



July 26, 2018

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. 90-5-1-1-09841

Brad Ammons  
Environmental Engineer  
Clean Water Enforcement Branch  
Municipal and Industrial Enforcement  
U.S. EPA Region 4  
61 Forsyth Street, SW  
Atlanta, GA 30303

Karl Fingerhood  
Environmental Enforcement Section  
U.S. Department of Justice  
Box 7611 Ben Franklin Station  
Washington, D.C. 20044-7611

Director  
Office of Pollution Control  
Environmental Compliance & Enforcement Div.  
P.O. Box 2261  
Jackson, MS 39225-2261

Re: City of Jackson, Mississippi, EPA Consent Decree  
Quarterly Report No. 21 and Supplemental Environmental Project Semi-Annual  
Report No. 11

Dear Sirs:

On behalf of the City of Jackson, please find enclosed Quarterly Report No. 21 and  
Supplemental Environmental Report No. 11 for your review.

Sincerely,

A handwritten signature in blue ink that reads "Jennifer Jorge".

Jennifer Jorge, Ph.D.  
Assistant Project Manager

Enclosure

cc: Honorable Chokwe Antar Lumumba, Mayor, City of Jackson  
Sharon D Gipson, City Attorney, City of Jackson  
Robert Miller, Director, Public Works Department, City of Jackson  
Terry Williamson, Legal Counsel, City of Jackson  
Public Depository, Eudora Welty Public Library



*The City of*  
**JACKSON**

**QUARTERLY  
REPORT NO. 21**

APRIL 2018 THROUGH JUNE 2018

Department of Public Works  
Consent Decree Program

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

**Quarterly Report No. 21**  
**April 2018 through June 2018**

July 30, 2018

**Prepared for:**

City of Jackson  
Department of Public Works  
P.O. Box 17  
Jackson, MS 39205-0017

**Prepared by:**

**Burns & McDonnell**  
**308 E. Pearl St., Suite 104**  
**Jackson, MS 39201**

# City of Jackson, Mississippi

## Quarterly Report No. 21

### April 2018 through June 2018


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.



  
Chokwe Antar Lumumba  
Mayor

  
Date

  
Robert K. Miller, Director  
Department of Public Works

  
Date

**Quarterly Report No. 21**  
**April 2018 through June 2018**

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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.

One of the ongoing requirements of the EPA Consent Decree is to submit periodic reports to demonstrate continuing compliance. The specific reporting requirements can be found in Section IX ¶ 57 of the Consent Decree. A copy of the Consent Decree can be found on the City of Jackson website under the "Wastewater Consent Decree Public Documents" link in the Document Library.

### **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.

The listing and graphical summaries of the SSOs and prohibited bypasses for April 2018 – June 2018 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 April through June 2018. 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   Excessive flow   Solids   Collapsed Pipe   Other

Some SSO events had multiple causes. In these instances, each cause was assigned a fractional value, adding up to one (1) 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.

Thirty-seven (37) events occurred at twenty-eight (28) locations on private property reported this period. The cause of these events were determined to be problems on the private laterals and the crews notified owners. These events have been reported to MDEQ.

Twelve (12) events occurred on private property reported this period. All events were caused by problems in the City's sewer system and are included in this report.

There were seventeen (17) events for which the duration was not determined because stop time was missing from the assessment report or the cause, such as collapsed pipe, has not been resolved. Volumes reported for these events are determined from periodic follow up inspections until the cause has been resolved. At that point the total durations can be determined and reported. These events occurred on the public sewer system. These issues will continue to be addressed in training sessions with the field crews and management.

There were ten (10) events for which the cause was reported as "Other" or "Undetermined". These issues will continue to be addressed in training sessions with the field crews and management

**Table 1**  
**City of Jackson, Mississippi**  
**Quarterly Report No. 21 – April 2018 through June 2018**  
**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
4/3/2018	7:02 AM	234 Forest Ave	Cleanout	4.65	1,740	Yes	Hanging Moss	0.00	Grease
4/3/2018	8:30 AM	5620 Shaw Road	Manhole	3.00	600	No	NA	0.37	Grease / Solids
4/4/2018	11:00 AM	814 Avondale Dr	Ground Surface (defective pipe underground)	Ongoing	NR	No	NA	0.05	Collapsed Pipe
4/6/2018	3:23 PM	4704 Hanging Moss Rd	Manhole	18.35	1,120	Yes	Hanging Moss	0.00	Collapsed Pipe
4/6/2018	11:08 AM	308 S. Jefferson St	Manhole	1.87	50,000	Yes	Pearl	0.02	Other
4/7/2018	9:22 AM	2636 St Charles St	Manhole	4.82	1,540	Yes	Lynch	0.02	Grease
4/9/2018	1:30 PM	814 Avondale Dr	Ground Surface (defective pipe underground)	Ongoing	NR	No	NA	0.00	Collapsed Pipe
4/9/2018	10:20 AM	1520 Ellis Ave	Manhole	1.30	500	No	NA	0.00	Grease / Solids
4/10/2018	8:17 AM	436 Springfield Cir	Cleanout	Follow up / Main repaired	NR	Yes	Lynch	0.00	Collapsed Pipe
4/10/2018	9:00 AM	3921 Bishop Ave	Ground Surface (defective pipe underground)	NR	NR	No	NA	0.00	Collapsed Pipe
4/10/2018	9:30 AM	1405 E. Northside Dr	Other	NR	NR	No	NA	0.00	Grease
4/10/2018	12:00 PM	Ridgeway St / N. State St	Manhole	NR	NR	No	NA	0.00	NR
4/11/2018	12:15 PM	533 Glendale St	Ground Surface (defective pipe underground)	Ongoing	75	Yes	Town	0.00	Other
4/12/2018	12:22 PM	1005 Greymont Ave	Manhole	1.87	1,810	Yes	Belhaven	0.00	Grease
4/12/2018	12:08 PM	4004 Medgar Evers Blvd	Manhole	Ongoing	890	Yes	Town	0.00	Collapsed Pipe
4/13/2018	11:00 AM	131 Glenstone Cir	Manhole	0.33	NR	No	NA	0.00	Solids
4/14/2018	10:20 AM	1429 E. Northside Dr	Manhole	Ongoing	2,180	Yes	Eastover	2.10	Grease / Collapsed Pipe
4/19/2018	9:42 PM	2305 Timber Crossing Rd	Manhole	50.70	12,380	Yes	Cany	0.00	Grease
4/20/2018	8:19 AM	4851 Cottonwood Dr	Other	366.18	300	Yes	Big Creek	0.00	Other
4/22/2018	1:00 PM	2260 Monaco St	Manhole	0.33	200	Yes	Hardy	3.45	Excessive Flow
4/22/2018	10:43 AM	309 S. Jefferson St	Manhole	6.12	1,000,000	Yes	Pearl	3.13	Excessive Flow
4/26/2018	9:21 AM	3365 Forest Hill Rd	Cleanout	1.48	120	No	NA	0.44	Solids / Collapsed Pipe



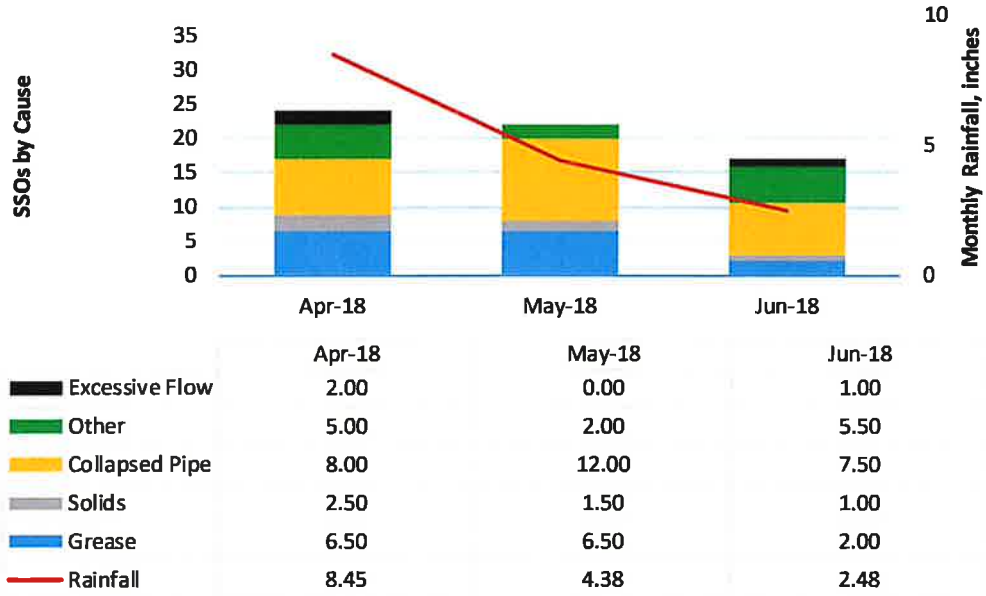
**Table 1 cont.**  
**City of Jackson, Mississippi**  
**Quarterly Report No. 21 – April 2018 through June 2018**  
**Collection System SSOs**

Date Began	Time Began	Location	Source	Estimated Duration, Hours	Estimated Volume, Gallons	Reached Waters of the State	Receiving Water	Rainfall, Inches	Reported Cause
4/27/2018	NR	133 Cherry Hill Rd	Ground Surface (defective pipe underground)	Ongoing	4,780	Yes	Purple	0.00	Collapsed Pipe
5/1/2018	3:00 PM	941 Belhaven St	Cleanout	0.50	150	Yes	Belhaven	0.00	Collapsed Pipe
5/1/2018	1:41 PM	2138 East Dr	Ground Surface (defective pipe underground)	1178.87	700	Yes	Three Mile	0.00	Collapsed Pipe
5/3/2018	3:31 PM	4345 Ridgewood Road	Ground Surface (defective pipe underground)	Ongoing	4,690	Yes	Hanging Moss	0.00	Collapsed Pipe
5/3/2018	10:57 AM	531 Naples Road	Ground Surface (defective pipe underground)	Ongoing	1,480	Yes	Eubanks	0.00	Collapsed Pipe
5/9/2018	11:30 AM	2828 Downing St	Cleanout	0.82	Undetermined	Yes	Town	0.00	Collapsed Pipe
5/10/2018	8:35 AM	415 E. Northside Dr	Manhole	6.02	5,400	Yes	Eubanks	0.00	Grease
5/10/2018	8:26 AM	4015 Watkins Dr	Ground Surface (defective pipe underground)	Ongoing	3,100	Yes	Eubanks	0.00	Collapsed Pipe
5/14/2018	10:42 AM	2333 Timber Crossing Rd	Manhole	2.83	1,460	Yes	Cany	0.00	Grease
5/15/2018	11:13 AM	4515 Meadow Ridge Dr	Ground Surface (defective pipe underground)	Ongoing	760	Yes	Eubanks	0.00	Collapsed Pipe
5/14/2018	5:17 PM	4028 Pine Hill Drive	Cleanout	Ongoing	80	Yes	Eubanks	0.00	Collapsed Pipe
5/16/2018	2:10 PM	4300 N. State St	Ground Surface (defective pipe underground)	170.58	940	Yes	Eubanks	0.13	Collapsed Pipe
5/18/2018	1:00 PM	1852 Shamrock Dr	Ground Surface (defective pipe underground)	2.13	4,820	Yes	Three Mile	0.00	Collapsed Pipe
5/23/2018	7:22 AM	4723 Darius Dr	Cleanout	2.92	475	Yes	Lynch	1.57	Grease
5/23/2018	10:40 AM	5452 Clinton Blvd	Ground Surface (defective pipe underground)	1.50	860	Yes	Lynch	0.00	Collapsed Pipe
5/23/2018	10:15 AM	315 Lexington Ave	Manhole	Undetermined	9,380	Yes	Lynch	1.57	Collapsed Pipe
5/24/2018	6:44 AM	5412 Keele St	Cleanout	8.98	11,380	Yes	Hanging Moss	0.02	Grease
5/24/2018	4:00 PM	2312 Eastover Dr	Manhole	1.10	1,980	Yes	Eastover	0.25	Solids
5/29/2018	9:27 AM	132 Glenstone Cir	Manhole	5.55	2,470	Yes	Cany	0.00	Grease / Solids

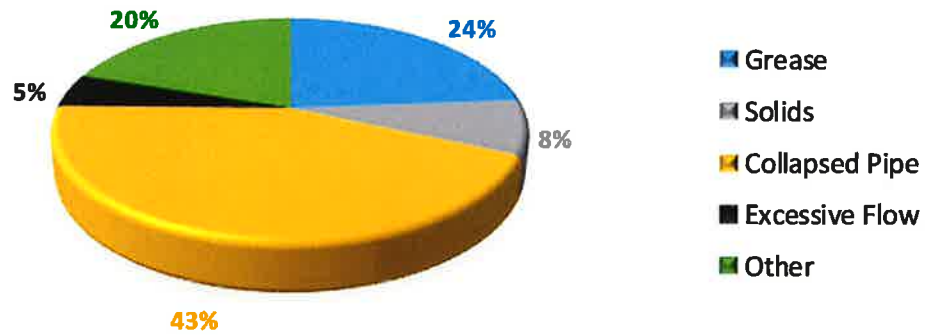
**Table 1 cont.**  
**City of Jackson, Mississippi**  
**Quarterly Report No. 21 – April 2018 through June 2018**  
**Collection System SSOs**

Date Began	Time Began	Location	Source	Estimated Duration, Hours	Estimated Volume, Gallons	Reached Waters of the State	Receiving Water	Rainfall, Inches	Reported Cause
5/30/2018	9:11 AM	107 Sunny Lane Dr	Ground Surface (defective pipe underground)	3.95	310	Yes	Three Mile	0.01	Grease
5/31/2018	12:08 PM	411 Cummins St	Other	Ongoing	980	Yes	Three Mile	0.00	NR
5/31/2018	2:19 PM	105 E Pascagoula St	Manhole	3.37	760	Yes	Town	0.00	Grease
5/31/2018	7:59 AM	2920 Greenwood Ave	Manhole	Undetermined	3,500	Yes	Hardy	0.00	Collapsed Pipe
6/4/2018	1:11 PM	4225 Industrial Dr	Manhole	Undetermined	28,600	Yes	Town	0.00	Other / Undetermined
6/5/2018	10:30 PM	814 Avondale Dr	Manhole	Ongoing	45	No	NA	0.25	Collapsed Pipe
6/5/2018	7:16 AM	258 Delaware Ave	Manhole	34.48	12,300	Yes	Lynch	0.21	Collapsed Pipe
6/7/2018	1:21 PM	183 Luke St	Ground Surface (defective pipe underground)	NR	420	No	NA	0.00	Collapsed Pipe
6/8/2018	11:18 PM	4025 Kings Hwy	Manhole	Ongoing	940	Yes	Eubanks	0.00	Other / Undetermined
6/13/2018		E Northside Dr / Greenwood Dr	Manhole	NR	100	No	NA	0.14	Excessive Flow
6/13/2018	8:40 AM	379 Reserve Dr	Manhole	1.12	1,800	Yes	Town	0.00	Solids
6/14/2018	11:48 AM	3853 Gammill St	Other	1.92	260	Yes	Town	0.00	Grease
6/14/2018	11:00 AM	379 Reserve Dr	Manhole	Undetermined	Previous SSO	No	NA	0.00	NR
6/15/2018	8:00 AM	Mohawk Ave / Kings Hwy	Manhole	Ongoing	100	Yes	Eubanks	0.02	Collapsed Pipe
6/16/2018	10:19 AM	4341 Meadow Hill Dr	Other	Ongoing	470	Yes	Eubanks	0.00	Other
6/19/2018	12:10 PM	1429 E Northside Dr	Manhole	2.50	4,280	Yes	Eastover	0.01	Grease / Collapsed Pipe
6/21/2018	2:02 PM	927 Fairfax Circle	Ground Surface (defective pipe underground)	21.77	7,220	Yes	White Oak	0.01	Grease
6/22/2018	11:43 AM	188 John St	Ground Surface (defective pipe underground)	NR	420	No	NA	0.00	Collapsed Pipe
6/22/2018	4:45 PM	4046 Phe Hill Dr	Ground Surface (defective pipe underground)	16.37	1,150	Yes	Eubanks	0.15	Collapsed Pipe
6/27/2018	9:34 AM	4607 Churchill Dr	Ground Surface (defective pipe underground)	2.32	480	Yes	Eubanks	0.00	Collapsed Pipe
6/22/2018	2:50 PM	172 E Woodcrest Dr	Manhole	Ongoing	100	Yes	Caney		Other

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

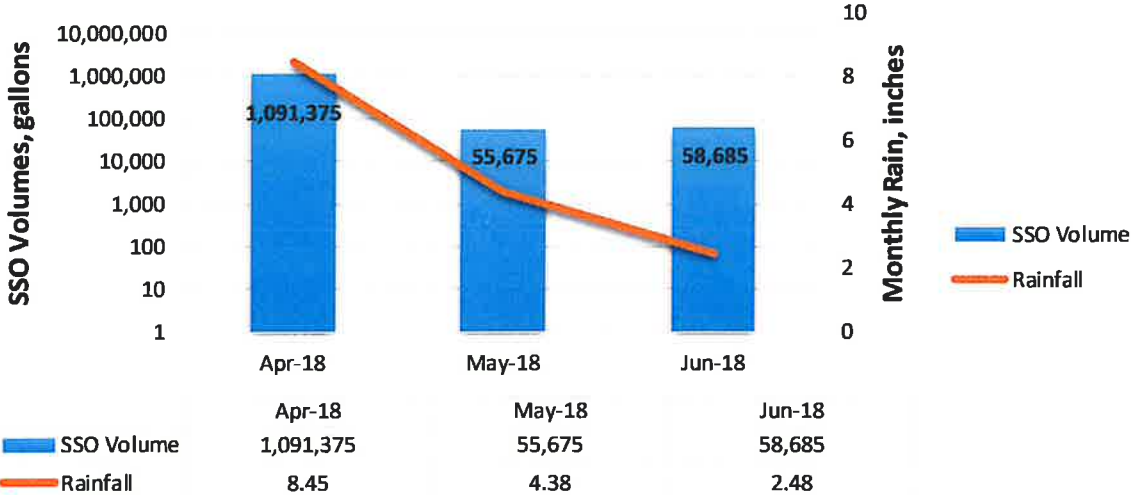


**Figure 2: Percentage of Collection System SSOs by Cause**



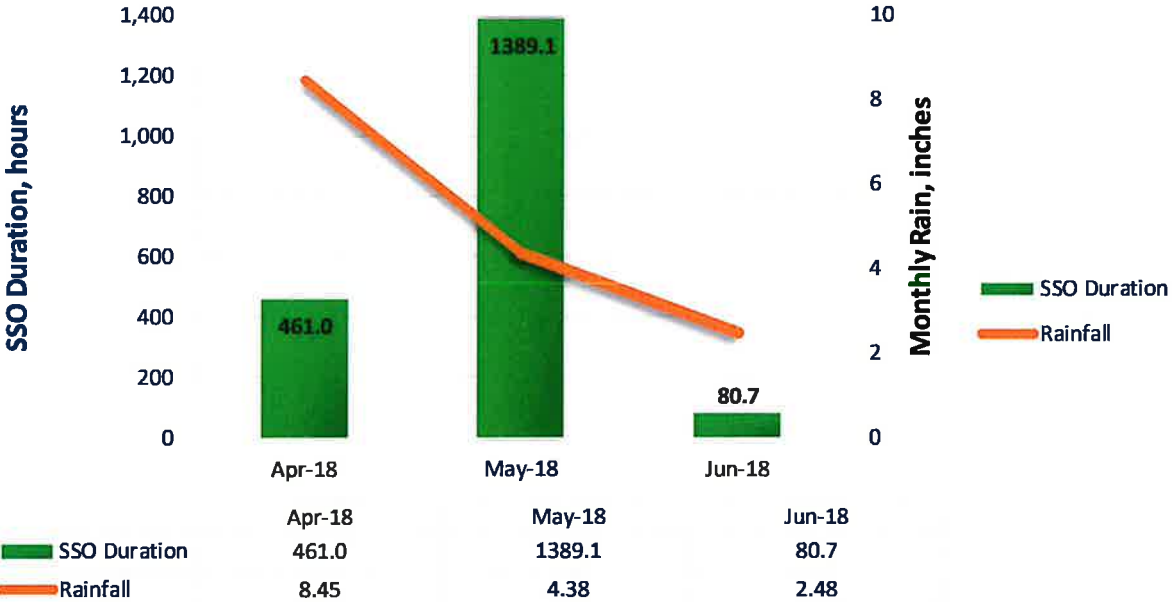
\* Note - West Bank Interceptor SSOs which occurred on April 6th and April 22<sup>nd</sup> are included in these graphs.

**Figure 3: Collection System SSO Volume**



\* Note - West Bank Interceptor SSOs which occurred on April 6th and April 22<sup>nd</sup> had a combined discharge volume of 1,050,000 gallons are included in this graph.

**Figure 4: Collection System SSO Duration**



\* Note - West Bank Interceptor SSOs which occurred on April 6th and April 22<sup>nd</sup> are included in this graph.

## 2.2 Pump Station SSOs

**Table 2** lists pump station SSOs for April through June 2018

**Figure 5** shows pump station SSO events by month by reported cause, as listed in Table 2, as well as monthly rainfall.

**Figure 6** shows percentage of SSOs by cause for the quarter.

**Figure 7** shows total volume of pump station SSOs for each month, as well as 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. 21 – April 2018 through June 2018**  
**Pump Station SSOs**

Date Began	Time Began	Location	Source	Estimated Duration, Hours	Estimated Volume, Gallons	Reached Waterway	Receiving Water	Rainfall, Inches	Reported Cause
<b>NO PUMP STATION SSOs REPORTED - April 2018</b>									
5/21/2018	7:30 AM	4095 Siwell Rd (LS-69)	Pump Station	0.75	500	YES	Big Creek	2.47	Lightning
5/31/2018	1:30 PM	1914 Hwy 80 West (LS-87)	Pump Station	NR	1,000	YES	Lynch	0.00	Power failure
<b>NO PUMP STATION SSOs REPORTED - June 2018</b>									

Figure 5: Pump Station SSOs by Cause

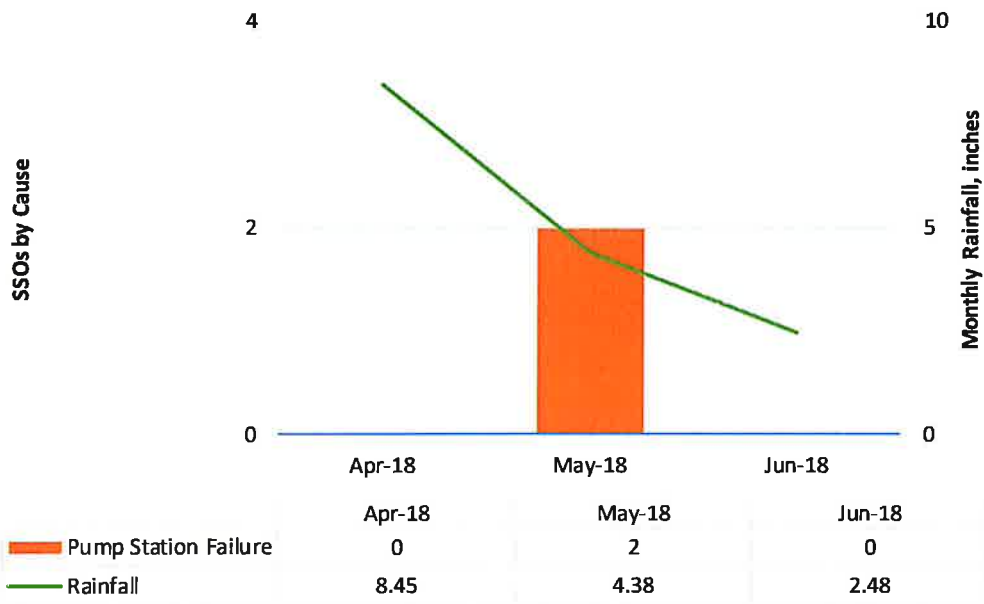
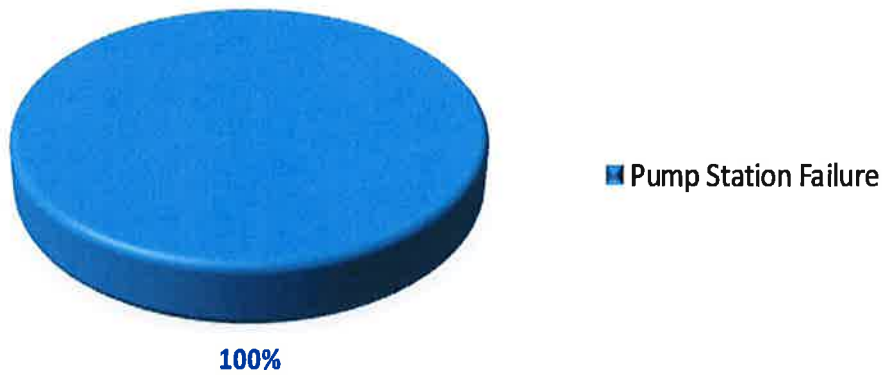
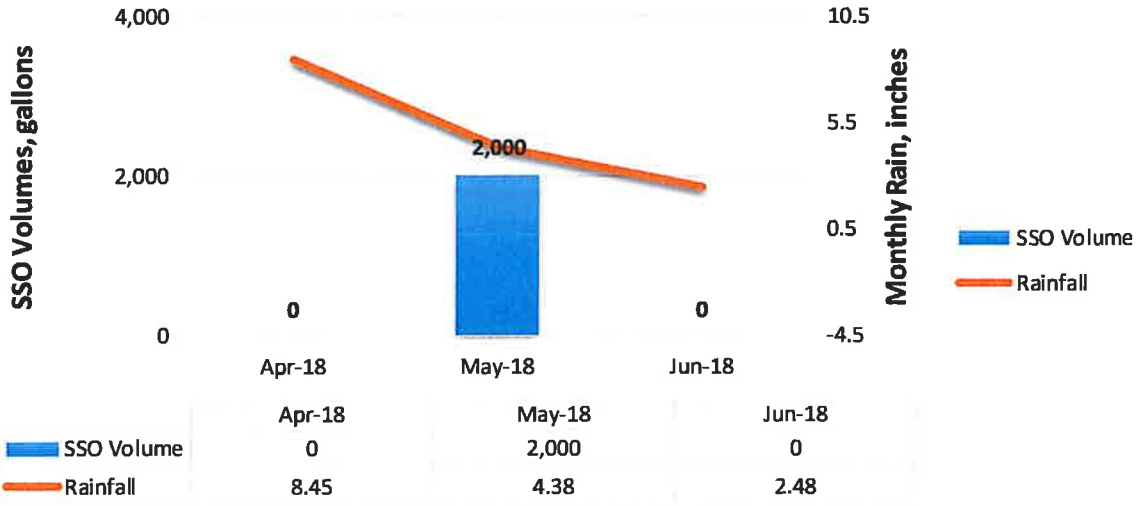


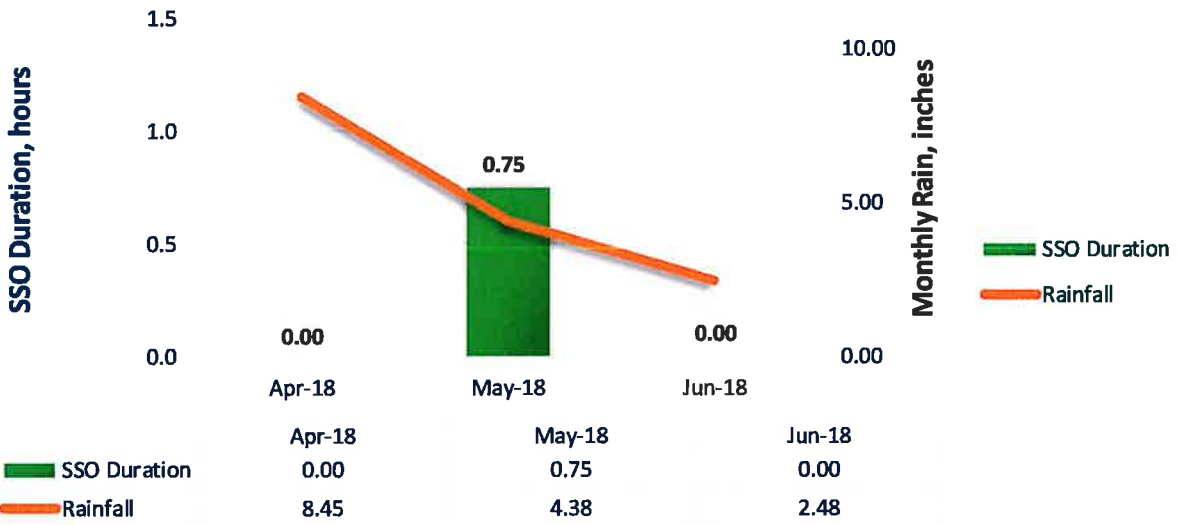
Figure 6: Percentage of Pump Station SSOs by Cause



**Figure 7: Pump Station SSO Volume**



**Figure 8: Pump Station SSO Duration**





## 2.3 West Bank Interceptor SSOs

There were two (2) SSO events reported on the West Bank Interceptor this Quarter. The April 6, 2018 event was caused by excessive flow with a failure of a 54" valve at the Savanna Influent Pump Station being a contributing factor. The April 22, 2018 event was caused by excessive flow and limited capacity at Savanna WWTP. These events are included in the Collection System SSO section of this report.

## 2.4 Prohibited Bypasses

**Table 3** lists prohibited bypasses at the wastewater treatment plant for the year. Unlike SSOs, each event is considered as one bypass from the day it begins to the day it ends. Five (5) prohibited bypasses were reported this period.

All events were associated with rainfall events and subsequent high influent flows into the Savanna WWTP. Rainfall totals for the period were 7.39" above normal in April and May. Also contributing to the bypass events was that one (1) of the five (5) clarifiers at the facility was out of service due to mechanical problems.

This quarterly report does not include a graphical representation of the number of bypasses for each cause, since most bypasses at the Savanna Street WWTP are caused by excessive flow or specific causes explained above. 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. River stages are shown as monthly average river stage and as the Maximum monthly river stage. These appear to indicate that the inflow into the system and subsequent excessive flows to the treatment facility is influenced by the river stage more so than the local rainfall events. Note that duration of prohibited bypasses is plotted in days.

**Table 3**  
**City of Jackson, Mississippi**  
**Quarterly Report No. 21 – April 2018 through June 2018**  
**Prohibited Bypasses**

Date Began	Time Began	Location	Source	Estimated Duration, Days	Estimated Volume, Million Gallons	Reached Waterway	Receiving Water	Rainfall, Inches	Reported Cause
04/07/18	1:45 AM	3810 I 55 S	WWTP	4	191.64	YES	Pearl	2.71	Limited Capacity due to one Clarifier out of service and rainfall event totaling 2.71" during the bypass event
04/14/18	7:00 PM	3811 I 55 S	WWTP	4	142.40	YES	Pearl	1.71	Limited Capacity due to one Clarifier out of service and rainfall event totaling 1.71" during the bypass event
04/23/18	1:45 AM	3812 I 55 S	WWTP	5	156.94	YES	Pearl	3.60	Limited Capacity due to one Clarifier out of service and rainfall event totaling 3.6" during the bypass event
05/06/18	5:30 AM	3813 I 55 S	WWTP	3	71.05	YES	Pearl	1.46"	Limited Capacity due to one Clarifier out of service and rainfall event totaling 1.46" during the bypass event
05/24/18	9:55 AM	3814 I 55 S	WWTP	8	195.90	YES	Pearl	2.94"	Limited Capacity due to one Clarifier out of service and rainfall event totaling 2.94" during the bypass event
<b>NO PROHIBITED BYPASSES REPORTED - June 2018</b>									

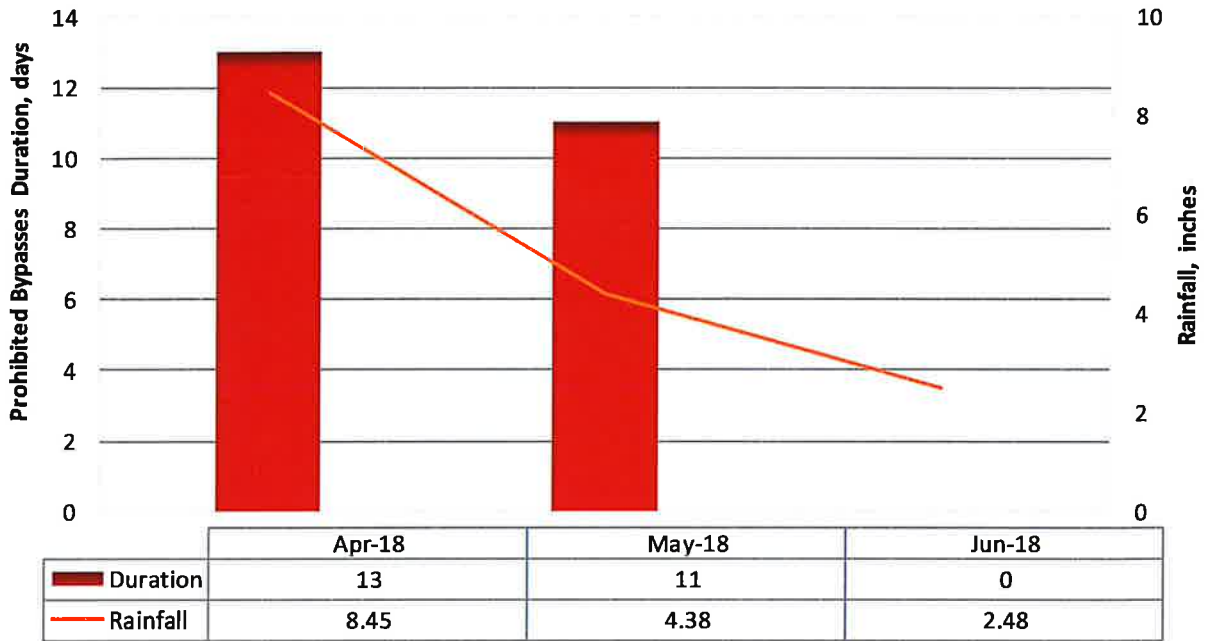
**Figure 9: Prohibited Bypass Volume vs. Rainfall**



**Figure 10: Prohibited Bypass Volume vs. River Stage**



**Figure 11: Prohibited Bypasses Duration vs. Rainfall**



**Figure 12: Prohibited Bypasses Duration vs. River Stage**

