

A large, dynamic splash of water dominates the left side of the page, extending from the top to the bottom. The water is captured in mid-air, with many bubbles and droplets visible, creating a sense of movement and freshness. The background is a light, hazy blue, suggesting a bright, open environment.

The City *of*  
**j**ACKSON

**QUARTERLY  
REPORT NO. 12**

JANUARY 2016 THROUGH MARCH 2016

Department of Public Works  
Wastewater Infrastructure Redevelopment Program



APRIL 30, 2016

*City of Jackson*  
*Wastewater Infrastructure Redevelopment*  
*Program*

**Quarterly Report No. 12**  
**January 2016 through March 2016**

April 30, 2016

**Prepared for:**

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Department of Public Works  
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# City of Jackson, Mississippi

## Quarterly Report No. 12


### January 2016 through March 2016

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.



  
\_\_\_\_\_  
Tony T. Yarber  
Mayor

  
\_\_\_\_\_  
Date

  
\_\_\_\_\_  
Kishia L. Powell, Director  
Department of Public Works

  
\_\_\_\_\_  
Date

# Quarterly Report No. 12

## January 2016 through March 2016

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## 1.0 Introduction

### 1.1 Consent Decree Overview

On March 1, 2013, the U.S. District Court for the Southern District of Mississippi entered a Consent Decree (CD) agreed to by the City of Jackson, Mississippi (City), U.S. Environmental Protection Agency (EPA), and the Mississippi Department of Environmental Quality (MDEQ,) regarding the City's wastewater collection and treatment system. Over a 17½ year timeline, the Consent Decree requires the City to:

- Develop, submit, finalize, and implement plans for the continued improvement of the Wastewater Collection and Transportation System (WCTS) and Wastewater Treatment Plants (WWTPs);
- Eliminate Sanitary Sewer Overflows (SSOs), effluent limit violations (including any violations of the new effluent limits for nutrients), and reporting violations, and
- Minimize Prohibited Bypasses.

One of the ongoing requirements of the EPA Consent Decree is to submit periodic reports to demonstrate continuing compliance. The specific reporting requirements of the CD are described below.

### 1.2 Authority to Promulgate

The City of Jackson Public Works Department (JPWD) established the Wastewater Infrastructure Redevelopment Program in 2004. The Waggoner Engineering/AJA Management and Technical Services joint venture company, WEI/AJA LLC, was retained to assist the City in addressing the requirements of the Consent Decree under the existing Program Management contract for the Wastewater Infrastructure Redevelopment Program. Accordingly, the Program Management team compiled this Quarterly Report from information provided by the City and its contractors to fulfill the requirements of Section IX ¶ 57 (a) set forth in the CD.

### 1.3 Consent Decree Requirements for Quarterly Report

As stated in the Consent Decree Section IX ¶ 57 (a), the Quarterly Report shall be submitted beginning thirty (30) Days after the first full three (3)-month period following the Date of Entry of this Consent Decree, and thirty (30) Days after each subsequent three (3)-month period until termination of the Consent Decree and shall contain the following, at a minimum:

Quarterly Reports. Beginning thirty (30) Days after the first full three (3) month period following the Date of Entry of this Consent Decree, and thirty (30) Days after each subsequent three (3)-month period thereafter until termination of the Consent Decree, the City shall submit to EPA for review and approval a Quarterly Report that shall include the following:

- (i) the date, time, location, source, estimated duration, estimated volume, receiving water (if any), and cause of all SSOs occurring in the applicable three (3)-month period in a tabulated electronic format; and
- (ii) (ii) the date, time, estimated duration, estimated volume, and cause of all Prohibited Bypasses occurring in the applicable three (3)-month period in a tabulated electronic format.

The listing and graphical summaries of the SSOs and prohibited bypasses for January – March 2016 are presented in Section 2 of this report.

#### 1.4 Other Requirements for Quarterly Report

EPA approved the CMOM Training Program, subject to comments, on April 25, 2014. One comment requested that the City include in its quarterly reports its efforts to fill the Training Coordinator position.

A status update for filling the Training Coordinator position is included in Section 3 of this report.

## 2.0 Summary of SSOs and Prohibited Bypasses

SSOs are divided into three elements of the wastewater system: the collection system, pump stations, and West Bank Interceptor. Prohibited bypasses at the Savanna Street Wastewater Treatment Facility (SSWWTF), in periods when they occur, are listed separately.

### 2.1 Collection System SSOs

**Table 1** lists SSOs in the collection system for January through March 2016. Each day of a multiple day event is considered as a separate SSO, in accordance with penalties in the CD.

**Figure 1** shows SSO events by month as a result of the following reported causes:

- Grease
- Roots
- Solids
- Collapsed Pipe
- Pump Station Failure
- Excessive Flow
- Undersized Line
- Other

Some SSO events had multiple causes. In these instances, each cause was assigned a fractional value, adding up to a total of one cause for each event.

**Figure 2** shows percentages of collection system SSOs for the quarter by cause. **Figure 3** shows total volume of SSOs for each month. Volumes are plotted on a logarithmic scale because of the large monthly variations. **Figure 4** shows total duration of SSOs for each month.

It should be noted that there were 20 and 27 SSOs in February and March, respectively. It should also be noted that the normal rain totals for each month were exceeded by 3.47 inches and 7.20 inches.

**Table 1**  
**City of Jackson, Mississippi**  
**Quarterly Report No. 12 - January 2016 through March 2016**  
**Collection System SSOs**

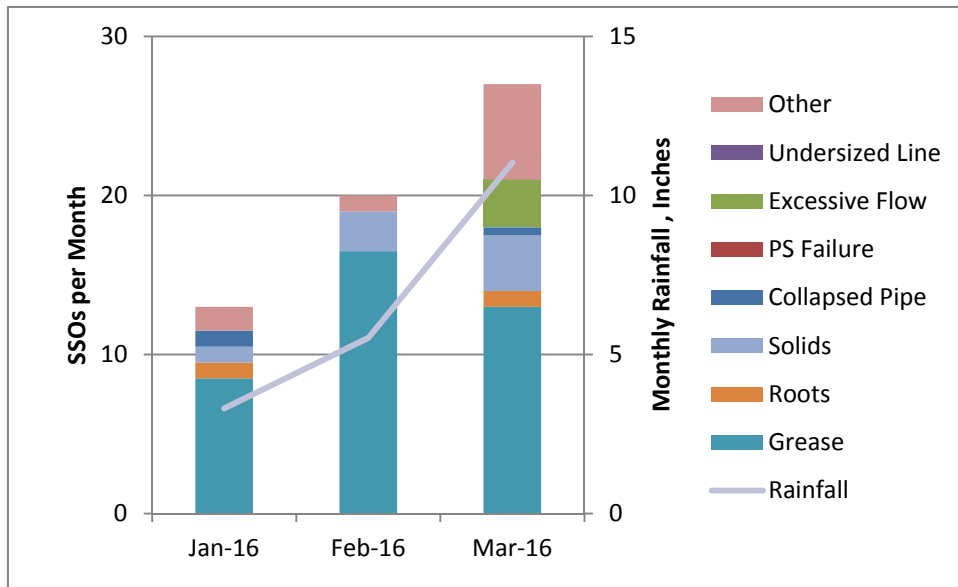
Date Began	Time Began	Location	Source	Estimated Duration, Hours	Estimated Volume, Gallons	Reached Waterway	Receiving Water	Rainfall, Inches	Reported Cause
1/3/2016	6:42 PM	5147 RIDGEWOOD ROAD	Manhole	21.55	450	NO	Hanging Moss	0.00	Roots.
1/4/2016	1:29 PM	4710 I 55 FRONTAGE ROAD	Manhole	0.87	580	YES	Hanging Moss	0.00	Grease.
1/7/2016	11:30 AM	115 FRIARS COVE	Manhole	25.50	200	YES	Cany	0.27	Grease.
1/8/2016	8:57 AM	275 ELM ST	Ground Surface (defective pipe underground)	1.63	160	YES	Town	0.35	Grease.
1/11/2016	10:07 AM	111 BRIARWOOD DR	Cleanout	26.38	620	YES	Hanging Moss	0.92	Grease.
1/11/2016	12:11 PM	361 FLAG CHAPEL CIR	Cleanout	8.18	120	NO	Lynch	0.75	Grease.
1/15/2016	10:41 AM	4110 HANGING MOSS CIR	Cleanout	13.30	80	YES	Eubanks	0.00	Collapsed Pipe.
1/17/2016	4:30 PM	1200 E. NORTHSIDE DR	Manhole	1.87	320	YES	Eastover	0.00	Grease.
1/21/2016	1:09 PM	1870 TEAKWOOD DR	Cleanout		10	NO	Cany	0.87	Solids.
1/21/2016	6:15 PM	NORTHSIDE DR KIMWOOD CIR	Manhole	0.85	50	YES	Eastover	0.94	Grease.
1/26/2016	9:33 AM	111 BRIARWOOD DR	Cleanout	5.08	140	NO	Hanging Moss	0.69	Grease. Rags.
1/27/2016	7:30 AM	3810 I 55 S	WWTP	4.00	150,000	NO	Pearl	1.11	Storm cell full.
1/31/2016	9:52 AM	345 SAINT ANDREWS DR	Other	1.45	80	NO	Purple	0.00	Grease.
2/3/2016	8:37 AM	STATE ST	Manhole	1.13	35	YES	Town	3.52	Grease.
2/4/2016	9:27 AM	STONEWALL ST BAILEY AVE	Manhole	3.83	280	YES	Town	2.79	Grease.
2/5/2016	3:01 PM	1060 MEADOW HEIGHTS DR	Manhole	1.47	540	NO	Eubanks	2.92	Grease.
2/7/2016	9:24 AM	730 BENNING ROAD	Manhole	5.48	280	YES	Eastover	0.00	Grease. Solids.
2/8/2016	4:33 PM	787 E NORTHSIDE DR	Manhole	1.13	80	NO	Eubanks	0.00	Solids.
2/11/2016	7:00 AM	1741 WAYCONA DR	Manhole	1.78	280	YES	Lynch	0.00	Grease.
2/11/2016	8:10 AM	2318 BRECKENRIDGE RD	Manhole	4.50	1,250	YES	Hardy	0.00	Grease.
2/12/2016	4:04 PM	1572 MCDOWELL ROAD	Manhole	1.25	180	YES	Cany	0.00	Grease.
2/16/2016	3:13 PM	137 CLOVER LEAF CIR	Manhole	43.23	410	YES	Town	0.00	Grease.
2/16/2016	4:07 PM	2525 LAKEWARD DR	Manhole	3.38	140	YES	Eubanks	1.72	Grease.
2/17/2016	4:08 PM	160 WINDSOR DR	Ground Surface (defective pipe underground)	1.37	25	NO	Lynch	1.10	Grease.
2/19/2016	10:03 AM	223 DECELLE ST	Cleanout	2.68	420	NO	Town	0.00	Grease.
2/19/2016	2:45 PM	868 NORTH ST	Manhole	2.50	680	YES	Town	0.00	Grease.
2/20/2016	11:26 AM	2928 LAKEWOOD DR	Manhole	2.62	720	YES	Hardy	0.00	Grease.
2/23/2016	8:37 AM	4625 N STATE ST	Manhole	2.77	3,600	YES	Eubanks	1.24	Solids.
2/24/2016	10:23 AM	1039 WOODDELL DR	Manhole	8.80	1,250	YES	Cany	1.43	Grease.
2/27/2016	7:00 PM	4625 N STATE ST	Manhole	1.00	75	YES	Eubanks	0.00	Bypass pump malfunction.



**Table 1**  
**City of Jackson, Mississippi**  
**Quarterly Report No. 12 - January 2016 through March 2016**  
**Collection System SSOs**

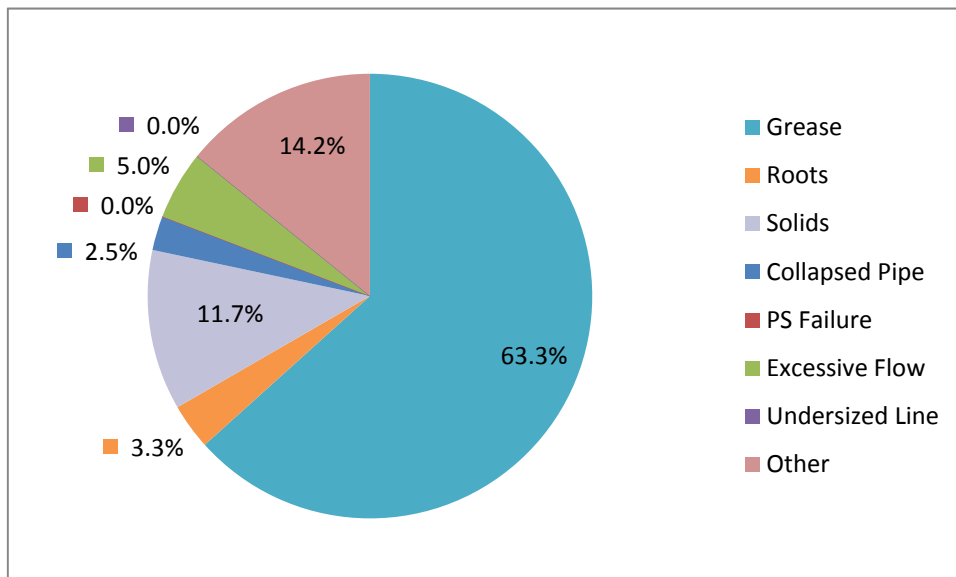
Date Began	Time Began	Location	Source	Estimated Duration, Hours	Estimated Volume, Gallons	Reached Waterway	Receiving Water	Rainfall, Inches	Reported Cause
2/28/2016	12:25 PM	868 NORTH ST	Manhole	1.13	360	YES	Town	0.00	Grease.
2/28/2016	1:37 PM	724 RAYMOND ROAD	Manhole	2.00	120	YES	Three Mile	0.00	Grease.
2/29/2016	11:28 AM	200 E AMITE ST	Manhole	2.62	50	YES	Town	0.00	Grease. Rags.
3/6/2016	10:52 AM	6507 GEORGE WASHINGTON DR	Manhole	1.25	275	YES	Bogue Chitto	0.00	Grease.
3/7/2016	9:31 PM	3542 BRITTON AVE	Cleanout		80	NO	Eubanks	0.00	Solids.
3/9/2016	10:20 AM	2895 MCDOWELL ROAD EX		3.08	480	NO	Cany	0.22	Grease. check main line.
3/10/2016	11:01 AM	3524 HORTON AVE	Manhole		120	YES	Hanging Moss	4.45	Rain.
3/10/2016	1:00 PM	3249 MEDGAR EVERS BLVD	Manhole		600	YES	Town	4.94	Grease. Rain water.
3/11/2016	8:45 AM	5345 RIDGEWOOD ROAD	Cleanout		800	NO	Hanging Moss	6.60	Rain.
3/11/2016	11:45 AM	1503 E NORTHSIDE DR	Constructed Bypass	2.77	200	YES	Eastover	6.21	Rain.
3/12/2016	8:16 AM	933 HUNT ST	Cleanout	6.05	480	NO	Town	6.08	Grease.
3/12/2016	8:19 AM	4933 CEDARHURST DR	Cleanout	15.67	40	NO	Hanging Moss	6.59	Collapsed Pipe.
3/13/2016	6:05 PM	S GALLATIN ST HIAWATHA ST	Manhole	0.42	300	YES	Town	6.08	Excessive Flow.
3/14/2016	9:05 AM	3844 HAWTHORN DR	Other	1.80	4,300	YES	Eubanks	6.59	Grease.
3/14/2016	11:33 AM	5549 DECKARD DR	Manhole	20.95	420	YES	Lynch	6.08	Grease.
3/15/2016	7:05 PM	2665 LAKE CIR	Manhole	0.75	25	YES	Eastover	6.59	Grease.
3/16/2016	10:48 AM	314 POST OAK ROAD	Cleanout		180	NO	Hanging Moss	7.31	Solids.
3/17/2016	5:56 AM	4888 WATKINS DR	Manhole	8.52	720	YES	Eubanks	0.96	Grease.
3/18/2016	7:16 AM	4854 I 55 FRONTAGE	Cleanout		20	NO	Hanging Moss	1.28	Undetermined.
3/19/2016	5:30 PM	1429 KIMWOOD DR	Manhole	0.00	9	NO	Eastover	1.96	Grease.
3/22/2016	7:28 AM	3190 MEDGAR EVERS BLVD	Manhole	1.83	320	YES	Town	0.96	Grease.
3/22/2016	8:28 AM	5620 SHAW ROAD	Manhole	9.40	25	YES	Bakers	1.82	Solids.
3/23/2016	8:54 AM	2565 LAKE CIR	Manhole	2.80		YES	Eastover	0.00	Roots.
3/23/2016	10:10 AM	HERITAGE PL	Ground Surface (defective pipe underground)	4.33	100	NO	Trahon	0.00	Grease.
3/24/2016	1:09 PM	1116 FOREST AVE	Manhole	1.37	300	YES	Eubanks	0.17	Grease. Solids.
3/25/2016	8:23 AM	5600 WOOD ROSE DR	Manhole	1.15	180	YES	Lynch	0.17	Grease.
3/26/2016	12:07 PM	1119 MCLEAN ST	Ground Surface (defective pipe underground)	81.73	2,100	NO	Lynch	0.51	Grease. choked main line.
3/29/2016	7:41 AM	3175 ROBINSON ROAD	Manhole	3.58	700	YES	Lynch	0.51	Grease.
3/31/2016	10:26 AM	2847 BOOKER WASHINGTON ST	Manhole		120	YES	Town	2.08	Excessive Flow.
3/31/2016	11:36 AM	503 SPRINGFIELD CIR	Manhole		800	YES	Lynch	2.08	

**Figure 1: Collection System SSOs by Cause**

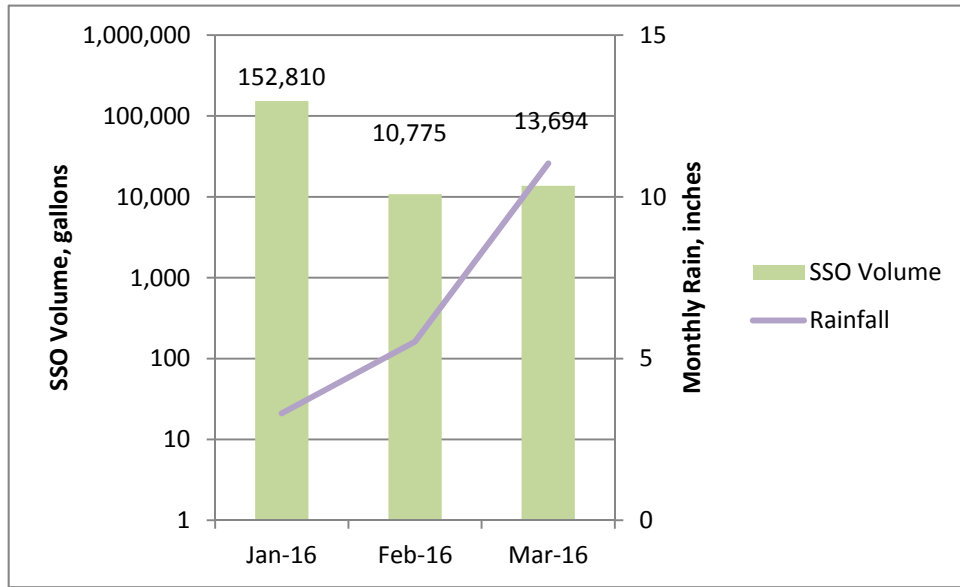


1.5	1.0	6.0	Other
0.0	0.0	0.0	Undersized Line
0.0	0.0	3.0	Excessive Flow
0.0	0.0	0.0	PS Failure
1.0	0.0	0.5	Collapsed Pipe
1.0	2.5	3.5	Solids
1.0	0.0	1.0	Roots
8.5	16.5	13.0	Grease
13.0	20.0	27.0	Total

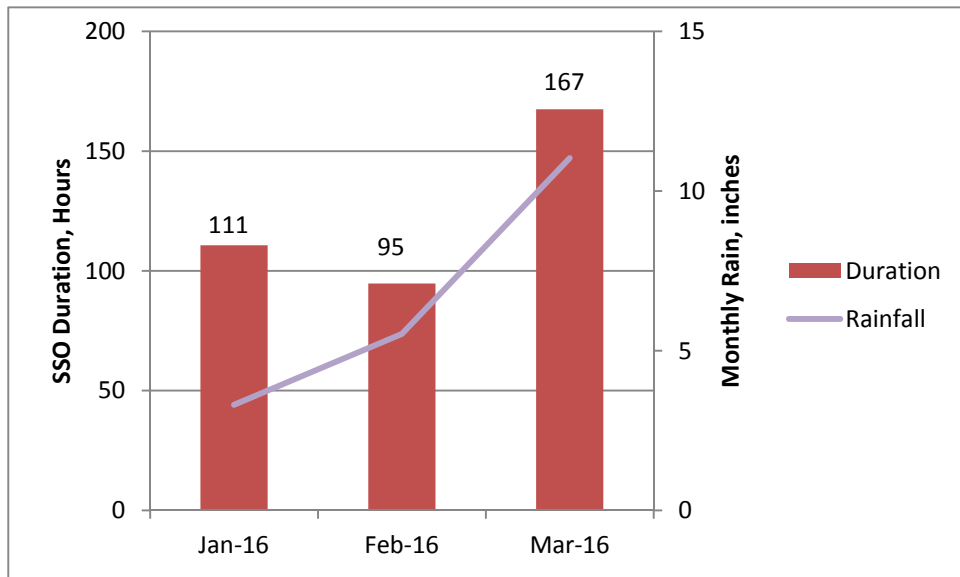
**Figure 2: Percentage of Collection System SSOs by Cause**



**Figure 3: Collection System SSO Volume**



**Figure 4: Collection System SSO Duration**



## 2.2 Pump Station SSOs

No SSOs were reported at pump stations from January to March 2016. There are now nine (9) consecutive months without an SSO at the pump stations in the collection system. In the previous twelve (12) months, there has been only one (1) SSO at the pump stations.

## 2.2 West Bank Interceptor SSOs

No SSOs were reported in the West Bank Interceptor from January to March 2016.

## 2.4 Prohibited Bypasses

**Table 2** lists prohibited bypasses at the wastewater treatment plants for the quarter. Unlike SSOs, each event is considered as one bypass from the day it begins to the day it ends. Four prohibited bypasses were reported ending in the quarter. In addition, one prohibited bypass not included in this report began on March 10 and continued into April. As of March 31, approximately 1,102 million gallons had been discharged from the storm surge ponds. This prohibited complete bypass will be included in the next quarterly report.

**Figure 5** shows prohibited bypass events by month by reported cause, as listed above, as well as monthly rainfall. **Figure 6** plots prohibited bypasses against maximum monthly Pearl River stages.

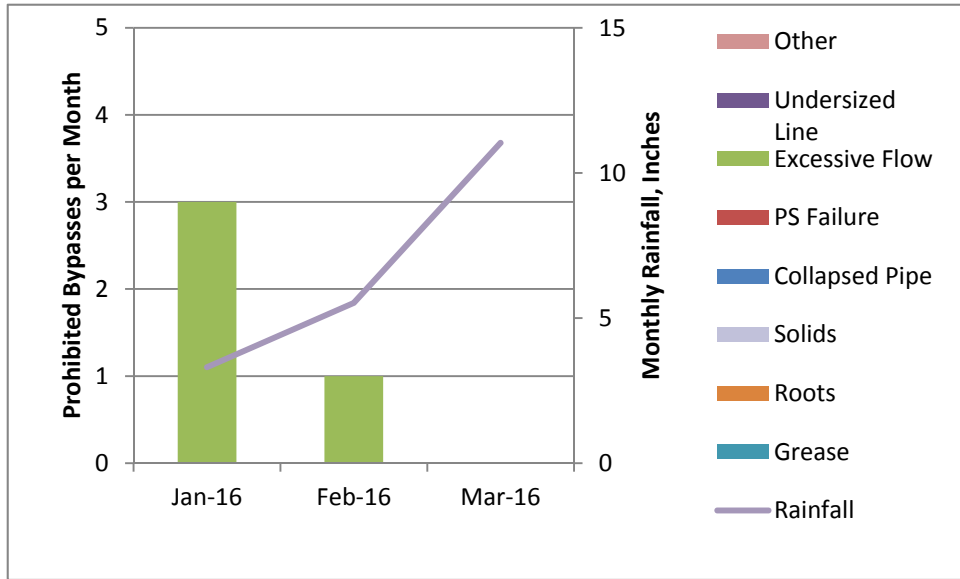
**Figure 7** shows total volume of prohibited bypasses for each month plotted logarithmically, along with monthly rainfall. **Figure 8** shows volume and river stages.

**Figures 9 and 10** plot total duration for the month. Note that duration of prohibited bypasses is plotted in days.

**Table 2**  
**City of Jackson, Mississippi**  
**Quarterly Report No. 12- January 2016 through March 2016**  
**Prohibited Bypasses**

Date Began	Time Began	Location	Source	Estimated Duration, Days	Estimated Volume, Million Gallons	Reached Waterway	Receiving Water	Rainfall, Inches	Reported Cause
01/09/16	11:45 AM	3810 I 55 S	WWTP	3	42.02	YES	Pearl	1.31	Heavy rainfall generated influent flow in excess of mechanical plant's capacity.
01/22/16	6:00 AM	3810 I 55 S	WWTP	3	95.33	YES	Pearl	2.00	Heavy rainfall generated influent flow in excess of mechanical plant's capacity.
01/27/16	10:50 AM	3810 I 55 S	WWTP	24	873.27	YES	Pearl	7.70	Heavy rainfall generated influent flow in excess of mechanical plant's capacity.
02/23/16	9:00 PM	3810 I 55 S	WWTP	9	262.79	YES	Pearl	1.9	Heavy rainfall and I&I generated influent flow in excess of the plant's capacity.

**Figure 5: Prohibited Bypasses by Cause vs. Rainfall**



**Figure 6: Prohibited Bypasses by Cause vs. River Stage**

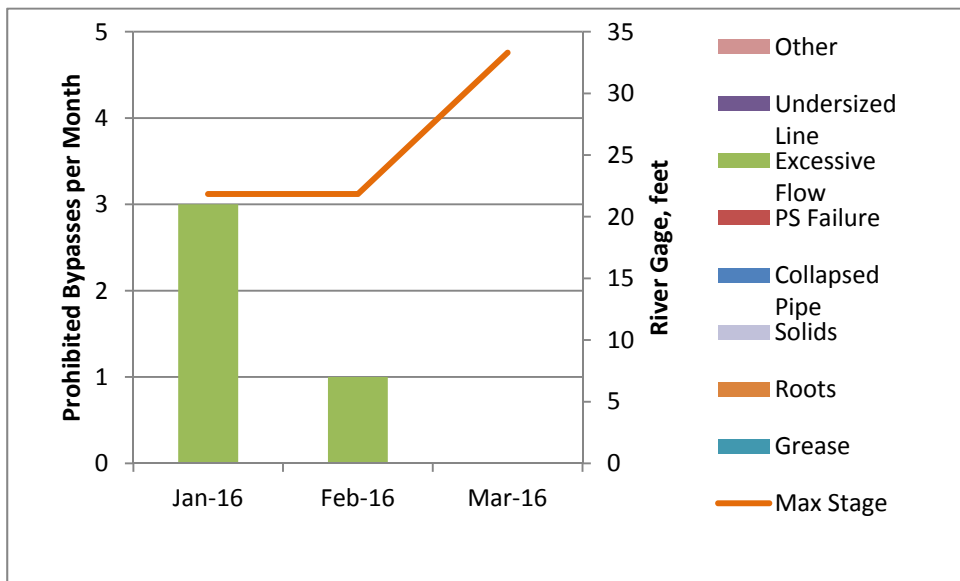




Figure 7: Prohibited Bypass Volume vs. Rainfall

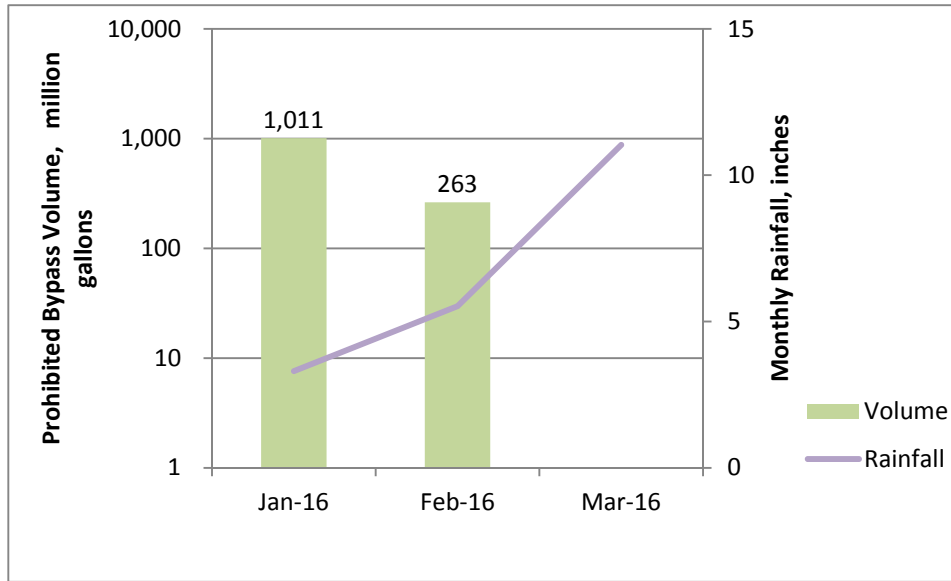


Figure 8: Prohibited Bypass Volume vs. River Stage

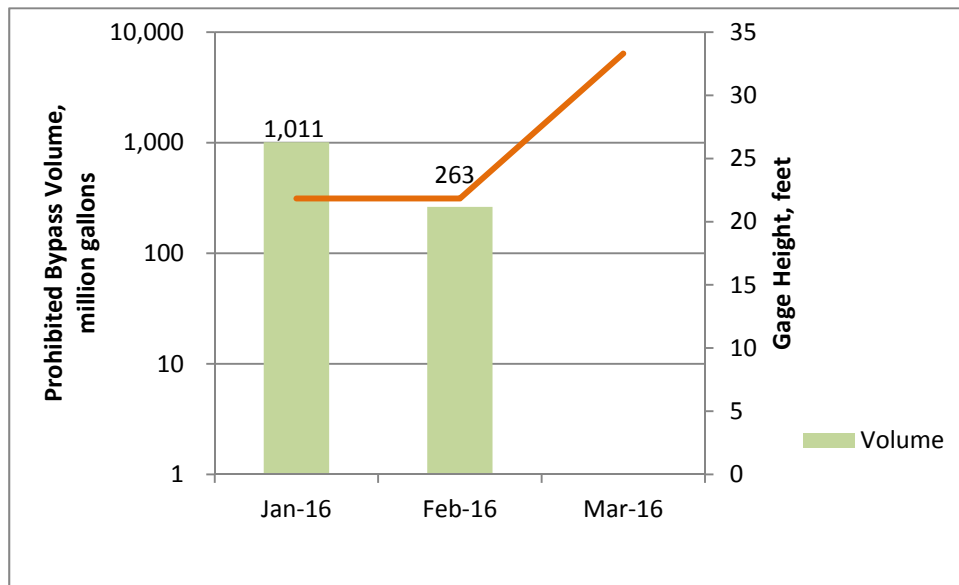


Figure 9: Prohibited Bypass Duration vs. Rainfall

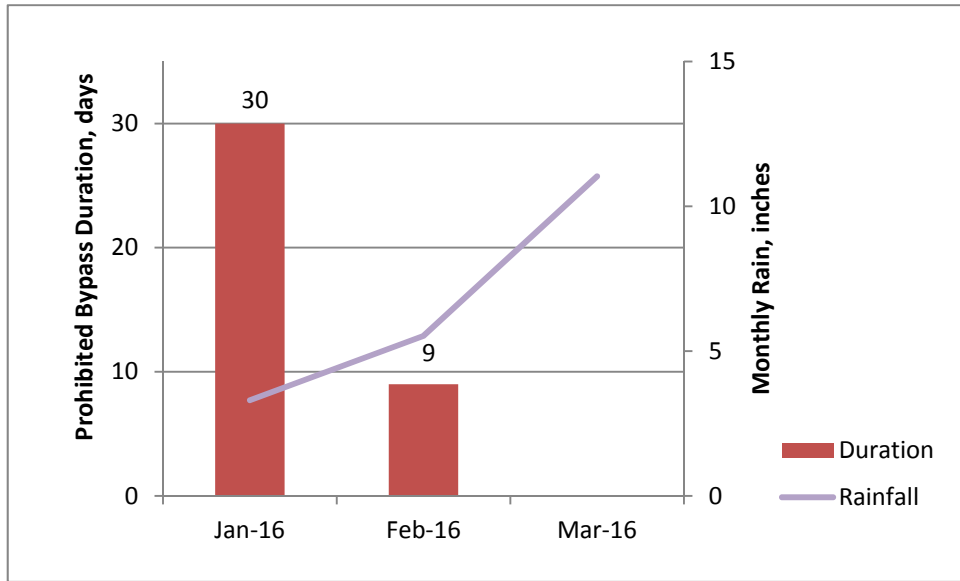
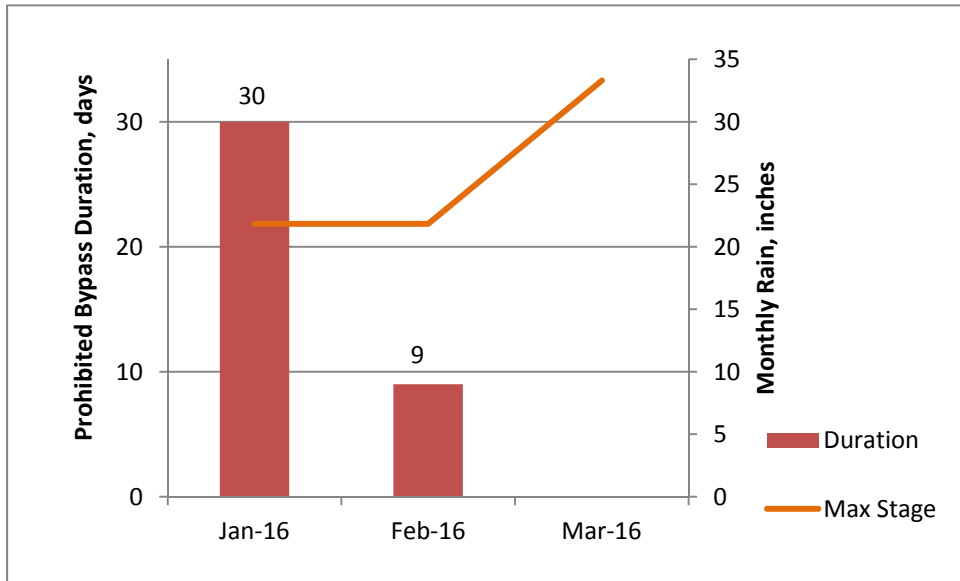


Figure 10: Prohibited Bypass Duration vs. River Stage



## **3.0 Training Coordinator**

### **3.1 Progress Update**

The Department of Public Works has hired April Sawyer as Training Coordinator. Ms. Sawyer began work on September 21, 2015. Ms. Sawyer is responsible for implementing the Training Program approved under the Consent Decree.

Specific training activities are listed in Annual Report 3.

### **3.2 Next steps**

The City of Jackson will continue to implement the Training Program. Any necessary amendments will be submitted to EPA for approval.

Proposed training activities are listed in Annual Report 3.