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Introduction and Background

1.1 Introduction

On April 27, 2011, Santa Barbara Channelkeeper filed a lawsuit against the City of Santa Barbara in the United States District Court for alleged violations of the Clean Water Act. The parties engaged in extensive Court-ordered and supervised mediation that resulted in the Court’s entry of a Consent Decree on May 14, 2012. The parties again engaged in negotiations in 2016, which resulted in the Court’s entry of an Amendment to the Consent Decree (Amended Consent Decree) on March 24, 2017.

The Amended Consent Decree requires submission of a Semi-Annual Report by September 30th of each year, providing details relevant to the City’s implementation of and compliance with the Amended Consent Decree for the time period between January 1st and June 30th of the current year.

This Semi-Annual Report includes the following required information for the reporting time period, January 1, 2019 through June 30, 2019:

a. Compliance with SSO Performance Reduction Standards
   i) Sanitary Sewer Overflows (SSOs) during the reporting time period
   ii) SSO Response and Analysis Report for each SSO
   iii) Reports of Blockages during the reporting time period and the City’s analysis of each Blockage
   iv) Written Records, including distribution list, of debriefing after each SSO event

b. Cleaning Program
   i) Document of the rationale (by assignment of codes) for the cleaning frequency changes made at each Cleaning Schedule Review Committee meeting
   ii) Cleaning reports, including findings and size of proofing tool used and documentation of known issues that precluded the use of the correct size proofing tool

c. Condition Assessment Program
   i) List of all pipe segments that were not repaired, rehabilitated, or reinspected by CCTV as required by Exhibit A of the Consent Decree Amendment
   ii) Written Records of all QA/QC of contractor’s first week of condition assessment and subsequent QA/QC, if required
   iii) Written Records of QA/QC of condition assessment data entry into Cartegraph

d. Training and Audits
   i) Field audits performed by the Superintendent, Supervisor, or Lead Operator
   ii) Written Records of SSO response drills
   iii) Written Records of initial and annual SSO training
1.2 Consent Decree Implementation and Compliance

For purposes of this report, the Consent Decree Implementation and Compliance is being organized into the following sections, with specific detailed information required by the Amended Consent Decree, identified above, in the following sections:

1. Introduction and Background
2. Compliance with SSO Performance Standards and Blockages
3. Cleaning Program
4. Condition Assessment Program
5. Training, Field Audits, and Program Modifications
6. Summary
Section 2

Compliance with SSO Performance Reduction Standards and Blockages

2.1 SSO History

Over the six-month time period, the City’s system experienced three SSOs. Per the Amended Consent Decree, the SSO Performance Reduction Standard is eight SSOs per year.

A listing of the three SSO events over the reporting time period and a summary of related wastewater collection system performance matters are provided in Table 2-1.

<table>
<thead>
<tr>
<th></th>
<th>Location</th>
<th>SSO Date</th>
<th>Primary Cause</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>800 Blk Portesuello Ave</td>
<td>1/16/19</td>
<td>Roots</td>
</tr>
<tr>
<td>2</td>
<td>745 Las Alturas Rd</td>
<td>3/23/19</td>
<td>Roots</td>
</tr>
<tr>
<td>3</td>
<td>605 Willowglen Rd</td>
<td>4/30/19</td>
<td>Structural – Offset Joint</td>
</tr>
</tbody>
</table>

An overview map of the three SSO locations is provided in Figure 2-1. All SSO Response and Analysis Reports are located in Appendix A. Written records, including distribution lists, of staff debriefings after each SSO Event are located in Appendix B.
2.1.1 Overflows by Cause

Table 2-2 summarizes the three SSOs by cause for this reporting time period.

<table>
<thead>
<tr>
<th>SSO Cause</th>
<th>Number of SSO Events</th>
<th>Percent of Total SSOs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Roots</td>
<td>2</td>
<td>66%</td>
</tr>
<tr>
<td>Debris</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>Grease</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>Structural</td>
<td>1</td>
<td>33%</td>
</tr>
<tr>
<td>Other</td>
<td>0</td>
<td>0%</td>
</tr>
</tbody>
</table>

Table 2-3 provides a condition finding-based summary of each of the three SSO events. When possible, City staff has performed a visual observation of the SSO main immediately after the initial blockage is cleared, but before the sewer main is aggressively cleaned. These visual observations have provided...
valuable information and insight into the exact cause of the spill, which may not have been determined from cleaning findings alone. Therefore, a visual finding column is included in Table 2-3 to provide this additional information.

<table>
<thead>
<tr>
<th>Table 2-3. SSO Event Condition Finding Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pipe ID</td>
</tr>
<tr>
<td>---------</td>
</tr>
<tr>
<td>1</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>2</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>3</td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

*Note: For SSO Event two on 3/24/19, responding crews were unable to break blockage with a nozzle but medium roots were retrieved manually when repair was completed as part of SSO response.

2.1.2 Overflows by Volume

Table 2-4 summarizes the three SSO events by volume, showing total event volume, volume recovered, net volume released, and volume that reached public waters. Approximately 81% of the total SSO volume was recovered and returned to the sewer system during emergency response events for the three SSO events.

<table>
<thead>
<tr>
<th>Table 2-4. SSO Event Summary by Volume in Gallons</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Volume (gallons)</td>
</tr>
<tr>
<td>------------------------</td>
</tr>
<tr>
<td>1</td>
</tr>
<tr>
<td>2</td>
</tr>
<tr>
<td>3</td>
</tr>
<tr>
<td>Totals:</td>
</tr>
</tbody>
</table>

2.1.3 Public Water Overflow Impacts

Over the six-month time period, two City SSOs reached the storm drain system; SSO Events One and Three. For SSO Event One, all 525 gallons that reached the storm drain were recovered and returned to the sewer system. For SSO Event three, approximately 102 gallons reached Arroyo Burro Creek and unfortunately was unrecoverable because the spill had infiltrated into the creek bed.
2.2 Blockage History

Over the six-month time period, the City’s system experienced one Blockage. A listing of the Blockage event and a summary of related wastewater collection system performance matters are provided in Table 2-5 below.

<table>
<thead>
<tr>
<th>Pipe ID</th>
<th>Blockage Date</th>
<th>Primary Cause</th>
<th>Grease</th>
<th>Roots</th>
<th>Debris</th>
<th>Other</th>
<th>Overall Finding</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>H8-27</td>
<td>2/11/19</td>
<td>Root intrusion</td>
<td>Light</td>
<td>Heavy</td>
<td>Clear</td>
<td>Medium</td>
</tr>
</tbody>
</table>

An overview of the blockage location is provided in Figure 2-2 below. The Blockage analysis report is located in Appendix C.
Section 3

Cleaning Program

3.1 Cleaning Report

Over the six-month time reporting period, 3875 cleaning tasks were completed. A report identifying all sewer mains cleaned over the six-month reporting period is located in Appendix D. The report includes the sewer main segment ID, date cleaned, cleaning findings, size of sewer main, size of proofer tool used, and the “known issues” field. If the proper sized proofer tool is not used after cleaning the sewer main, the reason why is documented in the known issues field.

3.2 Frequency Change Code Report

Each month a Cleaning Schedule Review Committee Meeting is held to discuss and coordinate various cleaning and scheduling matters. The planner/scheduler brings for discussion proposed cleaning frequency changes that would normally occur outside of the cleaning algorithm. If approved, a frequency change code is used to document the change in the CMMS.

Appendix E contains the Frequency Change Code Report. This Report identifies sewer mains where a frequency change code was used to document a change made outside of the cleaning algorithm. Over the six-month time period, there were 104 cleaning frequency changes made outside of the algorithm.
Section 4

Condition Assessment

4.1 QA/QC Program

Over the six-month reporting period, approximately 5.1 miles of sewer mains were inspected per PACP standards through the on-going quarterly On-call CCTV contract that began in 2018 or performed after the sewer main was rehabilitated. City staff performed QA/QC of the contractor’s inspections to ensure that the inspections met PACP standards and entered the results into Cartegraph OMS. A record of the QA/QC analysis of the Contractor’s submittal is included in Appendix F.

QA/QC records of condition assessment data entry into Cartegraph are included in Appendix G.

4.2 Compliance with Exhibit A

The City relies on the CCTV Planner/Scheduler and scheduling features in Cartegraph OMS to meet the timelines set forth for repair, rehabilitation, replacement, and/or reinspection of sewer mains with Grade 4 or Grade 5 defects. Over the reporting period, the City has maintained compliance with the timelines set forth in Exhibit A and therefore no sewer mains are listed in Appendix H.
Section 5

Training, Field Audits, and Program Modifications

5.1 Training and Field Audits
The following sections outline various training and field audits performed over the six-month time period.

5.1.1 Training
Although there were no formal training events conducted with field staff over the six-month reporting period, the Annual SSO training, per Section 3.6.1 of the 2018 Overflow Emergency Response Plan, was conducted on September 17, 2019. The agendas and sign-in sheets are located in Appendix I.

5.1.2 Field Audits
A total of 203 field audits were conducted by the Collection System Superintendent, Supervisor and Collection System Lead Operator over the six-month time period. A listing of the field audit dates, staff, and location are located in Appendix K.

5.2 Program Modifications
The City has maintained compliance with the Consent Decree requirements, including compliance with SSO Reduction Performance Standards and Table A. At this point, the City does not have any proposed program modifications for the immediate next six months but will continue to look for ways to optimize the existing maintenance programs in place.
Summary

The plans, activities, and actions provided in this Semi-annual Wastewater Collection System Report demonstrate the City of Santa Barbara’s commitment to providing the highest level of environmental service to its citizens at a budgetary cost consistent with provisions of the Amended Consent Decree. By doing so, the City is now undertaking important new measures which are designed to achieve compliance with SSO Reduction Goals outlined in the Amended Consent Decree.

6.1 Delays

There were no delays to the City’s Consent Decree goals over the reporting period.
PUBLIC WORKS DEPARTMENT
WATER RESOURCES DIVISION - WASTEWATER

WASTEWATER COLLECTION SYSTEM SEMI-ANNUAL REPORT

Water Commission
October 17, 2019
Presentation Overview

- SSO Performance
- Status of Sewer System Maintenance Programs Status
- Future Reports
Semi Annual Report

- Added requirement from 2016 Consent Decree Amendment

Semi-Annual Report
January 1 – June 30

- SSO Performance
  - Spill data

- Cleaning Program
  - Cleaning Report
  - Frequency Change Code Report

- Condition Assessment Program
  - QAQC Records
  - Contractor QAQC

- Training Program
  - Overflow Emergency Response Plan
  - Field Audits
## Consent Decree
### SSO Reduction Performance Standards

<table>
<thead>
<tr>
<th>Year</th>
<th>SSO Standard</th>
<th>Actual</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012</td>
<td>18</td>
<td>20</td>
</tr>
<tr>
<td>2013</td>
<td>15</td>
<td>9</td>
</tr>
<tr>
<td>2014</td>
<td>12</td>
<td>23</td>
</tr>
<tr>
<td>2015</td>
<td>10</td>
<td>16</td>
</tr>
<tr>
<td>2016</td>
<td>8</td>
<td>7</td>
</tr>
<tr>
<td>2017</td>
<td>8</td>
<td>10*</td>
</tr>
<tr>
<td>2018</td>
<td>8</td>
<td>7</td>
</tr>
<tr>
<td>2019</td>
<td>8</td>
<td>3</td>
</tr>
</tbody>
</table>
Annual SSO History

*2017 Storm related spills are shown in green and are not counted towards SSO reduction performance standard
2019 SSO Events By Cause

<table>
<thead>
<tr>
<th>Month</th>
<th>Spills by Month</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jan 2019</td>
<td>1 - Roots</td>
</tr>
<tr>
<td>Feb 2019</td>
<td>0</td>
</tr>
<tr>
<td>March 2019</td>
<td>1 - Roots</td>
</tr>
<tr>
<td>April 2019</td>
<td>1 – Structural (Offset Joint)</td>
</tr>
<tr>
<td>May 2019</td>
<td>0</td>
</tr>
<tr>
<td>June 2019</td>
<td>0</td>
</tr>
<tr>
<td>July 2019</td>
<td>0</td>
</tr>
<tr>
<td>August 2019</td>
<td>0</td>
</tr>
<tr>
<td>September 2019</td>
<td>0</td>
</tr>
</tbody>
</table>
SSO Event Comparison

SSO/100 Miles/Year

- State Municipal Average (2018)
- Region 3 Municipal Average (2018)
- Santa Barbara through 1st half of 2019

Source: CIWQS Data
2019 Private Sewer Lateral Discharges (PLSDs)

- January: 4
- February: 4
- March: 4
- April: 0
- May: 6
- June: 0
- July: 1
- August: 3
- September: 4
- October: 0
- November: 0
- December: 0
Sewer System Maintenance Programs

- Cleaning Program
- Acoustic Program
- Condition Assessment Program
- Capital Improvement Program
- FOG (Fats, Oils and Grease) Management
- SLIP (Sewer Lateral Inspection Program)
Sewer System Cleaning Mileage History
(Halfway through 2019)

246 Miles

MILEAGE

2012 187
2013 236
2014 237
2015 260
2016 242
2017 255
2018 308
2019 164
Sewer System Cleaning Mileage History
(Halfway through 2019)

MILEAGE


Geographic Miles

0 20 40 60 80 100 120 140 160 180 200

158 Miles (62%)
# 2019 CCTV Results

<table>
<thead>
<tr>
<th>PACP Score</th>
<th>2019 Miles</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>2.8</td>
</tr>
<tr>
<td>4</td>
<td>6.3</td>
</tr>
<tr>
<td>3</td>
<td>1.8</td>
</tr>
<tr>
<td>2</td>
<td>0.9</td>
</tr>
<tr>
<td>1</td>
<td>0.1</td>
</tr>
<tr>
<td>0</td>
<td>3.4</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>15.4</strong></td>
</tr>
</tbody>
</table>
2012-2019 Annual Pipe Mileage Completed

Bar chart showing the annual pipe mileage completed from 2012 to 2019. The chart indicates:

- **2012**: 5.1 miles
- **2013**: 4.1 miles
- **2014**: 5.7 miles
- **2015**: 6.1 miles
- **2016**: 5.8 miles
- **2017**: 3.6 miles
- **2018**: 3.7 miles
- **2019**: 1 mile

Total annual pipe mileage from 2012 to 2019:
- 5.1 miles in 2012
- 3.56 miles in 2013-2019

Image of workers repairing a road with construction equipment and cones.

SantaBarbaraCA.gov
Training

• Field Audits

• SSO Emergency Response Plan Training

• SSO Emergency Response Drills
Other Notable Activities in 2019

• Coordinate Wastewater CIP Project with Water and Streets Projects
• Transition inventory system to Cartegraph OMS
Other Notable Activities in 2019

- Website updates to enhance Public Outreach
- Cleaning and Operations
- Condition Assessment
- Wastewater CIP Page
Future Status Reports

• Collection System Annual Report and Presentation to Water Commission and Council Spring May 2020
QUESTIONS?

Water Commission
October 17, 2019