

CITY OF OAKLAND



Sanitary Sewer Collection System

Annual Report

July 1, 2017 to June 30, 2018

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

Annual Sanitary Sewer Collection System Report for July 1, 2017 to June 30, 2018

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.

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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 2017-18 (July 1, 2017 to June 30, 2018). The City of Oakland is in overall compliance with the Consent Decree. The cumulative sewer rehabilitation work is significantly ahead of schedule and the City's sewer budget, staffing, and equipment have increased this Fiscal Year. It is the City's full intent to continue to meet its obligations under the Consent Decree.

Sanitary Sewer Overflows (SSO):

The City of Oakland's Sewer Collection System had 93 SSO events during FY 2017-18.

The total volume spilled in FY 2017-18 was 133,968 gallons, representing a 57% decrease in volume compared to the previous Fiscal Year. Of the total amount spilled, 20.34% was contained and returned to the system. In FY 2017-18, the total volume that reached surface water was 95,535 gallons from 23 SSO events. This is a 46.93% volume reduction from the previous fiscal year.

Asset Management Implementation Program (AMIP): The City plans to submit an update to the AMIP by the end of 2018.

Infiltration And Inflow Reduction Work:

Sewer Main and Maintenance Hole Rehabilitation. As of June 30, 2018, the City of Oakland has Rehabilitated 382,347 feet (72.4 miles) of Sewer Main. This exceeds the Consent Decree requirement to rehabilitate 285,120 feet (54 miles) by June 30, 2018.

As of June 30, 2018, the City of Oakland had Rehabilitated an additional 21,190 feet (4.0 miles) of Sewer Main as shown in Table 4-3. This is slightly more than the Consent Decree requirement to rehabilitate 21,120 feet (4 miles) by June 30, 2018.

The City's Sewer Main Rehabilitation Program is ahead of schedule.

Zero maintenance holes were found to be in poor condition in FY 2017-18. There are no outstanding maintenance holes in poor condition identified that need replacement.

Sewer Main and Maintenance Hole Inspection.

As of June 30, 2018, 2,352,943 feet (446 miles) of sewer mains have been inspected and assessed using CCTV inspection. This exceeds the Consent Decree requirement to inspect 2,185,920 feet (414 miles) by June 30, 2018.

The City of Oakland is in compliance regarding maintenance hole inspections. Between July 1, 2017 and June 30, 2018, 852 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.

In this reporting period, the City has been incorporating these Standards in the design of its capital projects. The Defendants have and will continue to discuss the Regional Standards, its effectiveness, and potential revisions and improvements at coordination meetings.

EBMUD’s Sewer Lateral Education and Outreach Program. The City continues to work with EBMUD in implementation of the program.

Sewer Lateral Inspection and Repair. In FY 2017-18, the City finalized 373 building permits which required certificates of occupancy for construction or remodeling permits in excess of \$100,000. All 373 building permits received Compliance Certificates issued by EBMUD which met the Consent Decree requirement to limit the number of building permits issued without Compliance Certificates to less than 25 per Fiscal Year.

During FY2017-18, City crews identified 92 defective sewer laterals. All affected property owners were notified in writing within 90 days of identifying the defective sewer laterals.

Inflow and Rapid Infiltration Identification and Elimination. The City will continue to work with EBMUD in implementation of the program.

On September 28, 2017, EBMUD submitted to the City, FY 2016-17 Annual Satellite Notification, in which no linear nor non-linear I/I sources, and 66 private I/I sources were identified. The City provided a response on December 20, 2017, in which 2 of the 66 private sources were determined to be high priority. One source has already been eliminated and the other one is being actively enforced so that it can be eliminated within the required twenty-four months.

SSO Reduction Work:

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. In FY 2017-18 the City experienced a total of five (5) locations that reached within one foot of the Maintenance Hole rim. All flows were contained within the system and no SSO event occurred at any of these five (5) locations. One location was suspected to be capacity related. The other four (4) locations were not capacity-related.

Acute Defects.

- Eight (8) Acute Defects found in FY2016-17:
 - All eight (8) acute defects were repaired in FY17-18 within the one-year requirement.
- Nineteen (19) Acute Defects found in FY17-18:
 - Fourteen (14) of these that have been repaired (all within the one-year requirement);
 - Five (5) of these to be repaired in FY18-19.
- No Sanitary Sewer Overflows occurred because of delays in Repair of Acute Defects.
- The status of each repair pertains to the FY initially identified. Outstanding repairs for each FY will be updated annually until repaired, and the record will be added to the associated repaired reporting once performed.
- Seventy (70) sewer assets were removed from Acute Defect List in previous annual reports. It was determined that none of these sewer segments has been or is in a condition that poses an imminent risk

of a sanitary sewer overflow (SSO). There are no records of SSO events within the vicinity of these sewer segments since they were initially identified as Acute Defects.

Sewer Main Cleaning. As of June 30, 2018, Oakland has cleaned its entire Collection System, meeting the requirement of the Consent Decree.

Root Cleaning (Foaming). As of June 30, 2018, the City had root foamed 1,327,657 feet (251.5 miles) of Sewer Mains, which exceeds the Consent Decree requirement of 1,320,000 feet (250 miles).

On December 9, 2016, the City submitted an evaluation report of the root control program to EPA for review and approval. On February 27, 2017, EPA rejected the City’s proposal to foam 23.4 miles of sewer mains per year and directed to continue treating 50 miles of sewer mains per year as specified in paragraph 92(e) of the Consent Decree. The City requests a more substantial response and reconsideration of the request for a conditional approval.

Hot Spot Cleaning. As of June 30, 2018, 177 locations were identified as hot spots by staff. Each of these locations was cleaned at least once in FY 2017-18.

Fats, Oil and Grease (FOG) Control. In FY 2017-18, 26 SSOs were thought to be associated with FOG. These locations were referred to EBMUD for investigation.

Pump Station Renovation. The City’s sewer collection system consists of seven (7) pump stations. Improvements on one pump station were completed in 2012. Improvements on three pump stations were completed in FY17-18. Design of the remaining three pump stations was completed in FY17-18. Due to high construction costs, the construction of the remaining three pump stations is to be scheduled in FY18-19 and FY19-20. The completion of all pump stations will be completed by 2021, prior to the required deadline of October 2022.

Known Noncompliance with Consent Decree. During FY2017-18, the City is in full compliance with Consent Decree.

Assessment of Stipulated Penalties. Paragraph 186 of the Consent Decree: For each SSO that reaches waters of the United States, a stipulated penalty may be assessed as follows, with “gallons” referring to the total size of the overflow, spill or release:

Penalty Per SSO for SSOs totaling:		
Less than 1,000 gallons	1,000 to 9,999 gallons	10,000 gallons or more
\$200	\$1,000	\$25,000

In FY 2017-18, the total SSO volume reaching surface waters was 95,535 gallons from 23 SSO events. Table 2-1 provides the total number of SSOs in each of the three volume categories.

The total potential assessed stipulated penalty for FY 2017-18 SSOs that reached Waters of United States is \$86,200.

The City believes that Stipulated Penalties should not be assessed for the SSO events that reached surface waters. The spills were caused by a variety of reasons such as grease deposits, root intrusion, debris, and heavy storms and are considered non-point sources. The City has been meeting the cleaning and rehabilitation goals annually since FY 2014 and has responded quickly to SSOs. A penalty would impact the ability of the City to meet future

goals as the rehabilitation costs have significantly increased due to market conditions. If Plaintiffs disagree with this position, the City would appreciate the opportunity to discuss assessment of any potential penalties and provide additional explanations of its position.

Recommended Changes to Required Work. The City proposes root treatment of 23.4 miles of sewer mains per year instead of the 50 miles of sewer mains per year specified in paragraph 92(e) of the 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 2017-18 (July 1, 2017 to June 30, 2018):

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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 93 SSO events during FY 2017-18.

The total volume spilled in FY 2017-18 was 133,968 gallons, representing a 57% decrease in volume compared to the previous Fiscal Year. Of the total amount spilled, 20.34% was contained and returned to the system. In FY 2017-18, the total volume reaching surface water was 95,535 gallons from 23 SSO events. This is a 46.93% volume reduction from the previous fiscal year. Table 2-1 provides the number of SSOs in each of the three volume categories as described in Paragraph 186 of the Consent Decree.

Table 2-1 SSOs Reaching Waters of United States

FY	Qty of SSOs where less than 1,000 gallons reached waters of the US	Qty of SSOs where 1,000 - 9,999 gallons reached waters of the US	Qty of SSOs where 10,000 gallons or more reached waters of the US
FY 2017-18	11	9	3

A detailed list of SSOs is shown in **Appendix A**.

Number and Location of Repeat Overflows

In Fiscal Year 2017-18, the City had 11 locations (11 SSOs) 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”. Additionally, the City is analyzing pipes with root-related SSOs for potential pipe rehabilitation.

Table 2-2 Repeat SSO Locations, FY 2017-18

SSO Location	CIWQS #	Cause	Date	Measure(s) to prevent SSO	Pipe ID
411 E 18 th St	843831	FOG	1/1/18	On 6 month PM list	13164
4374 Terrabella Way	848701	Root Intrusion	6/30/18	On 6 month PM list	14443
833 Erie St	844788	Staff will CCTV to investigate the cause	2/3/18	On 12 month PM list	19907
1293 Sunnyhills Rd	839933	Root Intrusion	9/13/17	On 12 month PM list	20504
2012 Melvin Rd	837532	Root Intrusion	7/22/17	On 6 month PM list	20928
9907 Bernhardt Dr	843325	FOG	12/29/17	On 12 month PM list	31547
1418 84 th Ave	840789	Debris	10/5/17	On 12 month PM list	3165
2520 Church St	847031	FOG	5/8/18	On 6 month PM list	6496
8009 Fontaine St	839362	EBMUD discharge	8/26/17	On 3 month PM list	6864
8150 Hansom Dr	840092	Root Intrusion	9/17/17	On 12 month PM list	6983
Santa Rita & High St	846953	Debris	5/6/18	On 12 month PM list	9078

Sewer Overflows in Rehabilitated Areas

In FY 2017-18, 4 SSOs occurred in areas rehabilitated since July 1, 2007 (within the last ten years) as shown in Table 2-3 below. Of these locations, all 3 of the 4 SSOs were FOG related problems and one was due to the movement of a hill. Corrective actions, as detailed below, include cleaning, CCTV inspection, and addition to the “Hot Spot” list.

**Table 2-3
SSO Locations within Rehabilitated Areas, FY 2017-18**

SSO Location	CIWQS #	Cause	Date	Measure(s) to prevent SSO	Rehab Year	Pipe ID
1000 Oak St	844761	FOG	2/3/18	Added to High Frequency 6-month Power Rodding Program	2010	12817, 12818
San Pablo Ave & W MacArthur	843511	FOG	12/29/17	Added to High Frequency 6-Month Hydro Flushing Program	2017	23901
64 th Ave & Buena Ventura Ave	841958	Pipe Structural Problem/Failure: Movement of hill	11/29/17	Sewer line has been repaired	2013	8187
4975 Stoneridge Ct	840018	FOG	9/15/17	Added to 12 Month High Frequency Hydro Flushing Program	2014	9732

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 an updated 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 AMIP and the Consent Decree. Also the City is working on updating the AMIP and plans to submit a revised AMIP later.

Section 4. Infiltration and Inflow Reduction Work

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, 2018, the City of Oakland had Rehabilitated 382,347 feet (72.4 miles) of Sewer Main as shown in Table 4-1. This exceeds the Consent Decree requirement to rehabilitate 285,120 feet (54 miles) by June 30, 2018. The City’s Sewer Main Rehabilitation Program is ahead of schedule.

Table 4-1
Length of Rehabilitated Sewer Mains

Fiscal Year	Mains Rehabilitated	Cumulative Total	CD Requirement **
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	71,751’ (13.6 miles)	263,950’ (50.0 miles)	158,400’ (30 miles)
FY 2016-17	58,964’ (11.2 miles)	322,914’ (61.2 miles)	221,760’ (42 miles)
FY 2017-18	59,433’ (11.2 miles)	382,347’ (72.4 miles)	285,120 (54 miles)

**Cumulative total beginning 01/01/14

Table 4-2 provides details of projects completed in FY 2017-18.

**Table 4-2
Sewer Main Rehabilitation Projects Completed in FY 2017-18**

Project Number	Description	SubBasin Number	Lateral Connections	Maintenance Holes	Length (Feet)	Length (Miles)	Construction Costs
C329148 (1001166)	Rehabilitation of Sanitary Sewers Subbasin 83-501	83-501	86	21	3,147	0.6	\$650,096
C329147 (1000667)	Rehabilitation of Sanitary Sewers Subbasin 83-013	83-013	130	58	8,425	1.6	\$1,405,735
C482950 (1000843)	Rehabilitation of Sanitary Sewers Subbasin 60-04	60-04	35	41	7,330	1.39	\$1,402,760
C482940 (1001322)	Rehabilitation of Sanitary Sewers Subbasin 83-402	83-402	130	54	7,178	1.36	\$1,331,021
C482960 (1001375)	Rehabilitation of Sanitary Sewers Subbasin 58-04	58-04	111	18	4,742	0.9	\$1,229,331
C329136 (1000672)	Rehabilitation of Sanitary Sewers Brookdale Ave, Silver	85-231, 85-402, 83-002, 84-102	50	20	3,071	0.58	\$669,390
C329154 (1001173)	Capacity upgrade	20-01, 54-01, 52-05, 81-014	37	18	2,387	0.45	\$2,109,752
C329157 (1000980)	Rehab of SS Chelton Dr, Ascot Dr, HolyRood Dr, and Castle Dr	56-07	53	4	6,074	1.15	\$1,354,380

C329146 (1000668)	Rehabilitation of Sanitary Sewer in the Area bounded by Chelton Dr, Skyline Blvd, Holyrood Dr, and Ascot Dr	56-07	204	180	15,331	2.9	\$2,993,420
C329155 (1001018)	Sanitary Sewer Rehabilitation in Various Locations	85-211, 85-003	71	9	1,748	0.33	\$394,132
Total			907	423	59,433	11.26	\$13,540,017

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.”

As of June 30, 2018, the City of Oakland had Rehabilitated 21,190 feet (4 miles) of Additional Sewer Mains as shown in Table 4-3. Details of Additional Sewer Mains rehabilitated in FY2017-2018 is shown in Table 4-4.

Table 4-3
Length of Additional Sewer Mains Rehabilitated

Fiscal Year	Mains Rehabilitated	Cumulative Total	CD Requirement
FY 2014-15	6,485’ (1.2 miles)	6,485’ (1.2 miles)	5280’ (1 mile)
FY 2015-16	6,097’ (1.2 miles)	12,582’ (2.4 miles)	10,560’ (2 miles)
FY 2016-17	3,803’ (0.7 miles)	16,385’ (3.1 miles)	15,840’ (3 miles)
FY 2017-18	4,805’ (0.9 miles)	21,190’ (4.0 miles)	21,120 (4 miles)

Table 4-4
Additional Sewer Mains Rehabilitated in FY 2017-18

Project No	Description	Completion Date	SubBasin No	Lateral Connections	Maintenance Holes	Length (feet)	Length (Miles)	Construction Cost
C455640 (1001613)	On-Call Sanitary Sewer	6/30/2018	50-17, 50-18, 54-09, 56-04, 56-05, 54-05, 54-04, 54-03, 50-14, 62-02, 50-02, 85-003, 52-11, 50-22, 17 52-12	81	33	4,805	0.91	\$878,180
Total				81	33	4,805	0.91	\$878,180

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 2017-18 the City Repaired or Rehabilitated a combined total of 456 Maintenance Holes.

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. Any abandoned or inactive house connection sewer laterals were cut back two feet from the main and plugged with Class C mortar, at least six inches into the abandoned/inactive house connection sewer, per City Specifications.

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 2017-18, the City budgeted \$ 17,309,400 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. It must be noted that capital budget is not typically spent in one fiscal year as project activities and expenditures span a 2 to 3 year periods. As shown in Tables 4-2 and 4-4, the total combined expenditure for sewer main rehabilitation was \$14,418,197 in FY2017-2018.

2017-18 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 2018-19, the City plans to complete 7 Sewer Main Rehabilitation projects as listed in Table 4-5 below. These projects will rehabilitate approximately 10.33 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 one (1) additional mile of sewer main rehabilitation required under Paragraph 83.b. The locations for the additional one (1) mile of sewer mains rehabilitation will be developed in response to complaints and requests from the acute defect list as described in Section 5-3 of Appendix C of this report. Appendix H of the Consent Decree lists Oakland's Sewer Collection System sub-basin priorities.

**Table 4-5
FY 2018-19 Proposed Sewer Main Rehabilitation Projects**

No.	Project No.	Description	Length (Miles)
1	1001173 Task 2	Sanitary Sewer Upgrade Park Blvd	0.7
2	1001173 Task 3	Sanitary Sewer Upgrade Trestle Glen Rd	0.1
3	1003231	Sanitary Sewer Rehabilitation Sub-Basin (80-003)	2.56
4	1001039	Rehab of SS Castle Dr, Chelton Dr, Ascot Dr, and Mountain Blvd (Subbasin 56-07)	2.83
5	1004342	Sanitary Sewer Rehabilitation Sub-Basin (80-101)	2.18
6	1000654	Rehabilitation of Sanitary Sewer in the Area bounded by E Wetmore Road, MacArthur Boulevard, Mountain Boulevard, and Reinhardt Drive (83-012)	1.71
7	1000673	Rehabilitation of Sanitary Sewer in the Area bounded by Seminary Avenue, Avenal Avenue, Bancroft Avenue, 65th Avenue, and International Boulevard (83-103)	2.81
		Total	10.33

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 2017-18, no revisions were made to Appendix H.

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 4-6, 2,352,943 feet (446 miles) of sewer mains have been inspected and assessed using CCTV inspection. This exceeds the Consent Decree requirement to inspect 2,185,920 feet (414 miles) by June 30, 2018.

**Table 4-6
 Length of Sewer Mains Inspected and Assessed**

Fiscal Year	Mains Assessed **	Cumulative Total ***	CD Requirement
FY 2013-14*	182,935' (35 miles)	182,935' (35 miles)	242,880' (46 miles)
FY 2014-15	618,991' (117 miles)	801,926' (152 miles)	728,640' (138 miles)
FY 2015-16****	619,913' (117 miles)	1,408,769' (267 miles)	1,214,400' (230 miles)
FY 2016-17	502,816' (95 miles)	1,911,585 (362 miles)	1,700,160' (322 miles)
FY 2017-18	441,361' (84 miles)	2,352,943 (446 miles)	2,185,920' (414 miles)

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

**Newly-unique feet assessed during the FY (feet that had no previous assessment between January 1, 2014 and the start of the FY)

***Cumulatively-unique feet starting January 1, 2014

****Numbers reflect updates to sewer GIS data; the updates were done in FY 2015-16. Totals for prior fiscal years were not re-calculated based on the newer updates to sewer GIS data; therefore, the current cumulative total may not equal the prior cumulative total plus the total for the current fiscal year.

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, 2017 and June 30, 2018, 852 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. Zero (0) Maintenance Holes were found in poor condition.

4.3 Development of Regional Standards

Paragraph 166.a.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.

In this reporting period, the City has been incorporating these Standards in the design of its capital projects. The Defendants have and will continue to discuss the Regional Standards, its effectiveness, and potential revisions and improvements at coordination meetings.

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 4-7 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).

**Table 4-7
Permits Finalized, with EBMUD Certificates of Compliance**

Fiscal Year	# Permits Finalized	# with Compl Cert	# w/o Compl Cert
FY 2017-18	373	373	0

In FY 2017-18, the City finalized 373 building permits which required certificates of occupancy for construction or remodeling permits in excess of \$100,000. All 373 building permits received Compliance Certificates issued by EBMUD which 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 4-8, during FY 2017-18 City crews identified 92 defective Sewer Laterals. The City, as a practice, immediately notifies property owners when defective sewer laterals are identified by placing a door hanger notice (Figure 4-3, Appendix B) at the affected property. This is done every time our sewer maintenance crews complete a field investigation with confirmation of a defective sewer lateral. The City is in full compliance with the requirements in Paragraph 85.a. of the Consent Decree in FY2017-18. A sample letter of administrative enforcement actions is attached in Figure 4-3, Appendix B.

**Table 4-8
Defective Sewer Laterals**

# of Defective Sewer Laterals Identified in Fiscal Year 2017-18	# Of Notices Sent Within 90 Days Or Repaired Within 90 Days	# Of Notices Sent Beyond 90 Days	# Of Administrative Enforcement Actions for Defective Sewer Laterals
92	92	0	10

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 June of 2016, the City awarded an on-call construction contracts with two Contractors 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. During FY 2017-18, the City did not inspect or rehabilitate any Oakland-owned sewer laterals. Construction of 26 locations are scheduled in 2019. The City expects to complete inspection and repair of City-owned Sewer Laterals ahead of the September 21, 2024, completion date specified in the Consent Decree. A list of Oakland-Owned Sewer Laterals is presented in Table 4-9 of Appendix D.

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 2017-18, 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 will continue to work with EBMUD in implementation of the program.

Lower Sewer Laterals

Paragraph 166.b.ii 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 4-4, as part of its Sewer Main Rehabilitation, the City reconnected all 988 encountered Sewer Lateral connections, including connections to laterals within easements. The City Repaired or Rehabilitated 631 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;...”

The City will continue to work with EBMUD in implementation of the program.

On September 28, 2017, EBMUD submitted to the City, FY 2016-17 Annual Satellite Notification, in which no linear nor non-linear I/I sources, and 66 private I/I sources were identified as shown in Table 4-10. The City

provided a response on December 20, 2017, in which 2 of the 66 private sources were determined to be high priority. One source has already been eliminated and the other one is being actively enforced so that it can be eliminated within the required twenty-four-month timeframe.

Table 4-10 Inflow and Rapid Infiltration Identification

EBMUD Notification FY	High Priority Sources	Number of Locations Identified	# of Notices Sent Within 90 Days	# of Notices Sent Beyond 90 Days	# of Locations Abated Within Time Requirement	# of Locations Abated Beyond Time Requirement
FY 2015-16	Linear High Priority Sources	0	N/A	N/A	N/A	N/A
	Non-Linear High Priority Sources	0	N/A	N/A	N/A	N/A
	Private High Priority Sources	1	1	0	N/A*	N/A*
	Private Low Priority Sources	23	23	0	N/A	N/A
FY 2016-17	Linear High Priority Sources	0	N/A	N/A	N/A	N/A
	Non-Linear High Priority Sources	0	N/A	N/A	N/A	N/A
	Private High Priority Sources	2	2	0	1*	N/A*
	Private Low Priority Sources	64**	64	0	N/A	N/A

*Status update will be provided in the next RTSP Notification Response report.

**two (2) out of 64 identified private low priority sources are in the jurisdiction of the Port of Oakland and EBMUD is in conversation with them.

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 2017-18, the City monitored water levels in Maintenance Holes listed in Paragraph 89(a) of the Consent Decree by using high-water level alarm sensors. These sensors were installed 12” below the rim of the manhole cover. The low water level alarm sensors were installed 17” below the rim of the manhole cover. Table 5-1 provides information required in Paragraph 167a of the Consent Decree.

Paragraph 167.a.i requires the City to show the *“highest water level in relation to the Maintenance Hole observed in the reporting Fiscal Year”*.

Table 5-1 is a cumulative list of all locations that received high water level alarms in FY 2014-15, FY 2015-16, FY 2016-17, and FY 2017-18. In FY 2017-18 the City experienced a total of five locations that reached within one foot of the Maintenance Hole rim. All flows were contained within the system and no SSO events have occurred at any of these five locations. One location was suspected to be capacity related. Four locations were non-capacity related.

Paragraph 167.a.ii requires the City to identify any *“capacity-related SSO or instance of the water level reaching within one (1) foot of the Maintenance Holes rim due to a lack of capacity and whether the event(s) occurred during a rain event that was greater than the December 5, 1952 Storm”*.

As shown in Table 5-1, high water levels were experienced in six locations that were triggered by the December 11, 2014 storm event and six locations that were triggered by the February 20, 2017 storm event. Our analysis shows that the December 11, 2014 and February 20, 2017 storms have exceeded the December 5, 1952 storm. These events surpassed a 5-year classification with a full duration classification of a 10-year, 21-hour event. Despite this, and out of an abundance of caution, the City has begun design of upgrades at all locations where high water levels were triggered. A full detail of the City’s progress on the planned upgrades is provided below.

Paragraph 167.a.iii requires the City to provide *“a description of all activity the City performed to prevent an SSO from occurring at a location where the City had reason to believe a capacity-related SSO was likely to occur”*.

Table 5-1 includes a description of maintenance activities performed to prevent SSO’s for each location.

Paragraph 167.a.iv requires the City to provide *“a description of activities to address locations that do not have sufficient capacity”*.

Table 5-1 includes a description of maintenance activities performed to prevent SSO for each location. The City completed construction at five (5) capacity upgrades locations. In addition, as stated above, the City is proceeding with preparing construction plans for capacity upgrades at three (3) locations. This work started FY 2014-15; however, due to the complexity of the project location and encountering physical challenges in the existing field conditions, the project has been delayed. The following is a summary progress report on all eight locations:

- San Pablo Avenue at 60th Street – Construction Completed on January 19, 2018
- San Pablo Avenue at 62nd Street – Construction Completed on January 22, 2018
- Grand Avenue and Harrison Street – Construction Completed on November 17, 2017
- East 18th Avenue at 4th Avenue - Construction Completed on December 11, 2017
- Maybelle Avenue and Masterson Street - Construction Completed on September 22, 2017
- Trestle Glen Road at Creek Road – Construction planned for Fall 2018
- Park Blvd and Spruce Street - Construction planned for Fall 2018
- Maybelle Avenue, Porter Street and High Street – Construction planned for Fall 2019

Furthermore, in FY 2015-16, the City completed a large sewer rehabilitation project downstream of three triggered locations: 27th Avenue & Vernon Street, Grand Ave and Harrison St, and 19th Street and Jackson Street. That project rehabilitated approximately 1,079 linear feet of existing 60” conduit sewer pipes with Centrifugally Cast, Fiberglass-Reinforced, Polymer Mortar (CCFRPM) pipes and applied coating for approximately 342 linear feet of existing 3’x 4’-10” conduit sewer pipes. That project is expected to improve the hydraulic conditions of the sewer system in the downtown area and lower the overall hydraulic gradient line in sewer pipes upstream.

Paragraph 167.a.v requires the City to provide *“a list of sewer segments improved pursuant to Paragraph 89(b) including the date the capacity was improved, and certification that any improved Sewer Main has sufficient capacity”*.

There are no activities to report in FY2017-18.

Paragraph 167.a.vi requires the City to provide *“identification of any capacity-related SSOs and the SSO date and location”*.

In FY 2017-18, no Sanitary Sewer Overflows occurred in any of the Maintenance Holes listed in Paragraph 89(a) of the Consent Decree.

**Table 5-1
Capacity Related High Level Alarms Triggered**

No. Listed from Consent Decree	Location	Event Occurrence			Reasons for High Level Alarm	Maintenance Performed to Prevent SSO's	Comment
		Date of Occurrence	Rain Event?	Exceeded 1952 Storm?			
i.	San Pablo Avenue at 60th Street	* 12/11/2014	Yes	Yes	Exceeded 1952 Storm	Televised: 5-29-14, 2-18-15, 9-20-16	**Construction Completed on January 19, 2018.
		1/19/2016	Yes	No	Grease & Capacity	Cleaned: 2-18-15, 4-28-16, 9-20-16	
		3/5/2016	Yes	No	Grease & Capacity	On Hot Spots List	
ii.	San Pablo Avenue at 62 nd Street	9/23/2015	No	N/A	Maintenance staff triggered sensor	Televised: 4-29-14, 10-17-16 Cleaned: 9-23-15, 8-30-16	**Construction Completed on January 22, 2018.
		10/20/2017	No	N/A	Construction activities triggered sensor	On Hot Spots List	
iii.	Stanford Avenue at Gaskill Street	9/23/2015	No	N/A	Maintenance staff triggered sensor	Televised: 8-20-14, 10-06-16. Cleaned: 10-06-15, 10-06-16.	Upsizing not needed.
		8/25/2016	No	N/A	Maintenance staff triggered sensor	Inspected and reset surcharge alarm unit 9-23-15.	
iv.	27th Avenue & Vernon Street	* 12/11/2014	Yes	Yes	Exceeded 1952 Storm	Televised: 4-29-14, 12-16-14, 9-19-2016	Upsizing not needed. The current hydraulic model shows there is sufficient capacity. The location is placed on the High Frequency 6-month cleaning list.
		1/19/2016	Yes	No	Grease	Cleaned: 4-29-14, 6-2-14, 1-13-15, 7-27-15, 2-8-16,	
		12/15/2016	Yes	No	Grease	8-10-16, 9-19-15, 2-14-17, 8-25-17, 3-9-17, 5-2-17	
		2/20/2017	Yes	Yes	Exceeded 1952 Storm	On High Frequency Cleaning List Every 6 Months	

v.	Grand Avenue and Harrison Street	* 12/11/2014	Yes	Yes	Exceeded 1952 Storm	Televised: 4-28-14 Cleaned: 4/28/14, 5/27/2015, 6-8-16, 6/13/17	**Construction Completed on November 17, 2017.
		1/06/2016	Yes	No	Grease & Sag		
		1/17/2016	Yes	No	Grease & Sag		
		1/19/2016	Yes	No	Grease & Sag		
		1/22/2016	Yes	No	Grease & Sag		
		3/5/2016	Yes	No	Grease & Sag		
		12/10/2016	Yes	No	Grease & Sag		
		12/15/2016	Yes	No	Grease & Sag		
		1/9/2017	Yes	No	Grease & Sag		
		1/10/2017	Yes	No	Grease & Sag		
		1/18/2018	Yes	No	Grease & Sag		
		1/20/2017	Yes	No	Grease & Sag		
		1/22/2017	Yes	No	Grease & Sag		
		2/20/2017	Yes	Yes	Exceeded 1952 Storm		
		3/4/2017	Yes	No	Grease & Sag		
		4/7/2017	Yes	No	Grease & Sag		
		7/29/2017	No	N/A	PG&E Construction activities		
vi.	19th Street and Jackson Street	† 12/13/2015	Yes	No	Downstream sewer construction by-pass and cleaning triggered sensor	Televised: 5-27-14, 10-3-16, 11-18-16, 5/15/2017 Cleaned: 11-21-14, 9-19-16, 11-16-16, 5/2/2017 Inspection every 6 months	Revised conclusion that the trigger was not capacity related. Additionally, a sewer relief line was constructed in 2010.

vii.	Park Blvd and Spruce Street	1/17/2016	Yes	No	Capacity	Televised: 11-14-14, 8-3-16 Cleaned: 1/23/14, 7-8-16 On High Frequency Cleaning List every 12 Months	Capacity deficiency mitigated due to immediate downstream upsizing project on East 18 th Ave at 4 th Ave. ***Planned for Fall 2018 Construction.
		3/5/2016	Yes	No	Capacity		
		3/12/2016	Yes	No	Capacity		
		1/8/2018	Yes	No	Maintenance staff triggered sensor		
viii.	East 18th Avenue at 4th Avenue	* 12/11/2014	Yes	Yes	Exceeded 1952 Storm	Televised: 12-26-14, 8-14-15, 8-29-17 Cleaned: 8-09-16	**Construction Completed on December 11, 2017.
		12/13/2015	Yes	No	Capacity		
		12/21/2015	Yes	No	Capacity		
		1/06/2016	Yes	No	Capacity		
		1/17/2016 & 1/19/2016	Yes	No	Capacity		
		3/05/2016 & 3/10/2016	Yes	No	Capacity		
		12/10/2016 & 12/15/2016	Yes	No	Capacity		
		2/20/2017	Yes	Yes	Exceeded 1952 Storm		
ix.	††Maybelle Avenue and Masterson Street	* 12/11/2014	Yes	Yes	Exceeded 1952 Storm	Televised: 1-2-15, 9-22-16, 1-10-17, 8-24-17, 11-19-17 Cleaned: 12-27-15, 3-15-16, 1-2-17, 9-13-17	**Construction Completed on September 22, 2017.
		1/17/2016 & 1/19/2016	Yes	No	Sag		
		3/5/2016 & 3/10/2016	Yes	No	Sag		
		3/13/2016 & 1/10/2017	Yes	No	Sag		
		2/20/2017	Yes	Yes	Exceeded 1952 Storm		

		9/19/2017	No	N/A	Construction activities triggered sensor		
x.	†††Trestle Glen road and Creed Road	* 12/11/2014	Yes	Yes	Exceeded 1952 Storm	Televised: 1-26-15 Cleaned: 5-6-15, 11-9-15, 5-10-16, 12-5-16, 6-6-17 Location on High Frequency Cleaning List Every 3 Months	***Sag will be corrected and 606 linear feet of pipe will be upsized in Fall 2018.
		1/17/2016 & 1/19/2016	Yes	No	Debris & Sag		
		3/5/2016	Yes	No	Debris & Sag		
		12/10/2016 & 12/15/2016	Yes	No	Debris & Sag		
		1/10/2017	Yes	No	Debris & Sag		
		2/20/2017	Yes	Yes	Exceeded 1952 Storm		
		4/7/2018	Yes	No	Debris & Sag		
xi.	76 th Avenue and Bancroft Avenue	8/25/2016	No	N/A	Maintenance staff triggered sensor	Televised: 12-18-14, 9-29-17 Cleaned: 5-28-14, 6-3-2015, 2-9-16, 6-22-16, 2-15-17, 9-29-17 Location on High Frequency Cleaning List Every 12 Months	
		2/20/2017	Yes	Yes	Exceeded 1952 Storm		

* Locations in which the water level reached within one foot of the Maintenance Hole rim during the December 11, 2014 rain event. Rain event exceeded 1952 Storm.

** Project 1001173

*** Project 1001173 Task #2

† The following information was not included in FY2015-16's Annual Report, because of a recent finding. The City re-evaluated the 12/13/2015 trigger event and revised a conclusion that the trigger was not capacity related. The trigger was caused by construction activities on a sewer project downstream between December 7, 2015 and December 17, 2015. The construction activities included a sewer bypass, sewer pipe cleaning, and CIPP preparation setup for a 48" sewer line rehabilitation at San Pablo and West Grand Avenue. The bypass pump was set up between San Pablo Ave and West Grand Ave.

Additionally, a sewer relief line was constructed from City Project No. C59310 in 2010 to increase sewer capacity near the intersection of Jackson Street and 19th Street. The project split the sewer flows running north

on Jackson Street; diverting a portion of the flow to continue north towards Lakeside Drive. Prior to the construction of these improvements, the sewer manhole 50-904-24 would experience high flow levels during high-intensity rain events. The constructed relief line added an alternative flow path from Jackson Street and 19th Street to the 60” trunk sewer line located on 20th Street to the north. The increased capacity provided by the new relief line has reduced the chance of a sanitary sewer overflow (SSO) at this location.

The City have undergone hydraulic analysis to determine the benefit the relief line provides. The City’s hydraulic model was run under two scenarios, (1) without improvements and (2) with the relief line constructed. In both instances a 5yr-7hr design storm was used to evaluate sewer performance during a rainfall event. Under scenario (1), the hydraulic grade line (HGL) rose above the rim elevation at manhole 50-904-24, indicating that an SSO would occur. Under scenario (2), with the relief line constructed, the HGL lowered from 8.38 to 7.63 and below the manhole rim.

†† To mitigate the capacity deficiencies in the sewer pipes between Maybelle Avenue and Masterson Street, City has completed construction to upsize the existing 10-inch VCP sewer pipe to 14-inch HDPE pipe along Maybelle Avenue between Masterson Street and MacArthur Boulevard. These improvements substantially reduce the risk of a sanitary sewer overflow during wet-weather. The City is proceeding with preparing construction plans for capacity upgrades between Maybelle Avenue, Porter Street and High Street.

††† To mitigate the capacity deficiencies and correct the sags in the trunk sewer along Trestle Glen Road, the City evaluated several capacity improvement options. Of the scenarios evaluated, the preferred option is to up-size pipes along Trestle Glen Road between Creek Road and Humphrey Place from a 12-inch to 16-inch diameter. Modeling results show these improvements are able to contain local sewer flows within the system for the 5-year, 7-hour storm. These improvements substantially reduce the risk of a sanitary sewer overflow during wet weather. The up-sized lines will allow sufficient relief upstream while not overwhelming the system downstream.

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 2017-18, 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.”

Acute Defects are shown in Table 5-2 of Appendix C. Table 5-2 shows Acute Defect identified and/or completed in FY 2017-18.

As shown in Table 5-2, the following is a list of activities related to acute defects.

- Eight (8) Acute Defects found in FY 2016-17:
 - All eight (8) were repaired in FY17-18 within the one-year requirement
- Nineteen (19) Acute Defects found in FY17-18:
 - Fourteen (14) have been repaired (all within the one-year requirement)
 - Five (5) to be repaired in FY18-19
- No Sanitary Sewer Overflows occurred because of delays in the repair of Acute Defects.
- The status of each repair pertains to the FY initially identified. Outstanding repairs for each FY will be updated annually until repaired in which the record will be added to the associated repaired reporting.

It is noted that there are seventy (70) sewer segments identified as Acute Defects in previous Annual Reports that are removed from the Acute Defect list. It was determined that none of these sewer segments has been or is in a condition that poses an imminent risk of an SSO. There are no records of SSO events within the vicinity of these sewer segments since they were initially identified as Acute Defects. Consequently, all seventy (70) assets have been removed from the City's Acute Defect List and should not have been originally categorized as Acute Defects. Sewer Assets Removed from the Acute Defect List in Previous Annual Reports is presented in Table 5-3 of Appendix C.

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, all 4,903,673 unique feet (929 miles) of Sewer Main have been cleaned.

**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)
FY 2015-16 ****	941,179' (178 miles)	3,777,533' (715 miles)	3,379,200' (640 miles)
FY 2016-17	625,001' (118 miles)	4,402,534' (834 miles)	4,118,400' (780 miles)
FY 2017-18	501,139' (95 miles)	4,903,673' (929 miles)	4,903,673' (929 miles)
Since Effective Date (September 22, 2014)*****	2,609,036' (494 miles)	n/a	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

*** Numbers based on sewer GIS data in 2016. Totals for prior fiscal years were not re-calculated based on the newer updates to sewer GIS data; therefore, the current cumulative total may not equal the prior cumulative total combined with the total for the current fiscal year.

****Newly-unique feet cleaned starting September 22, 2014 (feet that had no previous cleaning between January 1, 2010 and September 21, 2014). Numbers reflect updates to sewer GIS data, the updates were done in FY 2015-16

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
FY 2015-16 **	411,287' (78 miles)	1,960,753' (371 miles)	n/a
FY 2016-17 **	325,672' (62 miles)	2,269,887' (430 miles)	n/a
FY 2017-18 **	281,057' (53 miles)	2,544,909' (482 miles)	n/a

*Starting January 1, 2010

** Numbers based on sewer GIS data in 2016. Totals for prior fiscal years were not re-calculated based on the newer updates to sewer GIS data. The pipes that are cleaned more than once in a fiscal year may be the same or different in each fiscal year, and the calculation is specific to each fiscal year. For example, pipe A may have been cleaned twice in FY2014-15 and twice in 2015-16, so its footage is included in each fiscal year's calculation; whereas pipe B may have been cleaned once in FY 2014-15 and twice in FY2015-16, so its footage

is only included in the FY 2015-16 calculation. The cumulative total would include pipe A only once and pipe B only once, which is why the current cumulative total cannot be calculated by combining the prior cumulative total and the total for the current fiscal year.

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
FY 2015-16 **	2,361,494' (447 miles)	8,799,050.32' (1,666 miles)	n/a
FY 2016-17 **	1,854,591 (351 miles)	10,656,915' (2,018 miles)	n/a
FY 2017-18 **	1,670,390' (316 miles)	12,355,381' (2,340 miles)	n/a

*Starting January 1, 2010

** Numbers based on sewer GIS data in 2016. Totals for prior fiscal years were not re-calculated based on the newer updates to sewer GIS data; therefore, the current cumulative total may not equal the prior cumulative total combined with the total for the current fiscal year.

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 been treating sanitary sewer mains to reduce instances of excessive root infiltration. The root-foaming program uses an herbicide which penetrates root cell walls and causes them to decay and die. This treatment destroys roots that have infiltrated sewer mains that can cause stoppages and damages.

From 2011 to 2015, the root-cleaning program selected pipes for treatment based on a non-targeted, basin-wide approach. Beginning in FY 2015-16, the City revised its pipe selection process to more efficiently target pipes and avoid treating pipes known to be clear of roots. Selection of pipes within the system for root foam treatment is based primarily on observation of roots from CCTV inspections. Other selection criteria include:

1. Priority is given to pipes within easements.
2. All pipes in a sub-basin are treated if a significant number of pipes are affected by root intrusion as indicated in CCTV inspections.

3. Pipes will not be selected for root foaming if the pipe has been rehabilitated within the last five years.
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.

As of June 30, 2018, the City had root foamed 1,327,657 feet (251.5 miles) of Sewer Mains, which exceeds the Consent Decree cumulative requirement of 1,320,000 feet (250 miles). Results of the City’s root-cleaning program are as follows:

Table 5-5 Root Control Program Implementation

Fiscal Year	Mains Assessed		Cumulative Total		CD Requirement	
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)
FY 2015-16	146,784’	(27.8 miles)	803,771’	(152.2 miles)	792,000’	(150 miles)
FY 2016-17	423,361’	(80.2 miles)	1,227,132’	(232.4 miles)	1,056,000’	(200 miles)
FY 2017-18	100,525’	(19.0 miles)	1,327,657’	(251.5 miles)	1,320,000’	(250 miles)

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 December 9, 2016, the City submitted an evaluation report of the root control program to EPA for review and approval. On February 27, 2017, EPA rejected the City’s proposal to foam 23.4 miles of sewer mains per year and was directed to continue treating 50 miles of sewer mains per year as specified in paragraph 92(e) of the Consent Decree. On February 28, 2017, the City submitted a request for technical feedback and reconsideration since there was no explanation of the rejection provided. The City is waiting for the Water Board and EPA to provide a more substantial response and is requesting reconsideration of a conditional approval. The root foam evaluation was data-driven and concluded 23.4 miles of pipe treatment annually is optimal for Oakland Sewer Collection System. It will not be the best use of the sewer service funds for the City to treat pipes that are not needed for the remainder of the Consent Decree. Stege Sanitary District was approved to reduce root foaming mileage requirements based on sewer main rehabilitated mileage.

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 City’s High Frequency cleaning program includes 130,351 feet (24.68 miles) of Sewer Mains which are cleaned every three (3) to twelve (12) months. Between July 1, 2017 and June 30, 2018, the City’s sewer crews cleaned 309,132feet (59 miles) of Sewer Mains as part of the High Frequency sewer cleaning program.

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 2017-18, 26 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 with CIWQS #s

CIWQS #	Address
837122	800 Park Way Oakland, CA, 94606
837811	1500 96th Ave Oakland, CA, 94603
838957	1600 Lakeshore Oakland CA, 94606
840018	4975 Stoneridge Ct. Oakland CA, 94605
840029	901 Broadway, Oakland CA
840181	1440 39th Ave., Oakland CA
841087	5801 College Ave Oakland, CA 94618
840736	2808 8th avenue, Oakland CA 94621
841072	40th Avenue & International Blvd., Oakland CA,94621
841070	3715 International Blvd., Oakland CA,94621
841017	9603 Olive Street Oakland, CA, 94603
842774	3001 International Blvd, Oakland, CA
842803	64th Ave & Camden Ave., Oakland CA, 94605
843325	9907 Bernhart Dr., Oakland CA,94621
843511	San Pablo Ave. & Mac Arthur Blvd. Oakland CA, 94621
843831	411 East 18th Street, Oakland CA 94606

843760	3440 Seminary Avenue, Oakland CA 94621
844118	353 Crestmont Dr., Oakland CA
844150	2135 45th Avenue, Oakland CA
844761	1000 Oak St., Oakland, CA, 94607
845004	265 Elysian Fields, Oakland, CA
845745	Bay Pl & Vernon St., Oakland, CA
846788	14th Street and Frontage Rd., Oakland CA 94607
846624	2772 E. 23rd St., Oakland, CA 94601
847031	2520 Church St., Oakland, CA 94605
848268	821 Washington St., Oakland, CA 94607

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 seven (7) small pump/lift stations:

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

Renovation of the Tidewater Pump Station was completed in 2012. Renovation of the Hegenberger, Shepherd Canyon, and Fallon Pump Stations was completed in 2018.

Design work on the Denton Place, Parkridge Drive, and Skyline Blvd pump stations was completed in FY17-18. Due to high construction costs, the construction of the remaining three pump/lift stations will be scheduled in FY18-19 and FY19-20. The completion of all pump stations will be completed by 2021, prior to the required deadline of October 2022.

Section 6. Deliverables

Date Submitted	Description	Comments Received
9/30/15	Annual Report FY14/15	N/A
10/02/15	Annual Report FY14/15 Amendment	7/18/16, Comments addressed on 9/19/16
6/30/16	Regional Standards	None
9/30/16	Annual Report FY15/16	8/29/17, Comments addressed as part of Annual Report FY16/17
12/9/16	Root Control Program Evaluation Report	2/28/17. Requests for a 2 nd Response
12/16/16	RTSP Notification Response (Non-Linear High Priority Source Plan)	None
4/18/2018	EPA/RWQCB submitted Demand Letter	
6/14/18	Transmittal letter in response to EPA/RWQCB Demand Letter dated 4/18/2018 for payment of stipulated penalties	None
8/8/2018	EPA stated no response to FY16-17 annual report.	
8/31/18	Response letter to EPA/RWQCB Letter dated 4/18/2018 inquiring on additional stipulated penalties	None

- On December 9, 2016, the City submitted an evaluation report of the root control program to EPA for review and approval. On February 27, 2017, EPA rejected the City's proposal to foam 23.4 miles of sewer mains per year and directed the City to continue treating 50 miles of sewer mains per year as specified in paragraph 92(e) of the Consent Decree. The City requests for a more substantial response and reconsideration of the request for a conditional approval. No response has been provided to date.
- On December 16, 2016, the City submitted the City of Oakland's response to EBMUD's 2015/2016 RTSP Annual Satellite Notification for the period of July 1, 2015 to June 30, 2016 to EPA and EBMUD. The response provides the Non-Linear High Priority Source Plan.
- On June 14, 2018, the City submitted a transmittal letter with payment in response to EPA/RWQCB Demand Letter dated 4/8/2018. Payment made under dispute.
- On August 31, 2018, the City submitted a letter in response to EPA/RWQCB Demand Letter dated 4/8/2018 for further reply of additional stipulated penalties.

Section 7. Known Non-Compliance with Consent Decree

In FY2017-18, the City is in full compliance with Consent Decree.

Section 8. Assessment of Stipulated Penalties

Paragraph 186 of the Consent Decree: For each SSO reaching waters of the United States, a stipulated penalty may be assessed as follows, with “gallons” referring to the total size of the overflow, spill or release:

Penalty Per SSO for SSOs totaling:		
Less than 1,000 gallons	1,000 to 9,999 gallons	10,000 gallons or more
\$200	\$1,000	\$25,000

In FY 2017-18, the total volume reaching surface waters was 95,535 gallons from 23 SSO events. Table 2-1 provides the number of SSOs in each of the three volume categories.

The total potential assessed stipulated penalty from FY 2017-18 for SSOs Reaching Waters of United States is \$86,200 as detailed below.

Table 8-1 SSOs Reached Waters of United States

FY	# of SSOs for SSOs totaling Less than 1,000 gallons	# of SSOs for SSOs totaling 1,000 to 9,999 gallons	# of SSOs for SSOs totaling 10,000 gallons or more
FY 2017-18	11	9	3
Potential Assessed Stipulated Penalty	\$2,200	\$9,000	\$75,000
Total Potential Assessed Stipulated Penalty from FY 2017-18	\$86,200		

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 Stipulated Penalties should not be assessed for the SSO events that reached surface waters. The spills were caused by a variety of reasons such as grease deposits, root intrusion, debris, and heavy storms and are considered non-point sources. The City has been meeting the cleaning and rehabilitation goals annually since FY 2014 and has responded quickly to SSOs. A penalty would impact the ability of the City to meet future goals as the rehabilitation costs have significantly increased due to market conditions. If Plaintiffs disagree with this position, the City would appreciate the opportunity to discuss assessment of any potential penalties and provide additional explanations of its position.

Section 9. Recommended Changes to Required Work

The City proposed to foam 23.4 miles of sewer mains per year instead of the 50 miles of sewer mains per year as specified in paragraph 92(e) of the Consent Decree.

Appendix Summary

Appendix	Table Name	Table Number
A	List of Sanitary Sewer Overflows (SSOs) in FY 2016-17	
B	Notice to Abate Door Hanger & Sample Letter	Figure 4-3
C	Acute Defect Lists and Sewer Segment Removed from Acute Defect Lists	Table 5-2 and 5-3
D	City-Owned Sewer Laterals	Table 4-9
E	Port of Oakland Sewer Collection System Annual Report for July 1, 2017 – June 30, 2018	-

Appendix A

List of Sanitary Sewer Overflows (SSOs) in FY 2017-18

SSO Event ID	Certification ID	Spill Location	Start Date	Est End Date	Certification Date	Spill Volume	Spill Volume Recovered	Spill Vol Reached Surf	Final Spill Destination	Spill Cause	Final Spill Destination Explanation
836547	105139	6916 Bristol Dr	2017.07.09 12.00.00	2017.07.09 14.30.00	2017.07.11 00.00.00	600	0	0	Paved Surface;Unpaved surface	Root Intrusion	8 VCP sanitary main sewer plugged and overflowed out of the lamphole in the street area.
836715	414522	Bancroft Avenue & Church Street Oakland Ca,94621	2017.07.05 17.30.00	2017.07.05 20.30.00	2017.07.18 00.00.00	900	900	0	Separate Storm Drain;Street/Curb and Gutter	Debris-Rags	Nine hundred gallons overflowed from an eight inch vitrified clay pipe into storm drain at this location. Nine hundred gallons was captured and returned back to the collection system. Debris and rags obstructed the pipe.
837083	967629	61st & Martin Luther King Junior Way Oakland Ca,94621	2017.07.15 15.00.00	2017.07.15 17.00.00	2017.07.18 00.00.00	120	120	0	Street/Curb and Gutter	Debris-General	One hundred and twenty gallons overflowed from an eight inch verified clay pipe on to the curb and gutter. All one hundred and twenty gallons was captured and returned back to the collection system. General debris obstructed the main line.
837122	551786	800 Park Way Oakland, CA, 94606	2017.07.17 09.49.00	2017.07.17 11.15.00	2017.07.18 00.00.00	290	0	290	Separate Storm Drain	Grease Deposition (FOG)	290 gallons overflowed from a 10 vcp sewer line into a storm drain and down to SFO Bay.

837310	431317	7110 Homewood Dr. Oakland Ca, 94612	2017.07.19 13.30.00	2017.07.19 19.00.00	2017.07.21 00.00.00	330	330	0	Unpaved surface	Debris- General	Three hundred and thirty gallons overflowed from an eight inch vitrified clay pipe on to the unpaved surface. Three hundred thirty gallons was captured and returned to the collection system. Debris was the cause of the sanitary sewer overflow.
837397	806574	2060 Melvin Rd Oakland ca 94602	2017.07.24 07.30.00	2017.07.24 10.30.00	2017.07.27 00.00.00	1800	0	1800	Drainage Channel;Other (specify below) ;Paved Surface;Street/ Curb and Gutter; Surface Water	Debris- General	Final spill destination was storm inlet that is possibly broken. Creek bed is completely dry. Majority of sewage was soaked into hillside.
837532	371991	2010 Melvin Rd	2017.07.22 11.15.00	2017.07.22 16.30.00	2017.07.27 00.00.00	315	315	0	Street/ Curb and Gutter	Root Intrusion	8 VCP sanitary main sewer plugged and overflowed out of the manhole in the street area. Staff contained the overflow. Staff hydro flushed and power rodded the main sewer to unplug stoppage and return the flow. Staff returned all portions of the overflow and cleaned all affected areas. Staff will CCTV the sanitary main sewer.

837811	536925	1500 96th Ave Oakland, CA, 94603	2017.08.03 10.00.00	2017.08.03 12.00.00	2017.09.06 00.00.00	120	120	0	Street/ Curb and Gutter	Grease Deposition (FOG)	120 gallons overflowed from an 8 vcp sewer line into the curb and gutter area. Staff recovered all 120 gallons.
837921	674947	courtland ave & high st. oakland ca.	2017.08.04 13.05.00	2017.08.04 14.35.00	2017.08.16 00.00.00	450	450	0	Street/ Curb and Gutter	Root Intrusion	Staff contained spill at inlet located at Courtland ave. & High St. used Hydro Flusher to vacuum spill and return to Sanitary System.
838209	292305	2250 Bywood Drive Oakland Ca,94621	2017.07.17 12.45.00	2017.07.17 20.00.00	2017.08.16 00.00.00	480	0	0	Unpav ed surface	Root Intrusion	Four hundred and eighty gallons overflowed from an eight inch vitrified clay pipe. Tree roots was cause of the overflow. Four hundred and eighty gallons soaked into the ground at this location,
838806	799315	1419 84th Ave Oakland Ca. 94621	2017.08.14 10.26.00	2017.08.14 12.35.00	2017.08.17 00.00.00	387	387	0	Street/ Curb and Gutter	Debris- General	null
838957	482250	1600 Lakeshore Oakland Ca. 94606	2017.08.14 15.00.00	2017.08.14 17.00.00	2017.08.18 00.00.00	240	240	0	Buildin g or Structu re	Grease Deposition (FOG)	null
839166	881298	5978 Margarido Dr	2017.08.22 17.00.00	2017.08.22 19.00.00	2017.08.23 00.00.00	60	20	0	Street/ Curb and Gutter; Unpav ed surface	Root Intrusion	6 VCP sanitary main sewer plugged due to root intrusion and overflowed out of the lamp hole in the front yard area and in the curb and gutter area.
839362	119639	8009 Fontain Oakland Ca	2017.08.26 05.42.00	2017.08.26 08.15.00	2017.09.11 00.00.00	5508	2000	5508	Street/ Curb and Gutter	Other (specify below)	null
839631	809277	160 Beechwood dr oakland ca	2017.08.30 12.07.00	2017.08.30 17.02.00	2017.09.08 00.00.00	25	5	0	Unpav ed surface	Root Intrusion	null

839723	685164	5750 Redwood Rd. Oakland ca. 94619	2017.09.05 13.45.00	2017.09.06 12.30.00	2017.09.18 00.00.00	4095	0	4095	Surface Water	Pipe Structural Problem/Failure	Redwood Creek, San Leandro Reservoir.
839929	339233	5630 Margarido Dr	2017.09.09 14.45.00	2017.09.09 17.45.00	2017.09.18 00.00.00	180	180	0	Unpaved surface	Debris-General	8 VCP sanitary main sewer plugged and overflowed out of the manhole onto the ground and patio area.
839933	156096	1293 Sunnyhills Rd. Oakland, Ca. 94610	2017.09.12 20.00.00	2017.09.12 23.00.00	2017.09.22 00.00.00	360	0	0	Unpaved surface	Root Intrusion	Hillside of above address and basement.
839946	776576	1293 sunnyhills rd oakland ca	2017.09.11 07.19.00	2017.09.11 10.19.00	2017.09.19 00.00.00	540	540	0	Building or Structure; Street/Curb and Gutter	Debris-General	Staff contained spill at storm inlet and used Hydro Flusher to vacuum sewage and return to Sanitary System, also cleaned affected area.
840018	403858	4975 Stoneridge Ct. Oakland ca. 94605	2017.09.15 09.02.00	2017.09.15 11.12.00	2017.09.19 00.00.00	260	0	0	Unpaved surface	Grease Deposition (FOG)	null
840029	912839	901 broadway oakland ca	2017.09.15 10.30.00	2017.09.15 12.00.00	2017.09.19 00.00.00	270	270	0	Building or Structure	Grease Deposition (FOG)	null
840049	852775	13095 Broadway Terr.	2017.09.14 12.00.00	2017.09.14 17.00.00	2017.09.19 00.00.00	1500	0	0	Unpaved surface	Root Intrusion	8 VCP sanitary main sewer plugged due to root intrusion and overflowed out of the home owner's sewer lateral clean out and soaked into the ground.
840062	326947	9001 Broadway Terr	2017.09.14 18.30.00	2017.09.14 19.20.00	2017.09.19 00.00.00	150	150	0	Separate Storm Drain; Unpaved surface	Root Intrusion	8 sanitary main sewer plugged due to root intrusion and overflowed out of the sewer structure in the street area that flowed into a storm drain that dumped into an open field.

840092	763202	8150 hansom dr. oakland ca.	2017.09.17 12.26.00	2017.09.17 15.14.00	2017.10.03 00.00.00	200	0	0	Unpaved surface	Root Intrusion	Sewage spilled onto dirt soaking into the ground, staff cleaned affected area.
840139	644359	4975 Stoneridge Ct. Oakland, Ca. 94605	2017.09.15 09.02.00	2017.09.15 11.12.00	2017.09.22 00.00.00	260	0	0	Unpaved surface	Debris-General	null
840181	476885	1440 39th ave. Oakland ca.	2017.09.17 19.20.00	2017.09.17 20.38.00	2017.10.03 00.00.00	30	30	0	Building or Structure	Grease Deposition (FOG)	null
840378	153965	3890 Loma Vista Ave Oakland Ca. 94619	2017.09.27 07.43.00	2017.09.27 09.15.00	2017.10.03 00.00.00	92	92	0	Paved Surface	Debris-General	null
840717	243523	823 York Street Oakland Ca.	2017.10.02 10.30.00	2017.10.03 19.30.00	2017.10.10 00.00.00	990	700	0	Paved Surface	Debris-General	null
840724	569888	4443 Pleasant Valley CT. Oakland ca.	2017.10.09 06.00.00	2017.10.09 15.30.00	2017.10.12 00.00.00	250	0	250	Beach	Pipe Structural Problem/Failure	570 gallons spilled & went to Bay., 0 gallons were recovered.
840736	468353	2808 8th avenue Oakland Ca, 94621	2017.10.04 11.45.00	2017.10.04 15.30.00	2017.10.11 00.00.00	50	30	0	Street/Curb and Gutter	Grease Deposition (FOG)	Fifty gallons overflowed from an eight inch vitrified clay pipe into the residence, and spilled down the street onto the curb and gutter at this location. Thirty gallons was captured and returned to collection system. Twenty gallons soaked into the carpet and other furniture at the residence.

840787	319766	3500 Lakeshore Avenue Oakland Oakland Avenue 94621	2017.10.12 10.15.00	2017.10.12 11.15.00	2017.12.14 00.00.00	120	120	0	Separate Storm Drain	Debris-Rags	One hundred and twenty overflowed from an eight inch vitrified clay pipe. One hundred and twenty gallons spilled on to the gutter area. One hundred and twenty gallons spilled into a storm inlet at Lakeshore Avenue and Mandana Blvd. Storm line at Lakeshore and Mandana Blvd. , was back flushed and cleared of spilled waste water at this location.
840789	624633	1418 84th Ave Oakland Ca. 94621	2017.10.05 07.51.00	2017.10.05 09.30.00	2017.10.17 00.00.00	198	198	0	Paved Surface	Debris- General	null
841017	516272	9603 Olive Street Oakland, Ca. 94603	2017.10.19 17.00.00	2017.10.19 19.00.00	2017.12.28 00.00.00	240	240	0	Paved Surface	Grease Deposition (FOG)	Gutter area near curb.
841029	817635	6140 Hillmont Dr Oakland, Ca. 94605	2017.10.18 23.00.00	2017.10.19 01.30.00	2017.12.28 00.00.00	50	0	0	Buildin g or Structu re	Debris-Rags	null
841070	914236	3715 International Blvd. Oakland Ca,94621	2017.10.17 07.30.00	2017.10.17 09.45.00	2017.12.28 00.00.00	20	20	0	Street/ Curb and Gutter	Grease Deposition (FOG)	Twenty gallons spilled from an eight inch vitrified clay pipe. Twenty gallons spilled on to the curb and gutter. Twenty gallons was captured and returned back to collection system. A grease blockage was the cause of the overflow.

841072	940994	40th Avenue & International Blvd. Oakland Ca,94621	2017.10.09 14.16.00	2017.10.09 16.00.00	2017.12.31 00.00.00	3	3	0	Buildin g or Structu re	Grease Deposition (FOG)	Three gallons of swage overflowed from an eight inch vitrified clay pipe. Debris and grease was the cause of the overflow. Sewage back up in to the property at this address. A claim packet was given to the citizen.
841087	108832	5801 College Ave Oakland, Ca. 94618	2017.10.03 18.00.00	2017.10.03 19.30.00	2017.10.25 00.00.00	90	90	0	Paved Surfac e	Grease Deposition (FOG)	null
841589	578236	4415 Saint Andrews rd oakland ca	2017.11.12 14.30.00	2017.11.12 16.30.00	2017.11.22 00.00.00	120	0	0	Unpav ed surface	Root Intrusion	null
841958	173817	Buena Ventura Ave and 64th Ave Oakland Ca.94605	2017.11.28 16.00.00	2017.11.29 08.00.00	2017.12.28 00.00.00	960	300	0	Street/ Curb and Gutter	Pipe Structural Problem/Fai lure	null
842774	881116	3001 International Blvd	2017.12.06 16.00.00	2017.12.06 17.10.00	2017.12.26 00.00.00	10	0	0	Paved Surfac e	Grease Deposition (FOG)	null
842775	810424	400 Mountain Blvd	2017.12.09 07.30.00	2017.12.11 19.32.00	2017.12.26 00.00.00	754	5	729	Surfac e Water	Root Intrusion	null
842776	844578	1200 Lakeshore Ave	2017.12.09 10.00.00	2017.12.11 00.21.00	2017.12.26 00.00.00	3068	0	3068	Surfac e Water	Debris- Wipes/Non- Dispersables	null
842777	686626	Thornhill and Moraga	2017.12.10 20.50.00	2017.12.12 12.12.00	2017.12.26 00.00.00	2160	0	2160	Separate Storm Drain	Pipe Structural Problem/Fai lure	null
842778	519571	Parkridge Rd	2017.12.10 15.00.00	2017.12.12 13.30.00	2017.12.26 00.00.00	75	0	75	Draina ge Chann el	Pump Station Failure- Mechanical	null

842803	759263	64th Ave & Camden Ave Oakland CA, 94605	2017.12.14 15.00.00	2017.12.14 17.00.00	2017.12.15 00.00.00	540	500	0	Street/ Curb and Gutter	Grease Deposition (FOG)	540 gallons overflowed from an 10 clay sewer line into the curb and gutter. Staff recovered 500 gallons. 40 gallons was spread over the pavement by traffic. Staff washed down the street and recovered the gray water and returned it to the Sanitary Sewer
843116	615014	6343 Melville Drive, Oakland, Ca. 94611	2017.12.19 14.30.00	2017.12.20 11.00.00	2017.12.29 00.00.00	1230	0	500	Surfac e Water	Debris- Wipes/Non- Dispersables	null
843325	398906	9907 Bernhart Dr. Oakland Ca,94621	2017.12.28 14.30.00	2017.12.28 20.30.00	2018.01.18 00.00.00	1800	1800	0	Draina ge Chann el;Stre et/Cur b and Gutter	Grease Deposition (FOG)	Eighteen Hundred gallons overflowed from an Eighteen Inch plastic pipe. Grease obstructed the pipe causing a sewer overflow at this location. Sewer staff went down stream to back storm line to capture waste water in the storm line.
843509	921530	3632 Field Street Oakland Ca,94621	2017.12.31 09.30.00	2017.12.31 12.00.00	2018.01.18 00.00.00	210	0	0	Unpav ed surface	Root Intrusion	Two hundred and ten gallons overflowed from an ten inch vitrified clay pipe. Tree roots obstructed the pipe causing the overflow. Two hundred and ten gallons soaked into the dirt at this location.
843511	143001	San Pablo Avenenue & Mac Arthur Blvd. Oakland Ca,94621	2017.12.29 10.53.00	2017.12.29 12.55.00	2018.01.18 00.00.00	488	488	0	Street/ Curb and Gutter	Grease Deposition (FOG)	Four hundred and eighty eight gallons overflowed from and eight inch plastic pipe. Grease was the cause of the overflow. The sewage overflowed onto the curb and gutter. All sewage was captured and returned back to collection system.

843599	607565	7520 Greenly Dr.	2018.01.06 13.23.00	2018.01.06 15.20.00	2018.01.10 00.00.00	585	0	0	Unpaved surface	Root Intrusion	8 VCP sanitary main sewer plugged due to roots and general debris and overflowed out of the private lateral clean out onto the ground in the rear of the property.
843600	950612	8001 Winthrope St	2018.01.06 13.23.00	2018.01.06 16.32.00	2018.01.10 00.00.00	945	500	445	Separate Storm Drain; Street/Curb and Gutter	Root Intrusion	8 VCP sanitary main sewer plugged and overflowed out of the clean out into the curb and gutter and storm inlet.
843760	941144	3440 Seminary Avenue Oakland Ca,94621	2018.01.09 06.00.00	2018.01.09 10.02.00	2018.01.18 00.00.00	2525 0	10000	15250	Separate Storm Drain; Street/Curb and Gutter; Surface Water	Grease Deposition (FOG)	null
843831	315805	411 East 18th Street Oakland Ca.94606	2018.01.01 09.30.00	2018.01.01 12.00.00	2018.01.18 00.00.00	210	210	0	Building or Structure	Grease Deposition (FOG)	null
843852	605753	3700 Grand Ave Oakland Ca 94601	2018.01.14 12.20.00	2018.01.14 13.50.00	2018.01.18 00.00.00	30	30	0	Paved Surface	Debris-General	null
843860	536571	176 Caldecott Ln Oakland, CA 94618	2018.01.12 14.30.00	2018.01.12 18.00.00	2018.01.18 00.00.00	500	0	0	Unpaved surface	Root Intrusion	500 gallons overflowed from an 8 vcp sewer manhole onto an easement. 0 gallons were recovered.

843902	225294	142 Beach Wood Dr. Oakland Ca,94621	2018.01.10 10.30.00	2018.01.10 12.00.00	2018.01.18 00.00.00	450	450	0	Paved Surface	Root Intrusion	Four hundred and fifty gallons overflowed from an eight inch clay pipe on to the ground. Four hundred and fifty gallons was captured and returned to collection system for process. Tree roots was the cause of the overflow.
843906	877618	3933 Woodruff Ave Oakland Ca 94602	2018.01.06 12.57.00	2018.01.06 21.00.00	2018.01.24 00.00.00	150	0	0	Unpaved surface	Debris-Rags	null
844036	788161	240 Monte Vista Ave Oakland Ca 94611	2018.01.04 17.00.00	2018.01.04 21.45.00	2018.01.24 00.00.00	150	0	0	Unpaved surface	Debris-General	null
844118	428405	353 Crestmont Dr	2018.01.22 10.00.00	2018.01.23 09.30.00	2018.01.24 00.00.00	1410	0	0	Unpaved surface	Grease Deposition (FOG)	8 sanitary main sewer plugged and overflowed out of the manhole on the easement and soaked into the ground.
844150	684570	2135 45th Avenue	2018.01.24 15.58.00	2018.01.24 20.30.00	2018.01.26 00.00.00	112	112	0	Building or Structure	Grease Deposition (FOG)	8 VCP sanitary main sewer line blocked and overflow into the basement. Staff flushed the main sewer to clear blockage of heavy grease. Property owner will clean up the basement.
844591	927484	6000 Rockridge Blvd Oakland Ca 94618	2018.02.02 19.00.00	2018.02.05 10.00.00	2018.02.08 00.00.00	1890 0	0	18900	Other (specify below)	Root Intrusion	San Francisco bay near the border of Oakland and Emeryville, by way of Temescal Creek (Under ground) which is below Lake Temescal.
844761	324205	1000 Oak St Oakland, CA, 94607	2018.02.03 09.00.00	2018.02.03 11.10.00	2018.02.22 00.00.00	400	400	0	Building or Structure	Grease Deposition (FOG)	10 vcp main sewer overflowed into the basement. Staff recovered all 400 gallons of waste water and returned it to the system.

844768	646713	6 Whittle Ct Oakland Ca. 94602	2018.02.03 08.30.00	2018.02.03 10.00.00	2018.02.22 00.00.00	450	300	0	Paved Surfac e	Other (specify below)	null
844788	308826	832 York St	2018.02.03 11.00.00	2018.02.03 13.30.00	2018.02.22 00.00.00	300	200	0	Street/ Curb and Gutter; Unpav ed surface	Other (specify below)	8 sanitary main sewer plugged and overflowed out of the manhole onto the ground in the rear of the property and flowed to the curb and gutter area.
845004	537905	265 Elysian Fields	2018.02.17 08.35.00	2018.02.21 16.46.00	2018.02.26 00.00.00	3123 0	0	31230	Surfac e Water	Grease Deposition (FOG)	Thirty One Thousand, two hundred and thirty gallons overflowed into a creek at this location. A grease blockage obstructed a eight inch clay pipe. Arroyo Creek was the location. The gray water flowed down through Arroya Viejo creek down to the bay.
845745	707776	Bay Pl & Vernon St	2018.03.07 15.15.00	2018.03.07 16.00.00	2018.03.16 00.00.00	2250	250	2000	Separ ate Storm Drain;S treet/C urb and Gutter; Surfac e Water	Grease Deposition (FOG)	Sanitary main sewer plugged due to grease and overflowed out of the manhole in the street area. Sewage flowed down the curb and gutter area into the storm inlet that flows into Lake Merritt.
845889	624529	7541 Claremont Avenue Oakland Ca,94621	2018.03.23 10.32.00	2018.03.23 12.17.00	2018.03.31 00.00.00	375	25	375	Surfac e Water	Root Intrusion	Hardwood Branch of Timescale Creek.

846145	437297	3138 Cuthbert Ave Oakland, CA 94602	2018.04.02 08.12.00	2018.04.02 10.15.00	2018.04.03 00.00.00	123	123	0	Street/ Curb and Gutter	Debris- General	6 vcp main sewer overflowed onto the street into the curb and gutter area. Staff recovered all 123 gallons of waste water and returned to sanitary main sewer.
846169	815435	5556 Thornhill Dr Oakland, CA, 94611	2018.04.02 18.30.00	2018.04.02 21.00.00	2018.04.04 00.00.00	900	0	900	Separate Storm Drain	Pipe Structural Problem/Failure - Installation	null
846353	606817	106 Vicente Rd Oakland, CA, 94705	2018.04.07 18.00.00	2018.04.07 21.00.00	2018.04.18 00.00.00	180	0	0	Unpaved surface	Root Intrusion	180 gallons overflowed from an 8 vcp sewer lamp hole, into dirt and grass. 0 gallons were recovered.
846354	630028	2410 99th Ave. Oakland, Ca.	2018.04.07 17.00.00	2018.04.07 20.30.00	2018.05.07 00.00.00	270	0	0	Building or Structure; Unpaved surface	Debris- General	null
846368	440707	3820 Delmont Ave Oakland Ca. 94605	2018.04.09 22.00.00	2018.04.10 12.00.00	2018.04.16 00.00.00	756	0	756	Beach	Damage by Others Not Related to CS Construction/ Maintenance (Specify Below)	PG&E bored through our sewer main with power pole.
846384	176330	519 Fairmount Ave Oakland, Ca. 94611	2018.03.28 19.00.00	2018.04.03 08.00.00	2018.05.07 00.00.00	299	299	0	Building or Structure; Paved Surface	Pipe Structural Problem/Failure	null

846595	762038	4125 Lyon Avenue Oakland Ca,94621	2018.04.18 07.58.00	2018.04.18 16.35.00	2018.04.20 00.00.00	1034	1034	0	Street/ Curb and Gutter	Pipe Structural Problem/Fai lure	One thousand and thirty four gallons overflowed from an eight inch VCP sanitary sewer line into the curb and gutter. The cause of the overflow was due to pipe failure. All one thousand and thirty four gallons was captured and returned to the collection system.
846624	122568	2772 E. 23rd St Oakland,CA, 94601	2018.04.20 10.40.00	2018.04.20 11.40.00	2018.04.23 00.00.00	20	20	0	Paved Surfac e	Grease Deposition (FOG)	6 vcp main sewer overflowed onto the sidewalk from a cleanout. Staff recovered all 20 gallons of wastewater and returned it to sanitary main sewer.
846651	449260	6788 Armour Dr Oakland, CA, 94611	2018.04.21 08.00.00	2018.04.21 11.00.00	2018.04.25 00.00.00	180	0	0	Unpav ed surface	Other (specify below)	null
846652	348856	High St & Aqua Vista	2018.04.22 13.00.00	2018.04.22 15.30.00	2018.05.07 00.00.00	240	240	0	Separa te Storm Drain;S treet/C urb and Gutter	Debris-Rags	6 Sanitary main sewer plugged and overflowed out of the manhole into the gutter area and into the storm inlet.
846655	598753	9321 International Blvd. Oakland Ca,94621	2018.04.23 14.30.00	2018.04.23 17.30.00	2018.05.07 00.00.00	240	240	0	Separa te Storm Drain	Debris-Rags	Two hundred and forty gallons overflowed from an eight inch VCP sanitary sewer main. Two hundred and forty gallons spilled into a storm drain at this location. All two hundred and forty gallons was captured and returned to the collection system. Rags and debris was the cause of the blockage.

846761	133962	1442 Grand View Dr Oakland ca	2018.04.25 13.45.00	2018.04.25 19.45.00	2018.04.30 00.00.00	180	0	0	Unpaved surface	Root Intrusion	null
846788	865855	14th Street and Frontage Rd. Oakland ca. 94607	2018.03.30 10.00.00	2018.03.30 14.00.00	2018.04.30 00.00.00	720	720	0	Unpaved surface	Grease Deposition (FOG)	null
846899	657107	32 Mall Ct. Oakland, CA, 94611	2018.04.29 14.45.00	2018.04.29 16.45.00	2018.05.07 00.00.00	120	0	120	Surface Water	Debris-General	120 gallons spilled from an 8 vcp sanitary main into a creek. 0 gallons were recovered.
846903	505263	6116 Thornhill Dr Oakland, CA, 94611	2018.04.26 11.00.00	2018.04.28 12.30.00	2018.05.09 00.00.00	2884	0	2884	Other (specify below)	Root Intrusion	All discharged into Temescal Creek down to Lake Temescal.
846953	372375	High St & Santa Rita St Oakland, CA, 94601	2018.05.06 15.30.00	2018.05.06 17.00.00	2018.06.22 00.00.00	150	150	0	Street/Curb and Gutter	Debris-General	8 vcp main sewer overflowed onto the street into the curb and gutter area. Staff recovered all 150 gallons of wastewater and returned to sanitary main sewer.
846970	858174	6116 Thornhill Dr. Oakland, Ca. 94611	2018.05.07 11.40.00	2018.05.07 19.40.00	2018.05.18 00.00.00	2400	0	2400	Surface Water	Root Intrusion	Lake Temescal
847031	197692	2520 Church St Oakland, CA, 94605	2018.05.08 13.20.00	2018.05.08 14.40.00	2018.05.17 00.00.00	400	400	0	Street/Curb and Gutter	Grease Deposition (FOG)	Staff was driving back to the Service Center, staff found the main sewer overflowing from the M/H into the gutter area . The 8 main sewer overflowed onto the street into the curb and gutter area. Staff recovered all 400 gallons of wastewater and returned to sanitary main sewer. Staff cleaned the area and took pictures.
847488	597181	11035 Golf Links Rd. Oakland, Ca. 94605	2018.05.23 09.43.00	2018.05.23 17.30.00	2018.06.05 00.00.00	467	467	0	Unpaved surface	Root Intrusion	null

847783	253621	6391 Longcroft Oakland Ca	2018.06.02 07.15.00	2018.06.02 12.15.00	2018.06.07 00.00.00	1500	0	1500	Other (specif y below)	Debris from Constructio n	1500 Gallons discharged from a temporary line down into a running Creek.
847921	157118	4011 Oakmore Rd.	2018.06.04 15.00.00	2018.06.06 12.00.00	2018.06.18 00.00.00	1350	0	0	Unpav ed surface	Natural Disaster	Staff found the overflow sunk into the dirt and ground.
848268	747889	821 Washington St Oakland, CA, 94607	2018.06.18 14.00.00	2018.06.18 21.00.00	2018.06.21 00.00.00	240	240	0	Buildin g or Structu re	Grease Deposition (FOG)	15 vcp main sewer overflowed into the basement. All 240 gallons went back down into the floor drain to the waste water collection system.
848434	897663	7149 Buckingham Blvd	2018.06.21 07.00.00	2018.06.21 12.00.00	2018.07.02 00.00.00	100	0	0	Other (specif y below)	Pipe Structural Problem/Fai lure	Temp Main sewer line leaking out of the band seal and soaking into the ground.
848691	667353	15 Mall Ct Oakland, Ca. 94611	2018.06.28 21.45.00	2018.06.29 02.45.00	2018.07.26 00.00.00	2100	100	0	Unpav ed surface	Root Intrusion	null
848692	327187	15 Mall Ct Oakland, Ca. 94611	2018.06.29 10.15.00	2018.06.29 10.45.00	2018.06.29 00.00.00	300	0	300	Draina ge Chann el	Debris from Constructio n	null
848701	104415	4374 Terrabella Way	2018.06.29 21.39.00	2018.06.29 23.49.00	2018.07.06 00.00.00	130	100	0	Other (specif y below) ;Unpav ed surface	Root Intrusion	Sanitary main sewer plugged and overflowed out of the manhole on to the ground in to the dry storm line. 30gallons soaked into the ground and all 100 gallons of sewage was captured and returned to the sewer collection system.

Appendix B

Figure 4-3 Door Hanger Notice Sample Final Notice to Abate Letter

Back Side

Front Side



CITY OF OAKLAND

**ATTENTION RESIDENT
AND/OR MERCHANT
PLEASE CONTACT US**

This notice is to inform you that our Sewer Maintenance Division will need to access your property for the following reason:

- Inspect our City main and/or structures
- Repair our City main and/or structures
- Dye-test your service lateral from inside your residence/building.
- Other:

To schedule an appointment, or for additional information on Contractors, and/or funding programs, please contact our office Mon-Fri 7:00am to 3:30pm, at (510)615-5969.

Thank you,
Crew Leader _____ Date: _____

To request service from the Public Works Department please contact our OAK311 call center by:

Phone: Call **311** from any phone within Oakland. (If you are calling from outside Oakland, continue to use the number (510) 615-5566.)

E-mail: OAK311@oaklandnet.com

Web: 311.oaklandca.gov

App: OAK 311, available free for Apple and Android smart devices (powered by SeeClickFix)

Oakland Public Works – Sewer Maintenance Division

Pursuant to Section 13.08.100 of the Oakland Municipal Code, please take the necessary steps to correct the complaint/identified defect, immediately. Failure to do so could result in a threat to public health and safety, and may result in legal and/or financial consequences.



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 Code¹ 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

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 C

Table 5-2 Acute Defect List - Identified Fiscal Year 2017-18 and/or Completed Fiscal Year 2017-18
Table 5-3 Sewer Assets Removed from Acute Defect List in Previous Annual Reports

**Table 5-2
Acute Defect List - Identified Fiscal Year 2017-18 and/or Completed Fiscal Year 2017-18**

Asset ID	Date Identified	Date Completed	Days Outstanding*	Days to Completion	Address	Street	PAC Defect Code
SEPI18182	11/29/17	5/30/18		182	6434	BUENA VENTURA	BVV, Broken void visible
SEPI17614	11/27/17	7/9/18		224	930	LARKSPUR RD.	CIP, MANY PROBLEMS, BROKEN PIPE
SEPI27568	11/20/17	no repair	222			THOMAS AVE. & MONROE AVE.	BVV, Broken void visible
SEPI2376	11/17/17	no repair	225		1900	96TH AVE.	BVV, Broken void visible
SEPI9183	11/13/17	no repair	229		3153	HERRIOTT AVE.	BVV, Broken void visible
SEPI24230	11/7/17	no repair	235			40TH ST. & SHAFER	BVV, Broken void visible
SEPI7405	10/18/17	10/21/17		3		37TH AVE. & INTERNATIONAL	BVV, Broken void visible
SEPI17594	10/17/17	8/6/18		293	872	NORTHVALE	BVV, Broken void visible
SEPI26663	10/16/17	11/6/17		21	6860	PASO ROBLES DR.	BVV, Broken void visible
SEPI18293	10/4/17	no repair	269		4010	OAKMORE RD	BVV, Broken void visible
SEPI11998	9/28/17	8/21/18		327	3890	LOMA VISTA	BVV, Broken void visible
SEPI7416	9/19/17	9/22/17		3		39TH AVE & INTERNATIONAL	BVV, Broken void visible
SEPI17699	9/15/17	8/15/18		334	872	ROSEMOUNT RD.	BVV, Broken void visible
SEPI231	9/12/17	7/19/18		310		EMPIRE RD. & CAIRO	BVV, Broken void visible
SEPI20473	9/7/17	7/13/18		309	689	CARLSTON AVE.	BVV, Broken void visible
SEPI3148	7/21/17	4/6/18		259		INTERNATIONAL - NEAR 84TH AVE	BVV, Broken void visible
SEPI11066	7/18/17	6/18/18		335		PARK WAY E8TH TO E10TH	BVV, Broken void visible
SEPI15710	7/7/17	5/23/18		320	4021	WOODRUFF & HAMPEL	BVV, Broken void visible
SEPI25775, 25776	7/3/17	5/10/18		311		BROADWAY TERRACE (2 LOCATIONS)	BVV, Broken void visible
SEPI19453	6/26/17	4/6/18		284		BROADWAY - 26TH TO 27TH	BVV, Broken void visible
SEPI21318	6/23/17	12/4/17		164	814	29TH STREET	BVV, CONCRETE PIPE DETERIORATED
SEPI29206	6/21/17	5/8/18		321		AYALA - MARTIN TO FOREST	BVV, Broken void visible

SEPI20162	6/5/17	12/16/17		194	534	WELDON	FH4, Broken pipe and lamphole
SEPI20176	6/5/17	8/18/17		74		WELDON & WARFIELD	BVV, Broken void visible
SEPI22902	5/22/17	7/25/17		64		LINDA AVE. & GLEN	BVV, Broken void visible
SEPI27664	5/15/17	11/21/17		190		5630 MARGARIDO DR	XP, Collapsed Pipe Sewer
SEPI15841	1/20/17	8/9/17		201		FOREST HILL AVE	BVV, Broken void visible

*Days Outstanding as of end of 6/30/18.

**Table 5-3
Sewer Assets Removed from Acute Defect List in Previous Annual Reports**

Asset ID	Date Identified	Initially Listed in Annual Report	Acute Defect (Y/N)	SSO (Y/N)
SEPi5462	6/9/2015	FY14-15	N	N
SEPi11561	4/29/2015	FY14-15	N	N
SEPi4635	4/29/2015	FY14-15	N	N
SEPi7039	4/29/2015	FY14-15	N	N
SEPi6013	4/23/2015	FY14-15	N	N
SEPi6394	4/22/2015	FY14-15	N	N
SEPi9369	4/15/2015	FY14-15	N	N
SEPi6452	4/9/2015	FY14-15	N	N
SEPi21714	4/3/2015	FY14-15	N	N
SEPi18293	3/13/2015	FY14-15	N	N
SEPi24234	3/10/2015	FY14-15	N	N
SEPi5190	3/10/2015	FY14-15	N	N
SEPi10673	3/2/2015	FY14-15	N	N
SEPi13384	2/25/2015	FY14-15	N	N
SEPi9530	2/21/2015	FY14-15	N	N
SEPi6346	1/29/2015	FY14-15	N	N
SEPi3013	1/27/2015	FY14-15	N	N
SEPi13485	1/15/2015	FY14-15	N	N
SEPi26916	12/26/2014	FY14-15	N	N
SEPi21908	12/13/2014	FY14-15	N	N
SEPi15485	12/5/2014	FY14-15	N	N
SEPi13378	12/2/2014	FY14-15	N	N
SEPi13465	11/20/2014	FY14-15	N	N
SEPi11537	11/19/2014	FY14-15	N	N
SEPi24613	11/17/2014	FY14-15	N	N
SEPi15005	11/7/2014	FY14-15	N	N
SEPi5258	10/14/2014	FY14-15	N	N
SEPi6346	2/19/2014	FY14-15	N	N
SEPi29532	12/16/2013	FY14-15	N	N
SEPi29520	10/18/2013	FY14-15	N	N
SEPi19642	10/15/2013	FY14-15	N	N
SEPi22407	9/19/2013	FY14-15	N	N
SEPi24374	8/5/2013	FY14-15	N	N
SEPi30941	7/22/2013	FY14-15	N	N

SEPi19563	5/15/2013	FY14-15	N	N
SEPi9573	4/5/2013	FY14-15	N	N
SEPi18163	2/7/2013	FY14-15	N	N
SEPi28045	1/31/2013	FY14-15	N	N
UNKNOWN	6/9/2016	FY15-16	N	N
SEPi22619	5/13/2016	FY15-16	N	N
SEPi15291	5/9/2016	FY15-16	N	N
SEPi31522	3/29/2016	FY15-16	N	N
SEPi10156	3/21/2016	FY15-16	N	N
SEPi26119	3/15/2016	FY15-16	N	N
SEPi23085	2/19/2016	FY15-16	N	N
SEPi1558	2/3/2016	FY15-16	N	N
SEPi27692	12/22/2015	FY15-16	N	N
SEPi26690	11/23/2015	FY15-16	N	N
SEPi2961	11/23/2015	FY15-16	N	N
SEPi26159	11/20/2015	FY15-16	N	N
SEPi14169	11/3/2015	FY15-16	N	N
SEPi18293	3/13/2015	FY15-16	N	N
SEPi5190	3/10/2015	FY15-16	N	N
SEPi19458	6/27/2017	FY16-17	N	N
SEPi19453	6/26/2017	FY16-17	N	N
SEPi21318	6/23/2017	FY16-17	N	N
SEPi25768	6/22/2017	FY16-17	N	N
SEPi25768	6/22/2017	FY16-17	N	N
SEPi29206	6/21/2017	FY16-17	N	N
SEPi5743	6/19/2017	FY16-17	N	N
SEPi20162	6/5/2017	FY16-17	N	N
SEPi29729	6/2/2017	FY16-17	N	N
SEPi29729	6/2/2017	FY16-17	N	N
SEPi27664	5/15/2017	FY16-17	N	N
SEPi18573	1/19/2017	FY16-17	N	N
SEPi1456	10/19/2016	FY16-17	N	N
SEPi8398	10/14/2016	FY16-17	N	N
SEPi22619	5/13/2016	FY16-17	N	N
SEPi15291	5/9/2016	FY16-17	N	N
SEPi1558	2/3/2016	FY16-17	N	N

Appendix D
Table 4-9
Appendix H1 of Consent Decree
Oakland-Owned Facilities
For Sewer Lateral Rehabilitation

No.	Facility Name	Address	Sub-Basin No.	Parcel Number	Length (feet)	Completion Date	Remark
1	Sanborn (Carmen Flores) Recreation Center	1637 Fruitvale Ave	560 1	25-722-26			
2	Dimond Branch Library	3565 Fruitvale Ave 94602	560 2	29A-1302-14			
3	Fire Station #14	3459 Champion St	560 2	28-905-13-2			
4	Fire Station #14 Storage Building	3460 Champion St	560 3	28-905-13-3			
5	Fire Station #25	2795 Butters Dr	560 6	29-1161-25			
6	Fire Station #25 Exercise Building	2795 Butters Dr	560 6	29-1161-25			
7	Joaquin Miller Park-The Abbey	3082 Joaquin Miller Rd	560 6	29-1200-6-3		5/9/2017	No Sewer Lateral
8	Joaquin Miller Park-Fire Circle Restroom	3540 Joaquin Miller Rd	560 6	29-1200-6-3	371	5/9/2017	C329152-Task Order 1
9	Joaquin Miller Park-Sanctuary to Memory	3540 Joaquin Miller Rd	560 6	29-1200-6-3	213	5/9/2017	C329152-Task Order 1
10	Joaquin Miller	3594 Sanborn Dr	560 6	29-1200-6-3	216.5	5/9/2017	C329152-Task Order 1

No.	Facility Name	Address	Sub-Basin No.	Parcel Number	Length (feet)	Completion Date	Remark
	Community Center						
11	Joaquin Miller Park-415 Society Trailer	3540 Joaquin Miller Rd	5606	29-1200-6-3		5/9/2017	No Sewer Lateral
12	Joaquin Miller Park-Meadow Restroom	3540 Joaquin Miller Rd	5606	29-1200-6-3		5/9/2017	Cesspool-Not connected to the City sewer system
13	Joaquin Miller Park-Shipping Container (2)	3540 Joaquin Miller Rd	5606	29-1200-6-3	363	5/9/2017	C329152-Task Order 1
14	Joaquin Miller Park-Storage	3540 Joaquin Miller Rd	5606	29-1200-6-3		5/9/2017	No Sewer Lateral
15	Joaquin Miller Park-Storage Barn	3540 Joaquin Miller Rd	5606	29-1200-6-3	50	5/9/2017	C329152-Task Order 1
16	Ranger Station	3590 Sanborn Dr	5606	29-1200-6-3	166	5/9/2017	C329152-Task Order 1
17	Sequoyah Lodge	2666 Mountain Blvd	5606	29-1200-6-3			
18	Joaquin Miller Park-Woodminster Cascades	Joaquin Miller Park, 3300 Joaquin Miller Road 94602	5606	29-1200-6-3	251	5/9/2017	C329152-Task Order 1
19	Woodminster Theater	3300 Joaquin Miller Park 94603	5606	29-1200-6-3	251	5/9/2017	C329152-Task Order 1
20	Woodminster Theater-Concession Booth	Joaquin Miller Park 94603	5607	29-1200-6-3		5/9/2017	No Sewer Lateral
21	Woodminster Theater - Restroom	3300 Joaquin Miller Rd	5606	29-1200-6-3	251	5/9/2017	C329152-Task Order 1

No.	Facility Name	Address	Sub-Basin No.	Parcel Number	Length (feet)	Completion Date	Remark
22	Joaquin Miller Park-PAL Cabin 1	10900 Skyline Blvd	5607	29-1200-7-3		5/9/2017	No Sewer Lateral
23	Joaquin Miller Park-PAL Cabin 2	10900 Skyline Blvd	5607	29-1200-7-3		5/9/2017	No Sewer Lateral
24	Joaquin Miller Park-PAL Cabin 3	10900 Skyline Blvd	5607	29-1200-7-3		5/9/2017	No Sewer Lateral
25	Joaquin Miller Park-PAL Cabin 4	10900 Skyline Blvd	5607	29-1200-7-3		5/9/2017	No Sewer Lateral
26	Joaquin Miller Park-PAL Cabin 5	10900 Skyline Blvd	5607	29-1200-7-3		5/9/2017	No Sewer Lateral
27	Joaquin Miller Park-PAL Cabin 6	10900 Skyline Blvd	5607	29-1200-7-3		5/9/2017	No Sewer Lateral
28	Joaquin Miller Park-Redwood Glen Restroom	10900 Skyline Blvd	5607	29-1200-7-3		5/9/2017	Cesspool-Not connected to the City sewer system
29	Joaquin Miller Park-Rotary	10900 Skyline Blvd	5607	29-1200-7-3		5/9/2017	Cesspool-Not connected to the City sewer system
30	Joaquin Miller Park-Metropolitan Horseman's Association Clubhouse	10900 Skyline Blvd	5607	29-1200-7-3		5/9/2017	Cesspool-Not connected to the City sewer system
31	Joaquin Miller Park-Rotary Day	10900 Skyline Blvd	5607	29-1200-7-3		5/9/2017	Cesspool-Not connected to the City sewer system
32	Joaquin Miller Park-Rotary Day Camp	10900 Skyline Blvd	5607	29-1200-7-3		5/9/2017	Cesspool-Not connected to the City sewer system
33	Joaquin Miller Park-	10900 Skyline Blvd	5607	29-1200-7-3		5/9/2017	Cesspool-Not connected to the City sewer system

No.	Facility Name	Address	Sub-Basin No.	Parcel Number	Length (feet)	Completion Date	Remark
	Sequoia Arena Restroom						
34	Joaquin Miller Park- Siniwak Cabin	10900 Skyline Blvd	560 7	29-1200-7- 3		5/9/2017	Cesspool-Not connected to the City sewer system
35	San Antonio Park Head Start Center	1701 East 19th St	600 3	20-295-1			
36	San Antonio Recreation Center	1701 East 19th St	600 3	20-295-1			
37	Manzanita Head Start Center	2701 – 22nd Ave	600 8	22-364-21			
38	Manzanita Head Recreation Center	2701 – 22nd Ave	600 8	22-364-21			
39	Union Point -South Parking Lot (haz mat under pavement)	2311 Embarcadero	610 3	18-505-1			
40	Union Point - Union Hill (haz mat under hill)	2311 Embarcadero	610 3	18-505-1			
41	Animal Shelter (new)	1101 – 29th Ave	620 2	25-880-1-6			
42	Peralta House	2465 – 34th Ave	800 22	27-878-2			
43	Coolidge House	2496 Coolidge Ave	800 22	27-878-1			
44	Peralta Hacienda Park-	2500 - 34th Ave 94601	800 22	27-878-2			

No.	Facility Name	Address	Sub-Basin No.	Parcel Number	Length (feet)	Completion Date	Remark
	Community Center						
45	Peralta Hacienda Park- Restroom	2465 34th Ave	801 01	27-899-1			
46	Peralta Hacienda Park- Restroom	2465 34th Ave	801 01	27-899-1			
47	55th Avenue Head Start Center	1800 55th Ave	820 04	38-3228-5-1			
48	Fremont Pool and Building	4550 Foothill Blvd 94601	820 04	35-2401-2			
49	Fremont Pool -Locker Rooms & Mechanical Room	4550 Foothill Blvd 94601	820 04	35-2401-2			
50	Melrose Branch	4805 Foothill Blvd 94601	820 04	35-2384-1			
51	Fire Station #18	1700 – 50th Ave	820 05	35-2386-18			
52	Rainbow Teen Center	5818 International Blvd	830 02	38-3234-12-3			
53	Rainbow Recreation Center	5800 International Blvd 94621	832 01	38-3234-7-1			
54	Burckhalter Park- Restroom	4060 Edwards Ave	834 04	40A-3441-36-5			
55	McCrea Park Residence and Restroom	4460 Shepherd St	835 01	37-2605-87			

No.	Facility Name	Address	Sub-Basin No.	Parcel Number	Length (feet)	Completion Date	Remark
56	McCrea Park-Fly Casting Pools	4460 Shepherd St 94619	835 01	37-2605-87			
57	Redwood Heights Rec Center	3883 Aliso Ave 94619	835 01	30-1869-58-3			
58	Leona Lodge	4444 Mountain Blvd	835 02	37-2605-90			
59	81st Avenue Branch Library	1021 81st Ave	840 03	41-4211-1-3			
60	Carter Gilmore Park - New Restroom	1390 – 66th Ave	841 91	41-4132-15-3			
61	Fire Station #29	1016 – 66th Ave	841 01	41-4062-12			
62	Fire Station #29 Garage	1016 – 66th Ave	841 01	41-4062-12			
63	Martin Luther King Branch Library	6833 International Blvd 94621	841 01	41-4132-15-1			
64	Officer Willie Wilkins Park - Restroom	9710 C Street	852 02	44-4981-9			
65	Fire Station #20	1401 – 98th Ave	852 05	46-5424-26			
66	Elmhurst Branch Library	1427 – 88th Ave 94621	852 11	43-4580-8			
67	Dunsmuir House-Barn	2960 Peralta Oaks Ct	852 31	48-5658-3-2			
68	Dunsmuir House-Carriage House	2960 Peralta Oaks Ct	852 31	48-5658-3-2			

No.	Facility Name	Address	Sub-Basin No.	Parcel Number	Length (feet)	Completion Date	Remark
69	Dunsmuir House-Chauffeur's house	2960 Peralta Oaks Ct	852 31	48-5658-3-2			
70	Dunsmuir House-Chicken Coop	2960 Peralta Oaks Ct	852 31	48-5658-3-2			
71	Dunsmuir House-Dinkelspiel House	2960 Peralta Oaks Ct	852 31	48-5658-3-2			
72	Dunsmuir House-Gardener's House	2960 Peralta Oaks Ct	852 31	48-5658-3-2			
73	Dunsmuir House-Mansion	2960 Peralta Oaks Ct	852 31	48-5658-3-2			
74	Dunsmuir House-Milk House	2960 Peralta Oaks Ct	852 31	48-5658-3-2			
75	Dunsmuir House - Pavilion	2958 Peralta Oaks Ct	852 31	48-5658-3-2			
76	Dunsmuir House-Restroom	2960 Peralta Oaks Ct	852 31	48-5658-3-2			
77	Dunsmuir House-Ticket Boot	2960 Peralta Oaks Ct	852 31	48-5658-3-2			
78	Lake Chabot-Clubhouse	near 11450 Golf Links Rd	852 31	48-5813-3-4			
79	Lake Chabot-Fromer Cartaker's Mobile Home	near 11450 Golf Links Rd	852 31	48-5813-3-4			

No.	Facility Name	Address	Sub-Basin No.	Parcel Number	Length (feet)	Completion Date	Remark
80	Lake Chabot-Maintenance Building A	near 11450 Golf Links Rd	852 31	48-5813-3-4			
81	Lake Chabot-Maintenance Building B	near 11450 Golf Links Rd	852 31	48-5813-3-4			
82	Lake Chabot-Maintenance Building C	near 11450 Golf Links Rd	852 31	48-5813-3-4			
83	Lake Chabot-Maintenance Building D	near 11450 Golf Links Rd	852 31	48-5813-3-4			
84	Lake Chabot-Maintenance Building E	near 11450 Golf Links Rd	852 31	48-5813-3-4			
85	Lake Chabot-Maintenance Building F	near 11450 Golf Links Rd	852 31	48-5813-3-4			
86	Lake Chabot-Restroom #1	near 11450 Golf Links Rd	852 31	48-5813-3-4			
87	Lake Chabot-Restroom #2	near 11450 Golf Links Rd	852 31	48-5813-3-4			
88	Lake Chabot-Restroom #3	near 11450 Golf Links Rd	852 31	48-5813-3-4			
89	Lake Chabot-Sewer Pump Station	near 11450 Golf Links Rd	852 31	48-5813-3-4			
90	Lake Chabot-Snack Bar	near 11450 Golf Links Rd	852 31	48-5813-3-4			

No.	Facility Name	Address	Sub-Basin No.	Parcel Number	Length (feet)	Completion Date	Remark
91	Sheffield Village Rec Center	247 Marlow Dr 94605	85231	48-6140-1			
92	Columbian Gardens Tot Lot	Heskett Rd & Empire Rd	86001	45-5322-30			
93	Ira Jinkins (Brookfield) Rec Center	9175 Edes Ave 94603	86002	44-5053-1-6			
94	East Oakland Sports Center Complex	9175 Edes Ave	86002	44-5053-1-6			
95	Spunkmeyer Field Restroom	Harbor Bay Pkwy & Doolittle Dr	87001	42-4404-11-2			

Appendix E

Port of Oakland Sewer Collection System Annual Report for July 1, 2017 – June 30, 2018