



The City of
JACKSON

**QUARTERLY
REPORT NO. 16**

JANUARY 2017 THROUGH MARCH 2017

Department of Public Works
Consent Decree Program

City of Jackson
Wastewater Consent Decree Program
Program

Quarterly Report No. 16
January 2017 through March 2017

April 28, 2017

Prepared for:

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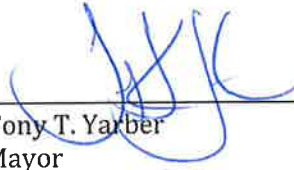
City of Jackson, Mississippi

Quarterly Report No. 16

January 2017 through March 2017

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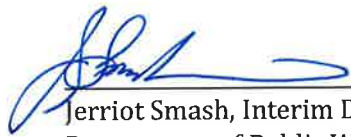




Tony T. Yarber
Mayor



Date



Jerriot Smash, Interim Director
Department of Public Works



Date

Quarterly Report No. 16

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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

Burns & McDonnell Engineering Company, Inc. was retained to assist the City in addressing the requirements of the Consent Decree under a Program Management contract. 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 2017 are presented in Section 2 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 2017. 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.

There were 2 events that no cause was reported. There were 11 events that the duration could not be determined because either the start or stop time was missing from the assessment report or the event occurred on private property and there was no follow up inspection noted. These issues will be addressed in the next crew training session.

Table 1
City of Jackson, Mississippi
Quarterly Report No. 16 - January 2017 through March 2017
Collection System SSOs

Date Began	Time Began	Location	Source	Estimated Duration, Hours	Estimated Volume, Gallons	Reached Waters of the State	Receiving Water	Rainfall, Inches	Reported Cause
1/5/2017	1:15 AM	121 CYPRESS DR	Manhole	0:30	100	NO	Trahan	0.03	Grease
1/6/2017	1:06 PM	646 CHELSEA DR	Manhole	2:11	240	YES	Carly	0.05	Grease
1/8/2017	7:20 PM	WOODROW WILSON AVE & BAILEY AVE	Manhole	0:55	8	NO	Hardy	0.10	Collapsed Pipe
1/10/2017	12:00 AM	202 RIDGEWAY ST	Ground Surface (defective pipe underground)	7:10	500	NO	Eubanks	0.00	Collapsed Pipe
1/10/2017	7:01 AM	5662 ANGLE DR	Manhole	4:32	680	YES	Hanging Moss	0.00	Grease
1/11/2017	12:28 AM	601 JAMESTOWN WAY	Manhole	11:32	190	YES	White Oak	0.00	Grease
1/14/2017	10:37 AM	141 QUEEN ANNE LANE	Cleanout	NR	20	NO	Lynch	0.00	Collapsed Pipe
1/14/2017	8:42 PM	WOODROW WILSON AVE & BAILEY AVE	Manhole	0:42	300	NO	Town	0.00	Collapsed Pipe
1/14/2017	9:26 AM	1235 CORINTH ST	Cleanout	0:50	110	YES	Lynch	0.00	Grease
1/18/2017	9:47 PM	1645 BLAIR ST	Manhole	0:29	200	NO	Town	0.25	Grease, Solids
1/18/2017	9:00 PM	315 LEXINGTON AVE	Ground Surface (defective pipe underground)	1:00	100	YES	Lynch	0.25	Collapsed Pipe
1/19/2017	5:39 PM	265 COLEBROOK AVE	Manhole	NR	20	YES	Lynch	1.75	Excessive Flow
1/19/2017	5:16 PM	503 SPRINGFIELD CIR	Manhole	NR	475	YES	Lynch	1.75	Excessive Flow
1/20/2017	1:20 PM	3016 WINDSOR AVE	Cleanout	NR - Private Property	10	NO	Eubanks	0.00	Choked service line
1/21/2017	1:10 PM	405 MASON BLVD	Cleanout	1:44	1,300	YES	Hardy	1.14	Grease
1/24/2017	2:30 PM	FOREST HILL DR & BROOKWOOD PLACE	Other	NR	1,500	YES	Big Creek	0.00	Creek crossing wash out
1/25/2017	7:20 PM	WOODROW WILSON AVE & WILLIAMSON AVE	Manhole	0:10	20	NO	Town	0.02	Grease, Solids
1/28/2017	7:18 PM	5425 CLINTON BLVD	Manhole	0:45	300	YES	Lynch	0.00	Collapsed Pipe
1/28/2017	1:10 PM	4051 WEST ST	Manhole	0:57	1,010	NO	Eubanks	0.00	Grease
2/3/2017	4:09 PM	870 CRAWFORD ST	Cleanout	5:36	60	NO	Town	0.00	Grease
2/3/2017	10:18 AM	2416 CULLEYWOOD ROAD	Manhole	1:19	320	YES	Hanging Moss	0.00	Roots
2/6/2017	11:00 AM	WOODROW WILSON AVE & BAILEY AVE	Manhole	2:00	75	YES	Town	0.00	Collapsed Pipe
2/6/2017	8:00 AM	202 E RIDGEWAY ST	Manhole	2:00	100	YES	Town	0.00	Collapsed Pipe
2/7/2017	2:00 PM	1580 W RIDGEWAY ST	Manhole	NR	200	YES	Town	0.24	Excessive Flow

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Date Began	Time Began	Location	Source	Estimated Duration, Hours	Estimated Volume, Gallons	Reached Waters of the State	Receiving Water	Rainfall, Inches	Reported Cause
2/7/2017	12:20 PM	4125 CRANE BLVD	Manhole	1:51	60	NO	White Oak	0.24	Grease
2/7/2017	1:54 PM	4141 CRANE BLVD	Manhole	0:33	280	YES	Eubanks	0.24	Grease
2/7/2017	2:50 PM	1429 NORTHSIDE DR	Manhole	0:45	40	YES	Hanging Moss	0.24	Grease, Excessive Flow
2/8/2017	8:44 PM	3776 MEADOW LANE	Ground Surface (defective pipe underground)	NR - Private Property	10	NO	Lynch	0.01	defective pipe underground
2/9/2017	NR	1140 WOODFIELD DR	Manhole	NR	NR	YES	Purple	0.00	NR
2/9/2017	9:42 AM	4791 MCWILLIE DR	Manhole	0:43	420	YES	Hanging Moss	0.00	Grease
2/9/2017	5:04 PM	3190 MEDGAR EVERS BLVD	Manhole	0:53	130	YES	Town	0.00	Grease
2/11/2017	6:43 PM	686 WOODY DR	Cleanout	0:51	10	NO	Cany	0.00	Grease
2/14/2017	11:56 AM	235 SAINT ANDREWS DR	Cleanout	1:05	15	NO	Purple	0.00	Grease
2/14/2017	9:30 AM	5036 FOREST HILL DR	Manhole	2:40	400	NO	Big Creek	0.06	Roots
2/15/2017	1:47 PM	20 N. HILL PARKWAY	Manhole	NR - Private Property	142	YES	Hanging Moss	0.00	Undetermined
2/15/2017	1:08 PM	235 N DELMAR ST	Ground Surface (defective pipe underground)	NR - Private Property	3	NO	White Oak	0.00	Choked service line
3/1/2017	11:03 AM	224 PMLICO PL	Cleanout	NR	15	NO	Hanging Moss	0.04	Undetermined
3/1/2017	11:38 AM	1324 SAINT ANN ST	Manhole	Same as next	110	YES	Town	0.04	Collapsed Pipe
3/1/2017	10:22 AM	1324 SAINT ANN ST	Manhole	9:05	360	YES	Belhaven	0.04	Collapsed Pipe
3/2/2017	4:08 PM	815 HICKORY DR	Ground Surface (defective pipe underground)	0:54	380	YES	Eubanks	0.00	NR
3/2/2017	3:20 PM	407 W NORTHSIDE DR	Manhole	NR	240	YES	Eubanks	0.00	Undetermined
3/3/2017	5:55 PM	2406 WOODLAWN ST	NR	1:30	8	NO	Hardy	0.00	Collapsed Pipe
3/4/2017	11:55 AM	425 E MCDOWELL ROAD	Cleanout	0:50	180	YES	Town	0.00	Grease
3/7/2017	1:27 PM	3501 BOWERS ST	Manhole	Undetermined	150	NO	Hardy	0.83	Grease, Solids
3/9/2017	1:28 PM	2042 LONDON AVE	Manhole	Undetermined	120	YES	Hanging Moss	0.06	Collapsed Pipe
3/10/2017	7:13 PM	3524 HORTON ST	Manhole	0:24	30	YES	Town	0.27	Grease
3/10/2017	3:33 PM	2563 SHEPWOOD DR	Cleanout	0:17	10	NO	Hardy	0.27	Grease
3/10/2017	12:12 PM	3501 BOWERS ST	Manhole	0:56	70	NO	Hardy	0.27	Grease

Table 1
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Collection System SSOs

Date Began	Time Began	Location	Source	Estimated Duration, Hours	Estimated Volume, Gallons	Reached Waters of the State	Receiving Water	Rainfall, Inches	Reported Cause
3/12/2017	1:59 PM	442 DANIEL CR	Manhole	6:13	220	YES	Hardy	0.19	Collapsed Pipe
3/13/2017	2:12 PM	5551 SHAW ROAD	Manhole	0:48	250	YES	Bakers	0.14	Grease, Solids
3/13/2017	10:15 AM	2522 RUTLEDGE AVE	Cleanout	2:05		NO	Town	0.14	Grease, Solids
3/14/2017	4:09 PM	2076 SHADY LANE	Cleanout	Undetermined	185	NO	Hardy	0.00	Collapsed Pipe
3/15/2017	6:49 PM	787 E NORTHSIDE DR	Manhole	0:16	180	NO	Hanging Moss	0.00	Grease
3/15/2017	2:54 PM	3727 N WEST ST	Cleanout	Undetermined	2,820	YES	Town	0.00	Collapsed Pipe
3/15/2017	1:07 PM	1665 AURORA ST	Cleanout	NR - Private Property	15	NO	Town	0.00	Choked service line
3/17/2017	1:09 PM	3051 GREY BLVD	Manhole	0:17	15	YES	Hardy	0.00	Grease
3/22/2017	6:53 PM	3875 I 55 S	Manhole	0:48	360	YES	Hardy	0.00	Grease
3/23/2017	8:58 AM	129 WOODLAND CIR	Ground Surface (defective pipe underground)	NR	40	NO	Eibanks	0.00	Collapsed Pipe
3/23/2017	4:37 PM	172 GLEN MARY ST	Cleanout	NR - Private Property	50	NO	Town	0.00	Defective service line
3/23/2017	1:54 PM	308 LIVINGSTON ST	Cleanout	0:22	66	NO	Town	0.00	Grease
3/24/2017	4:00 PM	FORD AVE	Cleanout	1:00		NO	Lynch	0.00	Defective service line
3/25/2017	2:39 PM	3927 ROXBURY ROAD	Manhole	2:14	160	YES	Eastover	0.49	Undetermined
3/27/2017	11:05 AM	EASTOVER DR & REDBUD ROAD	Manhole	11:55	150	YES	Eastover	0.58	Collapsed Pipe
3/28/2017	11:43 AM	2251 FOREST GLEN DR	Cleanout	1:37	480	YES	Hanging Moss	0.00	Grease
3/29/2017	2:06 PM	132 DELANO DR	Ground Surface (defective pipe underground)	0:25	60	YES	Bogue Chitto	0.00	Grease
3/29/2017	11:26 AM	448 FOREST AVE	Ground Surface (defective pipe underground)	Undetermined	30	YES	Hanging Moss	0.00	Collapsed Pipe
3/30/2017	11:06 AM	2027 WILL O WISP WAY	Manhole	9:34	100	YES	Three Mile	1.04	Grease, Solids
3/30/2017	10:04 AM	1439 NORTHSIDE DR	Manhole	0:56	40	YES	Hanging Moss	1.04	Grease, Excessive Flow
3/31/2017	9:59 AM	1957 MEADOWBROOK ROAD	Manhole	3:23	80	NO	Hanging Moss	0.00	Roots
3/31/2017	9:57 AM	1957 MEADOWBROOK ROAD	Manhole	3:25	80	YES	Hanging Moss	0.00	Roots

Figure 1: Collection System SSOs by Cause

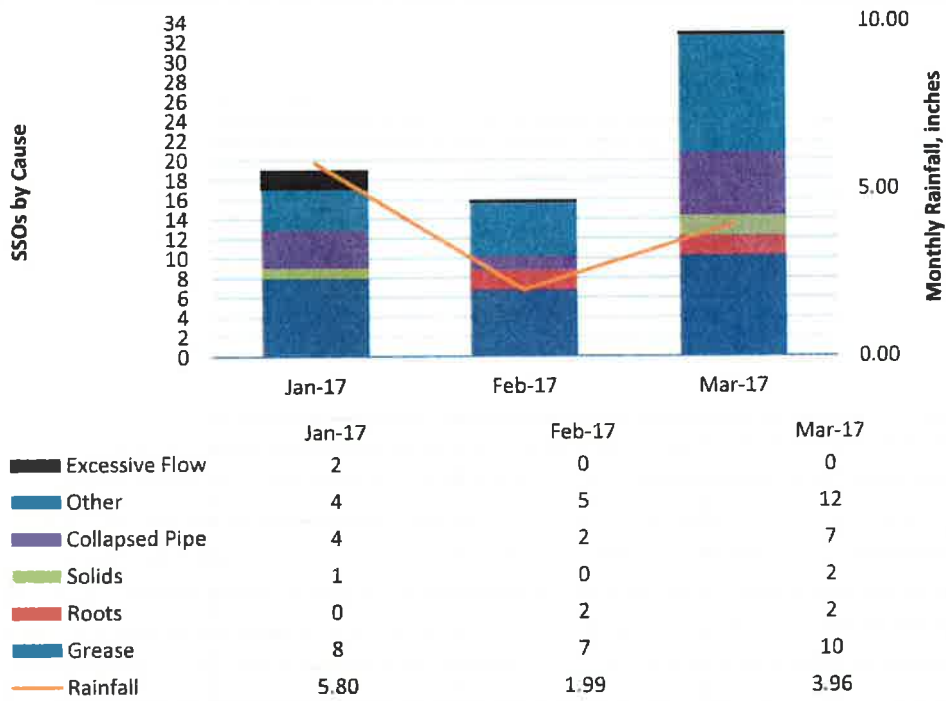


Figure 2: Percentage of Collection System SSOs by Cause

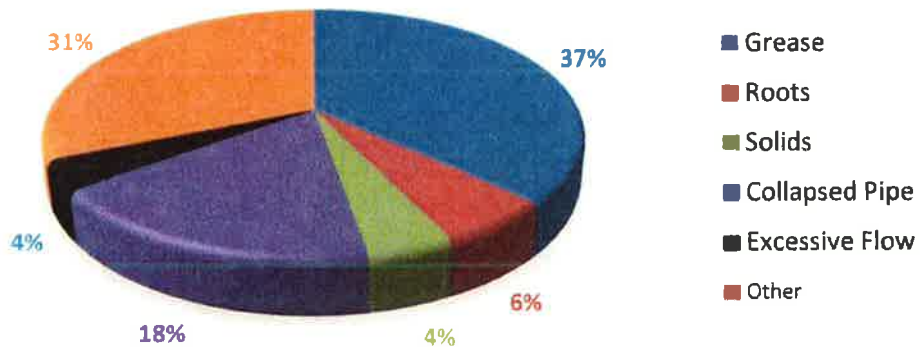


Figure 3: Collection System SSO Volume

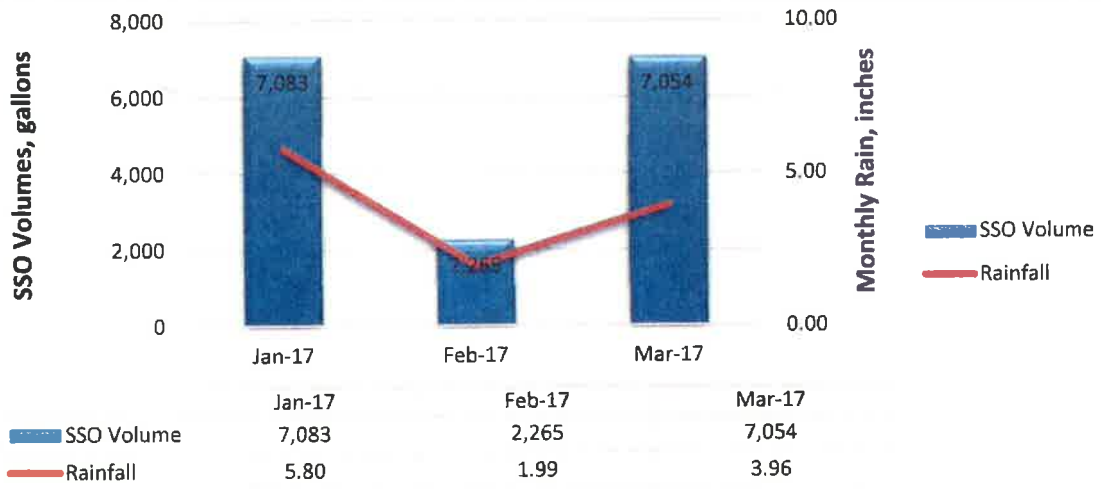
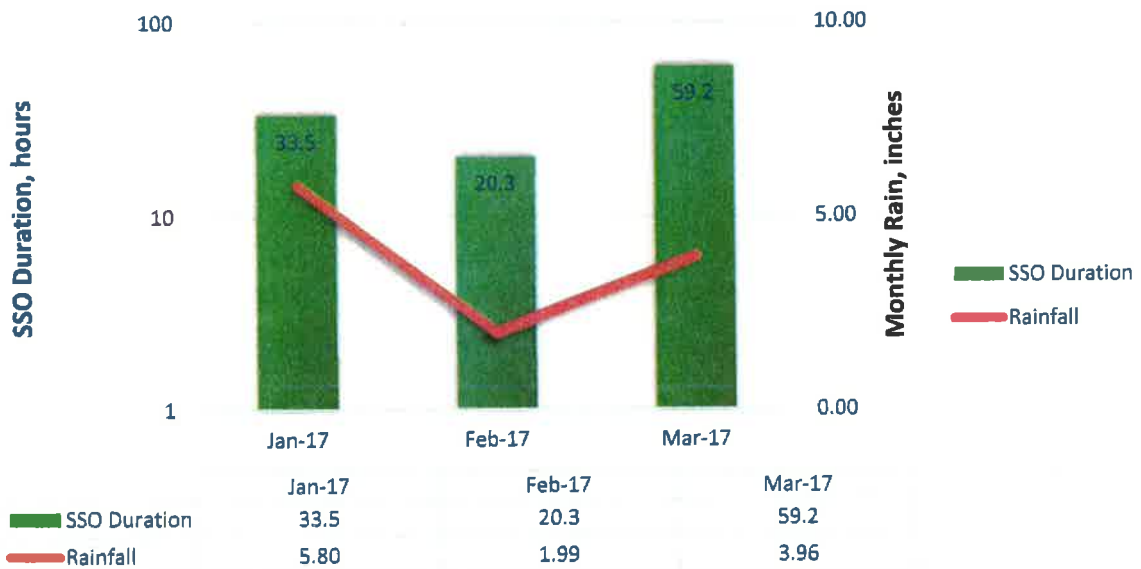


Figure 4: Collection System SSO Duration



2.2 Pump Station SSOs

Table 2 lists pump station SSOs for January through March 2017

Figure 5 shows pump station SSO events by month by reported cause, as listed above, as well as monthly rainfall.

Figure 6 shows percentage of SSOs by cause for the quarter. Note that one SSO had two causes; each cause was computed as one-half to determine the percentage.

Figure 7 logarithmically plots total volume of pump station SSOs for each month, along with monthly rainfall.

Figure 8 shows total duration of pump station SSOs for each month, as well as rainfall.

Table 2
City of Jackson, Mississippi
Quarterly Report No. 16 -January 2017 through March 2017
Pump Station SSOs

Date Began	Time Began	Location	Source	Estimated Duration, Hours	Estimated Volume, Gallons	Reached Waterway	Receiving Water	Rainfall, Inches	Reported Cause
1/19/2017	9:42 AM	1465 SHORT AVE	Pump Station	0.54	20,000	YES	Big Creek	1.75	Excessive Flow .
1/19/2017	5:25 PM	1450 COUNTRY CLUB DR	Pump Station	0.00	20	NO	Trahan	1.75	Pump Station Failure.
3/7/2017	1:44 PM	1465 SHORT AVE	Pump Station	0.17	1,000	NO	Big Creek	0.83	Excessive Flow .
3/30/2017	9:09 AM	TIMBERLAWN ROAD	Pump Station	0.16	150	NO	Big Creek	1.04	Collapsed Pipe
3/30/2017	2:07 AM	1465 SHORT AVE	Pump Station	0.39	2,500	NO	Big Creek	1.04	Excessive Flow .

Figure 5: Pump Station SSOs by Cause

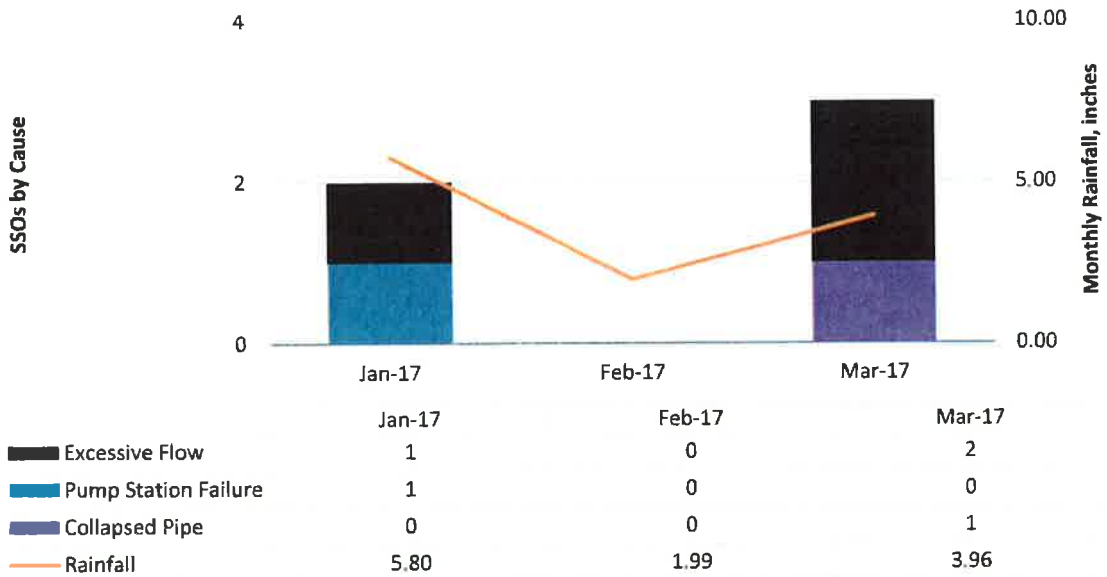


Figure 6: Percentage of Pump Station SSOs by Cause

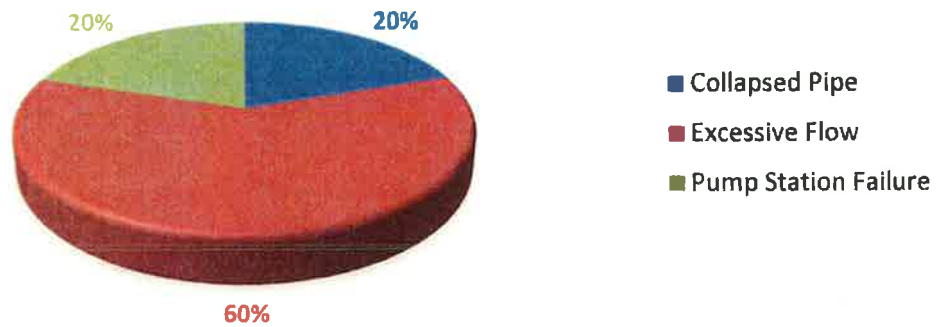


Figure 7: Pump Station SSO Volume

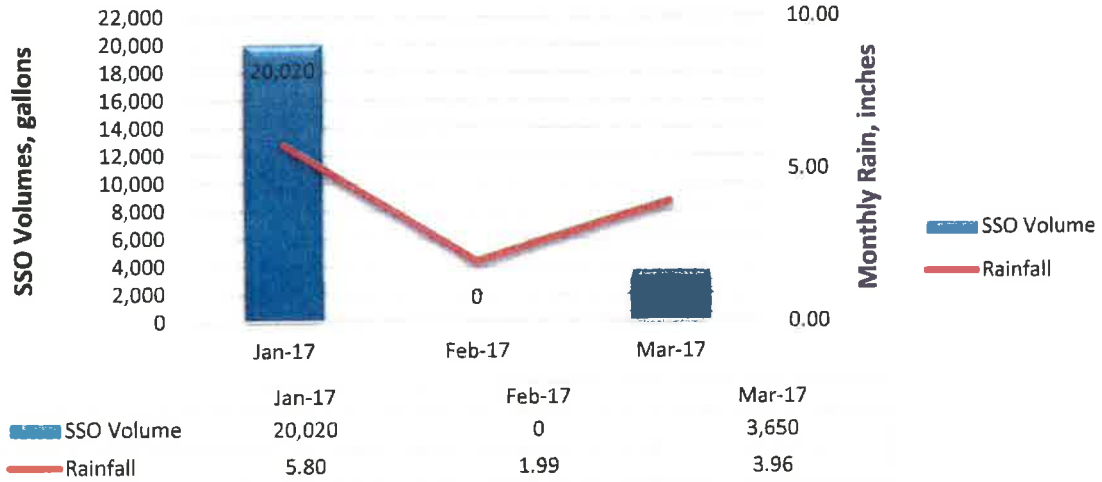
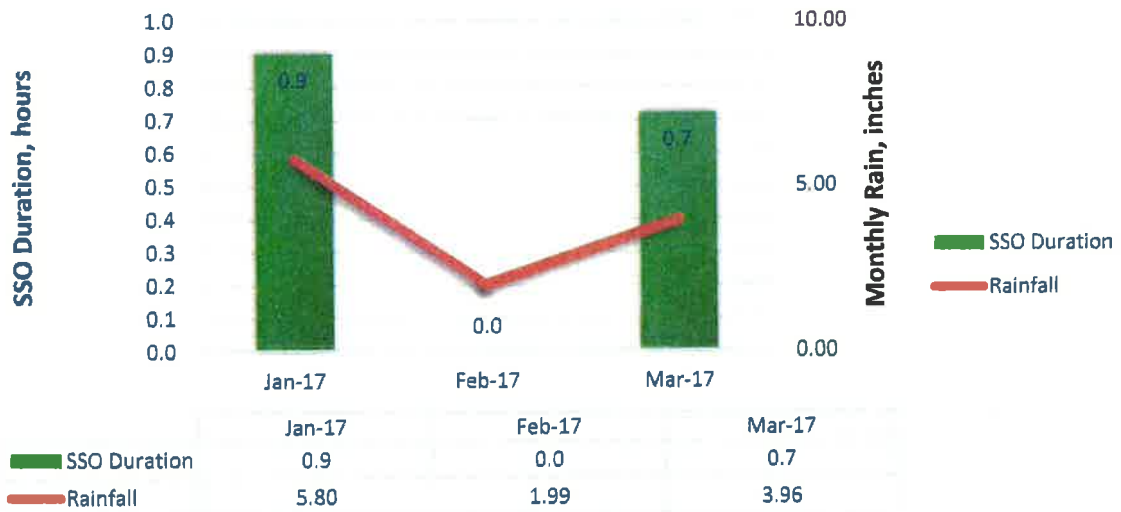


Figure 8: Pump Station SSO Duration



2.3 West Bank Interceptor SSOs

No SSOs were reported in the West Bank Interceptor from January to March 2017.

2.4 Prohibited Bypasses

Table 3 lists prohibited bypasses at the wastewater treatment plants for the year. Unlike SSOs, each event is considered as one bypass from the day it begins to the day it ends. Three (3) prohibited bypasses were reported this period.

One (1) bypass began on March 30th. As of March 31st, approximately 35.78 MG was discharged. This bypass event will be included in the next Quarterly report when the event ends as well as the rainfall from March that can be attributed to this bypass event.

This quarterly report does not include a graphical representation of the number of bypasses for each cause, since all bypasses at the Savanna Street WWTP have been caused by excessive flow. Future reports will include this graphical representation when it will be helpful.

Figure 9 shows total volume of prohibited bypasses for each month plotted logarithmically, along with monthly rainfall.

Figure 10 shows volume and river stages.

Figures 11 and 12 plot total duration for the month, first compared to rainfall and then compared to river stages. Note that duration of prohibited bypasses is plotted in days.

Table 3
City of Jackson, Mississippi
Quarterly Report No. 16 -January 2017 through March 2017
Prohibited Bypasses

Date Began	Time Began	Location	Source	Estimated Duration, Days	Estimated Volume, Million Gallons	Reached Waterway	Receiving Water	Rainfall, Inches	Reported Cause
01/02/17	NA	3810 I 55 S	WWTP	2	68.83	YES	Pearl	2.99	Heavy rainfall generated influent flow in excess of mechanical plant's capacity.
01/20/17	NA	3810 I 55 S	WWTP	8	261.79	YES	Pearl	4.16	Heavy rainfall generated influent flow in excess of mechanical plant's capacity.
02/28/17	NA	3810 I 55 S	WWTP	3	61.80	YES	Pearl	1.14	Heavy rainfall generated influent flow in excess of mechanical plant's capacity.
03/30/17	NA	3810 I 55 S	WWTP	Ongoing	35.78	YES	Pearl	1.04	Heavy rainfall generated influent flow in excess of mechanical plant's capacity.

Figure 9: Prohibited Bypass Volume vs. Rainfall

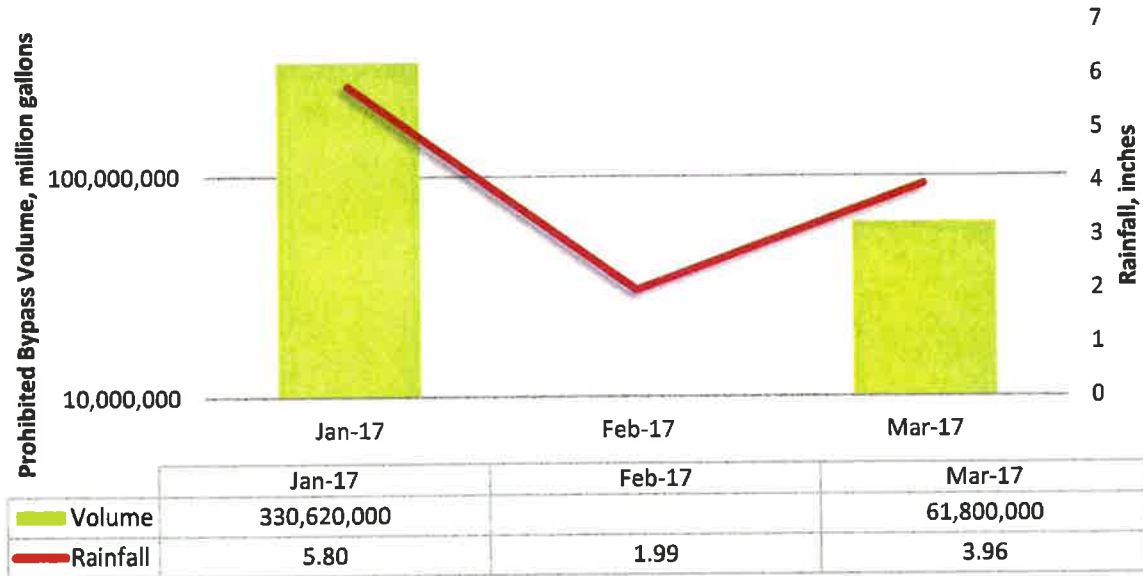
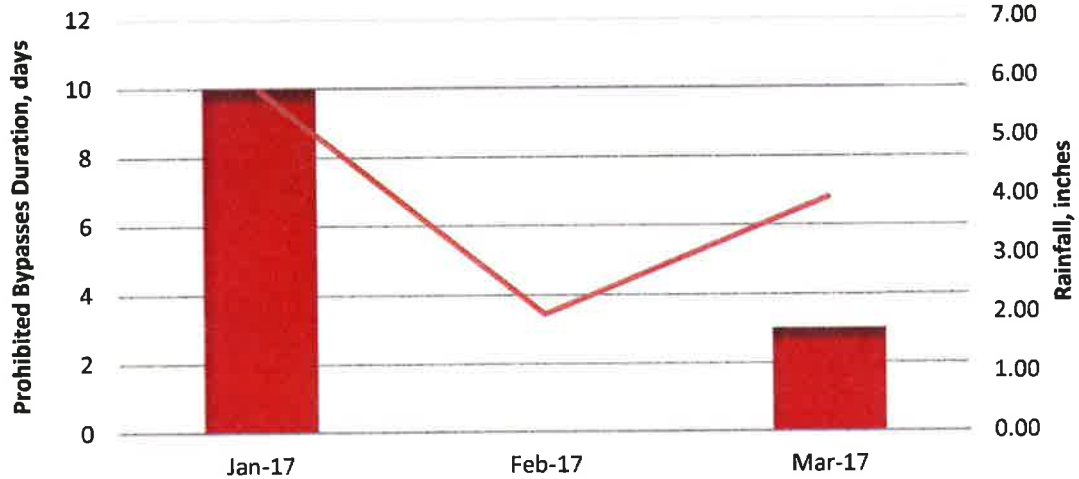


Figure 10: Prohibited Bypass Volume vs. River Stage



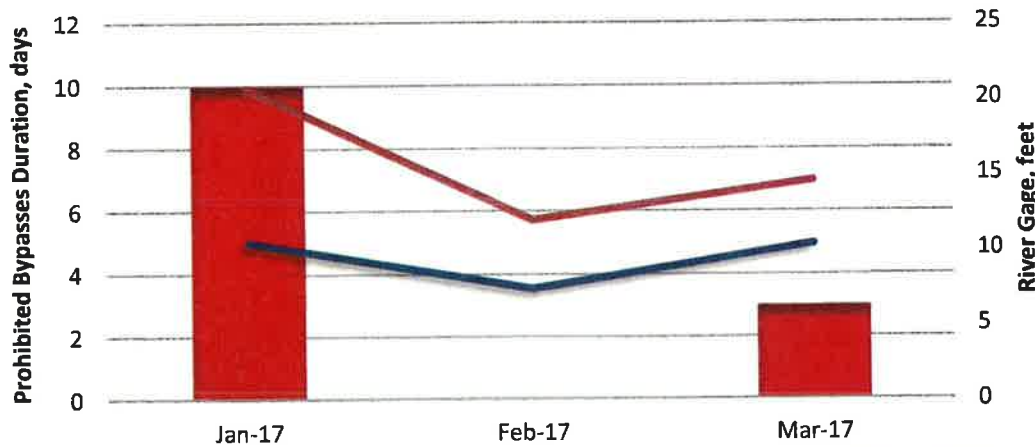
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Figure 11: Prohibited Bypasses Duration vs. Rainfall



	Jan-17	Feb-17	Mar-17
Duration	10	0	3
Rainfall	5.80	1.99	3.96

Figure 12: Prohibited Bypasses Duration vs. River Stage



	Jan-17	Feb-17	Mar-17
Duration	10	0	3
River Stage	10.4	7.3	10.3
Max Stage	20.63	11.89	14.49

