Defects

Paragraph 167.c. of the Consent Decree requires that the Annual Report contain:

“Acute Defects: a description of the activities to Repair Acute Defects...”

Paragraph 91 further provides:

“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.”

In FY 2014-15, the City merged its list of Grade 5 defects identified by condition assessment of Sewer Mains with other Sewer Main defects identified by staff which could result in imminent risk of an SSO. This resulted in a new list of Acute Defects shown in Table 5-3a and Table 5-3b of **Appendix D**. Table 5-3a shows location of Acute Defect locations identified after the Consent Decree (July 1, 2014). For information only, Table 5-3b shows locations of Acute Defect locations identified prior to the Consent Decree.

As shown in Table 5-3a, the following is a list of activities related to acute defects.

- 35 New Acute Defects were found.
- 8 Acute Defects were repaired.
- Remaining 27 acute defects will be repaired within one Year of Identification.

Minor repairs are shown in page 19.

Most of the Acute Defects that took more than one year to correct occurred before the City revised its processes. In the past, maintenance personnel would work on the defect as long as they could. Once they realized the defect was beyond their capabilities, they would refer the problem to Engineering to be repaired by contract. This referral frequently happened too late to meet the twelve month goal. Maintenance personnel are now required to make an initial determination within 120 days as to whether they can repair the defect.

Between July 1, 2014 and January 31, 2015, the median time to correct an Acute Defect was 348 days; between February 1, 2015 and June 30, 2015, the median time had decreased to 322. It should be noted that delays in repairing Acute Defects did not result in any Sanitary Sewer

Overflows. All Acute Defects identified prior to the Consent Decree shown on Table 5-3b have been repaired.

Minor Repairs Completed

In addition to the Sewer Main Rehabilitation described above, between July 1, 2014 and June 30, 2015, the City's Sewer Maintenance Section responded to 116 spot repair work orders. These spot repairs consisted of excavating damaged sewer lines and installing new segments of sewer line or repairing structures. The list of repair locations is shown in Table 4-5 of **Appendix B**.

As of June 30, 2015, maintenance crews have 37 minor repairs to be completed within this fiscal year.

5.4 Sewer Main Cleaning

Paragraph 167.d. of the Consent Decree requires that the Annual Report contain:

“Sewer Main Line Cleaning: a description of activities conducted under its sewer cleaning program...”

Paragraph 92.a. further provides:

“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 shall 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.).”

As shown in Table 5-4a, 2,864,495 unique feet (543 miles) of Sewer Main have been cleaned. This exceeds the Consent Decree requirement of 2,640,000 feet (500 miles).

**Table 5-4a
Feet of Sewer Main Cleaned (Unique Feet)**

Fiscal Year	Mains Cleaned*	Cumulative Total**	CD Requirement
FY 2013-14	544,051' (103 miles)	2,085,969' (395 miles)	1,900,800' (360 miles)
FY 2014-15	778,526' (147 miles)	2,864,495' (543 miles)	2,640,000' (500 miles)
Since Effective Date (September 22, 2014)	548,272' (104 miles)	2,864,495' (543 miles)	n/a

*Newly-unique feet cleaned during the FY (feet that had no previous cleaning between January 1, 2010 and the start of the FY)

**Cumulatively-unique feet starting January 1, 2010

Reference: Paragraph 92.a., Paragraph 167.d.i.

**Table 5-4b
Feet of Sewer Main Cleaned More Than Once**

Per Paragraph 167.d.ii., in this Table 5-4b, the length of a Sewer Main is counted once regardless of the number of times it is cleaned.

Fiscal Year	Mains Cleaned	Cumulative Total*	CD Requirement
FY 2014-15	379,663' (72 miles)	1,508,005' (286 miles)	n/a

*Starting January 1, 2010

**Table 5-4c
Feet of Sewer Main Cleaned, Including Repeat Cleanings**

Per Paragraph 167.d.iii., in this Table 5-4c, the length of a Sewer Main is multiplied by the number of times it is cleaned.

Fiscal Year	Mains Cleaned	Cumulative Total*	CD Requirement
FY 2014-15	2,017,932' (382 miles)	6,486,856' (1,229 miles)	n/a

*Starting January 1, 2010

A summary of the cleaning by Sub-Basin is shown in Figure 5-1 of **Appendix E**.

5.5 Root Cleaning (Foaming)

Paragraph 167.e. of the Consent Decree requires that the Annual Report contain:

“Root Cleaning: a description of the activities conducted under Oakland’s root control program, including the feet of Sewer Main treated for root control cumulatively and in each Fiscal Year beginning July 1, 2013.”

Paragraph 92.e. further provides:

“For the first three Fiscal Years, the City of Oakland shall treat a minimum 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.)”

The City has used various root-foaming contractors to treat sewer pipes for root control. The root-foaming program uses an herbicide which penetrates root cell walls and causes them to decay and die. This treatment kills roots that can cause stoppages and pipe destruction in City Sewer Mains.

Figure 5-1 contains a location map showing subbasins root-foamed in 2012, 2013-14, and 2014-15. All pipes in the subbasins were root foamed. Also shown in the map are subbasins planned for FY 2015-16 in which targeted pipes were selected in each of the subbasins. The selection criteria for root foaming are in the following:

1. All pipes that have root intrusion as indicated in CCTV inspections.
2. All pipes along easements.
3. All pipes in the subbasin if a significant number of pipes were affected by root intrusion as indicated in CCTV inspections.
4. Pipes will not be selected for root foaming if the pipe will be rehabilitated within five years or the pipe resides in the hot spot list.

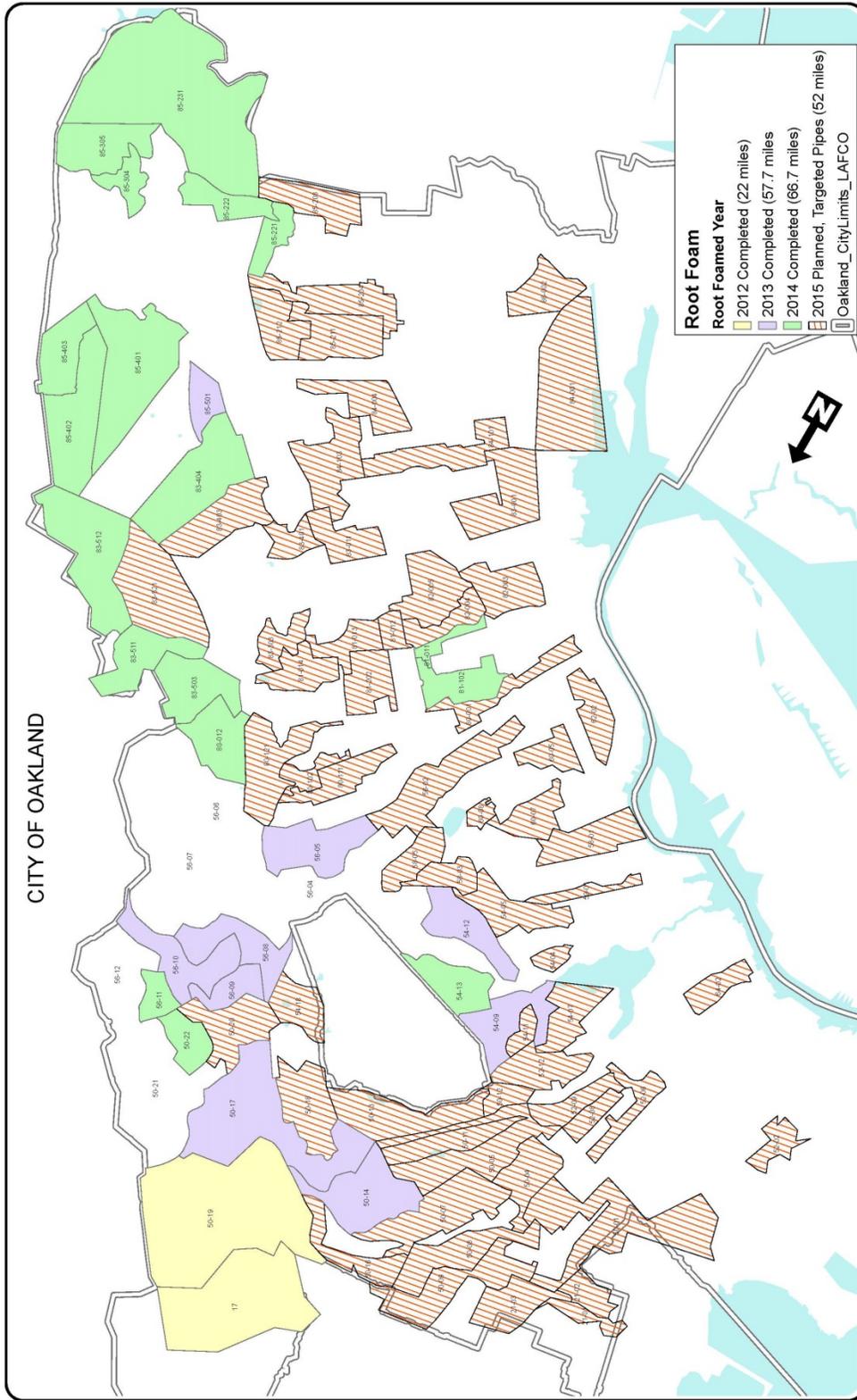
Results of the City’s Root Control are as follows:

Table 5-5.
Root Control Program Implementation

Fiscal Year Requirement	Mains Assessed	Cumulative Total	CD
FY 2013-14	304,811’ (57.7 miles)	304,811’ (57.7 miles)	264,000’ (50 miles)
FY 2014-15	352,176’ (66.7 miles)	656,987’ (124.4 miles)	528,000’ (100 miles)

As of June 30, 2015, the City had root foamed 656,987’ (124.4 miles) of Sewer Mains, which exceeds the Consent Decree requirement of 528,000’ feet (100 miles).

Figure 5-1 Root Foaming Areas



Paragraph 92.e. further provides:

“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.”

On June 2, 2015 the City hired V&A Consulting Engineers to evaluate the City’s Root Foaming Program and recommend refinements to the program. The City is on schedule to meet the December 31, 2016 deadline.

5.6 Hot Spot Cleaning

Paragraph 167.f. of the Consent Decree requires that the Annual Report contain:

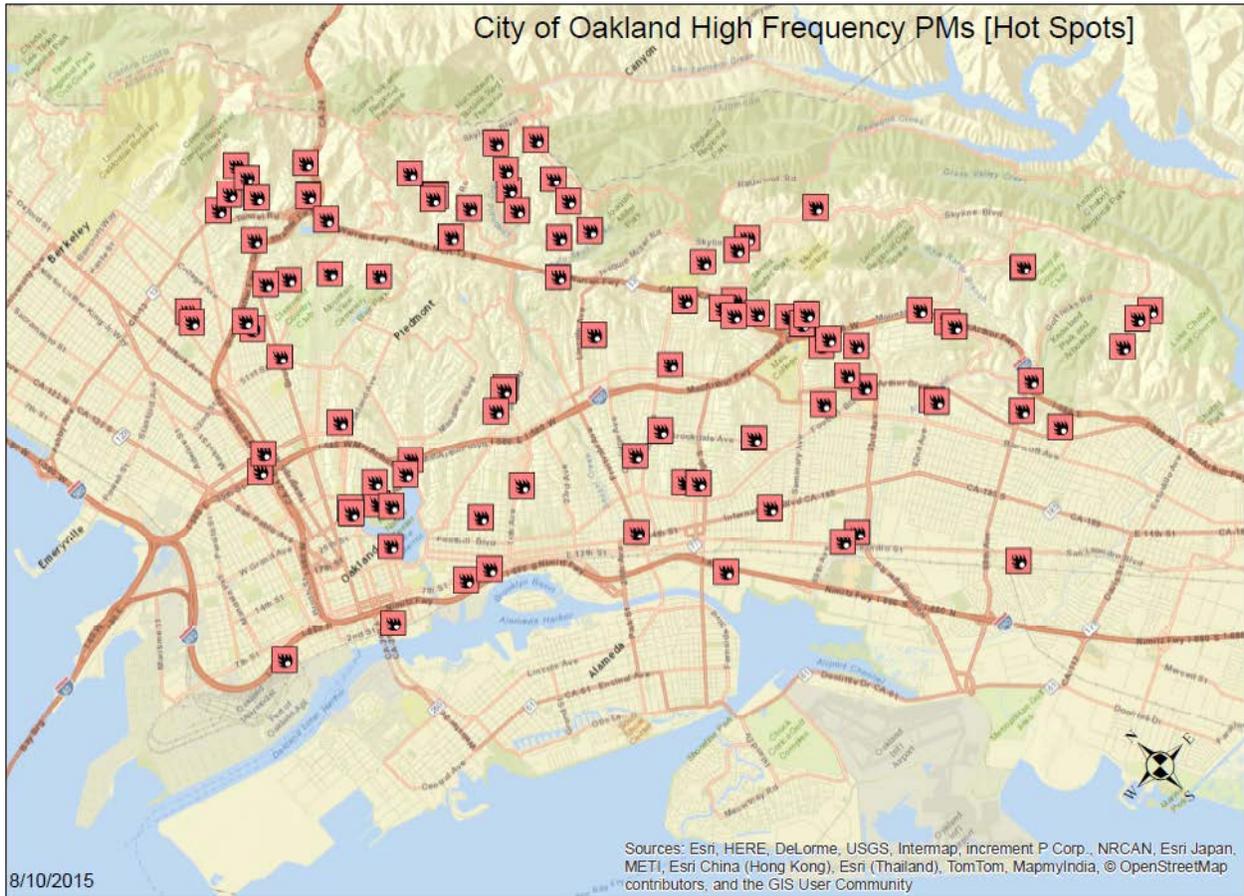
“Hot Spot Cleaning: description of activities conducted under its hot spot program, including feet of Sewer Main in the hot spot cleaning program and the range of cleaning frequencies for Sewer Main in the hot spot cleaning program;”

The Consent Decree changed both the definition of “Hot Spot” and the cleaning requirements. In anticipation of the CD, staff reviewed City records and created a new High Frequency Preventive Maintenance List (Hot Spots) containing both locations having more than one SSO in a three year period (Hot Spots) and other locations identified by staff. The list now contains 99 locations. Each of these locations was cleaned at least once in FY 2014-15. Table 5-5 of Appendix F contains the new High Priority PM List (as of June 30, 2015). Figure 5-2 contains a map of these locations.

The City reviewed its data for risk factors such as pipe age, size, slope and materials of construction, and found no correlation between SSOs and those factors.

The hot spot cleaning program contains 86,187 feet (16.32 miles) of Sewer Mains which are cleaned every three (3) to twelve (12) months as shown. Between July 1, 2014 and June 30, 2015, the City’s sewer crews cleaned 116,107 feet (22 miles) of Sewer Mains as part of the hot spot sewer cleaning program.

Figure 5-2
High Frequency PM Locations



5.7 Fats, Oil and Grease (FOG) Control

Paragraph 167.g. of the Consent Decree requires that the Annual Report contain:

“FOG: a description of activities to control FOG in the Collection System; a list of any SSOs that were thought to be associated with FOG or excessive buildup of grease, a list of FOG locations referred to EBMUD for investigation, and any actions that were taken against food service establishments related to inadequate FOG controls.”

The City’s FOG Control Program is described in Section 3.3 of its AMIP. The City identifies and reports FOG problems to EBMUD. EBMUD investigates and inspects FOG sources and works with food service establishments (FSEs) to correct FOG problems. Non-compliant FSEs are referred to the City for enforcement action.

In FY 2014-15, 40 SSOs were thought to be associated with FOG as listed in Table 2-1. These locations were referred to EBMUD for investigation as shown in Table 5-6.

EBMUD has not referred any FSEs to the City for enforcement action.

Table 5-6

FOG-Related SSOs Reported to EBMUD With CIWQS #s.			
Address	Street	Date Reported to EBMUD	CIWQWS #
10543	STELLA ST	7/25/2014	807766
1414	86TH AV	7/25/2014	807991
2852	68th Ave	9/23/2014	808641
40	LARRY LN	9/23/2014	808452
1225	FALLON ST	9/23/2014	809333
	81st Ave & Birch St	9/26/2014	809435
	College Ave & Taft Ave	10/3/2014	809679
	82ND AV & IRIS ST	10/10/2014	809806
1731	Gouldin Rd	10/10/2014	809807
	69th Ave & Snell St	11/20/2014	810394
1818	90th Ave	11/20/2014	810561
1020	87th Av	12/8/2014	811268
3625	Fruitvale Ave	11/25/2014	810880
5400	College Ave	12/3/2014	811173
1108	60th Ave	12/3/2014	811782
485	105th Ave	12/3/2014	814765
550	West Macarthur Blvd	12/11/2014	811301
950	77th Ave	12/30/2014	811659
4326	Virginia Ave	12/30/2014	811441

Address	Street	Date Reported to EBMUD	CIWQWS #
6040	Bancroft Ave	12/30/2014	811480
279	Lee St.	12/30/2014	811656
	5TH ST & UNION ST	1/5/2015	812129
581	Valle Vista Ave	1/1/2015	812046
3816	Whittle Ave	1/5/2015	812055
2929	Holyrood Dr	1/13/2015	812115
11212	Monan St	1/15/2015	812268
2058	Rosedale Ave	2/10/2015	812884
	G St. & 85th Ave	2/10/2015	812920
5560	Fremont St.	2/10/2015	812903
1200	Westview Dr	2/19/2015	813932
1520	Lakeside Dr	2/19/2015	813217
4900	Shattuck Av	2/19/2015	813208
8432	International Blvd	3/10/2015	813615
6430	Girving Dr	4/20/2015	813674
3933	Woodruff Av	4/20/2015	663243
3712	Loma Vista Av	4/20/2015	814362
3271	Kempton Av	6/26/2015	815335
6020	Aspinwall Rd	6/26/2015	815146
	Grand Av & Santa Clara Av	6/26/2015	814795
6319	Pinehaven Rd	6/26/2015	815999

5.8 Pump Station Renovation

Paragraph 167.g of the Consent Decree requires that the Annual Report contain:

“Pump Stations: a description of pump station renovation and upgrades required by the Pump Station Reliability Plan during the previous Fiscal Year and a description of projects to be completed in the following Fiscal Year.”

Paragraph 94 further requires:

“The City shall complete improvements described in the Plan by October 15, 2022.”

The city's collection system has eight (7) small pump/lift stations:

- ❖ Denton Place
- ❖ Fallon Street
- ❖ Hegenberger Road
- ❖ Parkridge Drive
- ❖ Tidewater Avenue
- ❖ Shepherd Canyon Road
- ❖ Skyline Blvd

Work on the Tidewater Pump Station was completed in 2012.

On February 27, 2014 consulting firm, Schaaf & Wheeler, began to design and prepare construction plans and specifications for improvements to the remaining pump stations. Final design plans of all pump/lift stations will be completed in November 2015. Construction at locations Fallon Street, Hegenberger Road, and Shepherd Canyon Road are scheduled to begin in summer 2016. Construction at locations Denton Place, Parkridge Drive, and Skyline Blvd are scheduled to begin in summer 2017.

The City is significantly ahead of schedule with its Pump Station Improvement Program, with completion planned for 2018, four years ahead of schedule.

Section 6. Deliverables

The only Deliverable required during FY 2014-15 was submittal of an Annual Report for January 1, 2013 – June 30, 2014 (18 months) by September 30, 2014. The Deliverable was submitted ahead of schedule.

Section 7. Known Non-Compliance with Consent Decree

The City is fully compliant with the programmatic requirements of the Consent Decree and has fully embraced both the letter and spirit of the Consent Decree.

In FY 2014-2015 the City added seven new sewer service positions and eight pieces of equipment in the reporting period. The City provided additional funding for standby contracts for CCTV and sewer cleaning. The City reorganized the Sewer Services Maintenance Division under a new Operations Manager to provide optimal oversight of all sewer-related maintenance activities. The production rate of cleaning increased by 43% and CCTV inspection increased 69%. The City is well ahead of schedule in sewer rehabilitation, sewer cleaning, root control, CCTV inspection, and pump station rehabilitation. The City has increased its sewer service budget, staffing, and equipment for FY 2015-16 and intends to continue to meet its obligations under the Consent Decree.

Section 8. Assessment of Stipulated Penalties

Paragraph 172 of the Consent Decree provides:

"If the Annual Report documents that any of the obligations subject to stipulated penalties may not have been complied with, and a Defendant takes the position that potentially applicable stipulated penalties should not be assessed, that Defendant may include in the Annual Report an explanation as to why Plaintiffs should forego collecting such penalties; ... "

The City believes that it is fully compliant with the Consent Decree and that no penalties should be assessed for the City's Collection System. The City has used all reasonable methods to prevent Sanitary Sewer Overflows and is unaware of any areas of non-compliance with the programmatic requirements of the Consent Decree.

If Plaintiffs disagree with this position, the City requests the opportunity to provide additional supporting documentation and explanations beyond the information provided in this annual report for consideration.

Section 9. Recommended Changes to Required Work

Paragraph 165 of the Consent Decree requires the City to summarize implementation of its AMIP. Since the AMIP has now been revised to comply with the Consent Decree, reporting under paragraph 165 is redundant and should be eliminated. . I

The City has no recommendations for changes to this Consent Decree at this time.

Appendix Summary

Appendix	Table Name	Table Number
A	List of Sanitary Sewer Overflows (SSOs) in FY 2014-15	Table 2-1
B	Collection System Spot Repair Work (July 1, 2014 – June 30, 2015)	Table 4-5
C	Notice to Abate Sample Letter	Table 4-3
D	Acute Defect Lists	Table 5-3a & Table 5-3b
E	Cleaning by Sub-Basin	Figure 5-1
F	High Frequency PM Locations	Table 5-5
G	Port of Oakland Sewer Collection System Annual Report for July 1, 2014 – June 30, 2015.	-

Appendix A

Table 2-1
List of Sanitary Sewer Overflows (SSOs) in FY 2014-15

**Table 2-1
List of Sanitary Sewer Overflows (SSOs) in FY 2014-15**

SPILL_LOC_NAME	START_DT	EST_END_DT	SPILL_VOL	SPILL_VOL_REC_OVER	SPILL_VOL_REACH_SURF	FINAL_SPILL_DEST	FINAL_SPILL_DEST_EXPL
# 1 Westview Pl. Oakland Ca	2015.02.26 18.00.00	2015.02.26 20.15.00	135	135	0	Other (specify below)	Street/Curb & Gutter
1020 87th Ave Oakland,CA, 94621	2014.11.12 17.00.00	2014.11.12 19.00.00	2244	2244	0	Building or Structure	2244 gallons overflowed from an 8 vcp sewer line into a basement. Staff recovered all 2244gallons.
1029 55th St	2015.01.01 15.30.00	2015.01.01 17.00.00	90	70	0	Building or Structure; Unpaved surface	8 sanitary main sewer plugged due to debris in the main and overflowed in and outside of the building structure.
1050 Portal Ave Oakland Ca,	2015.02.15 09.30.00	2015.02.15 12.00.00	150	150	0	Street/Cur b and Gutter	Sanitary main sewer plugged due to roots and overflowed out of the manhole in the street. Staff contained the overflow . Staff rodded the main sewer to unplug stoppage and return the flow. Staff cleaned all affected areas of the overflow and returned all portions of spill back to the sanitary main sewer.
10520 Sheldon street Oakland California, 94621	2014.10.24 17.30.00	2014.10.24 19.45.00	270	0	0	Unpaved surface	8 VCP sanitary sewer main overflowed due to tree roots obstructing the sewer main. 270 gallons spilled on to the gorund at this location.

SPILL_LOC_NAME	START_DT	EST_END_DT	SPILL_VOL	SPILL_VOL_REC OVER	SPILL_VOL_REACH_SURF	FINAL_SPILL_DEST	FINAL_SPILL_DEST_EX PL
10536 Stella St Oakland CA, 94605	2014.07.17 08.30.00	2014.07.17 10.30.00	600	600	0	Street/Curb and Gutter	600 gallons overflowed from an 8 vcp sewer line into the curb and gutter area. Staff recovered all 600 gallons.
1108 60th avenue Oakland Ca,94621	2014.12.29 14.30.00	2014.12.29 19.30.00	720	720	0	Street/Curb and Gutter	720 gallons overflowed from an 8 VCP sanitary sewer main on to the curb and gutter at this location. The cause of this overflow was debris obstructing the line. 720 gallons was recovered and returned back to the collection system.
11212 Monan St Oakland,CA 94605	2015.01.13 09.05.00	2015.01.13 11.05.00	120	120	0	Street/Curb and Gutter	120 gallons overflowed from 8 vcp sewer line into the curb and gutter area. Staff reovered all 120 gallons.
1200 Westview Dr. Oakland Ca,94721	2015.02.19 11.15.00	2015.02.19 13.30.00	540	0	0	Building or Structure	540 gallons spilled from a 8 VCP sanitary sewer main into the property at this location. Grease was the cause of this blockage.
1221 Stanford Oakland Ca.	2015.02.04 11.00.00	2015.02.04 15.00.00	240	240	0	Building or Structure	null
1225 Fallon St Oakland, CA 94612	2014.08.25 11.00.00	2014.08.25 13.45.00	200	200	0	Street/Curb and Gutter;Unpaved surface	200 gallons overflowed from a 10 cip sewer line into the curb and gutter area. Staff contained all 200 gallons of the spill and returned it to the collection system.

SPILL_LOC_NAME	START_DT	EST_END_DT	SPILL_VOL	SPILL_VOL_REC_OVER	SPILL_VOL_REACH_SURF	FINAL_SPILL_DEST	FINAL_SPILL_DEST_EXPL
1370 Grand View Dr Oakland,CA, 94618	2014.11.30 10.00.00	2014.11.30 13.00.00	900	0	0	Unpaved surface	900 gallons overflowed from an 8 vcp sewer line on an easement into the ground.
1414 86th ave Oakland ca	2014.07.20 10.30.00	2014.07.20 12.00.00	60	60	0	Other (specify below)	Staff used Hydro Flusher to vacuum spilled sewage and returned to sanitary system.
165 Marlow Dr Oakland Ca	2014.10.24 11.00.00	2014.10.24 13.30.00	150	125	0	Street/Curb and Gutter	Staff contained spill and used Hydro Flusher to vacuum sewage and returned to sanitary system.
165 Roble Rd Oakland Ca.	2015.03.20 15.35.00	2015.03.20 17.35.00	240	0	0	Other (specify below)	8" main sewer discharged out onto the street and soaked into the dirt.
1701 Mountain Blvd.	2014.11.09 11.30.00	2014.11.09 13.30.00	1200	1000	1200	Surface Water	Sewer main overflow at 1701 Mountain Blvd. due to debris, roots and rags obstructing the main. 1200 gallons spilled into nearby storm drain, 1000 gallons captured from drainage channel and 200 gallons reached surface water body.
1707 Gouldin Rd Oakland ca	2014.11.01 10.30.00	2014.11.01 12.30.00	600	0	0	Building or Structure	Building structure.
1731 Gouldin Rd Oakland, CA 94611	2014.10.07 18.00.00	2014.10.07 19.30.00	450	0	0	Unpaved surface	450 gallons spilled from an 8 vcp main sewer into a dry creek bed and soaked into the ground.

SPILL_LOC_NAME	START_DT	EST_END_DT	SPILL_VOL	SPILL_VOL_REC_OVER	SPILL_VOL_REACH_SURF	FINAL_SPILL_DEST	FINAL_SPILL_DEST_EXPL
1768 Manzanita Dr Oakland Ca	2014.10.23 07.30.00	2014.10.23 10.00.00	100	100	0	Other (specify below)	Staff contained spill at gutter with sand bags, then used Hydro Flusher to vacuum sewage and return to sanitary system.
1818 90th Ave Oakland, CA, 94603	2014.11.05 18.00.00	2014.11.05 20.30.00	750	750	0	Unpaved surface	750 gallons overflowed from a 10 vcp sewer line into the front yard.
1901 Tunnel Rd	2014.09.27 16.30.00	2014.09.27 18.30.00	120	120	0	Other (specify below)	Main sewer discharged from a man hole and pooled in the rear of 1901 Tunnel Rd.
1901 Tunnel Rd Oakland,CA 94611	2014.11.11 07.00.00	2014.11.11 10.00.00	900	500	0	Street/Curb and Gutter	900 gallons overflowed from an 8 vcp sewer line in the rear yard into the curb and gutter area. Staff recovered 500 gallons and returned it to the collection system. 400 gallons soaked into the ground.
1943 Seminary Ave Oakland, CA, 94621	2015.02.08 10.00.00	2015.02.08 14.00.00	720	0	720	Separate Storm Drain	720 gallons spilled from a 16 vcp sanitary sewer main. All 720 gallons went into the storm line and down to SF Bay.
20 Evirel Pl Oakland ca	2014.08.31 16.30.00	2014.08.31 18.40.00	130	130	0	Other (specify below)	Staff contained spill and used Hydro Flusher to vacuum sewage and returned to sanitary system.

SPILL_LOC_NAME	START_DT	EST_END_DT	SPILL_VOL	SPILL_VOL_REC OVER	SPILL_VOL_REACH_SURF	FINAL_SPILL_DEST	FINAL_SPILL_DEST_EX PL
200 Caldecott Ln. Oakland Ca	2014.08.04 08.00.00	2014.08.04 11.00.00	360	360	0	Other (specify below)	Staff contained sewage by using matts & sand bags, then using Hydro Flusher to vacuum spilled sewage and return to sanitary system.
2037 Pleasant Valley Ave Oakland, CA, 94609	2014.08.26 08.30.00	2014.08.26 10.30.00	240	0	0	Other (specify below)	240 gallons overflowed from an 8 vcp sewer line into the ground in the rear yard. 0 gallons were recovered.
2058 Rosedale Oakland Ca.	2015.01.30 21.00.00	2015.01.31 03.00.00	360	360	0	Building or Structure	null
2134 Melvin Rd Oakland Ca 94801	2014.12.29 13.30.00	2014.12.29 16.30.00	1000	0	1000	Other (specify below)	8" Main sewer broke down and discharged out into a storm line.
2205 40th Ave Oakland CA, 94601	2014.08.15 08.00.00	2014.08.15 10.00.00	240	240	0	Building or Structure	240 gallons overflowed from an 8 vcp sewer line into the basement of the residence. Staff recovered all 240 gallons.
244 Lakeside Dr. Oakland California	2014.12.11 10.00.00	2014.12.11 11.30.00	450	0	450	Surface Water	The storm drain were the sewage entered at lead to Lake Merritt.
2477 Monterey Blvd Oakland Ca	2014.07.04 13.15.00	2014.07.04 16.00.00	120	120	0	Other (specify below)	Staff contained sewage spill with sandbags and used Hydro Flusher to vacuum sewage and returned to Sanitary System.

SPILL_LOC_NAME	START_DT	EST_END_DT	SPILL_VOL	SPILL_VOL_REC_OVER	SPILL_VOL_REACH_SURF	FINAL_SPILL_DEST	FINAL_SPILL_DEST_EXPL
279 Lee St Oakland Ca, 94610	2014.12.22 09.30.00	2014.12.22 11.30.00	120	120	0	Separate Storm Drain	8 VCP sanitary main sewer plugged due to grease intrusion and overflowed out of the lanphole in the street. Staff contained the overflow. Staff flushed the main sewer unplug the stoppage and retuen the flow. Staff cleaned all affected area and returned all porsions of the overflow back to the sanitary sewer collection system.
2820 London Rd Oakland,CA, 94602	2015.02.18 14.17.00	2015.02.18 17.30.00	905	0	0	Unpaved surface	905 gallons overflowed from an 8 vcp sewer line into the ground on an easement.
2852 68th avenue Oakland Ca,94621	2014.08.10 11.30.00	2014.08.10 17.00.00	8250	8250	0	Street/Cur b and Gutter	8250 gallons overflowed from a 8 VCP sanitary sewer main. Grease was the cause of the overflow. 8250 gallons spilled on to the street curb and gutter at this location
2929 Hollyrood	2014.12.30 13.15.00	2015.01.06 13.10.00	2016 0	0	20160	Other (specify below)	8" Main Sewer Discharged out into Scott Creek
2950 LakeShore Ave Oakland Ca	2015.06.27 06.45.00	2015.06.27 09.45.00	900	0	900	Other (specify below)	8" Main Sewer discharged out from a clean out into a storm inlet and discharged into Lake Merritt.
3001 Broamoor View dr Oakland Ca	2014.10.23 22.30.00	2014.10.24 01.00.00	75	0	0	Other (specify below)	75 gallons soaked into dirt area on side of hill.

SPILL_LOC_NAME	START_DT	EST_END_DT	SPILL_VOL	SPILL_VOL_REC_OVER	SPILL_VOL_REACH_SURF	FINAL_SPILL_DEST	FINAL_SPILL_DEST_EX_PL
319 Marlow Dr	2015.02.21 08.00.00	2015.02.21 13.00.00	200	0	0	Other (specify below);Un paved surface	Sanitary main sewer plugged and overflowed onto the ground in the rear of the property.
3271 Kempton Oakland Ca	2015.05.14 21.00.00	2015.05.14 23.00.00	240	240	0	Other (specify below)	8" Main sewer discharged from the house bathroom out the back door and onto the ground.
3290 Revere Ave	2015.05.23 10.40.00	2015.05.23 14.42.00	242	242	0	Building or Structure	8 sanitary main sewer plugged due to root intrusion and overflowed into the building structure. Staff rodded the main sewer to unplug stoppage and return the flow. Sewage was collected and returned to the collection system by the contractor.
3500 Mountain Blvd	2015.02.19 19.20.00	2015.02.19 22.50.00	840	840	0	Other (specify below)	8" Main Sewer discharged out from a man hole and out onto the ground and contained in a parking lot.
3624 Loma Vista st. Oakland Ca,94621	2014.07.07 20.00.00	2014.07.07 22.00.00	120	120	0	Other (specify below)	120 gallons spilled on to the dirt at this location. Water soaked in to the dirt at this location. The remaining debris were cleaned and properly disposed off.

SPILL_LOC_NAME	START_DT	EST_END_DT	SPILL_VOL	SPILL_VOL_REC OVER	SPILL_VOL_REACH_SURF	FINAL_SPILL_DEST	FINAL_SPILL_DEST_EX PL
3625 Fruitvale Ave Oakland,CA, 94602	2014.11.22 09.30.00	2014.11.22 11.30.00	120	120	0	Unpaved surface	120 gallons overflowed from a cleanout onto an unpaved surface. Staff recovered all 120 gallons of wastewater and returned it to the collection system.
3712 Loma Vista Ave	2015.04.02 08.00.00	2015.04.02 11.00.00	360	360	0	Building or Structure	Sanitary main sewer plugged and overflowed into the building. Staff rodded the main sewer to unplug stoppage and return the flow. Overflow was contained and put back into the sanitary sewer collection system,
37th St and West MacArthur Blvd	2014.12.08 12.10.00	2014.12.08 13.50.00	2500	2500	0	Other (specify below); Street/Curb and Gutter	8 sanitary main sewer plugged due to grease and overflowed out of the manhole in the middle of the street into the curb and gutter and storm inlet.
3816 Whittle ave Oakland ca	2015.01.01 11.00.00	2015.01.01 13.00.00	120	120	0	Other (specify below)	Staff contained sewage in gutter and used Hydro Flusher to vacuum sewage. Also cleaned and disinfected area in driveway.
3824 Park BL	2014.11.07 17.30.00	2014.11.07 18.45.00	75	75	0	Building or Structure	8" Main Sewer Plugged up and Backed up into the Basement at 3824 Park. The Owner pumped the gray water back into the sewer system and cleaned the Basement. staff will return to check.

SPILL_LOC_NAME	START_DT	EST_END_DT	SPILL_VOL	SPILL_VOL_REC OVER	SPILL_VOL_REACH_SURF	FINAL_SPILL_DEST	FINAL_SPILL_DEST_EX PL
3920 Wilda Ave Oakland, CA, 94611	2014.11.22 10.00.00	2014.11.22 13.00.00	900	800	0	Building or Structure	null
3982 Turnley Ave	2014.12.12 11.00.00	2014.12.12 14.00.00	180	180	0	Unpaved surface	Sanitary main sewer plugged and overflowed out of manhole on easement in the rear of the property. Staff contained all portions of the overflow and returned back to the collection system. Staff rodded the main sewer to restore the flow and cleaned all portions of the overflow. Staff will CCTV the main sewer.
40 Larry Lane Oakland, CA 94611	2014.08.13 09.00.00	2014.08.13 11.00.00	600	400	0	Other (specify below)	600 gallons spilled from an 8 vcp main sewer into a dry creek bed. Staff recovered 400 gallons and returned it to the collection system. 200 gallons soaked into the ground.
4000 Woodruff	2015.03.01 11.00.00	2015.03.01 14.30.00	540	540	0	Other (specify below)	Staff returned all the gray water that leaked into the basement, back to the Main sewer system.
4032 Coolidge Ave Oakland,CA, 94602	2015.02.11 07.00.00	2015.02.11 09.30.00	750	0	0	Unpaved surface	750 gallons overflowed from an 8 vcp sewer line into the ground on an easement.
4061 Fairway Ave	2015.03.12 11.30.00	2015.03.12 14.30.00	360	360	0	Other (specify below)	8" Main discharged into the gutter area and contained and returned to the sewer system.

SPILL_LOC_NAME	START_DT	EST_END_DT	SPILL_VOL	SPILL_VOL_REC_OVER	SPILL_VOL_REACH_SURF	FINAL_SPILL_DEST	FINAL_SPILL_DEST_EXPL
411 Santa Clara Ave Oakland Ca	2014.07.08 19.00.00	2014.07.08 20.30.00	90	90	0	Building or Structure; Other (specify below)	Staff used Hydro Flusher to vacuum sewage that spilled into building, then returned to Sanitary System.
4166 Whittle Ave	2014.09.23 09.30.00	2014.09.23 10.45.00	150	150	0	Other (specify below)	Main Sewer plugged and discharged from the lateral and soaking into the ground.
4168 Greenwood Ave Oakland,CA, 94602	2015.02.22 07.45.00	2015.02.22 10.00.00	270	270	0	Street/Curb and Gutter	6 vcp main sewer overflowed into the curb and gutter area. Staff recovered all 270 gallons of wastewater and returned to sanitary main sewer.
4326 Virginia ave Oakland ca.	2014.12.11 18.00.00	2014.12.11 21.00.00	900	900	0	Other (specify below)	Main sewer discharged from clean out due to plugged main, staff opened the Main and the gray water in the basement drained back into the sewer system.
4400 Whittle Ave Oakland ca	2015.03.29 09.00.00	2015.03.29 13.00.00	720	720	0	Other (specify below)	Gutter area, vacuumed by staff
4469 Carson St	2014.12.11 08.50.00	2014.12.11 10.50.00	1000	0	0	Unpaved surface	12 VCP sanitary main sewer overflowed and soaked into the ground due to heavy rain surcharging and root intrusion.
4490 Malcolm ave Oakland ca	2014.10.21 14.30.00	2014.10.21 16.00.00	50	15	0	Other (specify below)	50 gallons spilled at this location, 35 gallons soaked into the ground and 15 gallons were recovered. Staff cleaned solids and disinfected area around lamphole.

SPILL_LOC_NAME	START_DT	EST_END_DT	SPILL_VOL	SPILL_VOL_REC OVER	SPILL_VOL_REACH_SURF	FINAL_SPILL_DEST	FINAL_SPILL_DEST_EX PL
468 Perkins St Oakland,CA, 94610	2015.05.07 08.30.00	2015.05.07 10.30.00	120	120	0	Street/Curb and Gutter	120 gallons overflowed from an 8 vcp main sewer into the street and into the curb and gutter area. Staff recovered all 120 gallons and returned it to the collections system.
485 105th Ave	2014.11.30 17.30.00	2014.11.30 19.00.00	20	20	0	Building or Structure	Sanitary main sewer plugged due to grease and overflowed into the building structures basement.
4900 Shattuck ave Oakland ca	2015.02.12 18.30.00	2015.02.12 21.00.00	300	300	0	Building or Structure;Paved Surface	Staff used Hydro Flusher to vacuum spilled sewage and returned it to sanitary system. Also staff cleaned and disinfected area where sewage spilled.
5056 Proctor Ave	2015.03.06 14.30.00	2015.03.06 22.30.00	480	480	0	Building or Structure	8 VCP sanitary main sewer plugged and overflowed into the building structure. Staff rodded the main sewer to unplug stoppage and return the flow. Sewage was contained and returned to the sewer collection system. Staff cleaned all affected areas of the overflow.
5400 College Ave Oakland,CA, 94618	2014.11.22 07.30.00	2014.11.22 09.15.00	150	150	0	Building or Structure	150 gallons backed up from an 8 vcp sewer line into a building. Staff recovered all 150 gallons and returned it to the collection system.

SPILL_LOC_NAME	START_DT	EST_END_DT	SPILL_VOL	SPILL_VOL_REC OVER	SPILL_VOL_REACH_SURF	FINAL_SPILL_DEST	FINAL_SPILL_DEST_EX PL
5692 Cabot Dr Oakland ca	2015.06.23 08.48.00	2015.06.23 10.48.00	120	120	0	Street/Curb and Gutter	Staff contained sewage spill in gutter and used Hydro Flusher to vacuum sewage and return to sanitary system. Staff cleaned and disinfected area.
581 Vallevista ave Oakland ca	2015.01.01 13.00.00	2015.01.01 15.00.00	120	120	0	Other (specify below)	Staff used Hydro Flusher to vacuum spilled sewage and returned to main sewer line. Used Hydro Flusher to clear main sewer. Cleaned and disinfected area.
5959 Westover Dr Oakland CA,94611	2015.05.12 07.30.00	2015.05.12 10.30.00	900	200	0	Unpaved surface	900 gallons overflowed from an 8 vcp sewer line on an easement. 200 gallons were recovered and returned to the collection system. 700 gallons soaked into the ground.
5th ST & Union St Oakland Ca	2014.12.31 14.30.00	2014.12.31 16.30.00	120	120	0	Other (specify below)	Staff contained sewer spill at gutter and used Hydro Flusher to vacuum sewage. Returned sewage to Sanitary System.
600 Hegenberger Rd Oakland Ca 94621	2015.06.27 11.00.00	2015.06.27 13.00.00	240	240	0	Other (specify below)	SSO was contained to the curb and gutter and the waste was discharged back into the collection system.

SPILL_LOC_NAME	START_DT	EST_END_DT	SPILL_VOL	SPILL_VOL_REC_OVER	SPILL_VOL_REACH_SURF	FINAL_SPILL_DEST	FINAL_SPILL_DEST_EXPL
6020 Aspinwall rd Oakland ca	2015.05.05 10.05.00	2015.05.05 01.05.00	120	120	0	Other (specify below)	sewage spilled onto gutter, staff used sandbags to contain spill, then used Hydro Flusher to vacuum sewage and return to sanitary system.
6040 Bancroft Blvd. Oakland Ca,94621	2014.12.12 13.00.00	2014.12.12 15.00.00	120	120	0	Unpaved surface	120 gallons overflowed from a10 VCP sanitary sewer onto the unpaved surface. 120 gallons soaked into the ground. Debris and setiment was the cause of the overflow.
6066 Chelton Dr. Oakland Ca 94801	2015.01.17 08.30.00	2015.01.17 11.00.00	1500	0	1500	Other (specify below)	8" Main Sewer discharged out into Scout Creek
6205 Westwood Way	2015.01.07 11.30.00	2015.01.07 18.30.00	420	10	0	Unpaved surface	420 gallons overflowed out of the manhole on the easement onto the ground. 410 gallons soaked in and 10 gallons was captured and put back into the collection system.
6261 Fairlane Dr Oakland ca	2014.11.07 16.30.00	2014.11.07 19.30.00	200	150	0	Other (specify below)	200 gallons spilled at this location, 150 gallons were recovered and 50 gallons soaked into the ground.
6319 Pinehaven rd Oakland ca	2015.06.17 07.00.00	2015.06.17 09.00.00	600	400	0	Unpaved surface	600 gallons spilled at this location, 400 gallons were recovered and returned to sanitary sewer system, 200 gallons soaked into the ground.

SPILL_LOC_NAME	START_DT	EST_END_DT	SPILL_VOL	SPILL_VOL_REC_OVER	SPILL_VOL_REACH_SURF	FINAL_SPILL_DEST	FINAL_SPILL_DEST_EXPL
6320 Swain Land Rd. Oakland Ca,94621	2015.02.22 08.45.00	2015.02.22 10.45.00	600	100	500	Surface Water	600 gallons overflowed from an 8 VCP sanitary sewer main, into a storm inlet at this location. 500 gallons was lost into a creek at this location. 100 gallons was captured and returned back in the collection system. Debris was the cause of this overflow.
638 Alvarado Rd Oakland Ca	2015.04.11 08.50.00	2015.04.11 11.35.00	3300	80	3220	Other (specify below)	8" Main plugged and discharged from a man hole and spilled into the storm catch basin and down to the bay.
642 El Dorado Ave Oakland,CA, 94611	2014.10.05 18.15.00	2014.10.05 20.45.00	180	180	0	Street/Curb and Gutter	8 vcp main sewer overflowed onto the street into the curb and gutter area. Staff recovered all 180 gallons of wastewater and returned it to the collection system.
6430 Girvin Dr. Oakland,CA, 94611	2015.02.28 07.00.00	2015.02.28 10.35.00	60	0	0	Unpaved surface	60 gallons overflowed from an 8 vcp sewer line into the ground next to a hillside.
6854 Ridgewood Dr.	2014.12.03 12.59.00	2014.12.03 13.30.00	30	0	0	Other (specify below)	4" lateral discharged 30 gallons of gray water out onto the ground and soaked into the ground.
6975 Charing Cross Rd Oakland Ca	2015.02.13 14.30.00	2015.02.13 17.30.00	180	0	0	Other (specify below)	180 gallons spilled on side of hill and 180 gallons soaked into ground.

SPILL_LOC_NAME	START_DT	EST_END_DT	SPILL_VOL	SPILL_VOL_REC_OVER	SPILL_VOL_REACH_SURF	FINAL_SPILL_DEST	FINAL_SPILL_DEST_EXPL
69th avenue & Snell street. Oakland Ca,94621	2014.10.25 19.15.00	2014.10.25 21.05.00	1100	0	1100	Surface Water	1,100 gallons of wastewater overflowed from an 8 VCP sanitary sewer main into two storm drain inlets at this location. 1,100 gallons was lost into Lyons creek. Grease was the cause of the overflow. The blockage was cleared, the site was cleaned, the flow was returned back to its normal flow. Signs were posted.
7280 Woodrow Dr Oakland CA, 94611	2015.02.08 15.30.00	2015.02.08 17.30.00	75	75	0	Street/Curb and Gutter	8 vcp main sewer overflowed onto the street into the curb and gutter area. Staff recovered all 75 gallons of wastewater and returned to sanitary main sewer.
72nd ave & Hawley st Oakland ca	2015.06.07 10.40.00	2015.06.07 12.20.00	500	100	0	Drainage Channel	Staff used Hydro Flusher to vacuum sewage from curb and gutter, and return to sanitary sewer system.
7569 Greenly Dr Oakland Ca	2015.05.11 16.30.00	2015.05.11 18.30.00	600	0	0	Other (specify below)	8 " Main Sewer discharged from a man hole and out and soaked into the ground.
80 Eucalyptus Rd Oakland Ca	2015.04.27 16.12.00	2015.04.27 18.30.00	140	120	0	Other (specify below)	Main Sewer discharged out onto the ground, staff contained 120 gallons and returned to the system, 20 gallons soaked into the ground.

SPILL_LOC_NAME	START_DT	EST_END_DT	SPILL_VOL	SPILL_VOL_REC_OVER	SPILL_VOL_REACH_SURF	FINAL_SPILL_DEST	FINAL_SPILL_DEST_EXPL
8000 Birch st	2014.09.25 08.00.00	2014.09.25 12.00.00	1200	1200	0	Other (specify below)	8" Main Sewer discharged from a clean out onto the ground.
8251 Fontaine St Oakland,CA, 94605	2015.03.05 12.45.00	2015.03.05 14.45.00	360	300	0	Unpaved surface	360 gallons overflowed from an 8 vcp sewer line. 300 gallons were recovered and returned to the collection system. 60 gallons soaked into the ground.
82nd Ave & Iris St. Oakland CA, 94605	2014.10.04 10.30.00	2014.10.04 11.20.00	750	750	0	Street/Curb and Gutter	750 gallons overflowed from an 8 vcp sewer line into the curb and gutter area. Staff recovered all 750 gallons and returned it to the collection system.
83 & Iris	2014.12.11 09.05.00	2014.12.11 12.05.00	3600 0	0	36000	Other (specify below)	The Main Sewer discharged into Arroyo Viejo Creek and down into the SF Bay.
8432 Internationa l Blvd Oakland Ca.	2015.02.28 18.00.00	2015.02.28 19.30.00	450	450	0	Other (specify below)	8" Main discharged from the cleanout inside the building onto the floor, staff contained the overflow inside the building , staff returned the gray water to the system.
85th & G Street Oakland Ca. 96621	2015.02.04 11.00.00	2015.02.04 13.30.00	210	210	0	Other (specify below)	Main Sewer discharged out onto the street and into the gutter Area.
866 Northvale Rd Oakland Ca	2015.03.28 09.00.00	2015.03.28 12.00.00	180	180	0	Other (specify below)	8" Main discharged from a man hole and out into the street and in the gutter area.

SPILL_LOC_NAME	START_DT	EST_END_DT	SPILL_VOL	SPILL_VOL_REC_OVER	SPILL_VOL_REACH_SURF	FINAL_SPILL_DEST	FINAL_SPILL_DEST_EXPL
8750 Mountain Blvd. Oakland Ca,94621	2014.12.13 12.40.00	2014.12.13 14.30.00	550	200	550	Surface Water	550 gallons overflowed from 8 VCP sanitary sewer overflow into a storm drain at this location. Tree roots was the cause of this overflow. 200 gallons was recovered and returned back in the collection system.
950 77 th Ave Oakland Ca	2014.12.09 09.21.00	2014.12.09 13.00.00	200	200	0	Paved Surface	Main sewer seeped out from a man hole and onto the ground and gutter area, staff vacuumed the gray water from the gutter area and returned it to the sanitary sewer system.
College Ave & Taft Ave Oakland,CA, 94618	2014.09.30 13.00.00	2014.09.30 16.00.00	900	900	0	Separate Storm Drain	900 gallons overflowed from a 10 vcp sewer line into a storm drain. Staff recovered all 900 gallons down stream, then cleaned affected areas.
Frye Ave & London Rd Oakland Cal	2015.04.24 14.30.00	2015.04.24 18.00.00	210	210	0	Other (specify below)	Main Sewer spilled out onto the ground and contained in the gutter area.
Grand Ave & Santa Clara Ave Oakland Ca.	2015.04.27 19.30.00	2015.04.27 20.30.00	1800	100	1700	Other (specify below)	8" Main Sewer plugged and discharged into a storm line and down to Lake Merritt.
Keller Ave & Sequoyah Rd	2014.11.10 13.00.00	2014.11.10 17.00.00	240	0	0	Unpaved surface	On the ground in the rear of the property.

SPILL_LOC_NAME	START_DT	EST_END_DT	SPILL_VOL	SPILL_VOL_REC OVER	SPILL_VOL_REACH_SURF	FINAL_SPILL_DEST	FINAL_SPILL_DEST_EX PL
Larry Ln & Ascot Rd Oakland Ca	2014.11.14 14.50.00	2014.11.14 19.05.00	765	700	0	Other (specify below)	Staff contained spilled sewage using sandbags to dam spill and vacuumed sewage with Hydro Flusher. 765 gallons spilled, 700 were recovered and 65 gallons soaked into the ground.
MC GURRIN & SEQUOYAH RD	2014.11.28 20.35.00	2014.11.28 22.40.00	1830	100	1730	Other (specify below)	8 sanitary sewer discharge from manhole in street out into storm inlet down to Arroyo Viejo creek
Redwood rd & Crestmont dr Oakland ca 94605	2015.01.28 08.15.00	2015.01.28 10.15.00	1800	0	1800	Other (specify below)	Horseshoe Creek

Appendix B

Table 4-5
Collection System Spot Repair Work (July 1, 2014 – June 30, 2015)

**Table 4-5
Collection System Spot Repair Work (July 1, 2014 – June 30, 2015)**

WO #	Description	Address	Repair Length
610254	Sewer Spot Repair (LnFt)	9333 PLYMOUTH ST	6
610256	Sewer Spot Repair (LnFt)	620 WALAVISTA AVE	6
610525	Sewer Spot Repair (LnFt)	1537 94TH AV	10
610613	Sewer Spot Repair (LnFt)	291 MATHER ST	8
611134	Sewer Spot Repair (LnFt)	29TH AV & GLASCOCK ST	6
611833	Sewer Spot Repair (LnFt)	19TH ST & WEST ST	4
612222	Sewer Spot Repair (LnFt)	2315 83RD AV	6
612322	Sewer Spot Repair (LnFt)	1620 E 32ND ST	3
612623	Sewer Spot Repair (LnFt)	PARK BLVD & HADDON RD	6
612881	Sewer Spot Repair (LnFt)	1139 70TH AV	3
613814	Sewer Spot Repair (LnFt)	10TH ST & WOOD ST	3
613893	Sewer Spot Repair (LnFt)	1449 AUSEON AV	3
613895	Sewer Spot Repair (LnFt)	1125 82ND AV	6
614477	Sewer Spot Repair (LnFt)	1125 82ND AV	3
614847	Sewer Spot Repair (LnFt)	4720 MOUNTAIN BLVD	6
615430	Sewer Spot Repair (LnFt)	1700 87TH AV	3
615460	Sewer Spot Repair (LnFt)	601 WESLEY AV	3
615747	Sewer Spot Repair (LnFt)	6137 MACARTHUR BLVD	3
616116	Sewer Spot Repair (LnFt)	5566 MARSHALL ST	4
616224	Sewer Spot Repair (LnFt)	1015 24TH ST	10
616552	Sewer Spot Repair (LnFt)	1700 87TH AV	1
616732	Sewer Spot Repair (LnFt)	5600 COLLEGE AV	1
617185	Sewer Spot Repair (LnFt)	1662 AUSEON AV	1
617500	Sewer Spot Repair (LnFt)	7026 LOCKWOOD ST	8
617923	Sewer Spot Repair (LnFt)	1663 AUSEON AV	1
618165	Sewer Spot Repair (LnFt)		0
618300	Sewer Spot Repair (LnFt)	2400 RANSOM AV	8
618537	Sewer Spot Repair (LnFt)	5726 E 16TH ST	1
618902	Sewer Spot Repair (LnFt)	1452 48TH AV	1
618951	Sewer Spot Repair (LnFt)	2497 COLE ST	15
619254	Sewer Spot Repair (LnFt)	1614 81ST AV	14
620170	Sewer Spot Repair (LnFt)	7006 WELD ST	10
620347	Sewer Spot Repair (LnFt)	1434 56TH AV	12
620522	Sewer Spot Repair (LnFt)	4834 CONGRESS AV	13
621195	Sewer Spot Repair (LnFt)	2355 RANSOM AV	10
621929	Sewer Spot Repair (LnFt)	959 70TH AV	11
622111	Sewer Spot Repair (LnFt)	4069 MERA ST	10
622193	Sewer Spot Repair (LnFt)	3831 MERA ST	8
622196	Sewer Spot Repair (LnFt)	3483 WILSON AV	11
623758	Sewer Spot Repair (LnFt)	51RST. & BROADWAY AV TERRACE PARK	1
623821	Sewer Spot Repair (LnFt)	1409 3RD AV	1
623879	Sewer Spot Repair (LnFt)	849 29TH ST	15
624644	Sewer Spot Repair (LnFt)	2037 PLEASANT VALLEY AV	1
625198	Sewer Spot Repair (LnFt)	2037 PLEASANT VALLEY AV	14
625359	Sewer Spot Repair (LnFt)	6237 BROADWAY TER	14

WO #	Description	Address	Repair Length
625404	Sewer Spot Repair (LnFt)	6249 BROADWAY TER	12
626614	Sewer Spot Repair (LnFt)	5546 BALBOA DR	10
626745	Sewer Spot Repair (LnFt)	1430 51ST AV	12
626746	Sewer Spot Repair (LnFt)	1475 81ST AV	12
628210	Sewer Spot Repair (LnFt)	208 JOHN ST	12
628297	Sewer Spot Repair (LnFt)	6356 BROADWAY TER	14
628298	Sewer Spot Repair (LnFt)	6347 BROADWAY TER	12
628623	Sewer Spot Repair (LnFt)	206 JOHN ST	10
629250	Sewer Spot Repair (LnFt)	4160 WHITTLE AV	14
629867	Sewer Spot Repair (LnFt)	3245 HELEN ST	11
630075	Sewer Spot Repair (LnFt)	2788 FRAZIER AV	14
631416	Sewer Spot Repair (LnFt)	20 STONEWALL RD	20
631842	Sewer Spot Repair (LnFt)	5615 HARMON AV	1
632116	Sewer Spot Repair (LnFt)	4157 WHITTLE AV	10
633074	Sewer Spot Repair (LnFt)	8700 BIRCH ST	10
633091	Sewer Spot Repair (LnFt)	1606 85TH AV	10
633286	Sewer Spot Repair (LnFt)	1923 85TH AV	1
633293	Sewer Spot Repair (LnFt)	1939 83RD AV	10
633574	Sewer Spot Repair (LnFt)	864 27TH ST	10
633862	Sewer Spot Repair (LnFt)	3060 BUTTERS DR	10
634487	Sewer Spot Repair (LnFt)	926 72ND AV	12
634812	Sewer Spot Repair (LnFt)	714 SYCAMORE ST	15
634897	Sewer Spot Repair (LnFt)	2450 E 20TH ST	1
635871	Sewer Spot Repair (LnFt)	817 30TH ST	1
636424	Sewer Spot Repair (LnFt)	4433 FLEMING AV	10
637010	Sewer Spot Repair (LnFt)	3939 RANDOLPH AV	12
637152	Sewer Spot Repair (LnFt)	6337, 6349 ,& 6356 BROADWAY TERRACE	3
637647	Sewer Spot Repair (LnFt)	320 CHESTER ST	1
638553	Sewer Spot Repair (LnFt)	400 CAPISTRANO DRIVE	10
638668	Sewer Spot Repair (LnFt)	1166 ELMHURST AV	12
642508	Sewer Spot Repair (LnFt)	1901 TUNNEL RD	14
642581	Sewer Spot Repair (LnFt)	3701 PARK BLVD WAY	10
642888	Sewer Spot Repair (LnFt)	6217 SEMINARY AVE	10
644523	Sewer Spot Repair (LnFt)	34TH ST & SAN PABLO AV	1
645792	Sewer Spot Repair (LnFt)	1467 HAMPEL ST	6
647815	Sewer Spot Repair (LnFt)	3501 SAN PABLO AV	12
648413	Sewer Spot Repair (LnFt)	1617 81ST AV	10
648586	Sewer Spot Repair (LnFt)	3431 SAN PABLO AV	12
650081	Sewer Spot Repair (LnFt)	4555 SEQUOYAH RD	10
651448	Sewer Spot Repair (LnFt)	5501 GOLDEN GATE AV	10
651917	Sewer Spot Repair (LnFt)	584 VALLE VISTA AV	10
653621	Sewer Spot Repair (LnFt)	4011 OAKMORE RD	20
654342	Sewer Spot Repair (LnFt)	5 HUMPHREY PL	10
654346	Sewer Spot Repair (LnFt)	2364 100TH AV	10
655369	Sewer Spot Repair (LnFt)	1945 E 30TH ST	15
655519	Sewer Spot Repair (LnFt)	1945 E 30TH ST	10
656361	Sewer Spot Repair (LnFt)	4601 FLEMING AV	1
657116	Sewer Spot Repair (LnFt)	1900 87TH AV	5
659175	Sewer Spot Repair (LnFt)	7481 WOODROW DR	6
660491	Sewer Spot Repair (LnFt)	1900 87TH AV	10

WO #	Description	Address	Repair Length
660622	Sewer Spot Repair (LnFt)	8019 STERLING DR	10
661014	Sewer Spot Repair (LnFt)	2947 BARRETT ST	12
661485	Sewer Spot Repair (LnFt)	3438 MAGNOLIA ST	10
662186	Sewer Spot Repair (LnFt)	1215 23RD AV	20
662485	Sewer Spot Repair (LnFt)	1215 23RD AV	10
662886	Sewer Spot Repair (LnFt)	4309 GREGORY ST	10
663016	Sewer Spot Repair (LnFt)	1150 WESTVIEW DR	10
663123	Sewer Spot Repair (LnFt)	1624 E 38TH ST	10
663779	Sewer Spot Repair (LnFt)	62ND AV & FOOTHILL BLVD	10
665151	Sewer Spot Repair (LnFt)	2239 AUSEON AV	10
665349	Sewer Spot Repair (LnFt)	6203 FOOTHILL BLVD	10
665351	Sewer Spot Repair (LnFt)	2255 AUSEON AV	10
666368	Sewer Spot Repair (LnFt)	5056 PROCTOR AV	10
673103	Sewer Spot Repair (LnFt)	2246 86TH AV	8
675641	Sewer Spot Repair (LnFt)	1425 LEIMERT BLVD	1
686508	Sewer Spot Repair (LnFt)	7531 GREENLY DR	6
687075	Sewer Spot Repair (LnFt)	SHEFFIELD AV & E 29TH ST	3
688118	Sewer Spot Repair (LnFt)	3357 MADERA AV	1
689949	Sewer Spot Repair (LnFt)	809 WALAVISTA AV	10
690386	Sewer Spot Repair (LnFt)	8400 SKYLINE BLVD	6
692064	Sewer Spot Repair (LnFt)	TRASK ST & KINGSLAND AV	1

Appendix C

Figure 4-3 14 Day Notice to Abate



Oakland Public Works • Design, Engineering and Construction • Right of Way Management

Sewer & Sidewalk Division • 250 Frank H. Ogawa Plaza, Suite # 4314 • Oakland, California 94612 • (510)238-3651

14 Day Notice to Abate

Date

Name

Address

Oakland, CA 94607-2225

Re: Sewer Lateral at Address, Oakland

Dear Property Owner,

You are hereby notified that under the provisions of Section 13.08.540 of the Oakland Municipal Codeⁱ and in the opinion of the Director of Public Works Agency, the public health, safety, and welfare require repairs to your building sewer lateral.

The dye test conducted on **date** from the caved in area of the street at **address** by the City's Sewer Maintenance Division noted that the dye did appear in the City sewer main which indicates that the private sewer lateral servicing your home is in need of repair. This is a public health hazard and must be corrected. You are required to repair or replace your building's private sewer lateral no later than **date**.

The completed repairs must restore the subject-building sewer to a watertight condition, free of breaks or separations and constructed to proper grade and alignment. An inspection must be performed by the Construction Inspector to assure that the repairs meet the code requirements.

Prior to repairing or replacing a sewer lateral, you must have a Building Sewer Inspection Permit and/or a Street Excavation Permit if the repairs are to be completed in the public right-of-way.

If you have already made the repairs please provide proof of the repairs, you may fax it to 510-238-6632.

Questions concerning this matter should be directed to Fred Loeser, Construction Inspection Supervisor, at (510) 238-6348 or email floeser@oaklandnet.com.

Sincerely,

Fred Loeser,
Supervisor, Construction Inspection

/ts

¹ SEC. 13.08.540 EMERGENCY WORK BY CITY, NOTICE, LIABILITY FOR COST OF WORK

Whenever, in the opinion of the Director of Public Works Agency, the Public Health, safety, or welfare shall require that repairs or protective measures to a building sewer be made or instituted immediately, the Director is hereby authorized to proceed with all necessary work to abate the condition and may enter upon private property for such purposes. The City may erect and maintain all necessary barricades, warning lights, and the protective devices upon public or private property. The City will 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 of Oakland 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 the real property on which said condition was abated. The special assessment shall be made in the manner set forth in Section 13.08.280 of the Oakland Municipal Code using the Notice of Lien as found in Section 13.08.330.

(As added by Ordinance No. 10877 C.M.S., passed June 23, 1987)

Appendix D

Table 5-3a and Table 5-3b Acute Defect Lists

**Table 5-3a
Acute Defect List - Identified after Consent Decree (July 1, 2014)**

Asset ID	Date Identified	Bureau Responsible	Date Completed	Completions by FY	Days to Completion	Address	Street	WO #	PACP Defect Code
SEPi9561	7/3/2014	BIO	3/22/2015	14/15	259	6232	HILLMONT DR	668247	DSGV, Deposits Settled Gravel
SEPi9604	7/9/2014	BIO	5/20/2015	14/15	311	4002	RUSTING AV	683364	OBZ, Obstacle Other, CMP
SEPi20603	7/21/2014	BIO	8/29/2014	14/15	38		GLENDOME CIR	623778	DPZ, Deposits Settled Other
SEPi30284	7/30/2014	BEC	9/30/2014	14/15	60		CHABOT RD		BVV, Broken Void Visible
SEPi1752	8/7/2014	BIO	6/3/2015	14/15	296		100TH AV	687138	B, Broken
SEPi27226	8/20/2014	BIO	4/16/2015	14/15	236		STANFORD AV	no W/O	Not Cat 5
SEPi20609	8/22/2014	BIO	5/18/2015	14/15	266		GLENDOME CIR/4609 ElCentro	682793	DSGV, Deposits Settled Gravel
SEPi25802	8/28/2014	BIO	9/4/2014	14/15	6		PLEASANT VALLEY AV		BVV, Broken Void Visible
SEPi1475	9/8/2014	BIO	4/21/2015	14/15	223		100TH AV	no W/O	TBI, Tap Break In-truding
SEPi20723	9/16/2014	BIO	7/29/2015	15/16	313		LEIMERT BLVD	700591	B, Broken
SEPi4796	9/23/2014	BIO	4/21/2015	14/15	208		57TH AV	no W/O	AMH

Asset ID	Date Identified	Bureau Responsible	Date Completed	Completions by FY	Days to Completion	Address	Street	WO #	PACP Defect Code
SEPi3742	10/1/2014	BIO	10/1/2014	14/15	1		SAN LEANDRO ST	630947	DSGV, Deposits Settled Gravel
SEPi7052	10/7/2014	BEC	4/13/2015	14/15	186		NIMITZ FWY I-880 & 23RD AVE	no W/O	BVV, Broken Void Visible
SEPi5258	10/14/2014	BEC	no repair		-		STERLING DR		XP, Collapsed Pipe Sewer
SEPi18748	10/16/2014	BIO	10/27/2014	14/15	11		BURDECK DR	636440	RBB, Root Ball Barrel
SEPi15005	11/7/2014	BIO	no repair		-		14TH ST		BSV, Broken Soil Visible
SEPi13421	11/14/2014	BIO	9/14/2015	15/16	300		13TH AV	709069	IG, I NFLOW Gusher
SEPi24613	11/17/2014	BIO	no repair		-		MOUNTAIN BLVD		BVV, Broken Void Visible
SEPi15298	11/19/2014	BIO	9/24/2015	15/16	305		PARK BLVD	711318	XP, Collapsed Pipe Sewer
SEPi11537	11/19/2014	BIO	no repair		-		23RD ST E		TBI, Tap Break In-truding, BVV
SEPi20074	11/20/2014	BIO	11/24/2014	14/15	4		LAKE SHORE AV		BSV, Broken Soil Visible

Asset ID	Date Identified	Bureau Responsible	Date Completed	Completions by FY	Days to Completion	Address	Street	WO #	PACP Defect Code
SEPi13465	11/20/2014	BIO	no repair		-		21ST AV		BVV, Broken Void Visible
SEPi22528	12/1/2014	BIO	12/18/2014	14/15	17		SAN PABLO AV		BSV, Broken Soil Visible
SEPi13378	12/2/2014	BIO	no repair		-		WALLACE ST		XP, Collapsed Pipe Sewer
SEPi15485	12/5/2014	BIO	no repair		-		33RD ST E		B, Broken
SEPi21908	12/13/2014	BIO	no repair		-		MONTEREY BLVD		D, Deformed
SEPi26916	12/26/2014	BIO	no repair		-		WOODROW DR		BSV, Broken Soil Visible
SEPi13485	1/15/2015	BIO	no repair		-		30TH ST E		XP, Collapsed Pipe Sewer
SEPi3013	1/27/2015	BIO	no repair		-		77TH AVE		D, Deformed
SEPi6346	1/29/2015	BIO	no repair		-		OAKLAND		TBI, Tap Break In-truding
SEPi9530	2/21/2015	BIO	no repair		-		SEMINARY AV		BVV, Broken Void Visible
SEPi29370	2/24/2015	BIO	no repair	2/25/15	1		BROADWAY		BSV, Broken Soil Visible
SEPi13384	2/25/2015	BIO	no repair		-		25TH ST E		BSV, Broken Soil Visible
SEPi10673	3/2/2015	BIO	no repair		-		REINHARDT DR		BSV, Broken Soil Visible

Asset ID	Date Identified	Bureau Responsible	Date Completed	Completions by FY	Days to Completion	Address	Street	WO #	PACP Defect Code
SEPi5190	3/10/2015	BIO	no repair		-		PARKER AV		BVV, Broken Void Visible
SEPi24234	3/10/2015	BIO	no repair		-		42ND ST		BVV, Broken Void Visible
SEPi18293	3/13/2015	BIO	no repair		-		OAKMORE RD		BVV, Broken Void Visible
SEPi21714	4/3/2015	BIO	no repair		-		JEAN ST		BSV, Broken Soil Visible
SEPi6452	4/9/2015	BIO	no repair		-		61ST AV		BVV, Broken Void Visible
SEPi9369	4/15/2015	BIO	no repair		-		MILLS COLLEGE		XP, Collapsed Pipe Sewer
SEPi6394	4/22/2015	BIO	no repair		-		63RD AV		BVV, Broken Void Visible
SEPi6013	4/23/2015	BIO	no repair		-		12TH ST E		BSV, Broken Soil Visible
SEPi4635	4/29/2015	BIO	no repair		-		INVERNESS CT		BVV, Broken Void Visible
SEPi11561	4/29/2015	BIO	no repair		-		26TH ST E		BSV, Broken Soil Visible
SEPi7039	4/29/2015	BIO	no repair		-		10TH ST E		B, Broken
SEPi5462	6/9/2015	BIO	no repair		-		Outlook Av		TRI, Tap Rehabilitated Intruding

**Table 5-3b (For Information Only)
Acute Defect List - Identified Prior To Consent Decree (July 1, 2014)**

Asset ID	Date Identified	Bureau Responsible	Date Completed	Completions by FY	Days to Completion	Address	Street	WO #	PACP Defect Code
SEPi28045	1/31/2013	BIO	9/10/2014	14/15	580		BROADWAY TER	625359, 625404	BVV, Broken Void Visible
SEPi18163	2/7/2013	BEC	11/19/2014	14/15	642		GALVIN ST.	N/A	TFI, Tap Factory Protruding
SEPi9573	4/5/2013	BIO	11/25/2014	14/15	590		SEMINARY AV	520684	BSV, Broken Soil Visible
SEPi19563	5/15/2013	BIO	8/5/2014	14/15	440		BAY PL	617724	RBB, Roots Ball Barrel
SEPi30941	7/22/2013	BIO	9/22/2014	14/15	420		WEST VIEW DR	540015	RBB, Roots Ball Barrel
SEPi19691	8/2/2013	BIO	8/7/2014	14/15	365		SCOTT ST	617752	OPM Object Pipe Material
SEPi24374	8/5/2013	BIO	9/19/2014	14/15	404		JOHN ST	628623	BSV, Broken Soil Visible
SEPi22407	9/19/2013	BIO	9/26/2014	14/15	367		HELEN ST	629867	BSV, Broken Soil Visible

Asset ID	Date Identified	Bureau Responsible	Date Completed	Completions by FY	Days to Completion	Address	Street	WO #	PACP Defect Code
SEPi19642	10/15/2013	BIO	10/22/2014	14/15	367		JAYNE AV	635407	D, Deformed
SEPi29520	10/18/2013	BEC	1/8/2015	14/15	440	6370	BROOKSIDE AV	no W/O	D, Deformed
SEPi19779	11/21/2013	BIO	10/28/2014	14/15	337		SANTA CLARA AV	636615	BVV, Broken Void Visible
SEPi19780	11/21/2013	BIO	10/29/2014	14/15	338		SANTA CLARA AV	N/A	D, Deformed
SEPi29532	12/16/2013	BEC	1/8/2015	14/15	382	6351	BROOKSIDE AV	no W/O	BSV, Broken Soil Visible
SEPi124	12/19/2013	BIO	11/5/2014	14/15	316		EL PASEO DR	638553	BSV, Broken Soil Visible
SEPi13846	1/10/2014	BIO	11/19/2014	14/15	309		CALIFORNIA ST	641199	RBB, Root Ball Barrel
SEPi5740	1/10/2014	BIO	1/5/2015	14/15	355		SEQUOYAH RD	no W/O	CH3, Crack Longitudinal
SEPi3740	1/15/2014	BIO	10/9/2014	14/15	264		JULIE ANN WY	633049	DAZ, Deposits Attached Other
SEPi29492	1/21/2014	BIO	1/9/2015	14/15	348		GOLDEN GATE AV	651448	BVV, Broken Void Visible

Asset ID	Date Identified	Bureau Responsible	Date Completed	Completions by FY	Days to Completion	Address	Street	WO #	PACP Defect Code
SEPi2871	1/27/2014	BEC	12/19/2014	14/15	322		GLEN MANOR PL	no W/O	BSV, Broken Soil Visible
SEPi2870	1/27/2014	BEC	12/19/2014	14/15	322		GLEN MANOR PL	no W/O	BSV, Broken Soil Visible
SEPi2873	1/27/2014	BEC	12/19/2014	14/15	322		GLEN MANOR PL	no W/O	D, Deformed
SEPi31086	1/30/2014	BEC	1/23/2015	14/15	353		TUNNEL RD	no W/O	OBZ, Obstacle Other, CMP
SEPi11560	2/10/2014	BIO	1/12/2015	14/15	332		23RD ST E	651825	DSGV, Deposits Settled Gravel
SEPi2557	2/11/2014	BIO	1/20/2015	14/15	339		100TH AVE	654346	BSV, Broken Soil Visible
SEPi6346	2/19/2014	BEC	4/13/2015	14/15	414		67TH AVE	no W/O	TBI, Tap Break In-truding
SEPi5534	3/6/2014	BIO	2/19/2015	14/15	343		STERLING DR	660622	BVV, Broken Void Visible
SEPi17714	3/21/2014	BEC	9/30/2014	14/15	189		TRESTLE GLEN RD	no W/O	BSV, Broken Soil Visible

Asset ID	Date Identified	Bureau Responsible	Date Completed	Completions by FY	Days to Completion	Address	Street	WO #	PACP Defect Code
SEPi1231	4/24/2014	BIO	4/24/2015	14/15	360		OAKPORT ST	596180	DAG, Deposits Attached Grease
SEPi6386	4/30/2014	BIO	3/3/2015	14/15	303		FOOTHILL BLVD	663779	B, Broken
SEPi4166	6/10/2014	BEC	3/24/2015	14/15	284	8665	THERMAL ST	no W/O	D, Deformed
SEPi29633	6/12/2014	BIO	3/18/2015	14/15	276		MARGARIDO DR	667427	DSZ, Deposits Settled
SEPi15587	6/30/2014	BIO	4/28/2015	14/15	298		EXCELESIOR AV	677819	BVV, Broken Void Visible

Appendix E

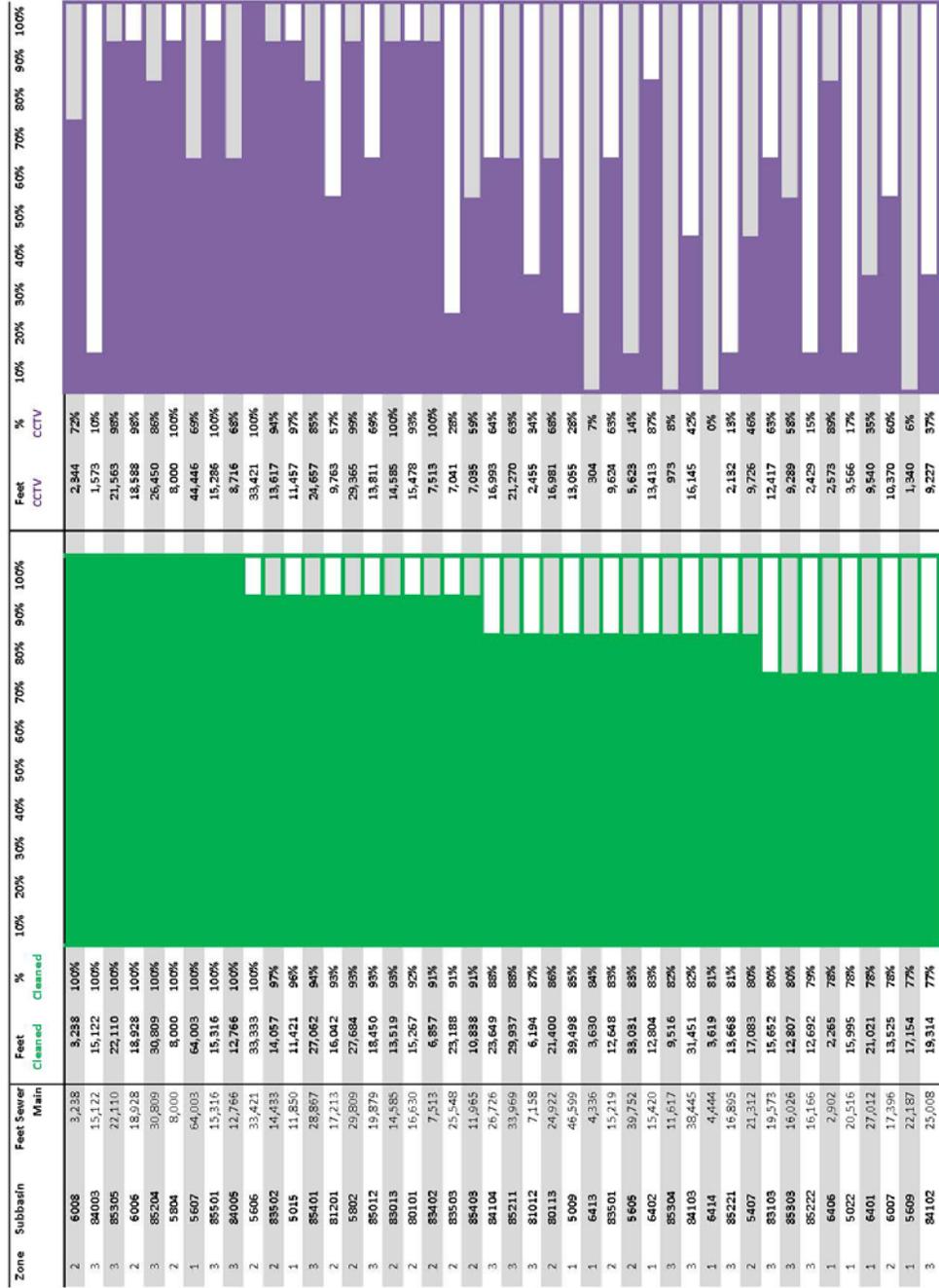
Figure 5-1 Cleaning by Sub-Basin

Through 6/30/15

Data Date: 7/13/15

Sewer Subbasin
Cleaning Tracking

Sewer Subbasin
CCTV Tracking



Zone	Subbasin	Feet Sewer Main	Feet Cleaned	% Cleaned	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%	Feet CCTV	% CCTV	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%	
3	82005	38,019	29,206	77%											17,112	45%											
3	85003	20,002	15,259	76%											9,253	46%											
1	5010	10,643	8,109	76%											10,298	97%											
2	80012	18,768	14,231	76%											1,702	9%											
2	5416	37,867	28,570	75%											29,746	79%											
2	5612	52,366	39,316	75%											5,583	11%											
	84111	16,835	12,618	75%											8,482	50%											
3	85004	19,768	14,740	75%											13,592	69%											
1	5610	40,349	30,072	75%											3,723	9%											
1	5016	25,044	18,493	74%											8,314	33%											
2	81002	30,796	22,626	73%											21,475	70%											
2	6004	11,286	8,220	73%											10,550	93%											
2	5904	7,066	5,128	73%											3,428	49%											
3	85232	19,818	14,381	73%											9,792	49%											
2	6005	15,774	11,423	72%											2,890	19%											
3	85201	22,184	16,043	72%											4,006	18%											
3	84101	26,499	18,950	72%											11,443	43%											
3	86006	23,305	16,629	71%											17,722	76%											
2	5411	5,690	4,054	71%											2,862	50%											
3	83012	11,382	8,107	71%											9,419	83%											
1	2102	15,415	10,909	71%											5,129	33%											
2	5409	49,356	34,330	70%											32,147	65%											
1	5017	98,136	67,728	69%											16,912	17%											
1	6412	10,286	7,063	69%											1,362	13%											
2	6204	11,114	7,616	69%											5,239	47%											
1	5006	9,519	6,512	68%											1,655	17%											
3	85231	30,172	20,519	68%											4,856	16%											
2	6203	13,360	9,071	68%											6,954	29%											
3	86002	18,379	12,435	68%											4,289	32%											
1	5611	15,201	10,223	67%											3,525	19%											
2	81202	22,720	15,277	67%											1,229	8%											
3	84004	31,412	20,987	67%											5,891	26%											
3	83102	14,635	9,756	67%											6,530	45%											
2	5805	25,181	16,768	67%											10,088	40%											
2	5902	18,012	11,981	67%											6,517	36%											
3	85203	13,679	9,092	66%											2,189	16%											
2	81102	26,740	17,729	66%											4,420	17%											
3	85302	17,087	11,154	65%											13,439	79%											
2	81101	21,430	13,988	65%											5,811	27%											
3	85207	17,284	11,280	65%											6,606	38%											
3	86004	13,510	8,804	65%											3,459	26%											
1	5014	49,009	31,864	65%											19,466	40%											
1	5021	63,593	41,242	65%											6,666	10%											
3	83002	23,945	15,510	65%											7,810	33%											
3	83101	11,317	7,321	65%											2,810	25%											
2	85502	24,069	15,379	64%											14,913	62%											
2	80022	16,591	10,587	64%											2,891	17%											



Zone	Subbasin	Feet Sewer Main	Feet Cleaned		%										Feet CCTV		
			Cleaned	% Cleaned	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%	CCTV	% CCTV	
1	5001	75,112	95,551	47%												16,460	22%
2	5601	14,195	6,718	47%												585	4%
1	5210	6,039	2,855	47%												1,637	27%
1	5008	32,667	15,360	47%												5,156	16%
2	6008	11,500	5,396	47%												3,858	29%
2	5404	7,493	3,509	47%												1,685	22%
2	80108	18,282	8,503	47%												12,499	68%
3	85101	32,459	14,975	46%												2,476	8%
2	6201	11,458	5,280	46%												1,757	15%
2	6001	3,224	1,466	45%													0%
2	5603	10,540	4,785	45%												965	3%
1	5002	22,976	10,395	45%												2,410	10%
2	81011	15,210	6,818	45%												1,917	13%
2	5401	48,711	21,804	45%												5,551	11%
1	5005	37,518	16,657	44%												8,925	24%
2	5602	58,217	25,742	44%												8,125	14%
3	84105	14,372	6,257	44%												4,344	30%
2	5412	43,389	18,688	43%												7,621	18%
1	5207	14,668	6,314	43%												1,843	13%
2	5901	11,193	4,769	43%												1,462	13%
3	85212	24,246	10,330	43%												6,148	25%
1	5212	23,886	10,108	42%												6,973	29%
1	5012	12,353	5,220	42%												1,994	16%
1	5202	16,370	6,850	42%												108	1%
2	83403	25,863	10,816	42%												12,043	47%
3	86001	11,021	4,587	42%													0%
1	6408	10,316	4,287	42%												652	6%
2	80121	35,178	14,597	41%												11,014	31%
3	86008	15,539	6,423	41%												3,908	25%
2	5405	34,884	14,390	41%												9,957	29%
2	5908	9,021	3,707	41%												1,727	10%
2	85402	20,300	8,282	41%												844	9%
3	85011	16,302	6,623	41%												8,504	42%
3	87002	9,148	3,705	41%												1,739	11%
3	83304	9,320	3,751	40%												1,860	20%
2	61	3,186	1,259	40%												4,765	51%
1	5201	30,845	12,123	39%												311	10%
2	81002	5,662	2,209	39%												1,686	5%
2	81001	24,815	9,669	39%												4,800	85%
2	5403	16,451	6,389	39%												2,104	8%
1	5205	62,862	24,175	38%												1,500	9%
2	5801	34,360	13,113	38%												11,510	18%
2	80001	22,854	8,902	37%												7,769	23%
2	83303	16,121	5,857	36%												3,232	14%
2	83321	16,894	6,105	36%												3,651	23%
2	83104	45,083	16,034	36%												4,507	27%
																7,084	16%

Appendix F

**Table 5-5
High Frequency PM Locations**

Work Order Id	Description	Pipe ID #	Address
682147	Sewers - Clean PM - Hi-Freq 6 Month	20983	2598 MONTEREY BLVD
668202	Sewers - Clean PM - Hi-Freq 3 Month	6883, 6884, 6886, 6162	8100 FONTAINE ST
608237	Sewers - Clean PM - Hi-Freq 12 Month	30724, 30721, 30722, 30725, 30723	81 ALVARADO RD
669030	Sewers - Clean PM - Hi-Freq 3 Month	24802, 24803, 24804, 24805, 24801, 24800, 24799	1957 ASILOMAR DR
608358	Sewers - Clean PM - Hi-Freq 12 Month	31394, 31373, 31374	25 DARTMOUTH DR
669825	Sewers - Clean PM - Hi-Freq 3 Month	17964, 17987, 15469, 17989	1125 FLEET RD
670151	Sewers - Clean PM - Hi-Freq 3 Month	25870, 25805, 25844, 25779, 22174, 25810	5200 BROADWAY
649191	Sewers - Clean PM - Hi-Freq 6 Month	6566	7018 MACARTHUR BLVD
669922	Sewers - Clean PM - Hi-Freq 3 Month	12163, 12162, 12161, 12166, 12149, 12148	4330 MOUNTAIN BLVD
669965	Sewers - Clean PM - Hi-Freq 3 Month	5740, 5739, 5746	4550 SEQUOYAH RD
670935	Sewers - Clean PM - Hi-Freq 3 Month	3087	110 GRAVATT DR

Work Order Id	Description	Pipe ID #	Address
663647	Sewers - Clean PM - Hi-Freq 6 Month	2843, 2838, 2837	11212 MONAN ST
650656	Sewers - Clean PM - Hi-Freq 6 Month	12002, 11995, 12003, 11994	3624 LOMA VISTA
655325	Sewers - Clean PM - Hi-Freq 6 Month	19704, 19724, 17359, 17413	500 LAKE PARK AV
673363	Sewers - Clean PM - Hi-Freq 3 Month	6837, 6830, 6833, 6831, 6897, 6898, 6899	7844 MOUNTAIN BLVD
652259	Sewers - Clean PM - Hi-Freq 3 Month	4249, 4251, 4250	83RD AV & IRIS ST
652389	Sewers - Clean PM - Hi-Freq 6 Month	19580, 19583, 19581, 19566, 19565, 19564	2336 HARRISON ST
653419	Sewers - Clean PM - Hi-Freq 6 Month	14671, 32340, 14670, 14651,14668, 14667	339 UNION ST
653715	Sewers - Clean PM - Hi-Freq 6 Month	20992, 20989, 20991, 20990	6260 CASTLE DR
678393	Sewers - Clean PM - Hi-Freq 3 Month	14137, 14138, 14283, 141157, 14139	4300 ATLAS AV
678268	Sewers - Clean PM - Hi-Freq 3 Month	20744, 20743, 20751, 20734, 20733, 21058, 32481, 20720, 20717, 31548, 20747	2600 LEIMERT BLVD
683060	Sewers - Clean PM - Hi-Freq 12 Month	26574	6020 ASPINWALL RD

Work Order Id	Description	Pipe ID #	Address
683064	Sewers - Clean PM - Hi-Freq 12 Month	23736, 23824, 23822, 23735	6730 LONGWALK DR
683077	Sewers - Clean PM - Hi-Freq 12 Month	9563, 9533, 9532	6167 OVERDALE AV
661213	Sewers - Clean PM - Hi-Freq 6 Month	5740, 5741	SEQUOYAH RD & MCGURRIN RD
668336	Sewers - Clean PM - Hi-Freq 6 Month	30942, 30958, 30688, 30686	1200 WESTVIEW DR
669192	Sewers - Clean PM - Hi-Freq 6 Month	17297, 17296, 17295	290 GRAND AV
666647	Sewers - Clean PM - Hi-Freq 6 Month	9570	6288 SUNNYMERE AV
663677	Sewers - Clean PM - Hi-Freq 6 Month	4236, 4197, 4239, 4241, 4235, 4198	82ND AV & IRIS ST
688780	Sewers - Clean PM - Hi-Freq 3 Month	17429, 17441, 31918, 17427, 17428	600 GRAND AV
688789	Sewers - Clean PM - Hi-Freq 3 Month	30446, 30447, 30440, 30445	6929 CHABOT RD
689447	Sewers - Clean PM - Hi-Freq 3 Month	8149, 8134, 8132, 8133, 8152, 8153, 8155, 8151	3914 EDGEMOOR PL
667300	Sewers - Clean PM - Hi-Freq 6 Month	11019, 12850, 12849, 11021, 11020, 11022, 12853	220 ALICE ST
690899	Sewers - Clean PM - Hi-Freq 3 Month	15954, 16014, 16013, 15958	4122 LAGUNA AVE

Work Order Id	Description	Pipe ID #	Address
690903	Sewers - Clean PM - Hi-Freq 6 Month	25257	6245 WESTOVER DR
667324	Sewers - Clean PM - Hi-Freq 6 Month	22039, 22038, 22036, 22037, 22035	6000 ASCOT DR
668264	Sewers - Clean PM - Hi-Freq 3 Month	31496, 31493, 31494, 31497 31498	1520 LAKESIDE DR
668449	Sewers - Clean PM - Hi-Freq 3 Month	22607, 22606, 22605	36TH ST & MARTIN LUTHER KING JR WY
668261	Sewers - Clean PM - Hi-Freq 6 Month	30842, 30844, 31131, 30845, 30841, 30840, 31057, 30843, 31133	1801 TUNNEL RD
692123	Sewers - Clean PM - Hi-Freq 3 Month	2718, 2717, 2720, 2719, 2716, 2695, 2694, 1924, 1923	11110 KERRIGAN DR
693428	Sewers - Clean PM - Hi-Freq 3 Month	26947, 26946, 26910, 26823, 26822, 26896, 26945	7295 SARONI DR
693456	Sewers - Clean PM - Hi-Freq 3 Month	2982, 2986	72ND AV & HAWLEY ST
693514	Sewers - Clean PM - Hi-Freq 3 Month	28577, 28573, 28572, 28576, 28574, 28563, 28513, 28623, 28512, 28627, 28626, 28514, 28578	6330 PINEHAVEN RD

Work Order Id	Description	Pipe ID #	Address
674212	Sewers - Clean PM - Hi-Freq 6 Month	27809, 27866	1 MORRILL CT
674160	Sewers - Clean PM - Hi-Freq 12 Month	5518, 5517	8251 FONTAINE ST
662167	Sewers - Clean PM - Hi-Freq 6 Month	25182, 25183	7280 WOODROW DR
678147	Sewers - Clean PM - Hi-Freq 6 Month	25918, 25921, 25919, 25920, 25917, 25922	25 STARK KNOLL PL
678414	Sewers - Clean PM - Hi-Freq 6 Month	26568	1731 GOULDIN RD
679624	Sewers - Clean PM - Hi-Freq 6 Month	10836, 10835	5425 LEONA ST
639210	Sewers - Clean PM - Hi-Freq 12 Month	11129, 11059, 11097, 11095, 11088, 11098	740 E 8TH ST
680157	Sewers - Clean PM - Hi-Freq 3 Month	17963, 17962, 18001, 17998, 18000, 17961, 17956, 17955, 18055	800 CREED RD
683084	Sewers - Clean PM - Hi-Freq 12 Month	9596, 9595, 9593, 9592, 9591, 9589	5815 LEONA ST
680520	Sewers - Clean PM - Hi-Freq 6 Month	30251, 30223, 30252, 30220, 30253	439 ALCATRAZ AV
682002	Sewers - Clean PM - Hi-Freq 6 Month	27511, 27525, 27523, 27522, 27512, 27529, 27526, 27530	COLLEGE AV & TAFT AV

Work Order Id	Description	Pipe ID #	Address
683091	Sewers - Clean PM - Hi-Freq 6 Month	10791, 10792, 10790, 10794, 10793	4210 KNOLL AV
641763	Sewers - Clean PM - Hi-Freq 12 Month	18025, 18026, 18028, 18030, 18029, 18027	1301 HOLMAN RD
642824	Sewers - Clean PM - Hi-Freq 12 Month	4239, 4235, 4241	8301 IRIS ST
685103	Sewers - Clean PM - Hi-Freq 6 Month	29751, 29752, 29755, 29756, 29754, 29753	451 MOUNTAIN BLVD
686563	Sewers - Clean PM - Hi-Freq 6 Month	2444, 2446, 2439, 2438, 2442, 2431, 2568, 2443, 2440, 2561	98TH AV & BURR ST
677946	Sewers - Clean PM - Hi-Freq 12 Month	13226, 13225	9TH AV & E 20TH ST
686572	Sewers - Clean PM - Hi-Freq 6 Month	13373, 13436, 13374, 13381, 13385, 13435, 13383, 13384, 13386, 13434	2524 14TH AV
643548	Sewers - Clean PM - Hi-Freq 12 Month	12124, 12126, 12125	4515 ELINORA AV
643776	Sewers - Clean PM - Hi-Freq 12 Month	1044, 881, 1054, 1056, 800	823 105TH AV

Work Order Id	Description	Pipe ID #	Address
687286	Sewers - Clean PM - Hi-Freq 6 Month	30625, 30624, 30632, 30626, 31179, 31178, 30855, 30854, 30495, 31128, 31127, 31126, 31081, 30617, 30623, 30622, 30621	200 CALDECOTT LN
687750	Sewers - Clean PM - Hi-Freq 12 Month	12451, 12452, 12465, 12466, 12467, 12468, 12471, 12469, 12472, 12473, 12474	12580 BROOKPARK RD
689162	Sewers - Clean PM - Hi-Freq 6 Month	22665, 22666, 24078, 24118, 22587, 24079, 22672, 22673, 22669, 22668, 24080, 24081, 24075	37TH ST & W MACARTHUR BLVD
690494	Sewers - Clean PM - Hi-Freq 6 Month	8986, 7376, 7375, 8988, 8987, 8841, 8840, 8838, 8853, 8852, 8883, 8877	2058 ROSEDALE AV
690602	Sewers - Clean PM - Hi-Freq 3 Month	27692, 27693, 27697	74 BEECHWOOD DR
690880	Sewers - Clean PM - Hi-Freq 6 Month	8772, 8770, 8771	1479 FRUITVALE AV
690890	Sewers - Clean PM - Hi-Freq 6 Month	2968, 2971	69TH AV & SNELL ST

Work Order Id	Description	Pipe ID #	Address
693491	Sewers - Clean PM - Hi-Freq 6 Month	14292, 14291, 14461, 14479, 14478, 14290	5707 REDWOOD RD
693521	Sewers - Clean PM - Hi-Freq 6 Month	27518	5600 COLLEGE AVE
650089	Sewers - Clean PM - Hi-Freq 12 Month	7508, 9072	4216 CARRINGTON ST
660363	Sewers - Clean PM - Hi-Freq 12 Month	10425, 10419, 10424	2633 ABBEY ST
666667	Sewers - Clean PM - Hi-Freq 12 Month	9576, 9562, 9533, 9541, 9534, 9560	4228 MOUNTAIN VIEW AV
665716	Sewers - Clean PM - Hi-Freq 12 Month	14133, 14368, 14370, 14369, 32471, 32408, 31614, 14132, 14399, 14398, 14371, 14374, 16219, 16403, 16402, 14372, 14129	353 CRESTMONT DR
667100	Sewers - Clean PM - Hi-Freq 3 Month	8269, 8268, 8267, 8270	6636 LAIRD AV
667899	Sewers - Clean PM - Hi-Freq 12 Month	14339, 14340, 14338, 14341, 14348, 14349, 14351, 14347, 14346, 14344, 14343, 14342, 14387, 14378, 14375, 16388, 14373, 16218, 16364, 16284	297 RISHHELL DR

Work Order Id	Description	Pipe ID #	Address
668188	Sewers - Clean PM - Hi-Freq 12 Month	22955, 22954, 22953, 22952	642 EL DORADO AV
669044	Sewers - Clean PM - Hi-Freq 12 Month	25433, 25344, 25343, 25307, 25431, 27009, 25338	7047 EXETER DR
681051	Sewers - Clean PM - Hi-Freq 12 Month	11242, 11252, 11174, 11175	745 11TH AVE
680414	Sewers - Clean PM - Hi-Freq 12 Month	29175, 29176, 29172, 30192, 30197, 30191, 29134, 29223, 29226	469 63RD ST
680868	Sewers - Clean PM - Hi-Freq 12 Month	29274, 29275, 29273, 29596, 29272, 29271, 29276	6098 ROCKRIDGE BLVD
682827	Sewers - Clean PM - Hi-Freq 12 Month	1729, 1703, 1704, 1726, 1721, 1705, 1702, 1730, 1697, 1701	10306 FOOTHILL BLVD
683122	Sewers - Clean PM - Hi-Freq 12 Month	19647, 19660, 19648, 19646, 19541, 17313, 17311, 19644	347 PERKINS ST
684121	Sewers - Clean PM - Hi-Freq 12 Month	4847, 6109, 6132, 6131, 4853	55TH AV & INTERNATIONAL BLVD
683771	Sewers - Clean PM - Hi-Freq 12 Month	6318, 6461, 6319, 7982, 7976	6334 CAMDEN ST

Work Order Id	Description	Pipe ID #	Address
684868	Sewers - Clean PM - Hi-Freq 12 Month	19608, 19609, 19613, 17345, 19614, 19615, 19610, 19606, 19611, 17357	GRAND AVE & HARRISON ST
686360	Sewers - Clean PM - Hi-Freq 12 Month	4696, 4697	488 LESSER ST
688750	Sewers - Clean PM - Hi-Freq 12 Month	3519, 3465	9777 GOLF LINKS RD
690592	Sewers - Clean PM - Hi-Freq 12 Month	7769, 7764	2646 COLE ST
693414	Sewers - Clean PM - Hi-Freq 12 Month	10285, 11913	2300 HUMBOLDT AV
695601	Sewers - Clean PM - Hi-Freq 12 Month	23634, 23635	5959 WESTOVER DR
695612	Sewers - Clean PM - Hi-Freq 12 Month	31552, 23790, 23791	2922 HOLYROOD DR
697187	Sewers - Clean PM - Hi-Freq 6 Month	2790, 2789	11177 ELVESSA ST
697185	Sewers - Clean PM - Hi-Freq 6 Month	12107, 12105, 12106, 12104	4445 SHEPHERD ST
697201	Sewers - Clean PM - Hi-Freq 12 Month	24578, 24577	5692 CABOT DR
698182	Sewers - Clean PM - Hi-Freq 12 Month	20983	1480 WESTVIEW DR
699228	Sewers - Clean PM - Hi-Freq 3 Month	17342, 17340, 17339, 17341, 17325	PERKINS & BELLVIEW

Appendix G

Port of Oakland Sewer Collection System Annual Report for July 1, 2014 – June 30, 2015



PORT OF OAKLAND

Port of Oakland
Sanitary Sewer Collection System
Annual Report

September 2015

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Section 1. Introduction

The Port of Oakland (“Port”), established under the City Charter in 1927, is an autonomous department of the City of Oakland (“City”) under the governance of a seven-member Board of Port Commissioners appointed by the mayor of Oakland. The Port manages a container seaport, a passenger/cargo/general aviation airport, and waterfront properties for commercial and recreational purposes.

The Port owns, operates and maintains a sanitary sewer collection system which consists of lateral pipes, trunk lines, manholes, lift and ejector stations, triturator, and other sewer appurtenances that delivers sewage to the City’s wastewater collection system and to East Bay Municipal Utility District (“EBMUD”) wastewater interceptors and treatment facilities.

The FY 2014-15 Sanitary Sewer Collection System Annual Report was prepared at the request of the Oakland Public Works. The following sections in this report present information pertaining to the following sanitary sewer programs for Fiscal Year 2014-15 (July 1, 2014 to June 30, 2015):

- Sanitary Sewer Overflow (SSO)
- Asset Management Implementation Plan
- Infiltration and Inflow Reduction Work
- SSO Reduction Work

Section 2. Sanitary Sewer Overflow (SSO)

Number and Size of SSOs

For the reporting period from July 1, 2014 to June 30, 2015, the Port’s sanitary sewer collection system had two (2) SSO events, all of which were reported to California Integrated Water Quality System (CIWQS). One SSO was associated with construction of a box culvert at the former Oakland Army Base and occurred during dry weather condition. The other SSO was a private sewer lateral force main located at the Oakland International Airport. The size of the SSO is summarized in **Table 1**.

Table 1. Number of SSOs

Size of SSO (gallons)	Number	Percent of Total
Greater than or equal to 1,000	2	100%
From 100 to 999	0	0%
From 10 to 99	0	0%
Less than 10	0	0%
Total	2	100%

The total volume released is estimated to be approximately 2,341 gallons. The volume of spills contained and returned to the sewer system, as well as the volume reaching waters of the State is shown in **Table 2**.

Table 2. Volume of SSOs

	Volume (gallons)	Percent of Total
Total volume contained and returned to sewer system for treatment	0	0%
Total volume reaching waters of the State	0	0%
Total volume not contained but not reaching waters of the State (everything else)	2,341	100%
Total	2,341	100%

This report may not include all SSOs that occurred from private sewer service laterals within the Port's jurisdiction that were caused by conditions in privately-owned laterals or on private property. The property owners are responsible for the condition and the operation of those sewer service laterals.

Cause of SSOs

The causes of SSOs during the reporting period were due to infrastructure failure and construction damage, none of which was associated with Port operations. The distribution of SSOs by cause is shown in **Table 3**.

Table 3. Causes of SSOs

Cause of SSO	Number	Percent of Total
Blockage:	0	0
Roots	0	0
Grease	0	0
Debris	0	0
Debris from Laterals	0	0
Vandalism	0	0
Animal Carcass	0	0
Construction Debris	0	0
Multiple Causes	0	0
Subtotal for Blockage	0	0
Infrastructure Failure	1	50%
Inflow & Infiltration	0	0
Electrical Power Failure	0	0
Flow Capacity Deficiency	0	0
Natural Disaster	0	0
Bypass	0	0
Construction Damage	1	50%
Cause Unknown	0	0
Total	2	100%

Location of SSOs and Measures to Prevent Future Spills

Table 4. Locations of SSOs

SSO Event ID	Location	Causes	Measures to Prevent Future SSO
812335	College of Alameda Aviation School/Oakland International Airport	Force main break located on Airport property but connected to sanitary sewer lift station located on College of Alameda Aviation School	Notify Peralta Community College District who owned, operated, and maintained the lift station
815387	Chungking Street	Sewer line was damaged during construction of Chungking St box culvert	Notify the City contractor

SSO Trends

The number of SSO events is the same for FY 2013-14 and 2014-15 (i.e., two SSO events each fiscal year). Although the sewage overflow volume increased significantly from 366 gallons in FY 13-14 to 2,341 gallons in FY 2014-15, no spill amount reached the surface water body. These SSOs occurred on the Port properties and were caused by uncontrollable external factors as mentioned above.

Section 3. Asset Management Implementation Plan

The Port has begun the implementation of the Asset Management Implementation Plan (AMIP) since August 2012. The AMIP is similar to Sewer System Management Plan (SSMP). In fact, many elements of the AMIP can be found in the Port's SSMP, which is available at <http://portofoakland.com/environment/programs.aspx>.

In addition, on July 9, 2015, the Board of Port Commissioners, by Resolution 15-073, approved and adopted the 2015 SSMP Update. The SSMP Update provides compliance with the Statewide General Waste Discharge Requirements (Sanitary Sewer Order No. 2006-0003-DWQ) and addresses changes in Port staff and organizational structure and changes in State regulations since the original adoption of the SSMP in 2010.

Section 4. Infiltration and Inflow Reduction Work

4.1 Sewer Main and Lateral Repair, Rehabilitation and Replacement

FY 2014-15 Sanitary Sewer Pipeline Projects Completed

- Approximately 2204 feet of 15-in and 18-in sewer mains on 7th Street and Ferry Street was rehabilitated with cured-in-place pipe (CIPP). Four (4) manholes were also lined to reduce the amount of inflow and infiltration into the sewer collection system;

- Minor repairs and lateral replacements throughout the Port.

FY 2015-16 Sanitary Sewer Pipeline Projects Proposed

- Perform sewer lateral inventory and mapping;
- Perform pipeline condition assessment to select appropriate rehabilitation methodology for sewer main on Earhart Road in the Aviation area and other areas as resources allowed;
- Continue with the sewer lateral repair and replacements in conjunction with tenant improvements and new development.

4.2 Sewer Main Inspection

The Port utilized outside contractors to inspect sanitary sewer lines within all three revenue areas (i.e., Aviation, Maritime, and Commercial Real Estate). For the reporting period, approximately one mile of sewer line was inspected.

Section 5. SSO Reduction Work

5.1 Capacity Assurance

No capacity improvement is necessary at this time since sewer pipelines within the Port contain sufficient capacity to accommodate existing design flows without exceeding the established capacity criteria. Future development at the Port will be subject to engineering review and evaluation to determine if capacity enhancement is necessary.

5.2 Sewer Main Cleaning

The Port utilized outside contractors to clean sanitary sewer lines within all three revenue areas. For the reporting period, approximately one mile of sewer line was flushed and/or jetted to remove grease buildups and to prevent potential blockages. In addition, preventive maintenance activities at all sewer lift stations and grease interceptors were performed on a routine schedule.

5.3 Pump Station Renovation and Upgrade

FY 2014-15 Lift Station Improvement Projects Completed

- Completed the condition assessment and performance evaluation study of nine (9) sanitary sewer lift and ejector stations at the Airport and developed the capital funding program for rehabilitation of these lift stations;
- Completed the design for rehabilitation of LS AP01P;
- Other improvements including installation of a new pump and check valve at LS R36P and new remote monitoring devices for LS D10P and R80P – all of which are located in the Maritime area.

FY 2015-16 Lift Station Improvement Projects Proposed

- SCADA system for Airport sewer lift station;
- Rehabilitate Airport sewer lift stations LS AP01P & LS AP02P and Maritime sewer lift station LS D09P.