Office of the Mayor
Tony T. Yarber, Mayor

219 South President Street
Post Office Box 17
Jackson, Mississippi 39205-0017
Telephone: 601-960-1084
Facsimile: 601-960-2193

August 5, 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
13th Quarterly Report, April 2016 through June 2016
7th Semi Annual SEP Report, January 2016 through June 2016

Dear Gentlemen:

Attached please find Quarterly Report No. 13 for the period of April 2016 through June 2016 and Supplemental Environmental Project Semi Annual Report #7. 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,

Tony T. Yarber
Mayor

cc: Les Herrington, P.E., Mississippi Department of Environmental Quality
Gus McCoy, Chief Administrative Officer
Monica Joiner, City Attorney
Jerriot Smash, Interim Director, Department of Public Works
Wanda Knotts, Interim Deputy Director, Water/Wastewater Operations
Terry Williamson, Consent Decree Manager
Public Depository, Eudora Welty Public Library

The City of

JACKSON

QUARTERLY REPORT NO. 13

APRIL 2016 THROUGH JUNE 2016

Department of Public Works
Wastewater Infrastructure Redevelopment Program

City of Jackson
Wastewater Infrastructure Redevelopment Program

Quarterly Report No. 13
April 2016 through June 2016

August 4, 2016

Prepared by:
City of Jackson
Department of Public Works
Jerriot Smash, Interim Director
Terry S. Williamson, Consent Decree Manager
Post Office Box 17
Jackson, Mississippi 39205-0017

City of Jackson, Mississippi
Quarterly Report No. 13
April 2016 through June 2016

I certify under penalty of law that this document 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

8/5/2016
Date

Jerriot Smash
Jerriot Smash, Interim Director
Department of Public Works

8-5-16
Date

Quarterly Report No. 13
April 2016 through June 2016

Contents

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) 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 April through June 2016 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, West Bank Interceptor, and pump stations. Prohibited bypasses were observed only at the Savanna Street Wastewater Treatment Facility (SSWWTF).

2.1 Collection System SSOs

Table 1 lists SSOs in the collection system for April through June 2016. Each day of a multiple day event is considered as a separate SSO, in accordance with the determination of penalties according to the CD.

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

- Grease
- Roots
- Solids
- Collapsed Pipe
- Other

Previously, other causes of SSOs listed were "Pump Station Failure," "Excessive Flow," and "Undersized Line." Since none of these causes occurred during this period, they have been omitted from the graphical presentation. Some SSO events had multiple causes.

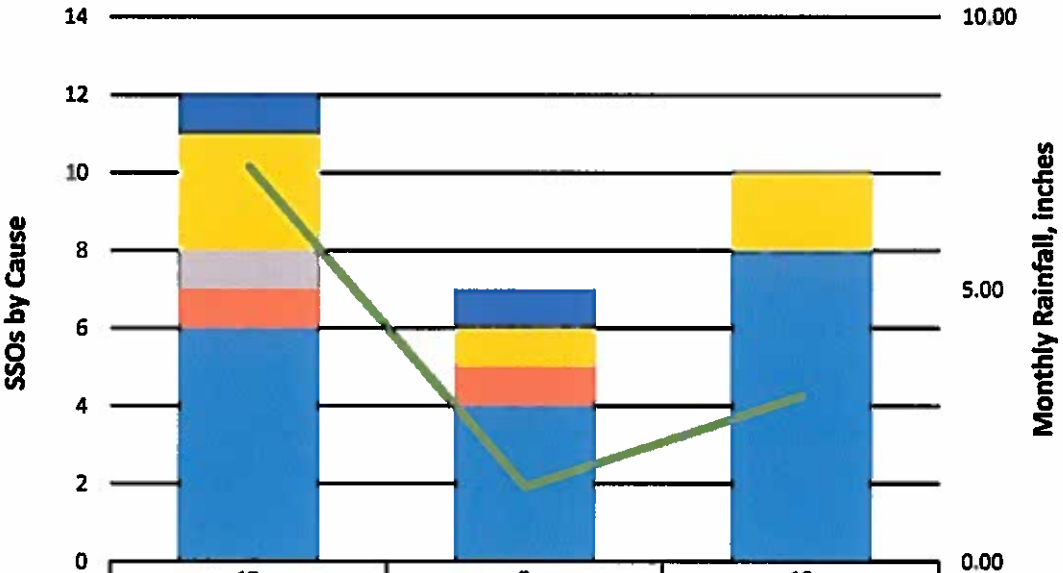
Figure 2 shows percentages of collection system SSOs for the period by cause. **Figure 3** shows total volume of SSOs for each month in the period. Volumes are plotted on a logarithmic scale because of the large monthly variations. **Figure** 4 shows total duration of SSOs for each month.

Monthly rainfall is plotted in each graph. It should be noted that there does not appear to be a correlation between rainfall and the number, volume, or duration of SSOs.

Table 1
Collection System SSOs

Date Began	Time Began	Date Ended	Estimated Duration, hours	Location	Overflow Source	Est Vol., gallons	Waters of State	Sewershed	Rainfall, inches	Reported Cause
4/15/2016	10:50 AM	4/16/2016	2.80	240 SUN DR	Manhole	180	Yes	White Oak	4.13	Grease
4/16/2016	9:41 PM			4576 WILL O LAKE DR	Manhole	1,300	Yes	Big Creek	0.00	Other (Undetermined)
4/17/2016	4:15 PM	4/17/2016	0.75	403 MAGNOLIA DR	Manhole	15	No	Lynch	0.00	Grease
4/19/2016	8:36 AM	4/19/2016	4.00	4002 MERIGOLD DR	Manhole	50	Yes	Three Mile	0.00	Roots
4/20/2016	5:53 PM	4/29/2016	693.62	2840 ROBINSON ROAD	Other (pipe across creek crossing)	1,840	Yes	Lynch	0.21	Collapsed Pipe
4/20/2016	8:05 AM	4/20/2016	11.27	152 S DENVER ST	Manhole	40	No	Lynch	0.21	Grease
4/21/2016	10:02 AM	4/21/2016	3.60	4880 MCWILLIE CIR	Manhole	740	No	Hanging Moss	0.30	Grease
4/22/2016	9:11 AM	4/22/2016	2.72	FOREST AVE	Other (creek)	420	Yes	Hanging Moss	0.24	Collapsed Pipe
4/23/2016	8:01 AM	4/23/2016	3.27	613 COURT ST	Manhole	300	Yes	Town	0.00	Solids
4/27/2016	8:36 AM	4/27/2016	1.85	635 ASH ST	Ground Surface (defective pipe underground)	380	Yes	Town	0.04	Collapsed Pipe
4/29/2016	7:33 AM	4/29/2016	2.65	4946 SUNNYBROOK DR	Ground Surface (defective pipe underground)	420	Yes	Cany	0.00	Grease
4/30/2016	6:19 AM	4/30/2016	3.85	5565 QUEEN MARY LANE	Manhole	800	Yes	Lynch	0.12	Grease
5/6/2016	1:28 PM	5/6/2016	0.70	224 E. BELL STREET	Ground Surface (defective pipe underground)	80	Yes	Town	0.00	Grease/Collapsed Pipe
5/6/2016	8:27 PM	5/6/2016	1.18	4112 AZALEA DR	Cleanout	9	No	Eubanks	0.00	Roots
5/7/2016	7:43 AM	5/7/2016	0.97	4375 WELOTA DR	Manhole	480	Yes	Lynch	0.00	Grease
5/31/2016	6:30 AM	5/31/2016	2.43	1116 FOREST AVE	Manhole	320	Yes	Eubanks	0.23	Grease/Other (rags)
5/31/2016	1:21 PM	6/1/2016	21.65	HAYNES ST and OAK FOREST DR	Manhole	50	Yes	Cany	0.41	Grease
6/3/2016	11:39 AM	6/3/2016	3.83	PARKWOOD PL	Ground Surface (defective pipe underground)	210	Yes	Eubanks	0.74	Collapsed Pipe
6/4/2016	7:43 PM	6/5/2016	13.30	448 FOREST AVE	Ground Surface (defective pipe underground)	860	Yes	Hanging Moss	0.88	Collapsed Pipe
6/7/2016	7:31 AM	6/7/2016	4.67	150 MONTBROOK ST	Ground Surface (defective pipe underground)	460	Yes	Eubanks	0.00	Grease
6/8/2016	12:54 PM	6/8/2016	2.60	4127 OAKLAWN DR	Ground Surface (defective pipe underground)	320	Yes	Eubanks	0.00	Grease
6/10/2016	10:15 PM	6/10/2016	1.08	6434 ABRAHAM LINCOLN DR	Manhole	25	No	Bogue Chitto	0.00	Grease
6/14/2016	8:41 AM	6/14/2016	1.65	4202 OAKMONT DR	Manhole	580	No	Lynch	0.23	Grease
6/16/2016	3:15 PM	6/16/2016	0.65	1521 HIGHLAND DR	Manhole	15	No	Lynch	0.21	Grease
6/17/2016	6:13 PM	6/17/2016	1.20	172 E WOODCREST DR	Manhole	30	No	Cany	0.22	Grease
6/18/2016	12:00 PM	6/18/2016	3.93	1410 AUTUMN OAKS DR	Manhole	725	Yes	Purple	0.13	Grease
6/26/2016	1:12 PM	6/26/2016	1.43	252 MCDOWELL PARK CIR	Manhole	360	No	Cany	0.00	Grease

Figure 1: Collection System SSOs by Cause



	12 Apr-16	5 May-16	10 Jun-16
Other	1	1	0
Collapsed Pipe	3	1	2
Solids	1	0	0
Roots	1	1	0
Grease	6	4	8
Rainfall	7.25	1.36	3.03

Figure 2: Percentage of Collection System SSOs by Cause

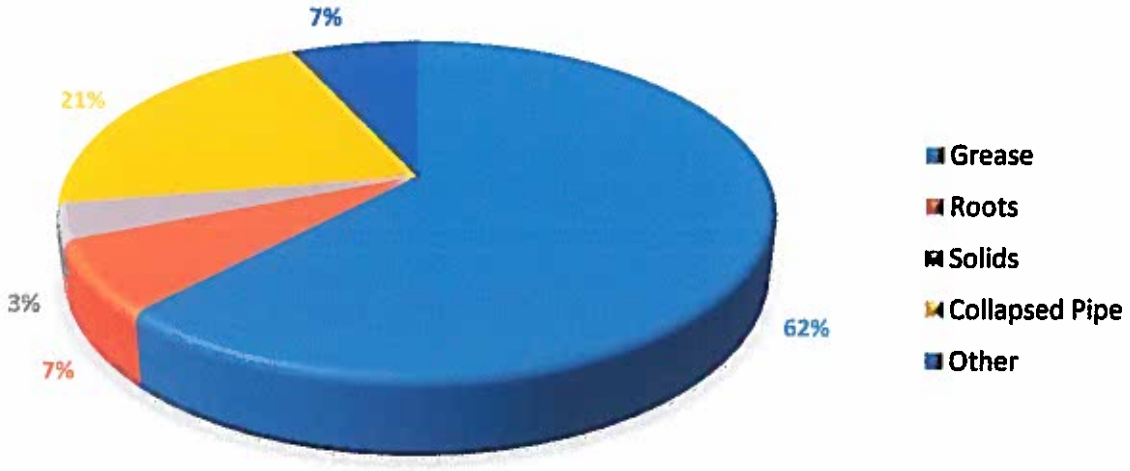
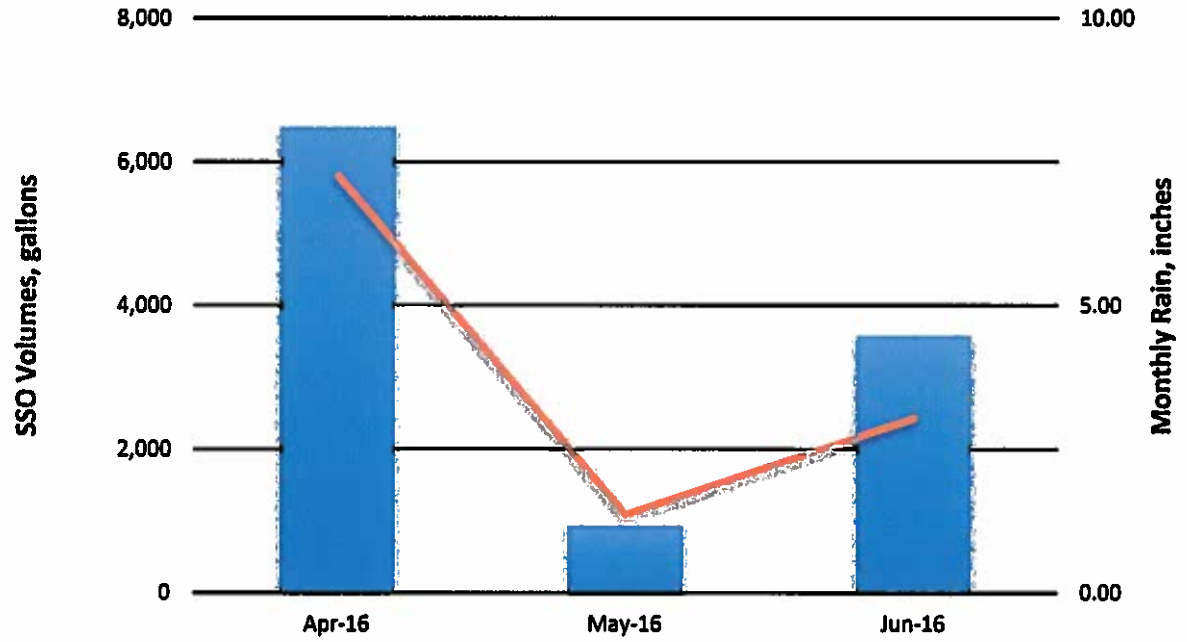
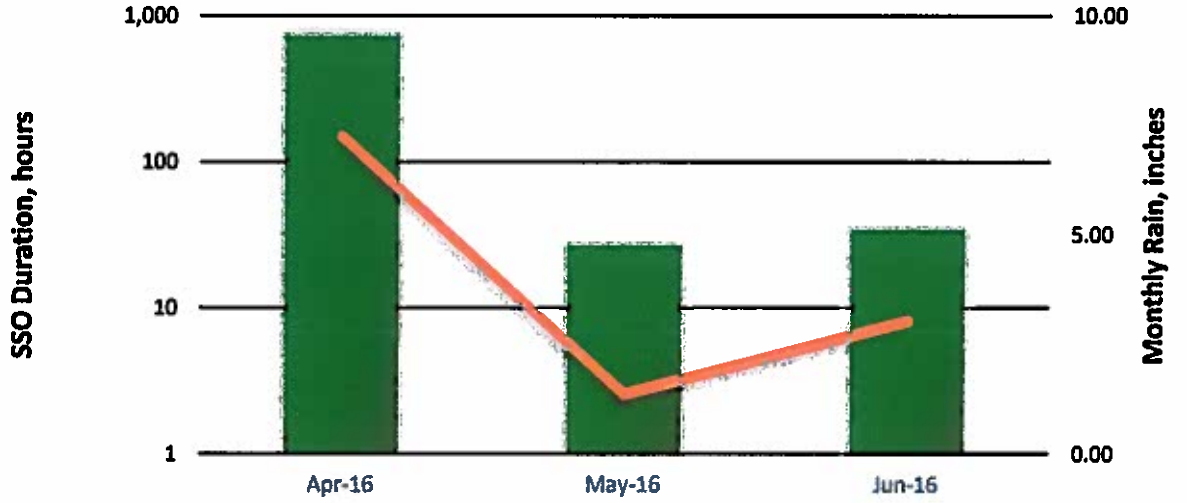


Figure 3: Collection System SSO Volume



	Apr-16	May-16	Jun-16
SSO Volume	6,485	939	3,585
Rainfall	7.25	1.36	3.03

Figure 4: Collection System SSO Duration



	Apr-16	May-16	Jun-16
SSO Duration	730.38	26.93	34.34
Rainfall	7.25	1.36	3.03

2.2 West Bank Interceptor SSOs

No SSOs were reported in the West Bank Interceptor from April through June 2016.

2.3 Pump Station SSOs

No SSOs were report at pump stations from April through June 2016. This quarterly report mark one year since the has allowed a pump station SSOs.

2.4 Prohibited Bypasses

Table 2 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. Two prohibit bypasses were reported this period, both happening in April. The first bypass reported is the bypass previously noted in last quarters report, but not included at that time since it was ongoing. The bypass event ended on April 4, 2016. March was an unusually wet month, with Jackson receiving approximately 2 ½ times its usual amount of rainfall. **Note that rainfall from March that can be attributed to this bypass is included in the amount of rain shown for each bypass.**

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 5 shows total volume of prohibited bypasses for each month plotted logarithmically, along with monthly rainfall. **Note that April also includes rainfall from March that can reasonably be attributed to the cause of the bypass that began in March. Figure 6** shows volume and river stages.

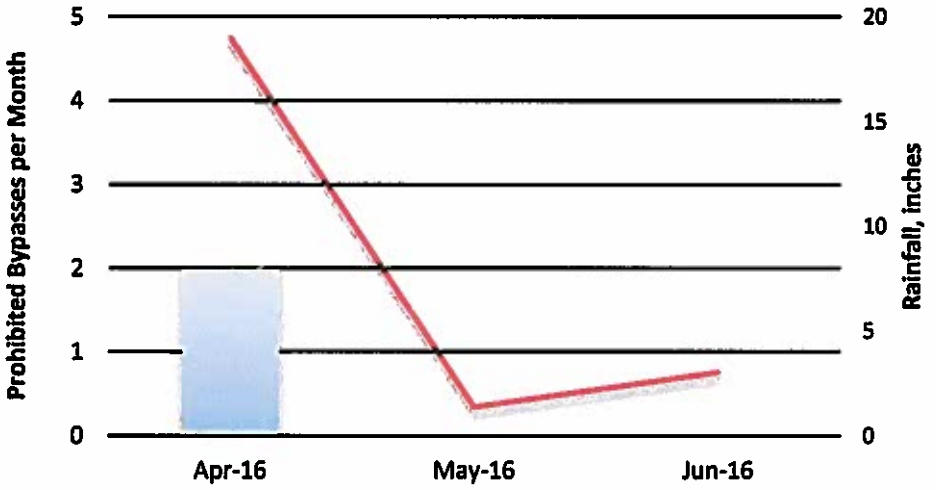
Figures 7 and 8 plot total duration for the month, first compared to rainfall and then compared to river stages. Note that duration of prohibited bypasses is plotted in days.

Table 2
Prohibited Bypasses

Source	Est. Duration, days	Est. Volume, million gallons	Reached Waterway	Receiving Water	Rainfall, inches	Reported Cause
Savanna WWTP	26[1]	1,172.97	Yes	Pearl	11.86	Heavy rainfall generated influent flows in excess of mechanical plant's capacity
Savanna WWTP	8	301.94	Yes	Pearl	6.39	Heavy rainfall generated influent flows in excess of mechanical plant's capacity

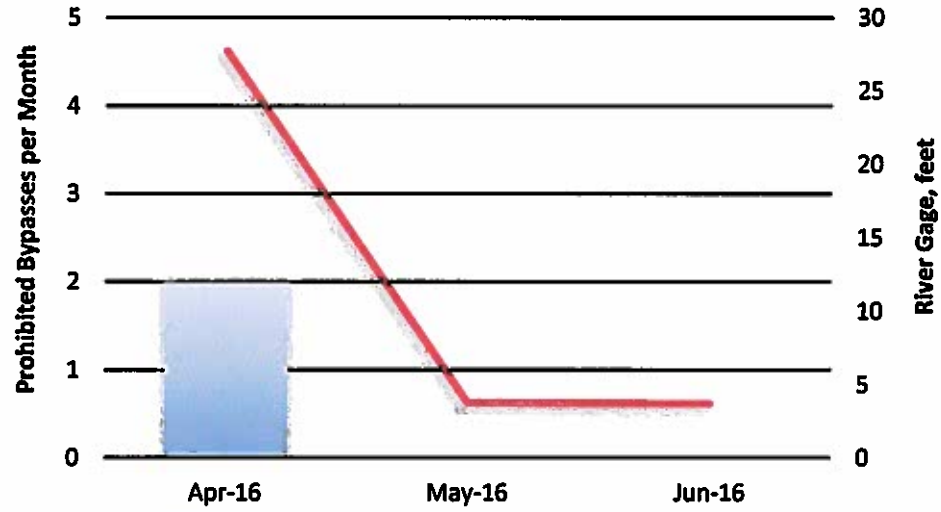
[1] Bypass duration was March 10 through April 4.

Figure 5 Prohibited Bypasses vs. Rainfall



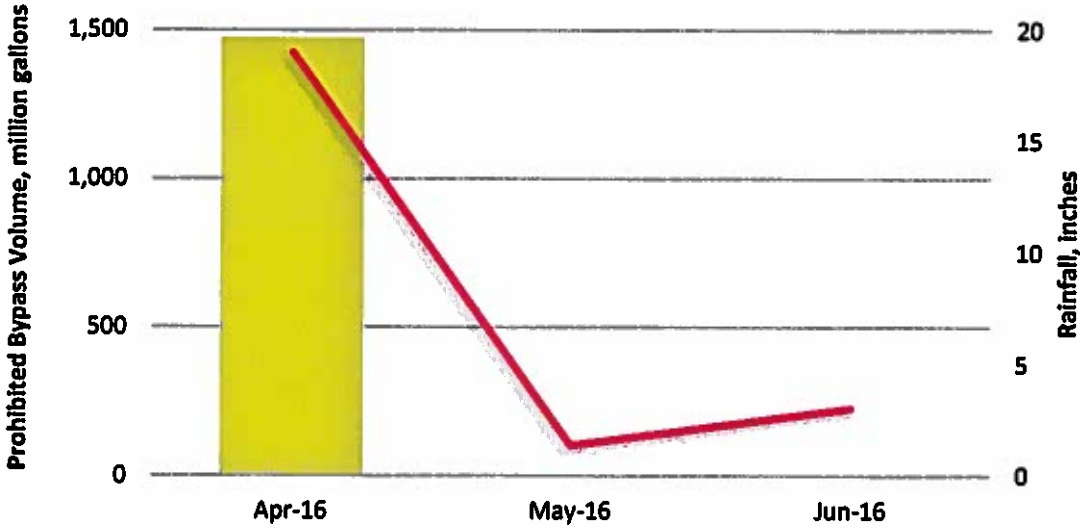
	Apr-16	May-16	Jun-16
Prohibited Bypasses	2	0	0
Rainfall	18.99	1.36	3.03

Figure 6: Prohibited Bypasses by Cause vs. River Stage



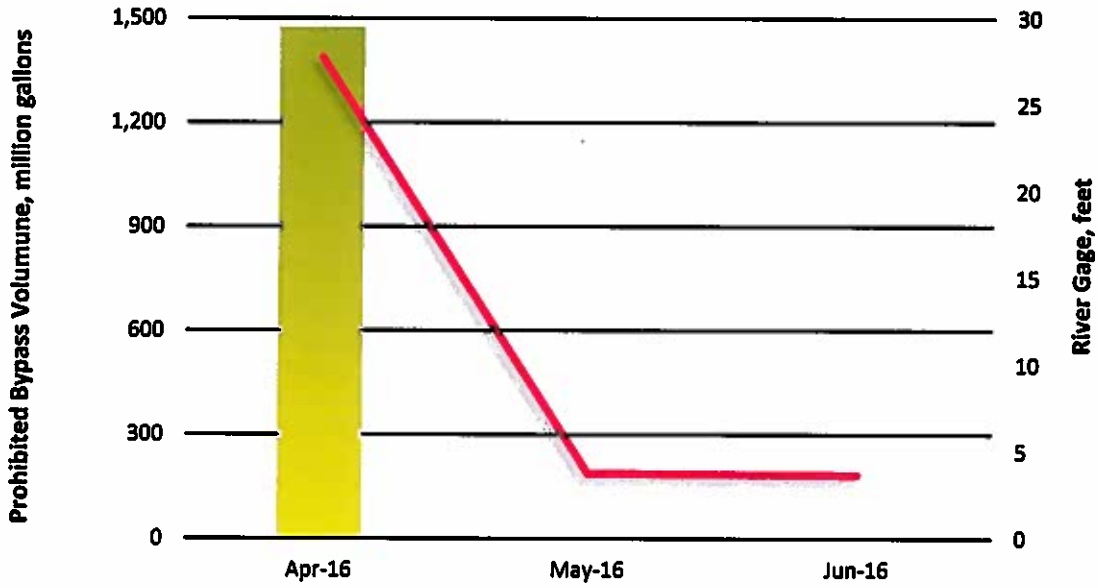
	Apr-16	May-16	Jun-16
Prohibited Bypasses	2	0	0
River Stage	27.75	3.76	3.68

Figure 7: Prohibited Bypass Volume vs. Rainfall



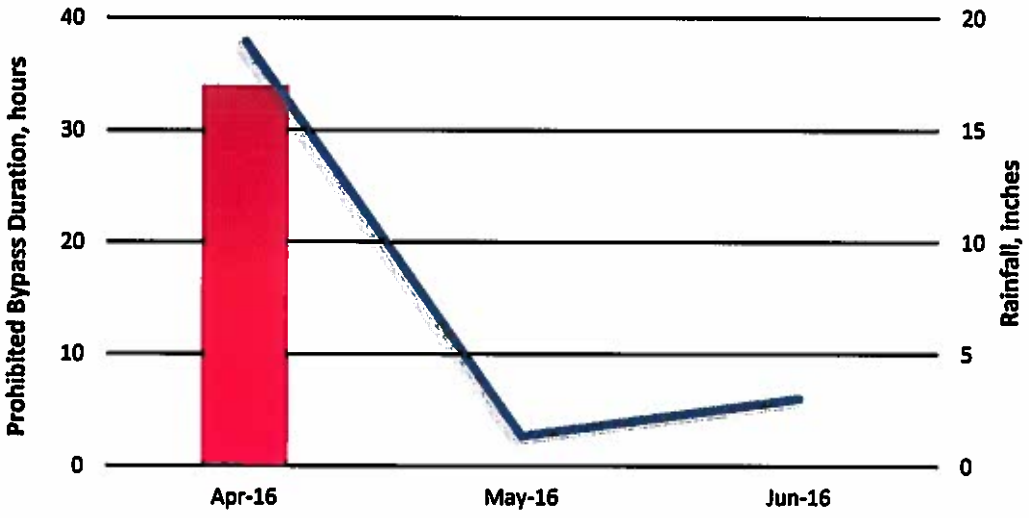
	Apr-16	May-16	Jun-16
Volume	1,474.91	0	0
Rainfall	18.99	1.36	3.03

Figure 8: Prohibited Bypass Volume vs. River Stage



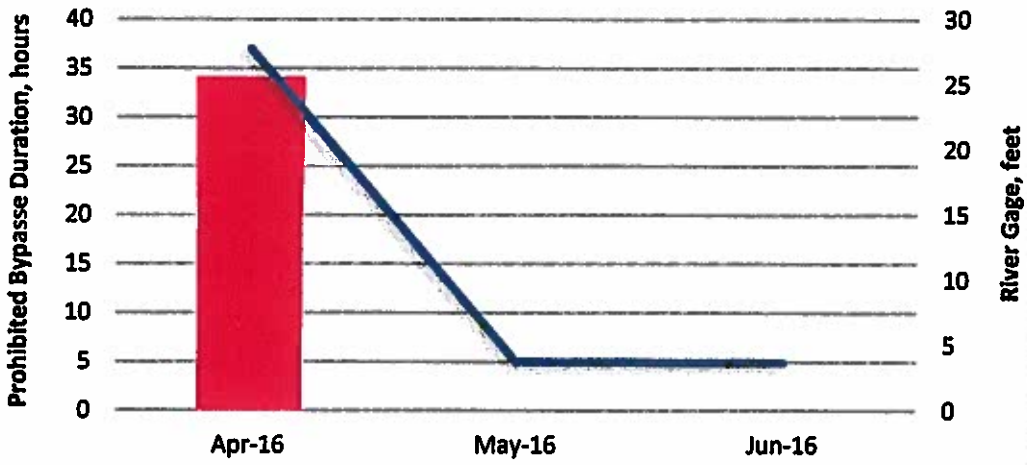
	Apr-16	May-16	Jun-16
Volume	1,474.91	0	0
River Stage	27.75	3.76	3.68

Figure 9: Prohibited Bypass Duration vs. Rainfall



	Apr-16	May-16	Jun-16
Duration	34	0	0
Rainfall	18.99	1.36	3.03

Figure 10: Prohibited Bypasses Duration vs. River Stage



	Apr-16	May-16	Jun-16
Duration	34	0	0
River Stage	27.75	3.76	3.68