CITY OF OAKLAND



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Oakland Public Works Department Jason Mitchell Director

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September 30, 2019

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

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

Ms. Eileen Sobeck Executive Director State Water Resources Control Board P.O. Box 100 Sacramento, CA 95812-0100 Mr. Michael Montgomery Executive Officer San Francisco Bay Regional Water Quality Control Board 1515 Clay Street, Suite 1400 Oakland, CA 94612

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

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

RE: Consent Decree--City of Oakland Annual Report

Dear Mr. Magnan, et al.:

In accordance with the 2014 Consent Decree, enclosed is the City of Oakland's Annual Report for the period from July 1, 2018 to June 30, 2019.

If you have any questions about this report, please contact Mr. Tyree Jackson, Regulatory Compliance Officer, at 510-238-3672.

Sincerely,

Jason Mitchell

Jason Mitchell Director, Public Works

Cc (via email only): Nicole C. Sasaki (Bay Keeper) Christopher A. Sproul (Environmental Advocates) Eileen White (EBMUD) Chris Chan (Port of Oakland)

Attachments: 2018-19 Annual Report



CITY OF OAKLAND

Sanitary Sewer Collection System

Annual Report

July 1, 2018 to June 30, 2019

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

Annual Sanitary Sewer Collection System Report for July 1, 2018 to June 30, 2019

Certification

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

Reviewed by:

Richard Battersby Assistant Director Bureau of Maintenance and Internal Services

Jason Mitchell Director of Public Works

Matt Lee, PE Acting Assistant Director Bureau of Design & Construction

9127/19

Date

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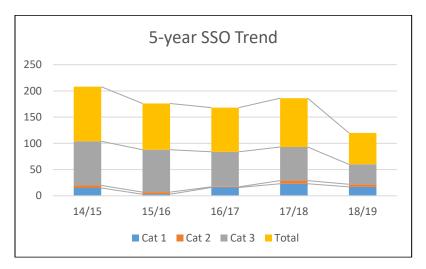
Executive Summary

The City of Oakland's Consent Decree (CD) 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 purpose of the CD is to facilitate the City of Oakland's (City) legally binding obligation to reduce inflow and infiltration that contributes to discharges from East Bay Municipal Utility District's (EBMUD) Oakport and San Antonio Wet-weather Facilities, and reduce the amount of sanitary sewer overflows that result in discharge to Waters of the United States. The City of Oakland has met, and in some cases exceeded, the annual operation, maintenance, repair, and rehabilitation requirements as stipulated in the CD. The City is pleased to submit this Annual Report as required by the CD (CD) for Fiscal Year 2018-19 (July 1, 2018 to June 30, 2019).

Over the past fiscal year, the City has made considerable efforts to improve its wastewater programs. Those efforts included an extensive evaluation of the entire wastewater program by an independent consortium of wastewater compliance experts, the addition of key personnel to provide oversight and facilitation of compliance with the CD and other wastewater regulations, and in-depth training and field exercises for operational staff in areas of critical concern. As a result of these efforts, the cumulative sewer rehabilitation work remained significantly ahead of schedule, sanitary sewer overflows significantly declined, and City personnel logged nearly twenty (20) hours per capita of SSO response training. In addition, the City's sewer budget, staffing, and tool and equipment inventory have increased over the year.

Sanitary Sewer Overflows (SSOs):

The City saw a significant decline in the number of sanitary sewer overflows during FY18/19. A total of fiftynine (59) SSO events were recorded, nearly a 37% reduction from the previous reporting period. Of these reported events, seventeen (17) were Category 1 spills – only three of which resulted in greater than 10,000 gallons discharged into a waterway or surrounding water body.



The total volume spilled in FY18/19 was 106,314 gallons, representing a 21% decrease in volume compared to the previous fiscal year. Of the total amount spilled, 14.99% was contained and returned to the system. In FY18/19, the total volume that reached surface water was 82,109 gallons. This is a 16.01% volume reduction from the previous fiscal year.

Asset Management Implementation Plan (AMIP)

The City partnered with a panel of subject matter experts in the field(s) of wastewater regulatory compliance, design and construction of wastewater collection systems, and operation, maintenance, and repair of underground utilities, to perform a review and analysis of its asset management program. The City identified ten (10) high-priority actions to improve the overall effectiveness of its wastewater programs, six (6) of which involve improvements to the implementation of the asset management plan, directly.

The City anticipates completion of a revised AMIP/SSMP by the end of 2019, and the development of a system-wide master plan by 2022. Both documents are intended to address both short-term improvements and corrective action for areas of concern, and long-term improvements to ensure successful achievement of CD goals.

Infiltration and Inflow Reduction Work:

Sewer Main and Maintenance Hole Rehabilitation.

As of June 30, 2019, the City has rehabilitated 423,342 feet (80.2 miles) of sewer main. This exceeds the CD requirement to rehabilitate 348,480 feet (66 miles) by June 30, 2019. In addition, the City had rehabilitated an additional 26,696 feet (5.1 miles) of sewer main – slightly more than the CD requirement to rehabilitate 26,400 feet (5 miles) by June 30, 2019.

Sewer Main and Maintenance Hole Inspection.

As of June 30, 2019, 2,851,200 feet (540 miles) of sewer mains have been inspected and assessed using standard CCTV methodology. This exceeds the CD requirement to inspect 2,671,680 feet by June 30, 2019. Between July 1, 2018 and June 30, 2019, 957 maintenance-hole inspections were performed. Two (2) maintenance holes were found in poor condition, during the reporting period, and are scheduled for repair/rehab within a one-year period.

<u>Development of Regional Standards.</u> The City bases its construction plans and specifications on *The "Greenbook": Standard Specifications for Public Works Construction*, a statewide standard for the municipal construction industry. The City has incorporated these standards in all capital projects designed during this reporting period. The Defendants have and will continue to evaluate the effectiveness, and coordinate on potential revisions and improvements, as the need arises.

<u>EBMUD's Sewer Lateral Education and Outreach Program.</u> The City continues to work with EBMUD in implementation of the program.

<u>Sewer Lateral Inspection and Repair.</u> In FY18/19, the City finalized 467 building permits which required certificates of occupancy for construction, or remodeling permits in excess of \$100,000. The City met the CD requirement to limit the number of building permits issued without Compliance Certificates to less than 25 per Fiscal Year. Among the 21 building permits which didn't receive Compliance Certificates from EBMUD, 11 actually completed sewer lateral replacement work to comply with I/I reduction, but failed to pay the certificate fee at permit final date. The remaining 10 building permits did not involve structures with a building sewer, and therefore a Compliance Certificate was not applicable.

Additionally, City crews identified seventy-six (76) defective sewer laterals during the reporting period. All affected property owners were notified in writing within 90 days of identifying the defective sewer laterals.

Inflow and Rapid Infiltration Identification and Elimination.

On October 2, 2018, EBMUD submitted to the City, FY 2017-18 Annual Satellite Notification, in which six (6) public I/I sources and seven (7) private I/I sources were identified. The City provided a response on December 20, 2018, in which two (2) of the six (6) public I/I sources were determined to be high priority. NTA letters were issued to all seven (7) private I/I sources on January 28, 2019 after field investigations were completed. Both high priority sources are being actively enforced so that it can be eliminated within the required twenty-four months.

SSO Reduction Work:

Capacity Assurance.

The CD requires the City to increase sewer capacity in certain locations when sewer flows reach within one foot of the Maintenance Hole rim. In FY18/19 the City experienced a total of three (3) 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 three (3) locations.

Acute Defects.

- Nineteen (19) Acute Defects found in FY17-18:
 - All nineteen (19) acute defects were repaired in FY18/19 within the one-year requirement;
- No acute defects identified during the reporting period.

Sewer Main Cleaning.

The City started a new multi-year cleaning cycle during the reporting period. In FY2018-19, 998,933 unique feet (189 miles) of Sewer Main were cleaned, which exceeds the CD requirement of 971,520 unique feet (184 miles).

Root Cleaning (Foaming).

The City had root foamed 1,651,849 feet (312.9 miles) of sewer mains during the reporting period – which exceeds the CD requirement of 1,584,000 feet (300 miles).

Hot Spot Cleaning.

As of June 30, 2019, the City's High Frequency cleaning program includes 207,677 feet (39.33 miles) of sewer mains which are cleaned on a three (3) to twelve (12) month cycle. Each of these locations were cleaned at least once in FY18/19. One (1) SSO event was reported for a pipeline currently on a high-frequency maintenance schedule. Additional evaluation of the pipeline, and the prescribed maintenance activity, was performed – which resulted in the pipeline being placed on a wet-weather monitoring program.

Fats, Oil and Grease (FOG) Control.

In FY18/19, 19 SSOs were estimated 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 FY18/19. Due to high construction costs, the construction of the remaining three pump stations is to be scheduled in FY20-21. The completion of all pump stations will be completed by 2021, prior to the required deadline of October 2022.

Known Noncompliance with Consent Decree

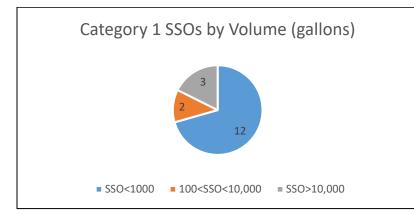
The City is unaware of any non-compliance, and believes that it has been in full compliance with the CD during the reporting period.

Assessment of Stipulated Penalties

Paragraph 186 of the CD: 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 FY18/19, the total SSO volume reaching surface waters was 82,109 gallons from 17 SSO events. The total potential assessed stipulated penalty for FY 2018-19 SSOs that reached Waters of United States is \$79,400.



The City requests that stipulated penalties be waived for the SSO events that reached surface waters. The spills were generally occurred due to non-point source FOG and debris loading, and several occurred during heavy wetweather events. In addition, one of the three largest spills was the result of damage to the utility not caused by the City. The City has been meeting the cleaning and rehabilitation goals annually since FY 2014, and continues to see a decline in the overall numbers of SSO events within its collection system. Assessment of stipulated penalties will divert funding from I/I reduction efforts, training for SSO response and reporting, and public outreach, and negatively impact the City's ability meet future operational goals and requirements. 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 1. – Introduction

Paragraph 139 of the CD (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 CD. The following sections of this report present the required information for Fiscal Year 2018-19 (July 1, 2018 to June 30, 2019):

Page in CD

Section 1. CD Para 139 Introduction 8 9 CD Para 144 Annual Report of Sanitary Sewer Overflows (SSO) Section 2. Section 3. CD Para 165 Asset Management Implementation Plan Status 13 CD Para 166 Infiltration and Inflow Reduction Work Section 4. 4.1 CD Para 166.a.i Sewer Main and Maintenance Hole Rehabilitation 14 4.2 CD Para 166.a.ii Sewer Main and Maintenance Hole Inspection 18 4.3 CD Para 166.a.iii **Development of Regional Standards** 20 Sewer Lateral Inspection and Repair 21 4.4 CD Para 166.b **I&I** Identification and Elimination 4.5 CD Para 166.c 24 Section 5. CD Para 167 SSO Reduction Work 25 5.1 CD Para 167.a **Capacity Assurance** 5.2 CD Para 167.b Post SSO Inspection 31 5.3 CD Para 167.c Acute Defects 31 CD Para 167.d 5.4 Sewer Main Cleaning 32 5.5 CD Para 167.e **Root Cleaning** 34 5.6 CD Para 167.f Hot Spot Cleaning 37 5.7 Fats, Oil and Grease (FOG) Control CD Para 167.g 38 5.8 CD Para 167.h **Pump Station Renovation** 40 Section 6. CD Para 141 Deliverables 41 Section 7. CD Para 142 Known Noncompliance with Consent Decree 41 Section 8. CD Para 172 Assessment of Stipulated Penalties 42 Section 9. CD Para 143 Recommended Changes to Required Work 43

Section 2. – Annual Report of Sanitary Sewer Overflows

Paragraph 144 of the CD 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 59 SSO events during FY18/19.

A detailed list of SSOs is shown in Appendix A.

Number and Location of Repeat Overflows

In FY18/19, the City had three locations (4 SSOs) in which a second sewer overflow occurred within a three-year period. Table 2-1 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".

| SSO Location | CIWQS # | Cause | Date | Measure(s) to prevent SSO | Pipe ID |
|----------------------------|-------------------|-----------------------------------|-----------------------|---------------------------|---------|
| 814 Mandana Blvd | 855761 | Flow Exceeded Capacity | 3/1/19 | On 6 month PM list | 20026 |
| 100 Crest Rd | 852282, 852094 | Root Intrusion, Root Intrusion | 10/29/18, 10/28/18 | On 6 month PM list | 23084 |
| 3342 E 16 th St | 856392 | Grease Deposition (FOG) | 2/22/19 | On 12 month PM list | 8754 |

Table 2-1 Repeat SSO Locations, FY18/19

Sewer Overflows in Rehabilitated Areas

In FY18/19, six (6) SSOs occurred in areas rehabilitated since July 1, 2008 (within the last ten years) as shown in Table 2-2 below. Of these locations, 4 of the 6 SSOs were FOG related problems, one was caused by debris, and one was caused by damage from a construction crane. Corrective actions, as detailed below, include cleaning, CCTV inspection, and addition to the "Hot Spot" list.

| SSO Location | CIWQS # | Cause | Date | Measure(s) to prevent SSO | Rehab Year | Pipe ID |
|-----------------------------|------------|---|----------|--|---------------|---------|
| 125 2 nd St | 855820 | Grease Deposition (FOG) | 1/30/19 | Added to High Frequency 6-month Power Rodding Program | 2010 | 11030 |
| 3456 Boston Av | 850942 | Grease Deposition (FOG) | 9/12/18 | Added to High Frequency 12-month Power Rodding Program | 2010 | 13688 |
| 401 15 th St | 858507 | Grease Deposition (FOG) | 5/22/19 | Added to High Frequency 6-month Power Rodding Program | 2010 | 14944 |
| 1034 Agpar St | 855902 | Damage caused by a crane that was stationary over the sanitary sewer | 2/4/19 | Line repaired on 3/08/2019 by City Crew | 2017 | 23901 |
| Bellevue Av & Perkins St | 854687 | Grease Deposition (FOG) | 12/25/18 | Added to High Frequency 12-month Power Rodding Program | 2013 | 36208 |
| 2938 68 th Av | 857801 | Debris-General | 4/20/19 | Added to High Frequency 6-month Hydro Flushing Program | 2013 | 6577 |

 Table 2-2 – SSO Locations within Rehabilitated Areas, FY18/19

Section 3. – Asset Management Implementation Program

Paragraph 165 of the CD 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 its AMIP which had been revised to comply with ORDER NO. WQ 2013-0058-EXEC (the amended MRP for the Statewide Waste Discharge Requirements) and Final 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 CD. Also, the City is working on updating the AMIP/SSMP document, and anticipates submittal of a revised AMIP/SSMIP to the State, during fiscal year 2019/2020. The proposed revisions will affect the SSMP portion of the asset management plan.

Section 4. – Inflow/Infiltration Reduction Work

4.1 Sewer Main and Maintenance Hole Rehabilitation

Paragraph 166.a.i. of the CD requires that the Annual Report contain: *"Rehabilitation: all Sewer Main and Maintenance Hole Repair and Rehabilitation activities completed..."*

Paragraph 83.a. of the CD 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, 2019, the City of Oakland has Rehabilitated 423,342 feet (80.2 miles) of Sewer Main. This exceeds the CD requirement to rehabilitate 348,480 feet (66 miles) by June 30, 2019. The City's Sewer Main Rehabilitation Program is ahead of schedule as shown in Table 4-1.

| 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) |
| FY 2018-19 | 40,995' (7.8 miles) | 423,342' (80.2 miles) | 348,480 (66 miles) |

Table 4-1 – Length of Rehabilitated Sewer Mains

**Cumulative total beginning 01/01/14

Additional Sewer Mains Rehabilitated

Paragraph 83.b. of the CD 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, 2019, the City of Oakland had Rehabilitated 26,696 feet (5.1 miles) of Additional Sewer Mains as shown in Table 4-2.

Table 4-2 – 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) |
|------------|-----------------------|---------------------|------------------|
| FY 2018-19 | 5,506 (1.1 miles) *** | 26,696' (5.1 miles) | 26,400 (5 miles) |

*** The reported mileage has been adjusted by subtracting the over-reported mileage of 2,062 feet (0.39 miles) in previous Annual Reports (FY14-15, FY15-16, and FY16-17) as documented in the response to EPA's Report titled *"Review of the City's Oakland's Compliance under Consent Decree in US. Et al. V. EBMUD et al. Case Nos. 3:09 cv-00186-RS and 3:09-cv-05684-RS (N.D. Cal)"* dated May 6, 2019.

Maintenance Holes

Paragraph 166.a.i.C. of the CD requires that the Annual Report contain: "...the number of Maintenance Holes associated with Rehabilitated Sewer Mains and the number of Maintenance Holes Rehabilitated;"

As part of its Sewer Main Rehabilitation Program in FY18/19 the City Repaired or Rehabilitated a combined total of 449 Maintenance Holes.

Abandoned Sewer Laterals

Paragraph 166.a.i.D. of the CD 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.

Sewer Main Rehabilitation Budget and Expenditures

Paragraph 166.a.i.F. of the CD requires that the Annual Report contain: "...the Rehabilitation budget and dollars spent on Sewer Main Rehabilitation;"

During FY18/19, the City budgeted \$ 16,514,700 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. The total combined expenditure for sewer main rehabilitation was \$11,372,285 in FY2018-2019.

Proposed Sewer Main Rehabilitation Projects

Paragraph 166.a.i.G of the CD requires that the Annual Report contain: "...the Sewer Mains targeted to be Rehabilitated in the next Fiscal Year;"

In FY 2019-20, the City plans to complete five (5) Sewer Main Rehabilitation projects. These projects will rehabilitate approximately 11 miles of sewer mains in FY 2019-20. All appurtenant sewer maintenance holes will also be rehabilitated as needed as part of these projects. The locations of these projects are selected from Appendix H of the CD 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. Appendix H of the CD lists Oakland's Sewer Collection System sub-basin priorities.

Revisions to Appendix H

Paragraph 166.a.i.H. of the CD 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..."

No revisions were made to Appendix H.

4.2 Sewer Main and Maintenance Hole Inspection

Paragraph 83.c. of the CD requires:

"For the duration of this CD, 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.A. of the CD requires the Annual Report to contain:

"the total feet of Sewer Main inspected with completed condition assessment and the cumulative total feet of Sewer main inspected with completed condition assessment since the Effective Date"

Sewer Main Condition Assessment

As shown in Table 4-3, 2,851,200 feet (540 miles) of sewer mains have been inspected and assessed using CCTV inspection. This exceeds the CD requirement to inspect 2,671,680 feet by June 30, 2019.

| Mains Assessed ** | Cumulative Total *** | CD Requirement |
|----------------------|---|--|
| 182,935' (35 miles) | 182,935' (35 miles) | 242,880' (46 miles) |
| 618,991' (117 miles) | 801,926' (152 miles) | 728,640' (138 miles) |
| 619,913' (117 miles) | 1,408,769' (267 miles) | 1,214,400' (230 miles) |
| 502,816' (95 miles) | 1,911,585' (362 miles) | 1,700,160' (322 miles) |
| | | 2,185,920' (414 miles) |
| | | 2,671,680' (506 miles) |
| | 182,935' (35 miles) 618,991' (117 miles) | 182,935' (35 miles)182,935' (35 miles)618,991' (117 miles)801,926' (152 miles)619,913' (117 miles)1,408,769' (267 miles)502,816' (95 miles)1,911,585' (362 miles)441,361' (84 miles)2,352,943' (446 miles) |

Table 4-3 – Length of Sewer Mains Inspected and Assessed

*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

****Beginning FY 2015-16, the numbers reflect updates to sewer GIS data each year. 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 CD requires:

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

Paragraph 166a.ii.C of the CD requires:

"the number of Maintenance Holes inspected"

Between July 1, 2018 and June 30, 2019, 957 maintenance-hole inspections were performed. Field staff visually inspected the barrel of every maintenance hole and completed a computerized maintenance hole inspection form.

4.3 Development of Regional Standards

Paragraph 166.a.iii. of the CD 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."

A Regional Standards committee (RSC) was formed in May 2015 by all Defendants for the review and development of Regional Standards regarding the work on sewer mains, manholes, and sewer laterals. In April 2015, a consultant (Humphrey Consulting) was contracted to assist the Defendants and the RSC in the development of standards. The City actively participated in the meetings of the RSC, held from May 2015 through June 2016. On June 30, 2016, Humphrey Consulting submitted the Regional Standards to EPA for review and approval and to the Plaintiffs on behalf of all Defendants, as required in the CD.

The City have implemented the Regional Standards for 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 CD 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 CD 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 4-4 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 4-4 – Permits Finalized, with EBMUD Certificates of Compliance

| Fiscal Year | # Permits Finalized | # with Compl Cert | # w/o Compl Cert |
|-------------|---------------------|-------------------|------------------|
| FY 2018-19 | 467 | 446 | 21 |

In FY18/19, the City finalized 467 building permits which required certificates of occupancy for construction or remodeling permits in excess of \$100,000. Among the 467 building permits, 446 building permits received Compliance Certificates issued by EBMUD and 21 building permits didn't receive Compliance Certificates from EBMUD which met the CD requirement to limit the number of building permits issued without Compliance Certificates to less than 25 per Fiscal Year. Among the 21 building permits which didn't receive Compliance Certificates from EBMUD, 11 building permits indeed completed sewer laterals replacement work to comply with I/I reduction but didn't pay the certificate fee at permit final date; the rest 10 building permits do not involve structure with a building sewer, i.e., replacement of mechanical requirements; therefore, a Compliance Certificate is not needed. 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 CD 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 CD 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 4-5, during FY18/19 City crews identified 76 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 CD in FY2018-19. In addition, the City sends a secondary notice to the affected property, a sample letter of administrative enforcement actions is attached in Figure 4-3, Appendix B.

Table 4-5 – 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 |
|---|--|-------------------------------------|---|
| 76 | 76 | 0 | 0 |

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 CD. During FY18/19, the City completed sewer lateral rehabilitations at 46 locations, which brings the total number of rehabbed locations to 73. The City expects to complete inspection and repair of City-owned Sewer Laterals ahead of the September 21, 2024, completion date specified in the CD. A list of Oakland-Owned Sewer Laterals is presented in Table 4-6 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 FY18/19, 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."

City Repaired or Rehabilitated 187 Lower Sewer Laterals as part of the construction projects as part of its Sewer Main Rehabilitation, the City reconnected all 584 encountered Sewer Lateral connections, including connections to laterals within easements. The 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 CD 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 October 2, 2018, EBMUD submitted to the City, FY18/19 Annual Satellite Notification, in which six (6) public I/I sources and seven (7) private I/I sources were identified. The City provided a response on December 20, 2018, in which two (2) of the six (6) public I/I sources were determined to be high priority. NTA letters **Page | 20**

were issued to all seven (7) private I/I sources on January 28, 2019 after field investigations were completed. Both high priority sources are being actively enforced so that it can be eliminated within the required twenty-four months.

Section 5. SSO Reduction Work

Paragraph 167 of the CD requires:

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

A targeted approach to increase maintenance of pipelines known (or suspected) to have operational issues (i.e. excessive root intrusion, non-dispersible wipes, paving debris, and/or FOG) was implemented throughout the fiscal year. In addition, the City re-instituted use of a degreasing additive in its hydro-jetting maintenance (both routine and high-frequency) to aid in effectiveness of cleaning activity.

From approximately September 1st, 2018 through June 30th, 2019, the City piloted a manhole monitoring project to assist with monitoring and evaluation of wet-weather surcharging, and predictive maintenance activity, at select locations within the collection system.

Additional SSO prevention measures are identified in the following sections:

5.1 Capacity Assurance

Paragraph 167.a. of the CD 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 FY18/19, the City monitored water levels in Maintenance Holes listed in Paragraph 89(a) of the CD 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 CD.

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, FY 2017-18, and FY18/19. In FY18/19 the City experienced a total of three (3) 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 three (3) locations. All 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 two locations that were triggered by the February 13, 2019 storm event. Our analysis shows that the February 13, 2019 storm have exceeded the December 5, 1952 storm. The event 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 to the two locations where high water levels were triggered. The City, at our discretion will assess if funding these projects are obtainable, as they are not required by the CD. A list of the City's progress on the planned upgrades is provided next page.

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".

There are no activities to report in FY2018-19.

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".

The following is a summary progress report on all four locations:

- Maybelle Avenue and Masterson Street (Phase 2) Construction Completed on May 28, 2019
- Trestle Glen Road at Creek Road Construction Completed on December 13, 2018
- Park Blvd and Spruce Street Construction Completed on March 26, 2019
- Maybelle Avenue, Porter Street and High Street Construction planned for Spring 2020

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

There are no capacity-related SSOs to report in FY2018-19.

Table 5-1 – Capacity Related High Level Alarms Triggered

| No. Listed from CD | Location | Date of Occurrence | Rain Event? | Exceeded 1952 Storm? | Reasons for High Level Alarm | Maintenance Performed to Prevent SSO's | Comment |
|--------------------|--|--------------------|-------------|----------------------|---|--|--|
| | | * 12/11/2014 | Yes | Yes | Exceeded 1952 Storm | Televised: 5-29-14, 2-18-15, 9-20-16 Cleaned: 2-18-15, 4-28-16, 9-20-16 | **Construction Completed on January 19, 2018. |
| | San Pablo Avenue at 60th Street | 1/19/2016 | Yes | No | Grease & Capacity | On Hot Spots List | |
| i. | **** | 3/5/2016 | Yes | No | Grease & Capacity | | |
| | | 6/5/2019 | No | No | Maintenance staff triggered sensor | | |
| | | 9/23/2015 | No | N/A | Maintenance staff triggered sensor | Televised: 4-29-14, 10-17-16 Cleaned: 9-23-15, 8-30-16 On Hot Spots List | **Construction Completed on January 22, 2018. |
| ii. | San Pablo Avenue at 62 nd Street**** | 10/20/2017 | No | N/A | Construction activities triggered sensor | | |
| | | 6/8/2019 | No | No | Maintenance staff triggered sensor | | |
| | 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. Inspected and reset surcharge alarm unit 9- | Upsizing not needed. |
| iii. | Stanford Avenue at Gaskill Street | 8/25/2016 | No | | Maintenance staff triggered sensor | -23-15. | |
| | | * 12/11/2014 | Yes | Yes | Exceeded 1952 Storm | Televised: 4-29-14, 12-16-14, 9-19-2016 Cleaned: 4-29-14, 6-2-14, 1-13-15, 7-27- | Upsizing not needed. The current hydraulic |
| | | 1/19/2016 | Yes | No | Grease | 15, 2-8-16, 8-10-16, 9-19-15, 2-14-17, 8- | location is placed on the High Frequency 6-month |
| | | 12/15/2016 | Yes | No | Grease | On High Frequency Cleaning List; Every | cleaning list. |
| iv. | 27th Avenue & Vernon Street | 2/20/2017 | Yes | Yes | Exceeded 1952 Storm | 6 Months | |
| | | 11/28/2018 | Yes | No | Grease and Debris | | |
| | | 11/29/2018 | Yes | No | Grease and Debris | | |

| | 2/12/2010 | Yes | Yes | | Exceeded 1952 Storm | | |
|---------------------------------------|-----------|--------------|-----|-----|---|--|--|
| | 2/13/2019 | | | | | | |
| | | * 12/11/2014 | Yes | Yes | | Televised: 4-28-14 Cleaned: 4/28/14, | **Construction Completed on November 17, 2017. |
| | | 1/06/2016 | Yes | No | Grease & Sag | 5/27/2015, 6-8-16, 6/13/17 | |
| v. Grand Avenue and Harrison Street** | ** | 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 | | |
| | | | Yes | No | 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, 11-22-19 | Revised conclusion that the trigger was not capacity related. Additionally, a sewer relief line was constructed in 2010. |
| vi. 19th Street and Jackson Street | | † 12/13/2015 | | | | 5/2/2017, 11-22-19 Inspection every 6 months | |
| | | | | | | | |

| | | | Yes | No | Debris | | |
|-------|------------------------------------|-------------------------|-----|-----|---|--|--|
| | | | | | | | |
| | | | | | | | |
| | | 11/28/2018 | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | V | N | Maintana da CC daire da I | | |
| | | | Yes | No | Maintenance staff triggered sensor | | |
| | | | | | | | |
| | | 2/2/2019 | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | 1/17/2016 | Yes | No | | Televised: 11-14-14, 8-3-16 | Capacity deficiency mitigated due to immediate downstream upsizing project on East 18 th Ave at 4 th |
| | | 3/5/2016 | Yes | No | | Cleaned: 1/23/14, 7-8-16 On High Frequency Cleaning List; every | Ave. |
| | | | Yes | No | | 12 Months | |
| | | 3/12/2016 | 100 | 110 | Cupacity | | *** Construction Completed on March 26, 2019. |
| | | | | | | | |
| vii. | Park Blvd and Spruce Street | 1/8/2018 | Yes | No | Maintenance staff triggered | | |
| | | | | | sensor | | |
| | | 10/9/2018 - | No | No | Construction activities. Senor removed during duration of | | |
| | | 6/5/2019 | | | Capacity upgrade till | | |
| | | | | | completion of March 2019. | | |
| | | | | | Maintenance staff triggered sensor in June 2019. | | |
| | | * 12/11/2014 | Yes | Yes | Exceeded 1952 Storm | Televised: 12-26-14, 8-14-15, 8-29-17 | **Construction Completed on December 11, 2017. |
| | | 10/12/2015 | Yes | No | | Cleaned: 8-09-16 | |
| | | 12/13/2015 | | | Capacity | | |
| | | 12/21/2015 | Yes | No | Capacity | | |
| | | 1/06/2016 | Yes | No | Capacity | | |
| viii. | East 18th Avenue at 4th Avenue**** | 1/17/2016 & 1/19/2016 | Yes | No | Capacity | | |
| | | | | | | | |
| | | 3/05/2016 & 3/10/2016 | Yes | | Capacity | | |
| | | 12/10/2016 & 12/15/2016 | Yes | No | Capacity | | |
| | | | | | | | |
| | | 2/20/2017 | Yes | Yes | Exceeded 1952 Storm | | |
| | | · | | | | | |

| | | 6/2/2019 | No | No | Maintenance staff triggered sensor | | |
|-----|--|-------------------------|-----|-----|--|--|--|
| | | * 12/11//2014 | Yes | Yes | Exceeded 1952 Storm | Televised: 1-2-15, 9-22-16, 1-10-17, 8-24- 17, 11-19-17 | **Construction Completed on September 22, 2017 |
| | | 1/17/2016 & 1/19/2016 | Yes | No | Sag | Cleaned: 12-27-15, 3-15-16, 1-2-17, 9-13- | |
| | | 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 | - | |
| ix. | ††Maybelle Avenue and Masterson Street**** | 9/19/2017 | No | N/A | Construction activities triggered sensor | | |
| | | 8/25/2018 | No | N/A | Construction activities triggered sensor | | |
| | | 1/6/2019 | Yes | No | Sag | | |
| | | 2/13/2019 | Yes | Yes | Exceeded 1952 Storm | | |
| | | * 12/11/2014 | N/ | V | E | | *** 0 |
| | | * 12/11/2014 | Yes | Yes | | | *** Construction Completed on December 13, 2018. |
| | | 1/17/2016 & 1/19/2016 | Yes | No | Debris & Sag | Location on High Frequency Cleaning List | |
| | | 3/5/2016 | Yes | No | Debris & Sag | –Every 3 Months | |
| | | 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 | - | |
| х. | †††Trestle Glen road and Creed Road | 4/7/2018 | Yes | No | Debris & Sag | | |
| | | 8/25/2018 | No | N/A | Construction activities triggered sensor | - | |
| | | 10/9/2018 - | No | No | Construction activities. Seno | r | |
| | | 12/1/2018 | | | removed during duration of Capacity upgrade. | | |
| | | 5/18/2019 | No | N/A | Construction activities triggered sensor | - | |
| | | | No | No | Maintenance staff triggered | 4 | |

| | | 8/25/2016 | No | N/A | Maintenance staff triggered | Televised: 12-18-14, 9-29 |
|-----|---|-----------|-----|-----|-----------------------------|---------------------------|
| | 76 th Avenue and Bancroft Avenue | | | | sensor | Cleaned: 5-28-14, 6-3-20 |
| X1. | | 2/20/2017 | Yes | Yes | Exceeded 1952 Storm | 16, 2-15-17, 9-29-17 Loc |
| | | | | | | Frequency Cleaning List |

* 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, Park Blvd and Spruce Street Sewer Capacity Upgrade project, construction completed on March 26, 2019.

† 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, 1015 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. In addition to the completed project, the City has also completed construction of upsizing approximately 47 linear feet of existing 10-inch VCP sewer pipe to 12" VCP at the intersection of Maybelle and Masterson on 5/28/2019. The City is proceeding with preparing construction plans for capacity upgrades between Maybelle Avenue, Porter Street and High Street, and construction is expected to commence in 2020.

††† Trestle Glen Road and Creed Road Sewer Capacity Upgrade project, construction completed on December 13, 2018.

**** The City proposes to delist the following five (5) mandatory monitoring locations where no capacity-related alarms have been trigged for more than one year since capacity upgrades were complete.

- □ San Pablo Avenue at 60th Street
- $\Box \quad \text{San Pablo Avenue at } 62^{\text{nd}} \text{ Street}$
- □ Grand Avenue and Harrison Street
- East 18th Avenue at 4th Avenue
- □ Maybelle Avenue and Masterson Street

| -29-17 |
|---------------------|
| 2015, 2-9-16, 6-22- |
| ocation on High |
| st Every 12 Months |

5.2 Post SSO Inspection

Paragraph 167.b. of the CD requires that the Annual Report contain: "Inspections: a statement that Oakland completed CCTV inspections downstream of each SSO location."

During FY18/19, the City completed CCTV inspections downstream of each SSO.

5.3 Acute Defects

Paragraph 167.c. of the CD 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 identified and completed in FY 2017-18 and 2018-19 are shown in Table 5-2 of Appendix C.

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

- Nineteen (19) Acute Defects found in FY17-18:
 All nineteen (19) acute defects were repaired in FY18/19 within one Year of identification;
- No Sanitary Sewer Overflows occurred because of delays in Repair of Acute Defects.
- Zero (0) Acute Defects found in FY18/19.

5.4 Sewer Main Cleaning

Paragraph 167.d. of the CD requires that the Annual Report contain: "Sewer Main Line Cleaning: a description of activities conducted under its sewer cleaning program..."

Paragraph 92.b. further provides:

"Beginning July 1, 2018, and for the duration of the CD, the City shall clean at least 971,520 feet of Sewer Main per Fiscal Year on a cumulative basis (i.e., 971,520 feet by June 30, 2019; 1,943,040 by June 30, 2020; etc.). The City will determine which sewers to clean as long as a cumulative total of 971,520 feet of Sewer Main is cleaned each Fiscal Year. The cleaning frequency shall prevent the buildup of debris, roots, grease, or other material."

As shown in Table 5-3a, in FY2018-19, 998,933 unique feet (189 miles) of Sewer Main were cleaned, which exceeds the CD requirement of 971,520 unique feet (184 miles).

| 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) |
| FY2017-18 | 501,139' (95 miles) | 4,903,673' (929 miles) | 4,903,673' (929 miles) |
| | | Reset to zero on July 1, 2018 | |
| FY2018-19 | 998,933' (189 miles) | 998,933' (189 miles) | 971,520' (184 miles) |

Table 5-3a – Feet of Sewer Main Cleaned (Unique Feet)

| Since Effective Date | 4,150,417' (786 miles) | n/a | n/a |
|----------------------|------------------------|-----|-----|
| (September 22, | | | |
| 2014)*** | | | |

* Mains Cleaned: Newly-unique feet cleaned during the FY. (Feet that had not been cleaned prior to the fiscal year; reset July 1, 2018.)

** Cumulative Total: Beginning FY18/19, reset to zero on July 1, 2018. In prior fiscal years, zero started on January 1, 2010. Updates to sewer GIS data are done throughout the year, and totals for prior fiscal years are 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.

*** Since Effective Date: Unique feet cleaned September 22, 2014 through June 30, 2019. (Reset to zero at 9/22/14.) The length of a sewer main is counted once regardless of the number of times it is cleaned. Table 5-3a includes feet of sewer main that were cleaned only once during the timeframe, and also includes feet of sewer main that were cleaned more than once in the timeframe (Table 5-3b only includes feet of sewer pipe that were cleaned more than once). Numbers reflect updates to sewer GIS data.

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

Table 5-3b – Feet of Sewer Main Cleaned More Than Once

Per Paragraph 167.d.ii., in this Table 5-3b, 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 |
| FY 2018-19 ** | 258,786' (49 miles) | 2,892,629' (548 miles) | n/a |

* Cumulative Total: Starting January 1, 2010

** Updates to sewer GIS data are done throughout the year. 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 5-3c Feet of Sewer Main Cleaned, Including Repeat Cleanings

Per Paragraph 167.d.iii., in this Table 5-3c, 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 |
| | | Reset to zero on July 1, 2018 per | |
| | | paragraph 196.d.iii. | |
| FY 2018-19 ** | 1,383,101' (262 miles) | 1,383,101' (262 miles) | n/a |

* Cumulative Total: Beginning FY 2018-19, reset to zero on July 1, 2018. In prior fiscal years, zero started on January 1, 2010.

** Updates to sewer GIS data are done throughout the year, and totals for prior fiscal years are 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.

5.5 Root Cleaning (Foaming)

Paragraph 167.e. of the CD 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 rootfoaming 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, 2019, the City had root foamed 1,651,849 feet (312.9 miles) of Sewer Mains, which exceeds the CD requirement of 1,584,000 feet (300 miles). Results of the City's root-cleaning program are as follows in Table 5-4:

| Fiscal Year | Mains A | ssessed | Cumula | tive Total | CD Req | uirement |
|-------------|----------|--------------|------------|---------------|------------|-------------|
| | | | | | | |
| 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) |
| FY 2017-18 | 324,192' | (61.4 miles) | 1,651,849' | (312.9 miles) | 1,584,000 | (300 miles) |

Table 5-4 Root Control Program Implementation

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 CD. 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 CD. 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 CD 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 207,677 feet (39.33 miles) of Sewer Mains which are cleaned every three (3) to twelve (12) months. Between July 1, 2018 and June 30, 2019, the City's sewer crews cleaned 361,104 feet (68 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 CD 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 FY18/19, 19 SSOs were thought to be associated with FOG as listed in Appendix A. These locations were referred to EBMUD for investigation as shown in Table 5-5.

The City did not receive any referrals for FOG-related enforcement action during the reporting period.

Table 5-5 FOG-Related SSOs

| CIWQS Event ID | Address |
|----------------|---|
| 849613 | 3745 Foothill BLVD Oakland Ca, 946221 |
| 849894 | 9th St & Mandela Parkway Oakland, CA, 94607 |
| 849918 | 14th ST & Castro St Oakland, CA, 94612 |
| 850712 | 209 Cairo Rd Oakland.CA, 94603 |
| 850844 | 5652 Ascot Dr. Oakland, CA, 94611 |
| 850942 | 3456 Boston Ave Oakland 94602 |
| 850944 | 2842 London Rd Oakland, CA,94602 |
| 851103 | 2050 Broadway Oakland Ca,94621 |
| 852124 | 140 Maiden Lane, Oakland Ca, 94612 |
| 853291 | 82nd Ave and Iris Street Oakland ca |
| 854687 | 565 Bellevue Ave Oakland, Ca. 94610 |
| 854696 | 879 58th Street Oakland, Ca. 94608 |
| 854731 | 3801 Telegraph Avenue Oakland Ca,94621 |
| 854813 | 2800 Rawson Street Oakland Ca. 94619 |
| 855084 | 578 Grand Avenue Oakland, Ca. 94610 |
| 855101 | 5300 Walnut St. Oakland Ca,94612 |
| 855820 | 125 2nd Street Oakland, Ca. 94607 |
| 856392 | 3336 E.16th St. Oakland Ca,94621 |
| 858507 | 401 15th Street Oakland Ca |

5.8 Pump Station Renovation

Paragraph 167.g of the CD 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 ten (10) small pump/lift stations. 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 FY18/19. Due to high construction costs, the construction of the remaining three pump/lift stations will be scheduled in FY20-21. 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 |
| 7/03/19 | Response letter to EPA/RWQCB Letter dated July 1, 2019 addressing the areas of concern identified by the EPA and Regional Board dated May 6, 2019. | 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 CD. 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.

• On July 3, 2019, the City submitted a letter in response to 2 reports dated May 6, 2019 concerning the City's compliance with the areas of work required by the CD on sanitary sewer overflow response and sewer rehabilitation.

Section 7. Known Non-Compliance with CD

Paragraph 142 of the CD requires that the Annual Report contain:

"A description of any known noncompliance by that Defendant with this CD during the reporting period."

In FY2018-19, the City is in full compliance with CD.

Section 8. Assessment of Stipulated Penalties

Paragraph 186 of the CD requires that the Annual Report contain:

"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 total | ing: | | |
|--------------------------------|------------------------|------------------------|------|
| Less than 1,000 gallons | 1,000 to 9,999 gallons | 10,000 gallons or more |] |
| \$200 | \$1,000 | \$25,000 |] ,, |

In FY18/19, the total volume reaching surface waters was 82,109 gallons from 17 SSO events as shown in Table 8-1. The total potential assessed stipulated penalty from FY18/19 for SSOs Reaching Waters of United States is \$79,400 as detailed below:

| 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 | 12 | 2 | 3 |
| Potential Assessed Stipulated Penalty | \$2,400 | \$2,000 | \$75,000 |
| Total Potential Assessed Stipulated Penalty from FY 2018-19 | | \$79,400 | |

Paragraph 172 of the CD 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 requests that stipulated penalties be waived for the SSO events that reached surface waters. The spills were generally occurred due to non-point source FOG and debris loading, and several occurred during heavy wetweather events. In addition, one of the three largest spills was caused by damage to the utility not caused by the City. The City has been meeting the cleaning and rehabilitation goals annually since FY 2014, and continues to see a decline in the overall numbers of SSO events within its collection system. Assessment of stipulated penalties will divert funding from I/I reduction efforts, training for SSO response and reporting, and public outreach, and negatively impact the City's ability meet future operational goals and requirements. 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

Paragraph 143 of the CD requires that the Annual Report contain:

"Any recommended changes to the Work required of that Defendant by this CD, including any proposed material modifications to any Deliverable."

Since December 9, 2016 in the Root Control Program Evaluation Report and subsequent Annual Reports, 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 CD. The City continues to provide this recommendation.

The City proposes to delist the following five (5) mandatory monitoring locations where no capacity-related alarms have been trigged for more than one year since capacity upgrades were complete.

- □ San Pablo Avenue at 60th Street
- □ San Pablo Avenue at 62nd Street
- Grand Avenue and Harrison Street
- □ East 18th Avenue at 4th Avenue
- □ Maybelle Avenue and Masterson Street

Appendix Summary

| Appendix | Table Name | Table Number |
|----------|--|--------------|
| А | List of Sanitary Sewer Overflows (SSOs) in FY18/19 | |
| В | Notice to Abate Door Hanger & Sample Letter | Figure 4-3 |
| С | Acute Defect Lists | Table 5-2 |
| D | City-Owned Sewer Laterals | Table 4-6 |

Appendix A

List of Sanitary Sewer Overflows (SSOs) in FY18/19

| | J | | 0 , | | | | | | | | |
|--------------|------------------|--|------------------------|------------------------|------------------------|--------------|------------------------|------------------------|---|-------------------------|--|
| 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 |
| 849613 | 742211 | 3745 Foothill BLVD Oakland Ca, 946221 | 2018.07.27 22.00.00 | 2018.07.28 12.15.00 | 2018.08.22 00.00.00 | 405 | 355 | 0 | Unpaved surface | Grease Deposition (FOG) | null |
| 849894 | 826286 | 9th St & Mandela Parkway Oakland, CA, 94607 | 2018.08.05 10.44.00 | 2018.08.05 12.54.00 | 2018.08.09 00.00.00 | 260 | 260 | 0 | Separate Storm Drain; Street/Curb and Gutter | Grease Deposition (FOG) | null |
| 849918 | 283372 | 14th ST & Castro St Oakland, CA, 94612 | 2018.08.06 08.00.00 | 2018.08.06 13.30.00 | 2018.08.20 00.00.00 | 4500 | 4400 | 0 | Separate Storm Drain; Unpaved surface | Grease Deposition (FOG) | 12" vcp main sewer overflowed onto an easement down to the freeway off ramp and into a storm drain. Staff recovered 4,400 gallons of wastewater and returned it to the collection system. 100 gallons soaked into the ground. |
| 850095 | 742117 | 3521 Rubin Dr. Oakland, Ca. 94602 | 2018.08.10 10.20.00 | 2018.08.10 18.20.00 | 2018.08.23 00.00.00 | 240 | 40 | 0 | Unpaved surface | Root Intrusion | null |
| 850618 | 203616 | Tiffin Rd & Whittle Ave Oakland, CA, 94602 | 2018.08.28 15.00.00 | 2018.08.28 18.00.00 | 2018.09.17 00.00.00 | 180 | 180 | 0 | Separate Storm Drain | Vandalism | null |
| 850712 | 457481 | 209 Cairo Rd Oakland.CA, 94603 | 2018.08.30 11.45.00 | 2018.08.30 12.30.00 | 2018.09.28 00.00.00 | 187 | 0 | 0 | Unpaved surface | Grease Deposition (FOG) | Two hundred and thirty-six gallons overflowed from manhole on an easement at this address. All two hundred and thirty-six gallons soaked into the dirt. |
| 850790 | 109403 | 5640 Fernhoff Rd. Oakland, Ca.4619 | 2018.08.28 09.06.00 | 2018.08.31 18.00.00 | 2018.09.20 00.00.00 | 4795 | 0 | 0 | Unpaved surface | Other (specify below) | Spill was from the result of a tree trunk pushing against 8" VCP sanitary sewer conduit. Spill exited broken pipe and reentered main sewer at downstream opening. |
| 850844 | 737369 | 5652 Ascot Dr. Oakland, CA, 94611 | 2018.09.05 20.00.00 | 2018.09.06 01.00.00 | 2018.09.17 00.00.00 | 1200 | 0 | 600 | Drainage Channel; Surface Water | Grease Deposition (FOG) | null |

| 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 |
|--------------|------------------|--|------------------------|------------------------|------------------------|--------------|------------------------|------------------------|-------------------------|------------------------------------|
| 850942 | 291124 | 3456 Boston Ave Oakland 94602 | 2018.09.11 09.30.00 | 2018.09.12 09.30.00 | 2018.09.19 00.00.00 | 489 | 0 | 0 | Building or Structure | Grease Deposition (|
| 850944 | 822020 | 2842 London Rd Oakland, CA,94602 | 2018.09.12 19.00.00 | 2018.09.12 23.00.00 | 2018.09.19 00.00.00 | 480 | 0 | 480 | Separate Storm Drain | Grease Deposition (|
| 851103 | 162877 | 2050 Broadway Oakland Ca,94621 | 2018.09.11 08.00.00 | 2018.09.12 12.00.00 | 2018.12.27 00.00.00 | 500 | 500 | 0 | Building or Structure | Grease Deposition (|
| 851319 | 164156 | 3987 Oakmore Rd. Oakland Ca,94621 | 2018.09.25 12.15.00 | 2018.09.25 16.15.00 | 2018.10.04 00.00.00 | 360 | 0 | 0 | Unpaved surface | Pipe Structural Problem/Failure |
| 851439 | 471330 | Campus Dr. & Canyon Oaks Dr. Oakland Ca,94621 | 2018.10.01 10.22.00 | 2018.10.01 12.00.00 | 2018.10.04 00.00.00 | 490 | 0 | 490 | Surface Water | Debris-General |
| 851516 | 502284 | 106th Avenue & Sheldon St. Oakland Ca,94612 | 2018.10.07 09.50.00 | 2018.10.07 13.50.00 | 2018.10.10 00.00.00 | 660 | 0 | 660 | Other (specify below) | Root Intrusion |
| 851890 | 116005 | 7849 Greenly Drive, Oakland Ca, 94621 | 2018.10.03 08.00.00 | 2018.10.03 11.00.00 | 2018.10.31 00.00.00 | 20 | 20 | 0 | Unpaved surface | Root Intrusion |
| 852094 | 242185 | 98 Crest Rd. Oakland Ca. 94611 | 2018.10.28 09.00.00 | 2018.10.28 12.15.00 | 2018.10.30 00.00.00 | 195 | 0 | 0 | Unpaved surface | Root Intrusion |
| 852124 | 535555 | 140 Maiden Lane, Oakland Ca, 94612 | 2018.10.19 09.10.00 | 2018.10.19 10.20.00 | 2018.11.14 00.00.00 | 70 | 70 | 0 | Drainage Channel | Grease Deposition (|
| 852282 | 198177 | 100 Crest Rd Oakland, Ca. 94619 | 2018.10.29 12.15.00 | 2018.10.29 18.00.00 | 2018.11.14 00.00.00 | 248 | 0 | 0 | Unpaved surface | Root Intrusion |

| | Final Spill Destination Explanation |
|-----------|---|
| ion (FOG) | 480 gallons dripped in a 24-hour period from a lateral and soaked into the ground. |
| ion (FOG) | null |
| ion (FOG) | null |
| 2 | 8" Main Sewer discharged from a clay pipe into the ground at this location. |
| | 8" Sanitary Sewer discharged from a man hole into a running Storm drain that leads down to Arroyo Viejo Creek. |
| | Storm lines run to the San Francisco Bay. |
| | Twenty gallons soaked into the ground at this location. |
| | null |
| ion (FOG) | 70 gallons overflowed from an eighth inch Slip line into a storm drain at this location. 70 gallons was captured and returned to the collection system. |
| | null |

| 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 |
|--------------|------------------|---|------------------------|------------------------|------------------------|--------------|------------------------|------------------------|-------------------------|----------------------------------|---|
| 853291 | 491985 | 82nd Ave and Iris Street Oakland ca | 2018.11.21 14.00.00 | 2018.11.21 17.00.00 | 2018.12.04 00.00.00 | 6499 | 0 | 6499 | Separate Storm Drain | Grease Deposition (FOG) | null |
| 854541 | 856979 | 12688 Brook Park Rd. Oakland Ca,94621 | 2018.12.18 14.55.00 | 2018.12.19 09.30.00 | 2018.12.31 00.00.00 | 21090 | 0 | 21090 | Surface Water | Root Intrusion | Twenty-one thousand ninety gallons overflowed from an eight-inch Vitrified clay pipe on an easement. The sewage went down the hillside into, Redwood Creek. Tree roots obstructed the pipe. |
| 854687 | 637051 | 565 Bellevue Ave Oakland, Ca. 94610 | 2018.12.25 15.15.00 | 2018.12.25 17.43.00 | 2018.12.27 00.00.00 | 565 | 10 | 555 | Surface Water | Grease Deposition (FOG) | Storm drain and Lake Merritt. |
| 854696 | 247964 | 879 58th Street Oakland, Ca. 94608 | 2018.12.21 14.30.00 | 2018.12.21 16.31.00 | 2018.12.27 00.00.00 | 120 | 120 | 0 | Paved Surface | Grease Deposition (FOG) | null |
| 854731 | 217118 | 3801 Telegraph Avenue Oakland Ca,94621 | 2018.12.22 14.00.00 | 2018.12.22 16.00.00 | 2018.12.27 00.00.00 | 15 | 12 | 0 | Unpaved surface | Grease Deposition (FOG) | Fifteen gallons overflowed from an eight-inch vitrified clay pipe on to the ground. Twelve gallons was captured and returned to the collection system. Three gallons soaked into the ground. |
| 854813 | 917505 | 2800 Rawson Street Oakland Ca. 94619 | 2018.12.27 10.53.00 | 2018.12.27 12.44.00 | 2018.12.28 00.00.00 | 560 | 560 | 0 | Separate Storm Drain | Grease Deposition (FOG) | Main sewer seeped out from a man hole down into a storm system during dry weather. Staff plugged off down stream of storm line, discharged clean water to the storm line, flush the storm line, returned all of gray water to the sewer system. |
| 854954 | 532523 | 36th Street and MLK JR. Way Oakland, Ca. 94609 | 2018.12.28 16.27.00 | 2018.12.28 18.57.00 | 2019.01.07 00.00.00 | 300 | 50 | 250 | Separate Storm Drain | Inappropriate Discharge to CS | Separate storm drain. |
| 855006 | 280337 | 138 Monte Cresta Oakland, Ca. 94611 | 2019.01.02 19.40.00 | 2019.01.02 22.00.00 | 2019.01.07 00.00.00 | 280 | 140 | 140 | Separate Storm Drain | Root Intrusion | null |
| 855084 | 576998 | 578 Grand Avenue Oakland, Ca. 94610 | 2019.01.06 16.00.00 | 2019.01.06 19.00.00 | 2019.01.09 00.00.00 | 900 | 0 | 900 | Separate Storm Drain | Grease Deposition (FOG) | null |

| 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 |
|--------------|------------------|---|------------------------|------------------------|------------------------|--------------|------------------------|------------------------|--|---------------------------------------|--|
| 855101 | 914478 | 5300 Walnut St. Oakland Ca,94612 | 2019.01.06 21.00.00 | 2019.01.06 22.15.00 | 2019.01.10 00.00.00 | 675 | 0 | 300 | Street/Curb and Gutter; Surface Water | Grease Deposition (FOG) | Six hundred seventy-five gallons overflowed from an eight-inch clay pipe. Three hundred gallons was lost down the storm inlet at this location. Three hundred gallons was captured and returned back to the collection system. Large amounts of grease obstructed the main causing an overflow. |
| 855236 | 125534 | Golf Links Rd. & Grass Valley Rd. Oakland, Ca. 94605 | 2019.01.10 16.52.00 | 2019.01.10 19.22.00 | 2019.01.16 00.00.00 | 300 | 150 | 150 | Separate Storm Drain | Root Intrusion | null |
| 855515 | 694150 | Perth Place & West View Dr. Oakland Ca,94621 | 2019.01.22 09.30.00 | 2019.01.22 12.00.00 | 2019.02.28 00.00.00 | 150 | 0 | 0 | Unpaved surface | Debris-General | One hundred and fifty gallons overflowed from a manhole on an eight-inch vitrified clay pipe. One hundred and fifty gallons soaked into the hillside at this location. General debris obstructed the pipe causing the overflow. |
| 855573 | 294608 | 5746 International Blvd. Oakland, Ca. 94621 | 2019.01.25 10.45.00 | 2019.01.25 13.45.00 | 2019.01.29 00.00.00 | 900 | 500 | 400 | Separate Storm Drain | Other (specify below) | null |
| 855672 | 132378 | 83rd Avenue & Iris Street Oakland Ca,94621 | 2019.01.16 17.15.00 | 2019.01.16 19.35.00 | 2019.02.21 00.00.00 | 240 | 240 | 0 | Street/Curb and Gutter | Surcharged Pipe (Combined CS Only) | Two hundred and forty gallons overflowed from a Vitrified Clay Pipe on to the curb and gutter area. There was a capacity issue due to a storm event. |
| 855673 | 397947 | Perkins Street & Bellevue Street Oakland Ca,94621 | 2019.01.16 17.45.00 | 2019.01.16 22.00.00 | 2019.02.08 00.00.00 | 480 | 480 | 0 | Street/Curb and Gutter | Surcharged Pipe (Combined CS Only) | Four hundred and eighty gallons overflowed from a eight- inch vitrified clay pipe. The pipe overflowed due to surcharging. |
| 855761 | 215518 | 814 Mandana Oakland Ca,94621 | 2019.01.16 19.00.00 | 2019.01.16 23.00.00 | 2019.02.21 00.00.00 | 720 | 720 | 0 | Street/Curb and Gutter | Surcharged Pipe (Combined CS Only) | Seven hundred and twenty gallons overflowed from a eight-inch vitrified clay pipe. Seven hundred and twenty gallons overflowed on to the curb and gutter at this location. sewage was captured and returned to collection system. |

| 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 |
|--------------|------------------|---|------------------------|------------------------|------------------------|--------------|------------------------|------------------------|---|--|--|
| 855820 | 295202 | 125 2nd Street Oakland, Ca. 94607 | 2019.01.30 07.30.00 | 2019.01.30 09.29.00 | 2019.02.01 00.00.00 | 238 | 238 | 0 | Separate Storm Drain | Grease Deposition (FOG) | null |
| 855902 | 110326 | 1034 Apgar Street Oakland, Ca. | 2019.02.04 08.05.00 | 2019.02.04 11.30.00 | 2019.02.08 00.00.00 | 1635 | 1635 | 0 | Paved Surface | Damage by Others Not Related to CS Construction/Maintenance (Specify Below) | Paved area in street. |
| 856392 | 244220 | 3336 E.16th St. Oakland Ca,94621 | 2019.02.22 19.00.00 | 2019.02.22 21.00.00 | 2019.02.28 00.00.00 | 2693 | 2693 | 0 | Building or Structure | Grease Deposition (FOG) | Two thousand six hundred and ninety-three gallons overflowed from an six-inch vitrified clay pipe into basement garage at this location. Sewage was captured in the basement garage until the blockage was cleared. Grease obstructed the pipe causing the overflow. |
| 856396 | 582701 | 12980 Brookpark Rd. Oakland, Ca. 94619 | 2019.02.24 08.00.00 | 2019.02.24 12.00.00 | 2019.02.27 00.00.00 | 1200 | 0 | 0 | Unpaved surface | Root Intrusion | null |
| 856783 | 548557 | 1322 Wellington St. Oakland Ca,94621 | 2019.03.01 15.15.00 | 2019.03.01 20.35.00 | 2019.05.24 00.00.00 | 120 | 40 | 80 | Drainage Channel; Street/Curb and Gutter | Root Intrusion | Eighty gallons overflowed from an eight-inch vitrified clay pipe into a storm drain at this location. Sewage overflowed due to a pipe defect. Forty gallons was captured and returned to collection system. |
| 856995 | 695975 | 5478 Manila Avenue Oakland Ca, 94621 | 2019.03.07 12.00.00 | 2019.03.07 13.00.00 | 2019.05.28 00.00.00 | 5 | 5 | 0 | Street/Curb and Gutter | Root Intrusion | Five gallons was captured and returned in the collection system. |
| 857123 | 252996 | 2960 Peralta Oaks CT. Oakland Ca,94621 | 2019.03.20 06.00.00 | 2019.03.20 22.34.00 | 2019.04.01 00.00.00 | 25060 | 0 | 25060 | Other (specify below); Surface Water | Root Intrusion | Overflow came from manhole, 85-230-43, directly in the, Upper Elmhurst Creek. The Upper Elmhurst Creek, connects to the, San Leandro creek. |
| 857433 | 670261 | 6188 Antioch Street Oakland Ca,94621 | 2019.03.29 08.30.00 | 2019.03.29 11.05.00 | 2019.04.12 00.00.00 | 95 | 95 | 0 | Drainage Channel; Street/Curb and Gutter | Debris-General | Ninety-five gallons overflowed from an eight-inch vitrified clay pipe into to storm drain at this location. Ninety-five gallons spilled into a storm inlet at this location. Ninety-five gallons was captured and returned to the collection system. |

| 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 |
|--------------|------------------|--|------------------------|------------------------|------------------------|--------------|------------------------|------------------------|---------------------------------------|------------------------------------|
| 857434 | 213590 | 8141 Couch Street Oakland Ca,94621 | 2019.03.14 18.00.00 | 2019.03.14 22.00.00 | 2019.04.12 00.00.00 | 30 | 0 | 0 | Other (specify below) | Debris-General |
| 857470 | 673150 | 9527 Walnut Avenue Oakland Ca,94621 | 2019.03.11 18.00.00 | 2019.03.11 19.40.00 | 2019.04.09 00.00.00 | 270 | 270 | 0 | Drainage Channel | Debris-General |
| 857793 | 329874 | 4326 Arden PL Oakland CA | 2019.04.20 17.00.00 | 2019.04.20 18.30.00 | 2019.04.30 00.00.00 | 90 | 0 | 90 | Surface Water | Pipe Structural Problem/Failure |
| 857799 | 952026 | 7181 Thorndale Dr Oakland Ca | 2019.04.14 09.22.00 | 2019.04.19 16.00.00 | 2019.05.04 00.00.00 | 22500 | 0 | 22500 | Other (specify below) | Vandalism |
| 857801 | 233413 | 2938 68th ave Oakland Ca, | 2019.04.20 11.00.00 | 2019.04.20 11.40.00 | 2019.04.30 00.00.00 | 20 | 0 | 0 | Paved Surface | Debris-General |
| 857816 | 540187 | 3900 Carrington St. Oakland Ca,94621 | 2019.04.16 07.22.00 | 2019.04.16 08.52.00 | 2019.04.30 00.00.00 | 90 | 90 | 0 | Other (specify below) | Root Intrusion |
| 857940 | 128717 | 3701 Broadway Oakland Ca,94621 | 2019.04.26 16.05.00 | 2019.04.26 16.57.00 | 2019.05.24 00.00.00 | 156 | 156 | 0 | Street/Curb and Gutter | Debris-Rags |
| 858507 | 604588 | 401 15th Street Oakland Ca | 2019.05.20 09.51.00 | 2019.05.20 12.20.00 | 2019.05.28 00.00.00 | 298 | 298 | 0 | Building or Structure | Grease Deposition |
| 858697 | 904767 | 6470 Thornhill Dr. Oakland Ca,94621 | 2019.05.31 07.20.00 | 2019.05.31 13.50.00 | 2019.06.05 00.00.00 | 390 | 90 | 0 | Other (specify below) | Root Intrusion |
| 858698 | 586475 | 6167 Contra Costa Rd. | 2019.05.30 10.19.00 | 2019.05.30 17.00.00 | 2019.06.05 00.00.00 | 401 | 0 | 0 | Other (specify below);Unpaved surface | Root Intrusion |

| | Final Spill Destination Explanation |
|----------|--|
| | Thirty gallons seeped from a pin hole on the lamp hole cover onto a concrete drainage channel, in the rear of the property. Waste was captured in the rear of the property. |
| | Two hundred and seventy gallons overflowed from a eight-inch vitrified clay pipe into a storm drain at this location. Staff back flushed storm pipe and captured lost sewage, and returned waste water to the collection system. |
| | Salsa Creek |
| | Spill discharged into a storm inlet, down into the creek and down to Lake Temescal. |
| | null |
| | Ninety gallons overflowed from a area drain at this address. All ninety gallons was captured and returned to the collection system. |
| | null |
| on (FOG) | null |
| | The overflow occurred on private property. The city's sewer main ran in the rear of the property at this location. There was concrete and dirt in the rear of the property. Three hundred and ninety gallons spilled, three hundred gallons was captured and returned to the collection system. Ninety gallons soaked into the dirt in the rear of the property. |
| | The overflowed occurred on an easement in the rear of the property. Sewage soaked into the dirt at this location |

| 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 |
|--------------|------------------|--|------------------------|------------------------|------------------------|--------------|------------------------|------------------------|-------------------------|-----------------------|--|
| | | Oakland Ca,94621 | | | | | | | | | |
| 858776 | 421884 | 907 Glendone Circle Oakland Ca,94621 | 2019.06.02 14.00.00 | 2019.06.02 17.30.00 | 2019.06.10 00.00.00 | 210 | 0 | 0 | Unpaved surface | Debris-General | Sewage spilled from the garage down the hillside of property. The main sewer was obstructed with debris and rock. |
| 858837 | 314242 | 2828 Alida St. Oakland Ca,94621 | 2019.06.06 09.11.00 | 2019.06.06 17.00.00 | 2019.06.10 00.00.00 | 935 | 935 | 0 | Other (specify below) | Other (specify below) | M/S Plugged and caused an Overflow into the basement where it was contained. We returned all of the overflow gray water to the Sanitary Sewer system. |
| 858888 | 763213 | 2096 Mountain Blvd Oakland Ca. 94611 | 2019.06.06 11.30.00 | 2019.06.06 13.30.00 | 2019.06.12 00.00.00 | 180 | 180 | 0 | Other (specify below) | Debris-General | The Overflow was contained in the corner of the parking lot. |
| 858894 | 140962 | 655 MacArthur Blvd Oakland Ca 94608 | 2019.06.10 13.30.00 | 2019.06.10 17.30.00 | 2019.06.12 00.00.00 | 400 | 400 | 0 | Other (specify below) | Debris-General | M/S Discharged from M/S out on to the ground and into the gutter. Staff contained the overflow in the gutter area and returned to the Sanitary Sewer System. |
| 859462 | 289765 | 5968 Johnston Dr. Oakland Ca | 2019.06.25 15.30.00 | 2019.06.25 19.00.00 | 2019.06.28 00.00.00 | 200 | 0 | 0 | Other (specify below) | Root Intrusion | 8 " M/S discharged from a clean out and soaked into the ground. |
| 859486 | 280908 | 8036 Shephard Canyon Rd Oakland Ca | 2019.06.23 09.51.00 | 2019.06.24 16.35.00 | 2019.07.03 00.00.00 | 20 | 5 | 0 | Other (specify below) | Root Intrusion | The M/S discharged out of a clean out and soaked into the ground. |
| 859552 | 809403 | 4374 Whittle Ave Oakland Ca | 2019.06.20 08.30.00 | 2019.06.20 11.30.00 | 2019.07.03 00.00.00 | 5 | 0 | 0 | Paved Surface | Root Intrusion | Gray water seeped from a Lamp Hole and soaked into the ground. |

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:

Pursuant to Section 13.08.100 of the Oakland Municipal Code, Pursuant to section 15.06.100 the Contained Wainterpar Code, please take the necessary steps to correct the compliant/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. 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.

Date:

Thank you, Crew Leader

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





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,

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

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

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

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

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

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

Sincerely,

healder

Fred Loeser, Supervisor, Construction Inspection

/<u>ts</u>

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

| Asset ID | Date | Date Completed | Days to Completion | Address | Street | PACP Defect Code |
|---------------------|------------|-------------------|-----------------------|---------|-----------------------------------|---------------------------------------|
| SEPI18182 | 11/29/2017 | 5/30/2018 | 182 | 6434 | BUENA VENTURA | BVV, Broken void visible |
| SEPI17614 | 11/27/2017 | 7/9/2018 | 224 | 930 | LARKSPUR RD. | CIP, MANY PROBLEMS, BROKEN PIPE |
| SEPI27568 | 11/20/2017 | 10/22/2018 | 336 | | THOMAS AVE. & MONROE AVE. | BVV, Broken void visible |
| SEPI2376 | 11/17/2017 | 9/18/2018 | 305 | 1900 | 96TH AVE. | BVV, Broken void visible |
| SEPI9183 | 11/13/2017 | 10/3/2018 | 324 | 3153 | HERRIOTT AVE. | BVV, Broken void visible |
| SEPI24230 | 11/7/2017 | 10/30/2018 | 357 | | 40TH ST. & SHAFTER | BVV, Broken void visible |
| SEPI7405 | 10/18/2017 | 10/21/2017 | 3 | | 37TH AVE. & INTERNATIONAL | BVV, Broken void visible |
| SEPI17594 | 10/17/2017 | 8/6/2018 | 293 | 872 | NORTHVALE | BVV, Broken void visible |
| SEPI26663 | 10/16/2017 | 11/6/2017 | 21 | 6860 | PASO ROBLES DR. | BVV, Broken void visible |
| SEPI18293 | 10/4/2017 | 8/27/2018 | 327 | 4010 | OAKMORE RD | BVV, Broken void visible |
| SEPI11998 | 9/28/2017 | 8/21/2018 | 327 | 3890 | LOMA VISTA | BVV, Broken void visible |
| SEPI7416 | 9/19/2017 | 9/22/2017 | 3 | | 39TH AVE & INTERNATIONAL | BVV, Broken void visible |
| SEPI17699 | 9/15/2017 | 8/15/2018 | 334 | 872 | ROSEMOUNT RD. | BVV, Broken void visible |
| SEPI231 | 9/12/2017 | 7/19/2018 | 310 | | EMPIRE RD. & CAIRO | BVV, Broken void visible |
| SEPI20473 | 9/7/2017 | 7/13/2018 | 309 | 689 | CARLSTON AVE. | BVV, Broken void visible |
| SEPI3148 | 7/21/2017 | 4/6/2018 | 259 | | INTERNATIONAL - NEAR 84TH AVE | BVV, Broken void visible |
| SEPI11066 | 7/18/2017 | 6/18/2018 | 335 | | PARK WAY E8TH TO E10TH | BVV, Broken void visible |
| SEPI15710 | 7/7/2017 | 5/23/2018 | 320 | 4021 | WOODRUFF & HAMPEL | BVV, Broken void visible |
| SEPI25775, 25776 | 7/3/2017 | 5/10/2018 | 311 | | BROADWAY TERRACE (2 LOCATIONS) | BVV, Broken void visible |

Table 5-2 – Acute Defects Identified and Completed in FY 2017-18 and 2018-19

Appendix D

| | | | | -Owned Sewer | | | |
|-----|---|-----------------------------|------------------|------------------|---------------|--------------------|---|
| No. | Facility Name | Address | Sub-Basin No. | Parcel Number | Length (feet) | Completion Date | Remark |
| 1 | Sanborn (Carmen Flores) Recreation Center | 1637 Fruitvale Ave | 5601 | 25-722-26 | 346 | 2/19/2019 | C329152-2 |
| 2 | Dimond Branch Library | 3565 Fruitvale Ave 94602 | 5602 | 29A-1302-14 | | 7/1/2019 | 1000715-Tsk7 |
| 3 | Fire Station #14 | 3459 Champion St | 5602 | 28-905-13-2 | | 7/1/2019 | The facility sold. |
| 4 | Fire Station #14 Storage Building | 3460 Champion St | 5603 | 28-905-13-3 | | 7/1/2019 | The facility sold. |
| 5 | Fire Station #25 | 2795 Butters Dr | 5606 | 29-1161-25 | 67 | 6/7/2019 | 1000715-Tsk7 |
| 6 | Fire Station #25 Exercise Building | 2795 Butters Dr | 5606 | 29-1161-25 | 40 | 6/7/2019 | 1000715-Tsk7 |
| 7 | Joaquin Miller Park-The Abbey | 3082 Joaquin Miller Rd | 5606 | 29-1200-6-3 | | 5/9/2017 | No Sewer Lateral |
| 8 | Joaquin Miller Park-Fire Circle Restroom | 3540 Joaquin Miller Rd | 5606 | 29-1200-6-3 | 371 | 5/9/2017 | C329152-Task Order 1 |
| 9 | Joaquin Miller Park- Sanctuary to Memory | 3540 Joaquin Miller Rd | 5606 | 29-1200-6-3 | 213 | 5/9/2017 | C329152-Task Order 1 |
| 10 | Joaquin Miller Community Center | 3594 Sanborn Dr | 5606 | 29-1200-6-3 | 216.5 | 5/9/2017 | C329152-Task Order 1 |
| 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 |

Table 4-6 – Repair/Rehab Schedule for City-Owned Sewer Laterals

City of Oakland Sanitary Sewer Collection System Annual Report, FY 2018-19

| No. | Facility Name | Address | Sub-Basin No. | Parcel Number | Length (feet) | Completion Date | Remark |
|-----|--|--|------------------|------------------|---------------|--------------------|---|
| 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 | | 7/1/2019 | 1000715-Tsk7 |
| 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 |
| 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 |

| No. | Facility Name | Address | Sub-Basin No. | Parcel Number | Length (feet) | Completion Date | Remark |
|-----|---|-----------------------|------------------|------------------|---------------|--------------------|--|
| 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-Sequoia Arena Restroom | 10900 Skyline Blvd | 5607 | 29-1200-7-3 | | 5/9/2017 | Cesspool-Not connected to the City sewer system |
| 34 | Joaquin Miller Park-Siniwak Cabin | 10900 Skyline Blvd | 5607 | 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 | 6003 | 20-295-1 | 1,037 | 7/1/2019 | 1000715-Tsk7 |
| 36 | San Antonio Recreation Center | 1701 East 19th St | 6003 | 20-295-1 | | 7/1/2019 | 1000715-Tsk7 |
| 37 | Manzanita Head Start Center | 2701 – 22nd Ave | 6008 | 22-364-21 | | 7/1/2019 | 1000715-Tsk7 No lateral |
| 38 | Manzanita Head Recreation Center | 2701 – 22nd Ave | 6008 | 22-364-21 | 40 | 7/2/2019 | 1000715-Tsk7 |
| 39 | Union Point - South Parking Lot (haz mat under pavement) | 2311 Embarcadero | 6103 | 18-505-1 | | 4/9/2019 | No sewer lateral (C329152- 2) |
| 40 | Union Point - Union Hill (haz mat under hill) | 2311 Embarcadero | 6103 | 18-505-1 | | 4/9/2019 | Facility connect directly on top of 6" sewer main. The sewer is in a fair condition and no repair is needed. (C329152-2) |

| No. | Facility Name | Address | Sub-Basin No. | Parcel Number | Length (feet) | Completion Date | Remark |
|-----|--|-------------------------------------|------------------|--------------------------------|---------------|--------------------|--|
| 41 | Animal Shelter (new) | 1101 – 29th Ave | 6202 | 25-880-1-6 (19- 0093-016-02 | 151 | 2/14/2019 | Replaced all laterals and did not receive the EBMUD PSL certificate because another facility is in the same parcel but it is not part of Appendix H1 locations list (C329152-2). |
| 42 | Peralta House | 2465 – 34th Ave | 80022 | 27-878-2 | 25 | 4/9/2019 | C329152-2 |
| 43 | Coolidge House Peralta Hacienda Park- Community | 2496 Coolidge Ave 2500 - 34th | 80022 | 27-878-1 | 88 | 4/9/2019 | C329152-2 |
| 44 | Center Peralta Hacienda Park-House | Ave 94601 2465 34th Ave | 80022 | 27-878-2 | 20 | 4/9/2019 | C329152-2 C329152-2 |
| 46 | Peralta Hacienda Park-Restroom | 2465 34th Ave | 80101 | 27-899-1 | 56 | 4/9/2019 | C329152-2 |
| 47 | 55th Avenue Head Start Center | 1800 55th Ave | 82004 | 38-3228-5-1 | | 4/8/2019 | No Sewer lateral. (C329152-2) |
| 48 | Fremont Pool and Building | 4550 Foothill Blvd 94601 | 82004 | 35-2401-2 | 37 | 4/18/2019 | C329152-2 |
| 49 | Fremont Pool - Locker Rooms & Mechanical Room | 4550 Foothill Blvd 94601 | 82004 | 35-2401-2 | 35 | 4/18/2019 | C329152-2 |
| 50 | Melrose Branch | 4805 Foothill Blvd 94601 | 82004 | 35-2384-1 | 30 | 4/10/2019 | C329152-2 |
| 51 | Fire Station #18 | 1700 – 50th Ave | 82005 | 35-2386-18 | 25 | 4/18/2019 | C329152-2 |
| 52 | Rainbow Teen Center | 5818 International Blvd | 83002 | 38-3234-12-3 | 14 | 3/13/2019 | C329152-2 |
| 53 | Rainbow Recreation Center | 5800 International Blvd 94621 | 83201 | 38-3234-7-1 | 10 | 3/13/2019 | C329152-2 |
| 54 | Burckhalter Park-Restroom | 4060 Edwards Ave | 83404 | 40A-3441-36-5 | 145 | 6/25/2019 | 1000715-Tsk7 |

| No. | Facility Name | Address | Sub-Basin No. | Parcel Number | Length (feet) | Completion Date | Remark |
|-----|--|-------------------------------------|------------------|------------------|---------------|--------------------|---|
| 55 | McCrea Park Residence and Restroom | 4460 Shepherd St | 83501 | 37-2605-87 | 50 | 5/20/2019 | 1000715-Tsk7 |
| 56 | McCrea Park- Fly Casting Pools | 4460 Shepherd St 94619 | 83501 | 37-2605-87 | | 7/1/2019 | 1000715-Tsk7 No lateral |
| 57 | Redwood Heights Rec Center | 3883 Aliso Ave 94619 | 83501 | 30-1869-58-3 | 360 | 7/1/2019 | 1000715-Tsk7 |
| 58 | Leona Lodge | 4444 Mountain Blvd | 83502 | 37-2605-90 | 265 | 6/17/2019 | 1000715-Tsk7 |
| 59 | 81st Avenue Branch Library | 1021 81st Ave | 84003 | 41-4211-1-3 | 63 | 12/10/2018 | Replaced all laterals and did not receive the EBMUD PSL certificate because another facility is in the same parcel but it is not part of Appendix H1 locations list (C329152-2). |
| 60 | Carter Gilmore Park - New Restroom | 1390 – 66th Ave | 84191 | 41-4132-15-3 | 112 | 10/31/2018 | Replaced all laterals and did not receive EBMUD PSL certificate because a 8" sewer main in this parcel needs to be tested in order to get the PSL for the whole parcel (C329152-2). |
| 61 | Fire Station #29 | 1016 – 66th Ave | 84101 | 41-4062-12 | 42 | 11/15/2018 | C329152-2 |
| 62 | Fire Station #29 Garage | 1016 – 66th Ave | 84101 | 41-4062-12 | 42 | 11/15/2018 | C329152-2 |
| 63 | Martin Luther King Branch Library | 6833 International Blvd 94621 | 84101 | 41-4132-15-1 | 52 | 11/9/2018 | C329152-2 |
| 64 | Officer Willie Wilkins Park - Restroom | 9710 C Street | 85202 | 44-4981-9 | 139 | 12/14/2018 | C329152-2 |
| 65 | Fire Station #20 | 1401 – 98th Ave | 85205 | 46-5424-26 | 90 | 11/21/2018 | C329152-2 |
| 66 | Elmhurst Branch Library | 1427 – 88th Ave 94621 | 85211 | 43-4580-8 | 65 | 12/13/2018 | C329152-2 |
| 67 | Dunsmuir House-Barn | 2960 Peralta Oaks Ct | 85231 | 48-5658-3-2 | | | |
| 68 | Dunsmuir House- | 2960 Peralta Oaks Ct | 85231 | 48-5658-3-2 | | | |

| No. | Facility Name | Address | Sub-Basin No. | Parcel Number | Length (feet) | Completion Date | Remark |
|-----|---|-----------------------------|------------------|------------------|---------------|--------------------|------------------------------------|
| | Carriage House | | | | | | |
| 69 | Dunsmuir House- Chauffeur's house | 2960 Peralta Oaks Ct | 85231 | 48-5658-3-2 | | | |
| 70 | Dunsmuir House- Chicken Coop | 2960 Peralta Oaks Ct | 85231 | 48-5658-3-2 | | | |
| 71 | Dunsmuir House- Dinkelspiel House | 2960 Peralta Oaks Ct | 85231 | 48-5658-3-2 | | | In construction (1000715- Tsk7) |
| 72 | Dunsmuir House- Gardener's House | 2960 Peralta Oaks Ct | 85231 | 48-5658-3-2 | | | |
| 73 | Dunsmuir House- Mansion | 2960 Peralta Oaks Ct | 85231 | 48-5658-3-2 | | | |
| 74 | Dunsmuir House-Milk House | 2960 Peralta Oaks Ct | 85231 | 48-5658-3-2 | | | |
| 75 | Dunsmuir House - Pavilion | 2958 Peralta Oaks Ct | 85231 | 48-5658-3-2 | | | |
| 76 | Dunsmuir House- Restroom | 2960 Peralta Oaks Ct | 85231 | 48-5658-3-2 | | | |
| 77 | Dunsmuir House-Ticket Boot | 2960 Peralta Oaks Ct | 85231 | 48-5658-3-2 | | | |
| 78 | Lake Chabot- Clubhouse | near 11450 Golf Links Rd | 85231 | 48-5813-3-4 | | | In construction (C329152-2) |
| 79 | Lake Chabot- Fromer Cartaker's Mobile Home | near 11450 Golf Links Rd | 85231 | 48-5813-3-4 | 926 | 8/8/2019 | (C329152-2) |
| 80 | Lake Chabot- Maintenance Building A | near 11450 Golf Links Rd | 85231 | 48-5813-3-4 | 50 | 7/23/2019 | (C329152-2) |
| 81 | Lake Chabot- Maintenance Building B | near 11450 Golf Links Rd | 85231 | 48-5813-3-4 | | | In construction (C329152-2) |
| 82 | Lake Chabot- Maintenance Building C | near 11450 Golf Links Rd | 85231 | 48-5813-3-4 | | | In construction (C329152-2) |

| No. | Facility Name | Address | Sub-Basin No. | Parcel Number | Length (feet) | Completion Date | Remark |
|-----|---|--------------------------------------|------------------|------------------------|---------------|--------------------|---|
| 83 | Lake Chabot- Maintenance Building D | near 11450 Golf Links Rd | 85231 | 48-5813-3-4 | | | In construction (C329152-2) |
| 84 | Lake Chabot- Maintenance Building E | near 11450 Golf Links Rd | 85231 | 48-5813-3-4 | | | In construction (C329152-2) |
| 85 | Lake Chabot- Maintenance Building F | near 11450 Golf Links Rd | 85231 | 48-5813-3-4 | | | In construction (C329152-2) |
| 86 | Lake Chabot- Restroom #1 | near 11450 Golf Links Rd | 85231 | 48-5813-3-4 | 474 | 7/26/2019 | In construction (C329152-2) |
| 87 | Lake Chabot- Restroom #2 | near 11450 Golf Links Rd | 85231 | 48-5813-3-4 | | | In construction (C329152-2) |
| 88 | Lake Chabot- Restroom #3 | near 11450 Golf Links Rd | 85231 | 48-5813-3-4 | | | In construction (C329152-2) |
| 89 | Lake Chabot- Sewer Pump Station | near 11450 Golf Links Rd | 85231 | 48-5813-3-4 | | | In construction (C329152-2) |
| 90 | Lake Chabot- Snack Bar | near 11450 Golf Links Rd | 85231 | 48-5813-3-4 | | | In construction (C329152-2) |
| 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 (08- 02) | 77 | 4/12/2019 | C329152-2 |
| 93 | Ira Jinkins (Brookfield) Rec Center | 9175 Edes Ave 94603 | 86002 | 44-5053-1-6 | 376 | 12/21/2018 | See East Oakland Sports Center Complex (C329152- 2). |
| 94 | East Oakland Sports Center Complex | 9175 Edes Ave | 86002 | 44-5053-1-6 | 116 | 1/23/2019 | Replaced all laterals and did not receive the EBMUD PSL certificate because Brookfield-Senior Center is in the same parcel as Sport Center Complex but it is not part of Appendix H1 locations list (C329152-2). |
| 95 | Spunkmeyer Field Restroom | Harbor Bay Pkwy & Doolittle Dr | 87001 | 42-4404-11-2 | 168 | 1/30/2019 | Replaced the upper lateral. Inspected the lower lateral (8" sewer main) and found it is in a fair condition. No repair is needed (C329152- 2). |