

Office of the Mayor
Tony T. Yarber, Mayor



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February 1, 2016

Chief, Environmental Enforcement Section
Environment and National 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 & Industrial Enforcement Section
U.S. EPA Region 4
61 Forsyth St., SW
Atlanta, GA 30303

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

RE: City of Jackson, Mississippi, EPA Consent Decree
11th Quarterly Report, October 2015 through December 2015
6th Semi Annual SEP Report, July 2015 through December 2015

Dear Gentlemen:

Attached please find Quarterly Report No. 11 for the period of October 2015 through December 2015 and Supplemental Environmental Project Semi Annual Report #6. The reports were developed and submitted by the City in accordance with the EPA Consent Decree dated March 1, 2013 and your correspondence of May 31, 2013.

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 evaluated 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.

Sincerely,

A blue ink signature of Tony T. Yarber, appearing as stylized initials.

Tony T. Yarber
Mayor

A blue ink signature of Les Herrington, appearing as stylized initials.

cc: Les Herrington, P.E., Mississippi Department of Environmental Quality
Gus McCoy, Chief Administrative Officer
Monica Joiner, City Attorney
Kishia L. Powell, P.E., Director, Department of Public Works
Public Depository, Eudora Welty Public Library

A large, dynamic splash of water in shades of blue and white, falling from the top left towards the center of the page. The water is captured in mid-air, creating a sense of movement and freshness. The background is a light, clean white.

The City *of*
jACKSON

**QUARTERLY
REPORT NO. 11**

OCTOBER 2015 THROUGH DECEMBER 2015

Department of Public Works
Wastewater Infrastructure Redevelopment Program



JANUARY 30, 2016

City of Jackson
Wastewater Infrastructure Redevelopment
Program

Quarterly Report No. 11
October 2015 through December 2015

January 30, 2016

Prepared for:

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

Prepared by:

WEI/AJA LLC
143A LeFleurs Square
Jackson, MS 39211

City of Jackson, Mississippi

Quarterly Report No. 11

October 2015 through December 2015

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. Yerber
Mayor

2.1.16

Date



Kishia L. Powell, Director
Department of Public Works

1.28.16

Date

Quarterly Report No. 11

October 2015 through December 2015

Contents

1.0	Introduction	1-1
1.1	Consent Decree Overview	1-1
1.2	Authority to Promulgate.....	1-1
1.3	Consent Decree Requirements for Quarterly Report.....	1-1
1.4	Other Requirements for Quarterly Report.....	1-2
2.0	Summary of SSOs and Prohibited Bypasses	2-1
2.1	Collection System SSOs.....	2-1
2.2	Pump Station SSOs	2-8
2.3	West Bank Interceptor SSO	2-9
2.4	Prohibited Bypasses	2-10
3.0	Training Coordinator	3-1
3.1	Progress Update	3-1
3.2	Next steps.....	3-1

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 July - September 2015 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 October through December 2015. 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.

Table 1
City of Jackson, Mississippi
Quarterly Report No. 11 - October 2015 through December 2015
Collection System SSOs

Date Began	Time Began	Location	Source	Estimated Duration, Hours	Estimated Volume, Gallons	Receiving Water	Rainfall, Inches	Reported Cause
10/14/2015	9:02 AM	LIVINGSTON ST WILSON ST	Manhole	1.12	175	Town	0.00	Grease.
10/16/2015	2:35 PM	5055 OLD CANTON RD	Manhole	1.42	30	Hanging Moss	0.00	Rags.
10/19/2015	11:40 AM	PLEASANT AVE ST Bell	Manhole	1.87	220	Town	0.00	Grease. Rags.
10/19/2015	2:36 PM	148 BROWN ST	Manhole	1.05	280	Hanging Moss	0.00	Grease. Rags.
10/20/2015	4:21 PM	315 MAGNOLIA ROAD	Cleanout	1.82	10	Lynch	0.00	Grease.
10/21/2015	9:30 AM	126 MCCLUER ROAD	Cleanout	1.50	25	Cany	0.00	Grease. Solids. Main line (8") & service line choked.
10/21/2015	1:32 PM	1915 MOBILE AVE	Cleanout	1.75	10	Town	0.00	Tissue & Rags.
10/22/2015	1:04 PM	5139 PARKWAY AVE	Cleanout	1.25	10	White Oak	0.00	Tissue.
10/22/2015	2:17 PM	5009 ASHLEY DR	Manhole	0.53	30	Hanging Moss	0.00	Grease. Rags.
10/22/2015	6:49 PM	5044 ASHLEY DR	Cleanout	1.25	10	Hanging Moss	0.00	Roots.
10/23/2015	1:06 PM	5874 Kinder Dr	Cleanout	3.00	80	Purple	0.00	Roots.
10/24/2015	1:00 PM	4207 OAKMONT DR	Manhole	1.53	220	Lynch	0.08	Grease. Rags.
10/26/2015	11:46 AM	1033 WESTWAY ROAD	Other	0.17	10	Cany	4.72	Grease.
10/29/2015	5:23 PM	415 E. Northside Drive	Cleanout	6.03	3	Eubanks	4.53	cleanout.
10/29/2015	6:17 PM	167 BRIARWOOD DR	Manhole	0.47	210	Hanging Moss	4.61	Grease. Solids.
10/31/2015	12:40 PM	503 SPRINGFIELD CIR	Manhole		125	Hanging Moss	1.75	Rain water.
11/5/2015	8:45 AM	550 HOUSTON AVE	Manhole	6.67	75	Lynch	0.01	Roots.
11/13/2015	2:32 PM	4754 I 55	Manhole	1.38	80	Hanging Moss	0.08	Grease.
11/16/2015	7:42 PM	137 ADELLE ST	Manhole	0.00	130	Town	0.00	Grease.
11/17/2015	3:10 PM	2306 BRECKENRIDGE RD	Manhole	0.90	80	Hardy	1.74	Grease.
11/17/2015	4:40 PM	GREENWOOD AVE SANTA CLAIR CIR	Manhole	7.12	450	Hardy	1.74	Water main break getting into main line.
11/19/2015	8:30 AM	237 STOKES ROBERTSON ROAD	Manhole	1.75	800	Cany	3.08	Collapsed Pipe.

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City of Jackson, Mississippi
Quarterly Report No. 11 - October 2015 through December 2015
Collection System SSOs

Date Began	Time Began	Location	Source	Estimated Duration, Hours	Estimated Volume, Gallons	Receiving Water	Rainfall, Inches	Reported Cause
11/19/2015	3:55 PM	5055 OLD CANTON RD	Manhole	3.13	40	Hanging Moss	3.08	Brick.
11/20/2015	10:00 AM	2570 CRESTLEIGH MANOR	Manhole	1.88	200	Cany	0.00	Grease.
11/20/2015	9:46 AM	49 NORTHTOWN DR	Manhole	1.78	320	Pearl	0.00	Grease.
11/20/2015	5:30 PM	JEFFERSON ST BELLEVUE ST	Cleanout	0.28	80	Town	0.00	Tissue.
11/22/2015	4:16 PM	ALVAREDO ST	Other	0.03	20	Three Mile	0.00	Choked city main line.
11/23/2015	11:31 AM	700 N STATE ST	Ground Surface (defective pipe underground)	11.70	300	Town	0.00	Collapsed Pipe.
11/24/2015	11:30 AM	568 N PARK LANE	Ground Surface (defective pipe underground)	0.50	80	Eubanks	0.00	Grease.
11/25/2015	4:30 PM	3101 J.R. LYNCH ST	Manhole	1.20	30	Lynch	0.00	Collapsed Pipe.
11/27/2015	10:32 AM	1205 JOANNE ST	Manhole		160	Hardy	0.00	Grease.
11/28/2015	8:58 AM	4126 PARKWAY DR	Manhole	2.15	320	Town	0.14	Roots.
11/28/2015	10:30 AM	PALMYRA ST ELM ST	Manhole	0.33	25	Town	0.00	Grease.
11/30/2015	8:55 AM	2573 E LAKE CIR	Manhole	14.65	50	Hanging Moss	0.21	Collapsed Pipe.
11/30/2015	6:38 PM	KIMWOOD DR	Manhole	0.05	220	Eastover	0.21	Grease.
12/1/2015	9:58 AM	191 PARKSIDE PL	Cleanout	0.63	10	Hanging Moss	0.35	Grease.
12/1/2015	12:22 PM	792 AVALON ROAD	Cleanout	0.57	13	Eubanks	0.46	Solids.
12/2/2015	1:33 PM	325 SAVANNA AVE	Cleanout	2.50	10	Cany	0.47	Grease.
12/3/2015	1:00 PM	346 AUDUBON PL	Manhole	2.53	80	Eubanks	0.55	Grease.
12/4/2015	9:04 AM	1135 MARTINGALE DR	Cleanout	14.92	90	Eubanks	0.00	Collapsed Pipe.
12/5/2015	5:17 PM	1831 SHAMROCK DR	Manhole	0.17	300	Three Mile	0.00	Grease.
12/6/2015	7:15 AM	255 MCDOWELL ROAD	Other	1.03	160	Hardy	0.00	Bellsouth hit main line.
12/6/2015	12:00 PM	TRAHON WWTP	Pump Station	0.50	360	Big Creek		Pump Station Failure.

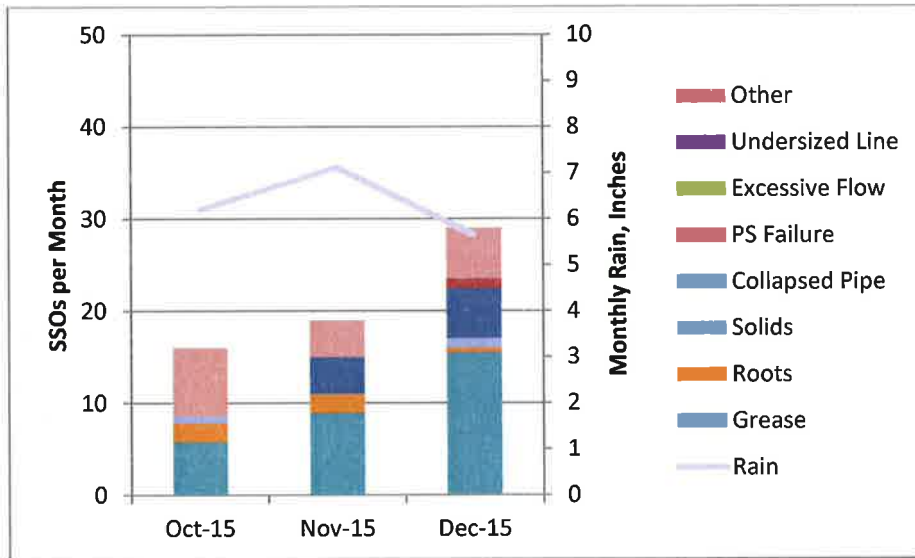
Table 1
City of Jackson, Mississippi
Quarterly Report No. 11 - October 2015 through December 2015
Collection System SSOs

Date Began	Time Began	Location	Source	Estimated Duration, Hours	Estimated Volume, Gallons	Receiving Water	Rainfall, Inches	Reported Cause
12/6/2015	2:10 PM	2059 CAMELLIA LANE	Manhole	0.92	40	Three Mile	0.00	Grease.
12/7/2015	2:15 PM	GREYMONT ST MOODY ST	Manhole	2.50	35	Belhaven	0.00	Grease.
12/8/2015	7:40 PM	4049 N WEST ST	Manhole	1.13	50	Eubanks	0.00	Grease.
12/9/2015	3:46 PM	319 QUEEN JULIANNA LANE	Manhole	0.70	40	Lynch	0.00	Grease.
12/9/2015	4:58 PM	N JEFFERSON ST HIGH ST	Manhole	0.42	50	Town	0.00	Grease.
12/10/2015	9:25 PM	409 WINDSOR DR	Manhole	1.50	250	Lynch	0.00	Grease.
12/11/2015	12:00 PM	1131 MARTINGALE DR	Cleanout	2.50	50	Eubanks	0.00	Water leak (1131 Druid Hill Dr) leaking into manhole & main line.
12/11/2015	5:29 PM	5471 I 55 N	Manhole	0.18	10	Hanging Moss	0.01	Grease.
12/13/2015	8:00 AM	255 MCDOWELL ROAD	Other	2.00	160	Hardy	1.10	Collapsed Pipe.
12/13/2015	12:25 PM	EDDY ST CAMERON ST	Other	0.38	160	Cany	0.95	Grease. Rags.
12/14/2015	3:20 PM	GREYMONT AVE MOODY ST	Manhole	6.32	25	Belhaven	0.99	Grease.
12/15/2015	5:30 PM	1808 SAINT CHARLES ST	Cleanout	6.08	50	Lynch	0.99	Collapsed Pipe.
12/16/2015	9:54 AM	347 MAGNOLIA DR	Manhole	3.77	140	Lynch	0.02	Grease.
12/20/2015	10:28 AM	2616 SKYLINE DR	Other	1.17	10	Town	0.00	Collapsed Pipe.
12/21/2015	6:12 PM	152 ARCHER AVE	Cleanout	0.43	50	Hardy	1.90	Rain water.
12/22/2015	9:24 AM	439 BROADVIEW ST	Cleanout	14.58	10	Town	1.79	Choked service line on home owner.
12/22/2015	9:49 AM	4554 I 55 N	Cleanout	3.07	80	Hanging Moss	0.67	Grease.
12/26/2015	8:39 AM	3554 SUNSET DR	Ground Surface (defective pipe underground)	0.60	60	Town	2.95	Collapsed Pipe.

Table 1
City of Jackson, Mississippi
Quarterly Report No. 11 - October 2015 through December 2015
Collection System SSOs

Date Began	Time Began	Location	Source	Estimated Duration, Hours	Estimated Volume, Gallons	Receiving Water	Rainfall, Inches	Reported Cause
12/27/2015	11:41 AM	4607 CHURCHILL DR	Ground Surface (defective pipe underground)	1.00	275	Eubanks	3.73	Collapsed Pipe. Choked main line.
12/29/2015	8:22 AM	WILLHURST ST	Cleanout	6.50	140	Hanging Moss	1.12	Roots. Roots in main line.
12/30/2015	11:10 AM	4125 SUNSET DR	Manhole	12.82	420	Town	1.00	Grease.

Figure 1: Collection System SSOs by Cause



2.5	3.0	2.5	Other
0.0	0.0	0.0	Undersized Line
0.0	0.0	0.0	Excessive Flow
0.0	0.0	0.0	PS Failure
11.5	11.0	5.0	Collapsed Pipe
0.0	0.0	0.5	Solids
0.5	0.0	0.5	Roots
8.5	4.0	10.5	Grease
23.0	18.0	19.0	Total

Figure 2: Percentage of Collection System SSOs by Cause

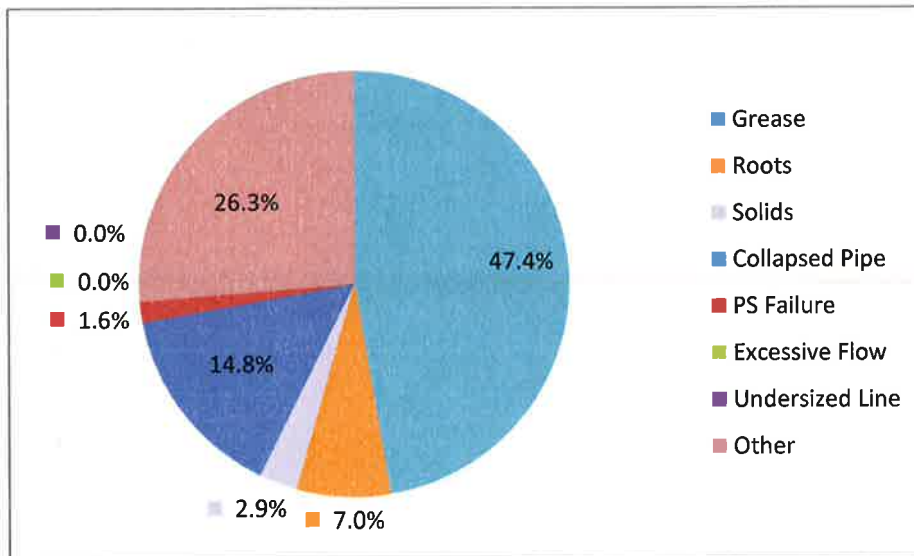


Figure 3: Collection System SSO Volume

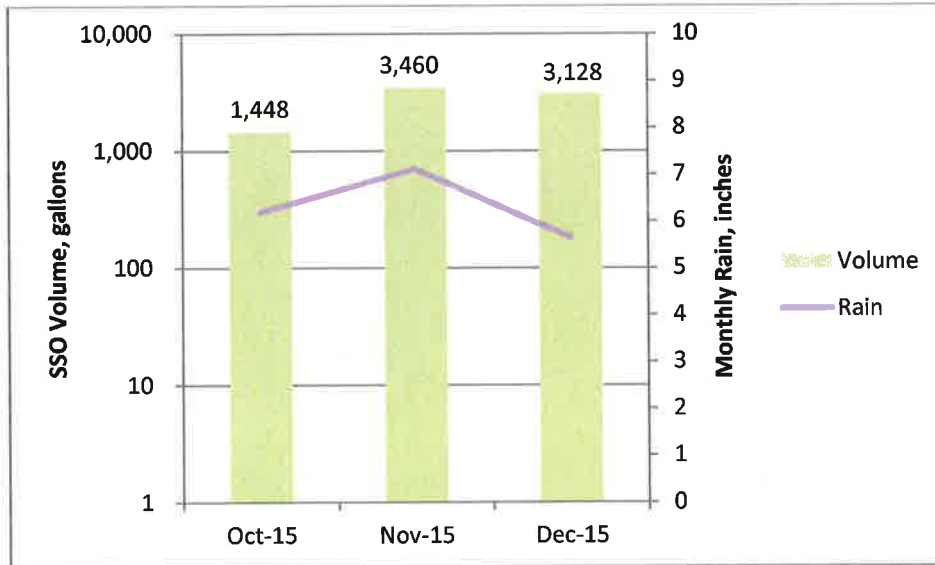
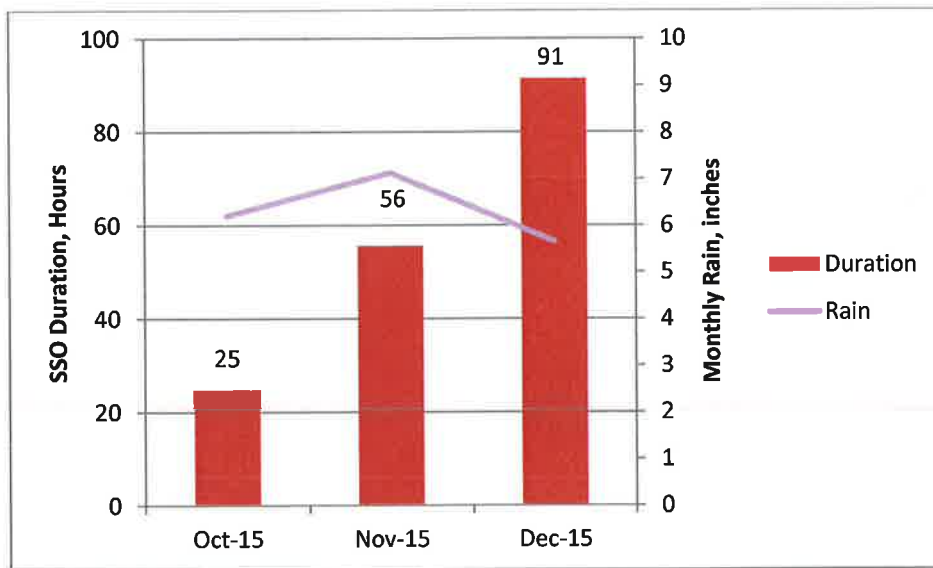


Figure 4: Collection System SSO Duration



2.2 Pump Station SSOs

No SSOs were reported at pump stations from October to December 2015. There are now six (6) consecutive months without an SSO at the pump stations in the collection system. In the previous twelve (12) months, there have been a total of four (4) SSOs at pump stations.

2.2 West Bank Interceptor SSOs

No SSOs were reported in the West Bank Interceptor from October to December 2015.

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. Only two prohibited bypasses were reported, at the Savanna Street WWTF, from November 7 to November 11, and from December 22 to December 30.

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 average and 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. 10 - October 2015 through December 2015
Prohibited Bypasses

Date Began	Time Began	Location	Source	Estimated Duration, Days	Estimated Volume, Million Gallons	Receiving Water	Rainfall, Inches	Reported Cause
11/07/15	10:00 AM	3810 I 55 S	WWTP	5	115.95	Pearl	5.50	Heavy rainfall generated influent flow in excess of mechanical plant's capacity.
12/22/15	7:00 AM	3810 I 55 S	WWTP	9	261.81	Pearl	1.30	Heavy rainfall generated influent flow in excess of mechanical plant's capacity.

Figure 5: Prohibited Bypasses by Cause vs. Rainfall

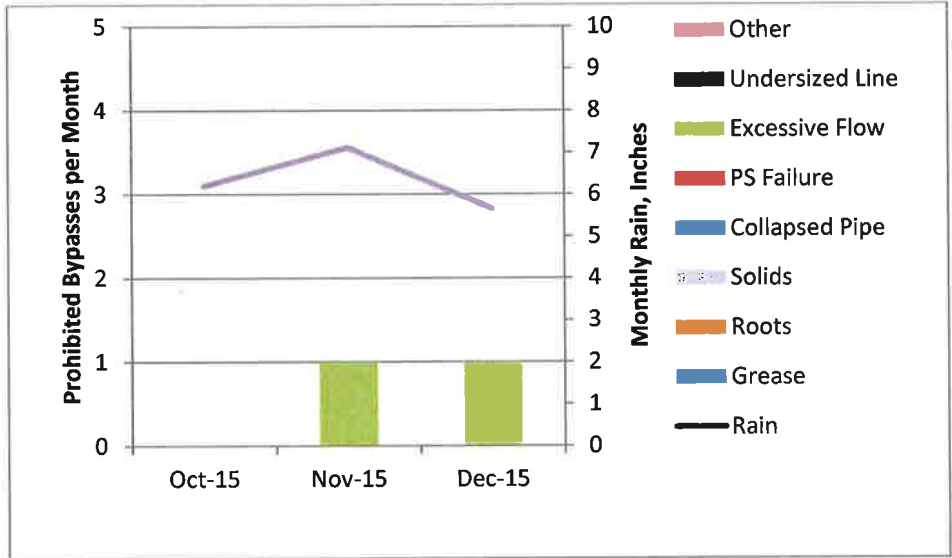


Figure 6: Prohibited Bypasses by Cause vs. River Stage

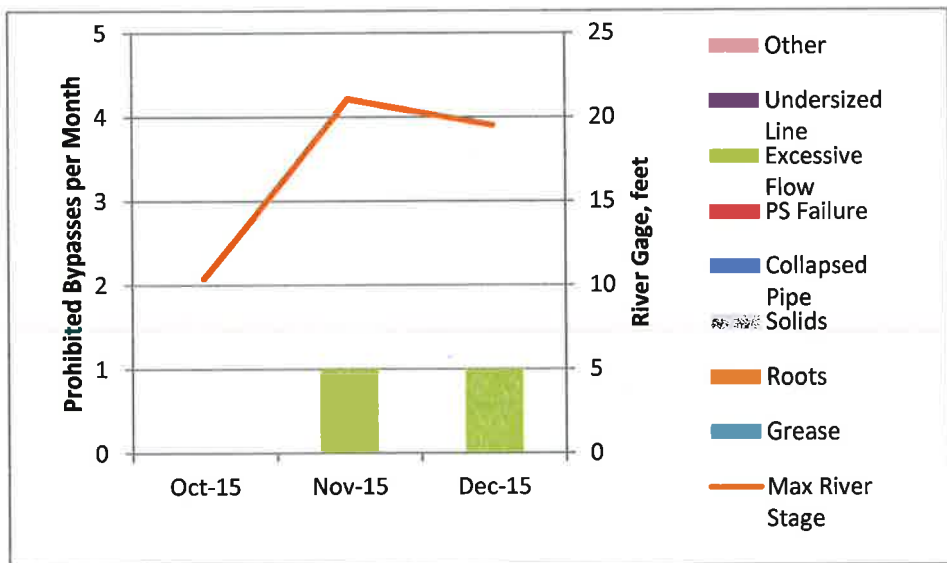


Figure 7: Prohibited Bypass Volume vs. Rainfall

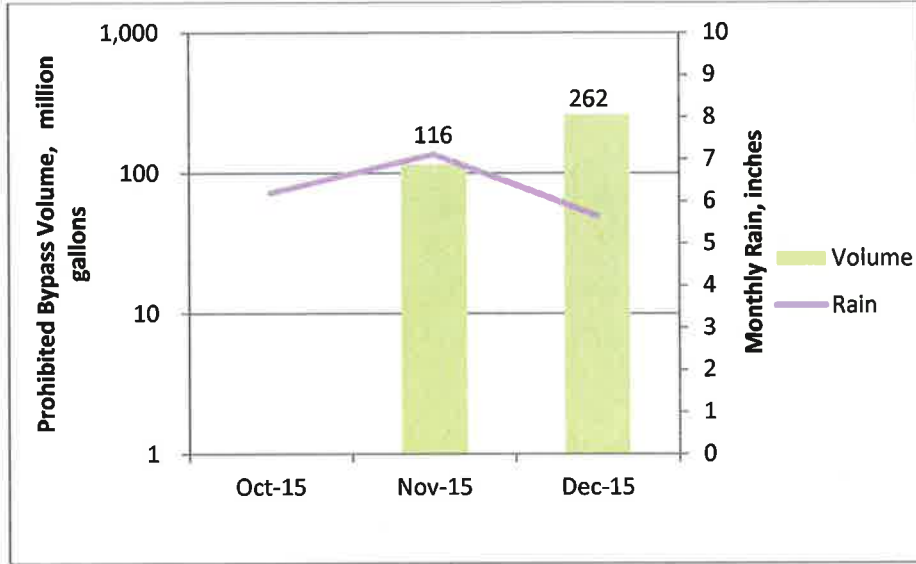


Figure 8: Prohibited Bypass Volume vs. River Stage

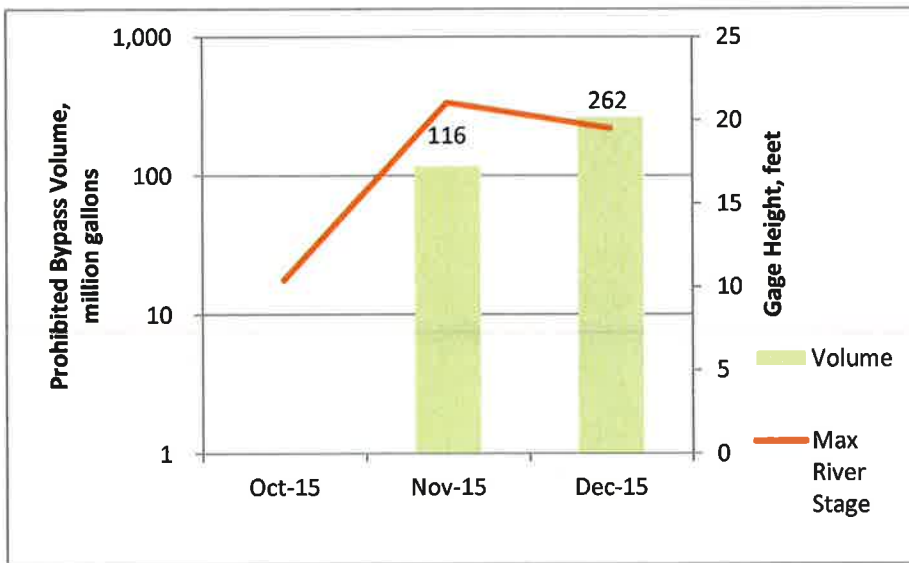


Figure 9: Prohibited Bypass Duration vs. Rainfall

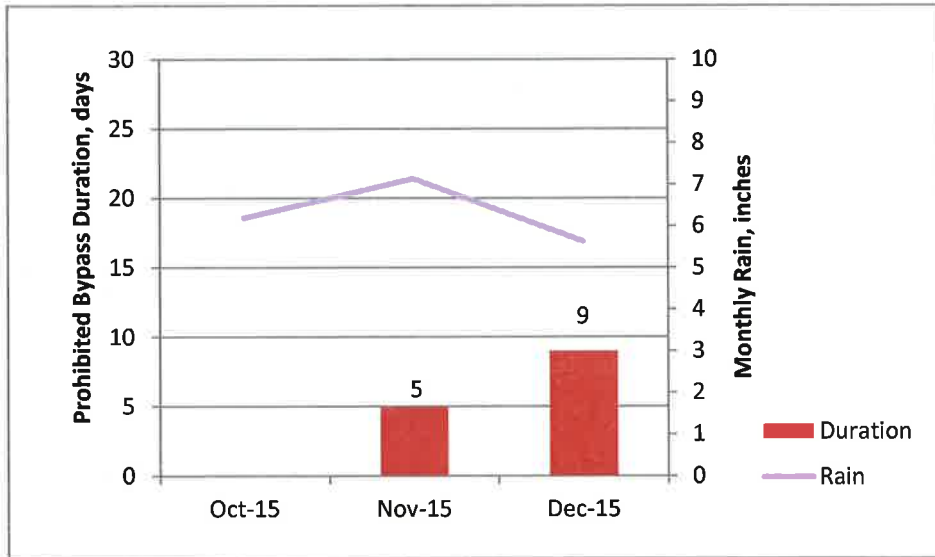
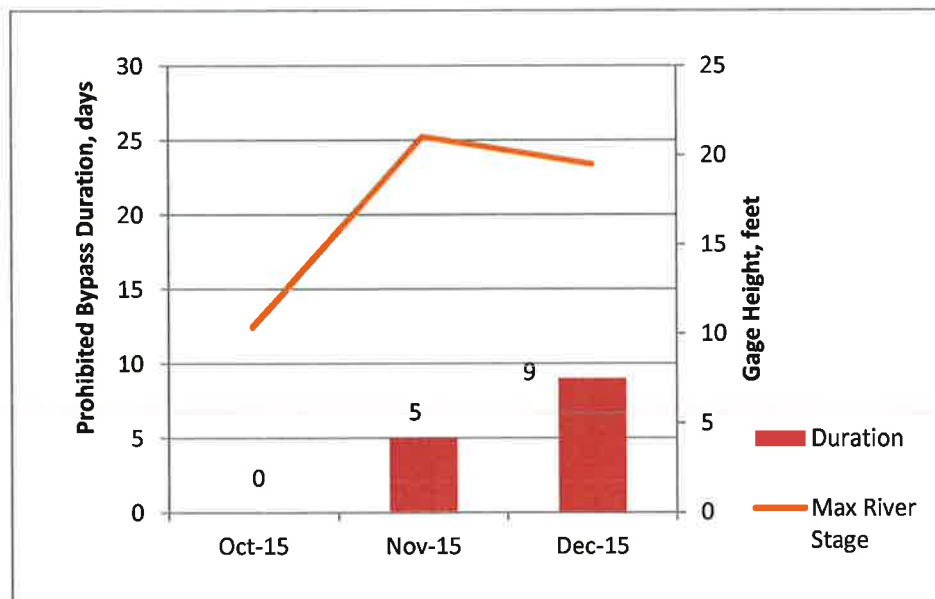


Figure 10: Prohibited Bypass Duration vs. River Stage



3.0 Training Coordinator

3.1 Progress Update

April Sawyer, the Public Works Department's new training coordinator, is in the process of updating the schedule for training sewer system employees. She has updated the list of trainers and is updating the training schedule.

Michael Switzer, a longtime wastewater operator trainer, was hired to conduct training for DPW employees for collection system operators in October. The first class was geared toward persons in leadership positions. Mr. Switzer has been training collection system operators for the Mississippi Water and Pollution Control Operators' Association for a number of years.

3.2 Next steps

The schedule for implementation of the training program will be updated to reflect the hiring of the training coordinator and the scheduling of training.

A training schedule for employees will be developed with consultation of supervisors and trainers. The next scheduled training opportunity for DPW personnel is a refresher course in January for those operators interested in taking the Wastewater Collection Class II Examination for certification by MDEQ.

Training objectives for each employee will be developed. Training already completed for each employee will be noted. As the training program is implemented, and courses are scheduled, training for each employee will be initiated or continued.