



# City of Chattanooga

Mayor Andy Berke

February 27, 2014

VIA CERTIFIED MAIL

Ms. Sara Schiff  
Environmental Engineer  
Clean Water Enforcement Branch  
US EPA-Region 4  
61 Forsyth Street, SW  
Atlanta, GA 30303

**RE: *United States of America et. al. v. City of Chattanooga, No. 1:12-cv-0024***  
**Annual Report No. 1 – April 2013 to December 2013**

Dear Ms. Schiff:

On behalf of the City of Chattanooga, Tennessee ("City"), and in accordance with the Consent Decree entered by the United States District Court for the Eastern District of Tennessee (Southern Division), on April 24, 2013, in the case styled the United States of America et. al. v. City of Chattanooga, No. 1:12-cv-0024 ("Consent Decree"), we are submitting to both the Environmental Protection Agency ("EPA") and the Tennessee Department of Environment and Conservation ("TDEC") the first annual report required pursuant to paragraph 40 of the Consent Decree. This report is also being submitted in accordance with the letter from Denise Diaz, dated September 16, 2013, establishing the dates for reporting under the Consent Decree.

*I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering such information, the information submitted is, to the best of my knowledge and belief, 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 violations.*

February 27, 2014

RE: Annual Report No. 1 – April 2013 to December 2013

Page Two

Please let me know if you have any questions regarding our submittal.

Sincerely,



Michael C. Patrick, P.E.  
Deputy Director, Waste Resources Division

Enclosure

cc: Karl Fingerhood, Esq., US DOJ  
Chief, Environmental Enforcement Section, US DOJ  
Chief, Clean Water Enforcement Branch, US EPA Region 4  
Bill Bush, Esq., US EPA  
Phillip Hilliard, Office of the Attorney General  
Enforcement Coordinator, Water Pollution Control, TDEC  
Stephanie Durman Matheny, Esq., TCWN  
Wade E. Hinton, City Attorney, City of Chattanooga  
Alice Cannella, P.E., Director, WRD, City of Chattanooga  
Donald L. Norris, Administrator, Public Works, City of Chattanooga  
Mike Marino, P.E., Jacobs  
Adam Sowatzka, Esq., King & Spalding



# Annual Report No. 1

**April 24 - December 31, 2013**

*Prepared for*

**Environmental Protection Agency and  
Tennessee Department of Environment and  
Conservation**

City of Chattanooga  
Waste Resources Division  
Consent Decree Program  
Case No. 1:12-cv-00245

*Prepared by*

**City of Chattanooga**  
Waste Resources Division

*Submitted by*

**JACOBS**

Jacobs Engineering Group Inc.  
Consent Decree Program Manager

Chattanooga, Tennessee

February 27, 2014

# Contents

---

<b>1.0</b>	<b>Introduction .....</b>	<b>1</b>
1.1	Purpose .....	1
1.2	Requirements .....	1
1.3	Reporting Schedule .....	1
<b>2.0</b>	<b>CMOM Programs .....</b>	<b>2</b>
<b>3.0</b>	<b>SSO Trends Analysis .....</b>	<b>5</b>

## Appendix

A EPA Approval of Reporting Change Request

## Tables

2-1	CMOM Program Summary .....	3-4
-----	----------------------------	-----

## Figures

3-1	SSO Events by Year.....	5
3-2	SSO Events by Cause.....	7
3-3	Monthly SSO Durations .....	8
3-4	Monthly SSO Volumes .....	9

# Acronyms and Abbreviations

---

CAP	Capacity Assurance Program
CD	Consent Decree
CMOM	Capacity, Management, Maintenance and Operations
EPA	Environmental Protection Agency
FOG	Fats, Oils, and Grease
MG	Million Gallons
MH	Manhole
N/A	Not Applicable
No.	Number
NPDES	National Pollutant Discharge Elimination System
SORP	Sewer Overflow Response Protocol
SSO	Sanitary Sewer Overflow
TDEC	Tennessee Department of Environment and Conservation

# 1.0 Introduction

---

## 1.1 Purpose

On April 24, 2013, the City of Chattanooga (“City”) entered into a consent decree with the United States and the State of Tennessee, in the case styled *United States of America et. al. v. City of Chattanooga, No. 1:12-cv-00245* (“CD”). Pursuant to Section IX of the CD, the City is required to submit annual reports on a yearly basis to the Environmental Protection Agency (“EPA”) and Tennessee Department of Environment and Conservation (“TDEC”). Chattanooga has prepared this report to satisfy the reporting requirements found in Paragraph 40 of the CD.

## 1.2 Requirements

As detailed in Section IX of the CD, the City is required to report a summary of Capacity, Management, Operations and Management (“CMOM”) Programs implemented or modified pursuant to the CD, including a comparison of actual performance with any performance measures that have been established. Additionally, the 1<sup>st</sup> 5 annual reports are to include a trends analysis of the number, volume, duration, and cause of Chattanooga’s Sanitary Sewer Overflow (“SSO”) events for a 24-month rolling period, updated to reflect the SSO events that occurred during the previous 12-month period. Beginning with the 6<sup>th</sup> annual report, this trends analysis will cover SSO events spanning a 5-year rolling period.

## 1.3 Reporting Schedule

Pursuant to Paragraph 40 of the CD, annual reports are to be submitted to the EPA and TDEC beginning 60 days after the first 12 month period following the Effective Date of the CD. On August 29, 2013, the City submitted a letter to EPA requesting clarification regarding the schedule for submitting reports under the CD. On September 16, 2013, EPA provided the requested clarification letter. A copy of EPA’s letter is provided in Appendix A. This and other future reports will be submitted pursuant to the schedule set forth in that letter.

## 2.0 CMOM Programs

---

The City is developing the CMOM programs pursuant to Paragraph 20 of the CD. As of the end of the first annual reporting period, April 24, 2013 through December 31, 2013, one CMOM program has been submitted to the EPA and TDEC for review and approval. The Sewer Overflow Response Protocol (“SORP”) was submitted on schedule on November 25, 2013. As of the date of this report, the SORP remains under review by the EPA and TDEC. The remaining CMOM programs are still under development and as a result, there are no updates related to implementation of these programs for the reporting period. Table 2-1 below summarizes the status of the CMOM Programs:

**Table 2-1**  
CMOM Programs

April 24, 2013 - December 31, 2013						
CMOM Program	CMOM Program Status	CMOM Program CD Component	CD Reference	CMOM Program Solution	Established Performance Measure	Actual Measured Performance
Sewer Overflow Response Protocol ("SORP")	Submitted to EPA and TDEC 11/25/2013	Maintain records of all SSO responses and response times	Section VI, Paragraph 20(a)(ii)	Chattanooga has established a standard SSO Report Form for recording all required SSO related information, maintained via 311 calls, Cityworks Work Orders, and daily work activity summaries	Limit SSO response time to be within one hour after notification of event	Program is pending approval and is not being implemented at the time of this report
Sewer Overflow Response Protocol ("SORP")	Submitted to EPA and TDEC 11/25/2013	Provide notice to TDEC as required by NPDES Permit within 24 hours of being made aware of an SSO event	Section VI, Paragraph 20(a)(vii)	Chattanooga has identified ISS staff responsible for compiling SSO report and providing required notification	Notify TDEC of SSO events within 24 hours after being made aware of event	(see above)
Sewer Overflow Response Protocol ("SORP")	Submitted to EPA and TDEC 11/25/2013	Provide adequate training for Chattanooga employees, contractors, and personnel of other affected agencies to effectively implement the SORP	Section VI, Paragraph 20(a)(viii)	Chattanooga has identified ISS staff who will train the staff responsible for implementation of SORP, as well as designated a regular annual meeting time to conduct training sessions	Perform staff training annually during the month of August	(see above)
Emergency Response Plan	On schedule to submit in November of 2014	Applicable CD components to be identified during program development	Section VI, Paragraph 20(b)	N/A	N/A	Program is under development
Fats, Oils, and Grease ("FOG") Management Program	On schedule to submit in May of 2014	Applicable CD components to be identified during program development	Section VI, Paragraph 20(c)	N/A	N/A	(see above)



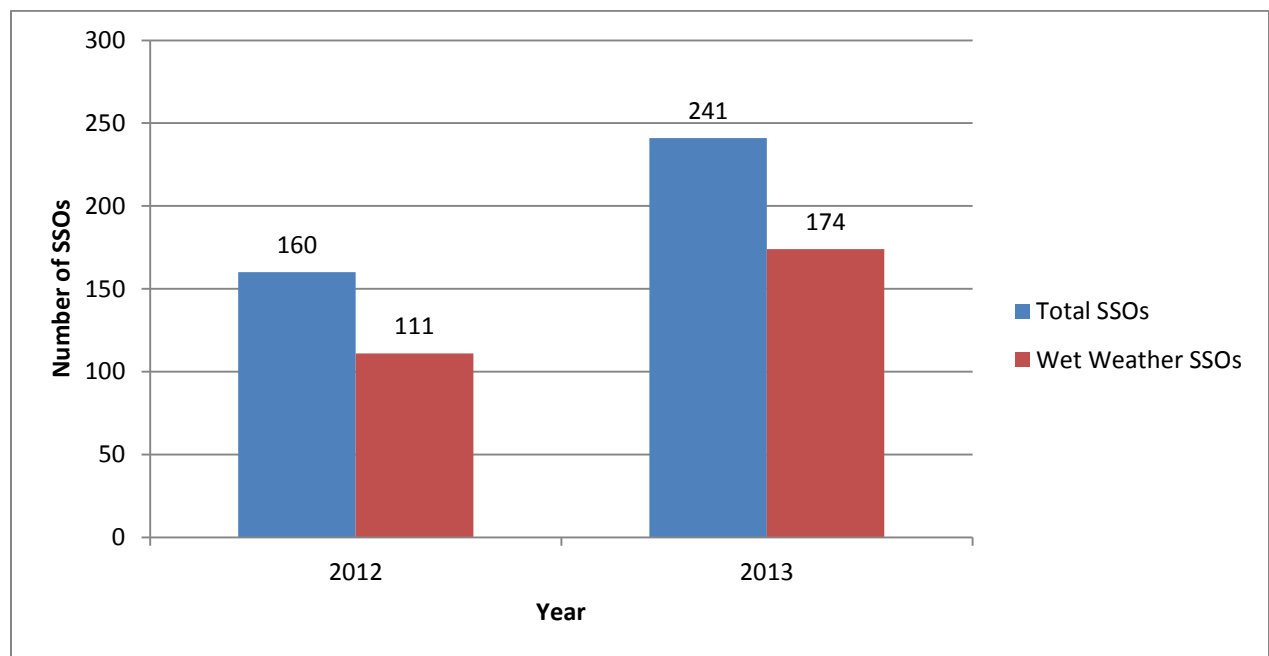
**Table 2-1**  
CMOM Programs

April 24, 2013 - December 31, 2013						
CMOM Program	CMOM Program Status	CMOM Program CD Component	CD Reference	CMOM Program Solution	Established Performance Measure	Actual Measured Performance
Gravity Line Preventive Maintenance Program	On schedule to submit in May of 2014	Applicable CD components to be identified during program development	Section VI, Paragraph 20(d)	N/A	N/A	(see above)
Pump Station Operations Program	On schedule to submit in November of 2014	Applicable CD components to be identified during program development	Section VI, Paragraph 20(e)	N/A	N/A	(see above)
Pump Station Preventive Maintenance Programs	On schedule to submit in November of 2014	Applicable CD components to be identified during program development	Section VI, Paragraph 20(f)	N/A	N/A	(see above)
Hydraulic Model Development	On schedule to submit in May of 2016	Applicable CD components to be identified during program development	Section VI, Paragraph 20(g)	N/A	N/A	(see above)
Capacity Assurance Program ("CAP")	On schedule to submit in May of 2016	Applicable CD components to be identified during program development	Section VI, Paragraph 20(h)	N/A	N/A	(see above)
Inter-Jurisdictional Agreement Program	On schedule to submit in May of 2014	Applicable CD components to be identified during program development	Section VI, Paragraph 20(i)	N/A	N/A	(see above)

## 3.0 SSO Trends Analysis

A trends analysis of the cause, duration, and volume of SSO events was conducted for the 24-month period spanning January 1, 2012 through December 31, 2013. Rainfall data collected during the same time period was included in the analysis to illustrate the effects of heavy, sustained rainfall on the occurrence, duration, and volume of the recorded SSO events. Figure 3-1 below provides a summary of SSO events by year for the reporting period:

**Figure 3-1**  
SSO Events by Year



An upward trend in rainfall resulted in an increase in SSO events from 2012 to 2013. The majority of SSO events during the reporting period were wet-weather related. Wet-weather related SSOs were 69% of the total SSOs in 2012 and 73% in 2013. As for SSOs that were not related to weather, there were 49 in 2012 and 67 in 2013. While this trend is also slightly increasing, it is not significant.

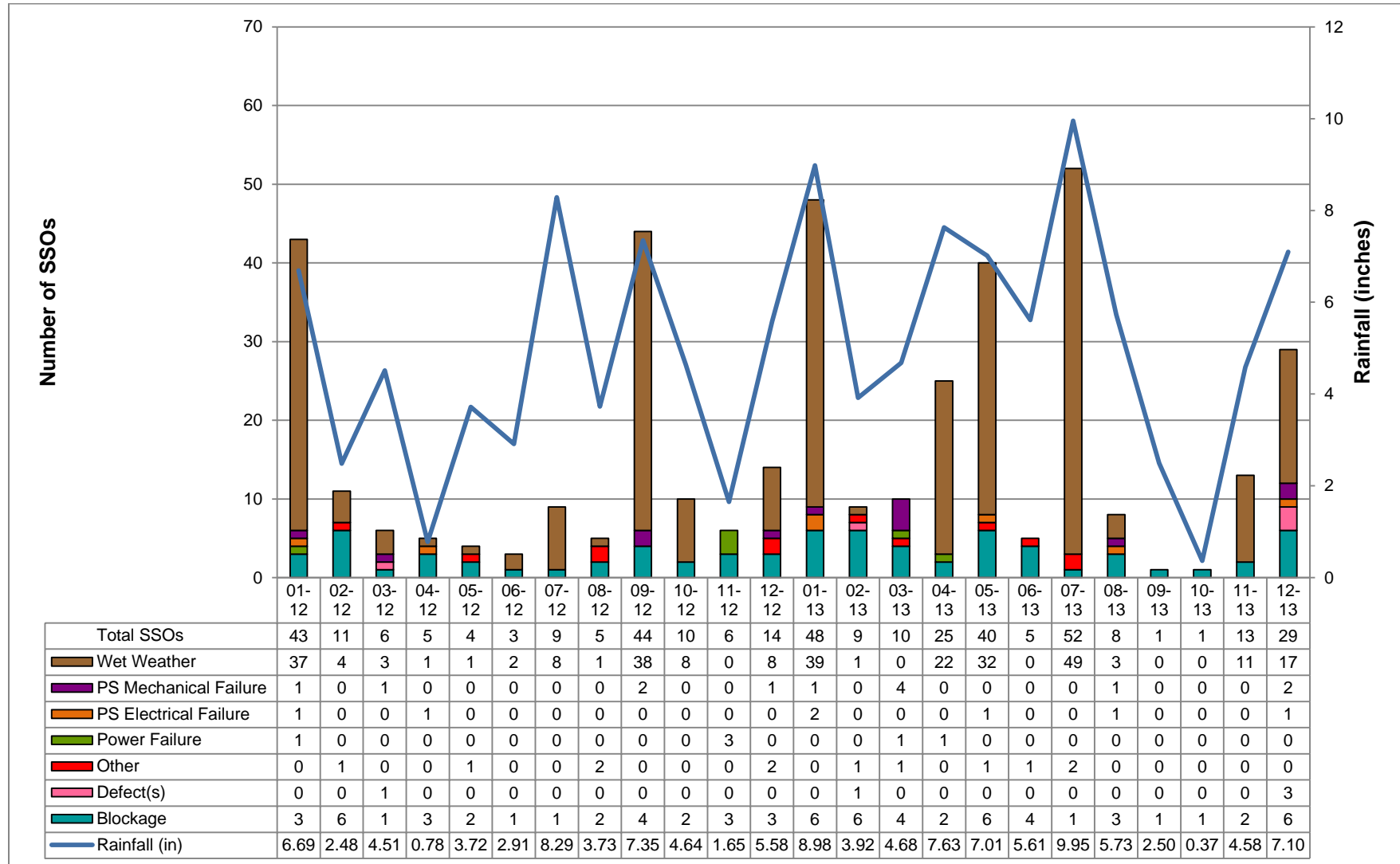
Figure 3-2 presents SSO events by cause per month. Wet weather was the leading cause of SSOs during the reporting period, followed by blockages. The average number of SSOs per month for the reporting period was approximately 17 events. Of the months reported, 7 months had more than 17 SSOs reported; January 2012, September 2012, January 2013, April 2013, May 2013, July 2013, and December 2013. The above average number of SSOs reported for these months correlates to the heavy rain that was sustained during these months. One anomaly is July 2012, which had significant rain (8.29 inches) but a limited number of wet-weather related overflows (8). However, as shown in Figure 3-4, the volume of SSOs was

higher during this month, and consistent with the correlation demonstrated in the linear regression analysis in Figure 3-4.

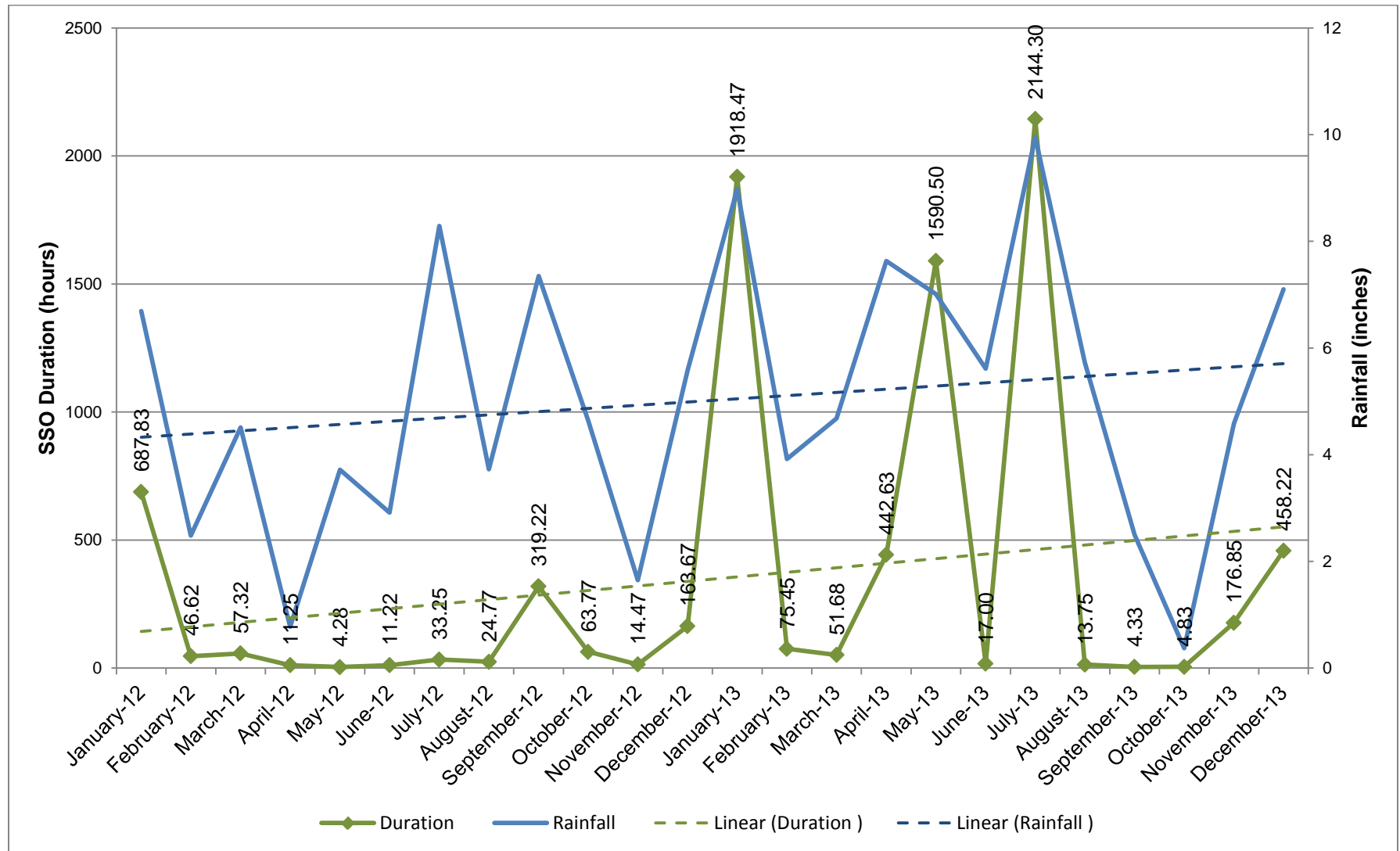
Figure 3-3 presents cumulative SSO duration per month, or the sum of the durations of each SSO event that was recorded per month during the reporting period. The average cumulative SSO duration per month was approximately 347 hours. Of the months reported, 6 reported above average cumulative SSO durations; January 2012, January 2013, April 2013, May 2013, July 2013, and December 2013. The above average cumulative SSO durations for these months correlate to the heavy rainfall experienced during the months.

Figure 3-4 presents cumulative SSO volume per month, or the sum of the volumes of each SSO event that was recorded per month during the reporting period. The average cumulative SSO volume per month for the reporting period was found to be approximately 2 million gallons (MG). Of the months reported, 8 had cumulative SSO volumes that were greater than average; January 2012, July 2012, September 2012, January 2013, April 2013, May 2013, July 2013, and December 2013. Again, the above average volumes for each month were related to the heavy rainfall during those months.

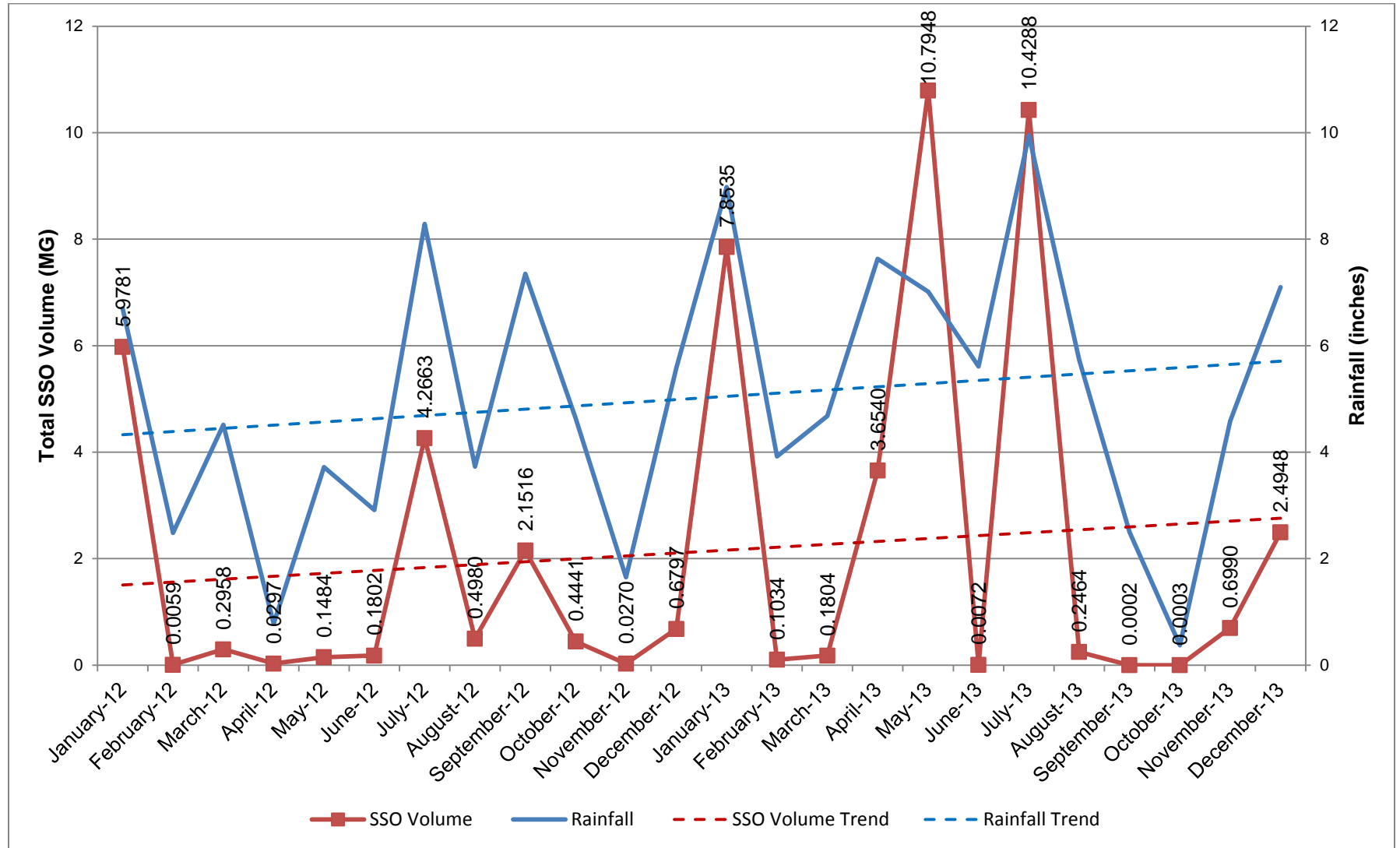
**Figure 3-2**  
SSO Events by Cause



**Figure 3-3**  
Monthly SSO Durations



**Figure 3-4**  
Monthly SSO Volume



# Appendix A

## EPA Approval of Reporting Change Request

---



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 4  
ATLANTA FEDERAL CENTER  
61 FORSYTH STREET  
ATLANTA, GEORGIA 30303-8960  
SEP 16 2013

Reed  
SEP 16 2013

OK

CERTIFIED MAIL 7012 1010 0001 8097 1952  
RETURN RECEIPT REQUESTED

Ms. Alice Cannella, P.E.  
Director, Waste Resources Division  
City of Chattanooga  
455 Moccasin Bend Road  
Chattanooga, Tennessee 37405

Re: City of Chattanooga, Tennessee Consent Decree  
Section IX. Reporting Requirements  
Request to change reporting schedules

Dear Ms. Cannella:

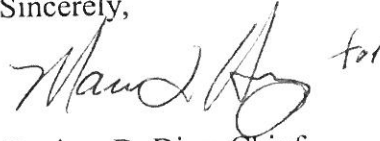
The United States Environmental Protection Agency Region 4 is in receipt of the City of Chattanooga's (the City) letter dated August 29, 2013, regarding the above referenced matter. Specifically, the City has requested that the Quarterly Reports (required by Paragraph 38. of the Consent Decree) be submitted based upon a Calendar Quarter, as defined in the Consent Decree. The City also requested the Semi-Annual and Annual Work Progress Reports' (required by Paragraph 39. of the Consent Decree) and Annual Reports' (required by Paragraph 40. of the Consent Decree) reporting periods and submittal dates be changed as well.

The EPA is in agreement and hereby approves these requests to change the submittal dates and reporting periods covered by the required reports. Therefore, the first Quarterly Report (Section IX., Paragraph 38.), for the period of April 24, 2013, through September 2013, is due to the EPA on October 30, 2013, and each subsequent Quarterly Report shall be submitted 30 days after the end of the respective Calendar Quarter, as defined in the Consent Decree. The first Semi-Annual and Annual Work Progress Report (Section IX., Paragraph 39.), for the period of April 24, 2013, through December 31, 2013, shall be due to the EPA on January 30, 2014, and each subsequent Semi-Annual and Annual Work Progress Report shall be due six months afterward. The first Annual Report (Section IX., Paragraph 40.), for the period of April 24, 2013, through December 31, 2013, shall be due to the EPA on March 1, 2014, and each subsequent Annual Report shall be due one year afterward.



If you should have any further questions regarding this matter, please contact Ms. Sara Schiff at (404) 562-9870 or email at schiff.sara@epa.gov. Legal inquiries should be addressed to Mr. Bill Bush at (404) 562-9538 or email at bush.william@epa.gov.

Sincerely,

A handwritten signature in black ink, appearing to read "Denisse D. Diaz", with a small "for" written to the right of the signature.

Denisse D. Diaz, Chief  
Clean Water Enforcement Branch  
Water Protection Division

cc: Mr. Karl Fingerhood  
U.S. Department of Justice  
Washington, D.C.

Mr. Phillip Hilliard  
Office of the Attorney General

Ms. Jessica Murphy  
Tennessee Department of Environment and Conservation

Mr. Donald L. Norris  
City of Chattanooga, Tennessee

Mr. Wade Hinton  
City of Chattanooga, Tennessee

Mr. Adam Sowatzka  
King & Spalding LLP

Ms. Stephanie Matheny  
Tennessee Clean Water Network