Department of Public Works



200 South President Street Post Office Box 17 Jackson, Mississippi 39205-0017

May 1, 2018

Chief, Environmental Enforcement Section Environment and National Resources Division U.S. Department of Justice Box 7611 Ben Franklin Station Washington, DC 20044-7611 Re: DOJ No. 90-5-1-1-09841

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Jackson, MS 39225-2261

RE: DOJ No. 90-5-1-1-09841

City of Jackson, Mississippi, EPA Consent Decree

Quarterly Report 20 Annual Report 5

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Dear Gentlemen,

Please find enclosed the above referenced reports submitted by the City of Jackson for your review and records. 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.

Please contact me directly (rmiller@jacksonms.gov; (601) 960-1178) should you have any questions. Thank you for your consideration.

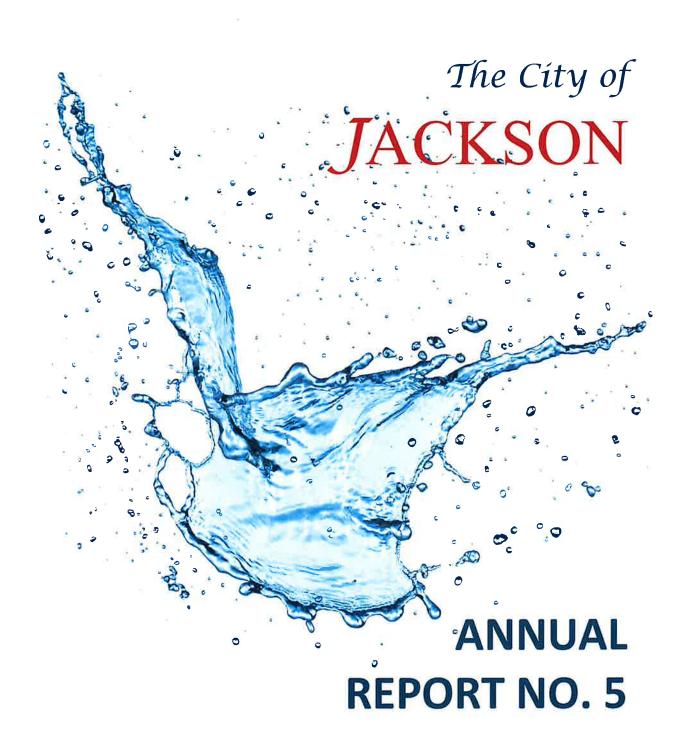
Sincerely,

Robert K. Miller

Director

cc: Chokwe Antar Lumumba, Mayor, City of Jackson

Sharon D. Gipson, City Attorney, City of Jackson Terry Williamson, Legal Counsel, City of Jackson Public Depository, Eudora Welty Public Library



MARCH 2017 THROUGH FEBRUARY 2018

Department of Public Works
Consent Decree Program

City of Jackson Wastewater Consent Decree Program

Annual Report No. 5 March 2017 through February 2018

April 30, 2018

Prepared for:

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

Prepared by:

Burns & McDonnell Engineering, Inc. Jackson, MS

City of Jackson, Mississippi Annual Report No. 5 March 2017 through February 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

5/1/2018

Date

Robert K. Miller, Director Department of Public Works

Date

Annual Report No. 5 March 2017 through February 2018

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1.0 Introduction

1.1 Consent Decree Overview

On March 1, 2013, the Consent Decree (CD) agreed to by the City of Jackson, Mississippi, U.S. Environmental Protection Agency (EPA), and the Mississippi Department of Environmental Quality (MDEQ) regarding the wastewater collection and treatment system was entered by the U.S. Court, Southern District of Mississippi. 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 Burns & McDonnell Engineering Team has been retained to assist the City in addressing the requirements of the Consent Decree. Accordingly, the Program Management team compiled this Annual Report from information provided by the City and its contractors to fulfill the requirements of Section IX \P 57 (c) set forth in the CD.

1.3 Consent Decree Requirements for Annual Report

As stated in the Consent Decree Section IX \P 57 (c), the Annual Report shall be submitted beginning sixty (60) Days after the first full twelve (12)-month period following the Date of Entry of the CD, and sixty (60) Days after each subsequent twelve (12)-month period until termination of the Consent Decree, and shall include, at a minimum:

(i) A summary of the CMOM Programs implemented or modified pursuant to this Consent Decree, including a comparison of actual performance with any performance measures that have been established.

- (ii) A trends analysis of the number, volume, duration, and cause of the City's SSOs for a twenty-four (24)-month period updated to reflect the SSOs that occurred during the previous twelve (12)-month period except that the first Annual Report shall only include the first twelve (12) months.
- (iii) A trends analysis of the number, volume, duration, and cause of all Prohibited Bypasses for a twenty-four (24)-month period updated to reflect the Prohibited Bypasses that occurred during the previous twelve (12)-month period except that the first Annual Report shall only include the first twelve (12) months.

2.0 Capacity, Management, Operations and Maintenance Programs

The Consent Decree Section VI, D \P 31 through 43 requires the City to implement various programs to properly manage, operate and maintain sanitary wastewater collection, transmission and treatment systems, investigate capacity-constrained areas of these systems, and respond to SSO events.

Each section below recounts Consent Decree requirements for capacity, management, operations, and maintenance (CMOM) programs. Milestones achieved within the last period and milestones anticipated for the next reporting period are then listed.

2.1 Training Program

Within twelve (12) months after the Date of Entry of this Consent Decree, February 28, 2014, the City shall submit to EPA for review and approval a Training Program, including a schedule for full implementation of the program not to exceed twelve (12) months after its approval by EPA. The Training Program shall include, at a minimum, the following:

- (a) <u>Technical Training</u>. The technical training component shall include, at a minimum, the following:
 - (i) employee technical training and refresher technical training requirements (curriculum) that ensure that each City employee has a level of knowledge, commensurate with duties, of the overall functions of the City's Infrastructure;
 - (ii) a description of outside technical training and networking opportunities, such as conferences and seminars, that are made available to City employees;
 - (iii) a description of the extent to which employee certification, at the State or at the City level, is required as a basis for obtaining or maintaining a position;
 - (iv) records of technical training, including on-the-job training, which shall be maintained in an information management system and shall describe the degree to which completed technical training and on-the-job training is tied to promotion and pay; and
 - (v) a description of the technical training required before an employee can undertake specific work assignments or tasks.

- (b) <u>Skills Training</u>. The skills training component shall include, at a minimum, the following:
 - (i) employee skills training and refresher skills training requirements (curriculum) that ensure that each City employee has a level of knowledge, commensurate with duties, of the specific equipment to be used and the procedures to be followed in carrying out duties;
 - (ii) a description of outside skills training opportunities, such as manufacturers' training, that are made available to employees;
 - (iii) a description of the extent to which employee certification, at the State or at the City level, is required as a basis for obtaining or maintaining a position;
 - (iv) records of skills training, including on-the-job training, which shall be maintained in an information management system) and shall describe the degree to which completed skills training and on-the-job training is tied to promotion and pay; and
 - (v) a description of the skills and on-the-job training required before an employee can undertake specific work assignments or tasks.
- (c) <u>Safety Training</u>. The safety training component shall include, at a minimum, the following:
 - (i) employee safety training and refresher safety training requirements (curriculum) that ensure that each City employee has level of knowledge regarding on-the-job safety that is commensurate with the employee's equipment and work environment;
 - (ii) a description of the extent to which employee safety certification at the State or at the City level is required as a basis for obtaining or maintaining a position;
 - (iii) records of safety training, including on-the-job training, which shall be maintained in an information management system and shall describe the degree to which completed safety training and on-the-job training is tied to promotion and pay; and
 - (iv) a description of the safety training required before an employee can undertake specific work assignments or tasks.

- Completed 365.75 man-hours of training in this past reporting period
- Training scheduling has been impacted by vacancies and workload requirements of the Public Works Department.
- Training topics completed during the reporting period are summarized in the following table:

Department of Public Works Training Report Consent Decree Training List			
Subject	Summary	Date	Status
Personal Protective Equipment	By Training Program Coordinator	4/24/2017	Complete
Hazard Communication	Training Program Coordinator thru LMS	5/11/2017	Complete
Confined Space Training	Training Program Coordinator thru LMS	7/13/2017	Complet
Backhoe Loader Training I	MDOT	7/25/2017	Complet
Back Safety	Training Program Coordinator thru LMS	7/26/2017	Complet
Trenching and Shoring	Training Program Coordinator thru LMS	8/24/2017	Complet
Sanitary Sewer Overflows	Training Program Coordinator thru LMS	8/31/2017	Complet
Wastewater Utility Management Sustainability	Mississippi Rural Water Association	10/12/2017	Complet
Chemical Spill Response	Sigma Training and Consulting, Inc	11/16/2017	Complet
SSO Reporting Training	David Willis (Waggoner)	11/22/2017	Complet
Personal Protective Equipment	Training Program Coordinator thru LMS	2/14/2018	Complet
Wastewater Short Course & CEUs	MPWCOA/MDEQ	2/19-2/23/2018	Complet
Hydrogen Sulfide Awareness	Training Program Coordinator thru LMS	2/28/2018	Complet

Significant milestones anticipated during the next reporting period:

- Continue to develop training objectives for each employee.
 Training coordinator will work with managers/supervisors to develop employee specific plans.
- Training coordinator has started implementation of a new, online, Learning Management System (LMS) in March 2017. This software has been populated with training courses that can be taken online through a computer, tablet or smartphone. This should help with the time and availability obstacles.
- Review Training program objectives and propose amendment as necessary.
- A preliminary list of training topics anticipated to be covered during the next reporting period are summarized in the following table;

Department of Public Works Training Report			
Consent Decree Training List			
Subject	Summary	Date	Status
Ladder Safety	Litmos Online Training Module	4/4/2018	Upcoming
Electrical Hazard Safety	Litmos Online Training Module	4/11/2018	Upcoming
PACP Re- certification	PACP Certified Trainer	4/17/2018- 4/18/2018	Upcoming
Machine Guarding	Litmos Online Training Module	4/18/2018	Upcoming
Aerial Lift Safety	Litmos Online Training Module	4/25/2018	Upcoming
Jet Truck, CCTV Training	Sansom Equipment Company is providing this training.	TBD	Upcoming
Hazard Communication	Litmos Online Training Module	5/2/2018	Upcoming
Wastewater Safety & Disinfection	Conducted by MDEQ	5/3/2018	Upcoming
Lagoon Treatment	MWPCOA/MDEQ Workshop	5/8/2018	Upcoming
Material Handling Safety	Litmos Online Training Module	5/9/2018	Upcoming
Work Zone Safety	Conducted by MDOT	5/10/2018	Upcoming
Backhoe Loader Training	Conducted by MDOT	TBD	Upcoming
Distracted Driving	Litmos Online Training Module	5/16/2018	Upcoming
PACP certification	PACP Certified Trainer	5/17/2018- 5/18/2018	Upcoming
Bloodborne Pathogens	Litmos Online Training Module	5/23/2018	Upcoming

Back Safety	Litmos Online Training Module	5/30/2018	Upcoming
Compressed Gas Cylinder Safety	Litmos Online Training Module	6/6/2018	Upcoming
Fall Protection	Litmos Online Training Module	6/13/2018	Upcoming
Lockout/Tagout	Litmos Online Training Module	6/20/2018	Upcoming
Sanitary Sewer Overflows (SSOs)	Litmos Online Training Module	6/27/2018	Upcoming
Respiratory Protection	Litmos Online Training Module	7/4/2018	Upcoming
Heat Safety	Litmos Online Training Module	7/11/2018	Upcoming
Working around Mobile Equipment	Litmos Online Training Module	7/18/2018	Upcoming
Occupational Ergonomics	Litmos Online Training Module	7/25/2018	Upcoming
Fire Safety	Litmos Online Training Module	8/1/2018	Upcoming
Wastewater Utility Mgmt Sustainability	Mississippi Rural Water Association	10/11/2018	Upcoming

2.2 Sewer Overflow Response Plan

The City submitted to MDEQ a SORP on September 28, 2011, pursuant to the MDEQ Agreed Order I. MDEQ approved the SORP on October 10, 2011. A copy of the SORP is Appendix E to the Consent Decree. The City shall continue to implement the SORP as an enforceable obligation under the Consent Decree. Key elements in the SORP are:

- Overflow identification and Response Procedures
- Building Backups Procedure
- Public Advisory Procedure
- Regulatory Agency Notification Procedure
- Long Term Corrective Action Procedure
- Personnel Training

- Continued remotely monitoring high water alarms on all lift stations
- Continued to map SSO locations for follow up inspections
- Continued Regulatory Agency notifications
- Submitted Quarterly Reports #15, #16, #17, #18 and #19

Significant milestones anticipated during the next reporting period:

- Review SSO locations with multiple occurrences and determine needs
- Prepare map with multiple SSO locations for inspection
- Update and maintain SSO database during the reporting period
- Continue to remotely monitor all pump station high water levels and respond accordingly- by Veolia
- Continue to QA/QC SSO data during the reporting period
- Submit timely Quarterly Reports as required
- Conduct annual Program review in conjunction with the Program Manager
- Conduct Training sessions facilitated by the Training Coordinator

2.3 Interjurisdictional Agreement Program

Within twenty-four (24) months after the Date of Entry of this Consent Decree, February 28, 2015, the City shall submit to EPA for review and approval an Inter-Jurisdictional Agreement Program for when the City reopens or renews existing agreements or enters into new agreements that cover the collection, conveyance, and treatment of sewage by the City from municipal satellite sewer systems and/or large volume sewer customers.

The program shall delineate the minimum provisions to be set forth in these agreements. Such provisions shall include requirements on the contracting party to properly manage, operate, and maintain its sewage collection and conveyance systems including, without limitation, the management of FOG and the minimization of peak flows into the City's Sewer System by excluding, to the maximum reasonable extent, I/I.

In addition, such provisions shall include requirements on the contracting party to ensure that any of its municipal satellite sewer systems and/or large volume sewer customers also properly manage, operate, and maintain their sewage collection and conveyance systems. The program shall also delineate provisions addressing the term or life of these agreements; mechanisms for appropriate modification of the agreements; and mechanisms for enforcement of the agreements (including a description of the legal support necessary to develop, oversee and enforce the agreements) which may include provisions permitting termination of the agreement and physical disconnection from the City's Sewer System within a reasonable time not exceeding two (2) years upon the failure of the contracting party to comply with its management, operations, and maintenance obligations.

Significant milestones reached this period for this activity:

No significant milestones were achieved since EPA's approval of the Program on August 26, 2016

Significant milestones anticipated during the next reporting period:

- Implement Program procedures as required
- Meet with West Rankin Utility Authority to discuss their current interjurisdictional agreement
- Negotiate an interjurisdictional agreement with City of Byram, MS after they complete their purchase of the Forest Woods Utility

2.4 Private Lateral Program

Within twenty-four (24) months after the Date of Entry of this Consent Decree, February 28, 2015, the City shall submit to EPA for review and approval Private Lateral Program, including a schedule for full implementation of the program not to exceed twelve (12) months after its approval by EPA. The Private Lateral Program shall include, at a minimum, the following:

- (a) A legal review of the City's sewer use ordinance to ensure that the City has the authority to require customers to repair or replace Private Laterals that may contain defects and/or improper connections that:
 - (i) are potential sources of I/I to the WCTS that may cause or contribute to SSOs or other violations of the NPDES Permits:
 - (ii) allow for the possible exfiltration of wastewater onto or below the surface of the ground that could then enter the stormwater system; or
 - (iii) allow roots and/or debris to enter the WCTS through cracks, holes, or poorly sealed joints, thus restricting flow and increasing the likelihood of SSOs.
- (b) If the legal review indicates a need to amend the legal authority to assume better control over problems with capacity on the Private Laterals, the Plan shall include the proposed revisions to the ordinance with a schedule for proposing the draft ordinance to the City Council for adoption.
- (c) An enforcement response guide to address Private Laterals that contain defects and/or improper connections. The enforcement response guide shall:
 - (i) identify the process that the City will follow to require customers to repair or replace the identified Private Laterals;
 - (ii) set forth a series of graduated enforcement responses by the City, which may include termination of services, in the event a customer fails to repair or replace the identified Private Laterals;
 - (iii) describe the notice the City provides to customers to require repair or replacement of identified Private Laterals and the process a customer must follow in order to challenge the City's determination that such repair or replacement is necessary or the City's enforcement response, such as termination of services; and
 - (iv) identify the process a customer must follow to request a waiver of any of the obligations to properly operate and maintain Private Laterals imposed

- by the City's sewer use ordinance and the process the City will use to consider granting and revoking such waivers.
- (d) Establishment of technical and legal staffing to ensure effective implementation of the enforcement response guide.
- (e) An information management system.

No progress was made in the previous reporting period on the Private Lateral Program due to lack of funding and staffing issues.

Significant milestones anticipated during the next reporting period:

- Implement the program based on the availability of funds and staffing resources
- Conduct legal review of the SUO or other pertinent ordinances to ensure alignment with the Program

2.5 Water Quality Monitoring Program

Within twenty-four (24) months after the Date of Entry of this Consent Decree, February 28, 2015, the City shall submit to EPA for review and approval a Water Quality Monitoring Program, including a schedule for full implementation of the program not to exceed twelve (12) months after its approval by EPA.

Water Quality Monitoring Program described below shall identify SSOs originating at sewer pipe creek crossings and other isolated or remote sewer locations adjacent or in proximity to waterways; locate the source or sources of such SSOs; and assess the impact upon the environment and public health of such SSOs. The Water Quality Monitoring Program shall also include standard sampling and quality assurance procedures and an information management system. The Water Quality Monitoring Program is in addition to any other sampling required by the NPDES Permits. The Water Quality Monitoring Program shall include, at a minimum, the following:

- (a) Routine Water Quality Monitoring Component. The City shall develop and implement a Routine Water Quality Monitoring component to detect SSOs originating at or in proximity to stream crossings or other isolated and remote sewer locations. This component shall provide for scheduled sampling during both dry and wet weather periods from a network of monitoring stations located in each of the City's Sewersheds. The Routine Water Quality Monitoring component shall propose the exact number and location of monitoring points depending upon drainage configuration and other factors, but in no event shall the number of monitoring points be less than twelve (12) monitoring points. The Routine Water Quality Monitoring component shall include a map of all sampling locations, and shall specify sampling frequency and sampling parameters, including pH, dissolved oxygen, and fecal coliform and/or E. coli bacteria. The City may elect to specify one or both of fecal coliform and E. coli bacteria as a sampling parameter.
- (b) Investigative Water Quality Monitoring Component. The City shall develop and implement an Investigative Water Quality Monitoring component to determine whether the WCTS and/or any WWTP is a source of pollution identified as a result of complaints, routine water quality monitoring pursuant to Paragraph 37. (a) above, or by other means. This component shall specify the conditions under which the City will initiate an investigation under this Paragraph 37. (b). The Investigative Water Quality Monitoring component shall include a requirement for development of a map of all actual sampling locations and shall specify a protocol for determining sampling parameters to be used depending on the type of pollution identified or suspected. The Investigative Water Quality Monitoring component shall include the following:
 - (i) <u>Dry Weather Monitoring</u>. The purpose of dry weather monitoring shall be to detect chronic line leaks. Dry weather sampling shall be conducted for a definite time period, e.g., one week ("Testing Period"). During the Testing Period, the City shall collect fecal coliform and/or E. Coli bacteria samples at least once a day at locations to be investigated.
 - (ii) Wet Weather Monitoring. The purpose of wet weather monitoring shall be to detect capacity problems. The wet weather sampling period shall be defined using rainfall and stream stage data or sewer flow data. During the sampling period, the City shall collect fecal coliform and/or E. Coli bacteria samples at least two (2) times a day at locations to be investigated.

- (iii) <u>Location of Source of Release</u>. If necessary, the isolated stream segment shall be sampled at defined intervals to identify the source of the release. Fecal coliform and/or E. Coli bacteria samples shall be taken in each of the monitoring locations. After repair of the source, the City shall take additional samples to ensure that the repair has been successful.
- Spill Impact Water Quality Monitoring Component. The City shall develop c) and implement a Spill Impact Water Quality Monitoring component to assess any impact upon public health and the environment of pollution resulting from SSOs, and to assist in assessing the need for any environmental and/or public health response. The City shall consult with EPA, MDEQ, and public health authorities during development and implementation of the Spill Impact Water Quality Monitoring component. As part of the Spill Impact Water Quality Monitoring component, the City shall develop protocols for mapping all actual sampling locations, for determining the frequency and duration of sampling (depending upon the potential impact of the spill on public health and the environment), and for sampling for pH, dissolved oxygen, and fecal coliform and/or E. coli bacteria. The sampling protocol shall include sampling upstream (control) and downstream of the spill. The sampling protocol also shall identify the circumstances under which the City shall sample for those Priority Pollutants known to be present in the wastewater of any Significant Industrial User that discharges into the portion of the WCTS upstream of the SSO. The Water Quality Monitoring information management system shall contain a list of the Priority Pollutants, if any, in wastewater discharged by any Significant Industrial User to the WCTS, and the lines affected by any such discharge.
- (d) Quality Assurance, Sampling, Data Analysis. The City shall use analytical procedures, sample containers, preservation techniques, and sample holding times that are specified in 40 C.F.R. Part 136. Upon request, the City shall allow split or duplicate samples to be taken by EPA, MDEQ, or their authorized representatives. In addition, EPA and MDEQ shall have the right to take any additional samples that EPA or MDEQ may deem necessary.
- (e) <u>Water Quality Reporting</u>. The City shall report, pursuant to the requirements of Section IX (Reporting Requirements), the following information:

- (i) the actions which have been taken under the Water Quality Monitoring Program during the previous Calendar Quarter, including the dates and times of all sampling;
- (ii) a summary of all results of sampling during the previous Calendar Quarter; and
- (iii) all actions including, but not limited to, data collection, which are scheduled for the next Calendar Quarter.

 Water Quality Monitoring Program approved by EPA on December 4, 2017

Significant milestones anticipated during the next reporting period:

Begin implementation of Program, as funding allows

2.6 Pump Station Operations Program

Within twelve (12) months after the Date of Entry of this Consent Decree, February 28, 2014, the City shall submit to EPA for review and approval Pump Station Operations Programs, including a schedule for full implementation of the programs not to exceed twelve (12) months after their approval by EPA. The Pump Station Operations Programs shall include, at a minimum, the following:

- (a) <u>Routine Pump Station Operations Program</u>. The Routine Pump Station Operations Program shall be developed to ensure proper Pump Station operations that will necessitate prevention of Pump Station failure. This program shall include, at a minimum, the following:
 - (i) procedures for reading and recording information appropriate to each Pump Station including, as applicable, pump run-time meter readings, start counters, amperage readings, checking and resetting conditions, wetwell points, grease accumulations, and any other information that is necessary for the proper operation of a Pump Station;
 - (ii) development of standard inspection routes and schedules; and
 - (iii) provisions for needs determination, establishing priorities and scheduling, number of crews and personnel (including, where appropriate, contract crews), standard forms, records and performance measures, and an information management system.

- (b) <u>Emergency Pump Station Operations Program</u>. The Emergency Pump Station Operations Program shall be developed to necessitate emergency operations in the event of Pump Station failure. This program shall provide guidance and ensure timely response to atypical situations in the WCTS with written standard emergency operating procedures for each type of Pump Station and shall include, at a minimum, the following:
 - (i) emergency contact information;
 - (ii) location(s) of auxiliary power including portable or fixed emergency generators applicable to each Pump Station;
 - (iii) location(s) of portable pumping equipment;
 - (iv) guidance for initiating auxiliary power with portable or fixed generators;
 - (v) guidance for installing portable pumps during high flow;
 - (vi) applicable contingency plans; and
 - (vii) standard forms, records and performance measures and an information management system.

- Pump station SSOs occurrences were 28 for the period March 2017 through February 2018. This compares to a total of 4 for the previous reporting period and 5 for 2016/2017.
- Veolia has completed cost analysis on adding emergency generator quick connections where needed and have submitted the results.
- Veolia has completed cost analysis on adding bypass pumping connections (EPO's) where needed and have submitted the results.

Significant milestones anticipated during the next reporting period:

- Continue documented periodic pump station inspections using the inspection routing schedule and as determined by the criticalness of the pump stations.
- Continue to update and follow the Standard Operating Procedures (SOPs) for pump station operations
- Continue plan development for adding emergency generator connections and transfer switches to pump stations where this capability is required. Veolia is currently looking into the cost for implementation.
- Continue plan development for adding bypass pumping connections to allow use of portable pumps to pump stations where this capability is required. Currently 34 stations have this capability.
- Conduct Program review to identify areas of improvement and, if necessary, request Program amendment approval from USEPA.
- Once City has officially taken over B&G Utility, three new pump stations will be added to Veolia's list of regular pump station inspections.

2.7 Fats, Oil and Grease Program

Within twenty-four (24) months after the Date on Entry of this Consent Decree, the City shall submit to EPA for review and approval a FOG Control Program, including a schedule for full implementation of the program not to exceed twelve (12) months after its approval by EPA. The FOG Control Program shall include, at a minimum, the following:

- (a) The legal authority to control the discharge of FOG into the WCTS, including the ability to implement a permit and enforcement program.
- (b) Specification of accepted devices to control the discharge of FOG into the WCTS.

- (c) Establishment of standards for the design and construction of FOG control devices including standards for capacity and accessibility, site map, design documents, and as-built drawings.
- (d) Establishment of FOG control device management, operations, and maintenance standards, or best management practices, that address onsite record keeping requirements, cleaning frequency, cleaning standards, use of additives, and ultimate disposal.
- (e) Establishment of construction inspection protocols, including scheduling, inspection report forms, and inspection record keeping requirements, to assure that FOG control devices are constructed in accordance with established design and construction standards.
- (f) Establishment of compliance inspection protocols, including scheduling, inspection report forms, and inspection record keeping requirements to assure that FOG control devices are being managed, operated, and maintained in accordance with the established management, operations, and maintenance standards or best management practices.
- (g) Establishment of a FOG disposal manifest system.
- (h) Establishment of an enforcement program, including specific enforcement mechanisms, to ensure compliance with the FOG Control Program.
- (i) Establishment of a compliance assistance program to facilitate training of FOG generators and their employees.
- (j) Establishment of a public education program directed at reducing the amount of FOG entering the WCTS from private residences.
- (k) Establishment of staffing (technical and legal) and equipment requirements to ensure effective implementation of the FOG Control Program.
- (l) A FOG characterization study that shall identify the sources of FOG causing problems in the WCTS and the best method or mechanism for addressing those sources.

- (m) A list of current commercial establishment FOG generators including a description of their FOG generating processes and average daily discharge volume.
- (n) Establishment of performance indicators to be used by the City to measure the effectiveness of the FOG Control Program.

- FOG Control Program was initiated in January 2018
- A FOG Control Program Coordinator and two (2) FOG Inspectors are involved in the implementation of the FOG Program
- Approximately 743 Food Service Establishments (FSEs) have been entered into the City's Database
- Approximately 208 courtesy FOG Inspections have been conducted by the City preparing the FSEs for the upcoming actual inspections
- New Sewer Use Ordinance containing FOG provisions, including enforcement stipulations, adopted by City Council effective April 1, 2018. Formal FOG inspections commenced immediately. To date voluntary compliance with the new requirements, including selfimplemented modifications by individual restaurants to comply, have been very encouraging.
- A new training video was developed specifically for the City of Jackson. The video explains the need for FOG control and demonstrates proper kitchen BMPs.

Significant milestones anticipated during the next reporting period:

- Continued rollout of the FOG Program to the FSEs and citizens through public outreach, and continued Program implementation by the FOG Coordinator and two FOG inspectors
- Continue to update the FSE database on CityWorks
- Post the FOG training video on City's website so it can be used by restaurant managers for employee training as required by Sewer Use Ordinance.

- Continue formal compliance inspections and enforcement according to the Sewer Use Ordinance.
- Track FOG Program benefits in obtaining FOG control improvements made by FSEs and reduction of associated dry weather SSOs.

2.8 Pump Station Preventive Maintenance Program

Within twelve (12) months after the Date of Entry of this Consent Decree, February 28, 2014, the City shall submit to EPA for review and approval Pump Station Preventive Maintenance Programs, including a schedule for full implementation of the programs not to exceed twelve (12) months after their approval by EPA. The Pump Station Preventive Maintenance Programs shall include, at a minimum, the following:

- (a) An electrical maintenance component which shall provide guidance to managers and field personnel responsible for electrical maintenance to ensure that preventive maintenance on Pump Station electrical components are performed on a routine basis. This component shall include meter calibration schedules for any meter used to record data collected at or from a Pump Station.
- (b) A mechanical maintenance component that shall provide guidance to managers and field personnel responsible for mechanical maintenance to ensure that preventive maintenance on Pump Station mechanical components are performed on a routine basis.
- (c) A physical maintenance component that shall provide guidance to managers and field personnel responsible for physical maintenance (pipes, walls, inverts, covers, etc.) to ensure that preventive maintenance on Pump Station physical components are performed on a routine basis.
- (d) A Pump Station repair component that shall serve as a reactive maintenance system to repair Pump Stations that are currently in a state of disrepair but still cost-effective to service. This component shall provide for the

identification, prioritization, scheduling, and repair of Pump Stations on a timely basis once a Pump Station has deteriorated beyond the scope of the preventive maintenance programs. This component shall include, at a minimum, the following:

- (i) guidance outlining when a Pump Station is to be placed in the Pump Station Repair Program;
- (ii) a prioritized inventory of Pump Stations in need of repair;
- (iii) an ongoing inventory of completed repairs;
- (iv) a work schedule for repairs; and
- (v) standard forms, records and performance measures, and an information management system.

Significant milestones reached this period for this activity:

Name	Repairs Required	Comments
North Colony Pump Station	Broken force main at station	Repaired the force main
, , , ,		Purchased new portable pump that
	New 8" Portable Godwin Dry	can be used at several pump
General All Pump Stations	Prime Pump	stations
·	Pumps need replacing; Valve pit	Replaced Pumps # 1 and # 2; Valve
WhiteStone Pump Station	and piping needed repaired	pit and piping repaired
		Force main repaired; replaced gate
	Force main break and pump	valve and check valve; repaired the
Siwell Road Pump Station #1	impeller	impeller

Significant milestones anticipated during the next reporting period are presented in the Table below:

- City and Veolia (Contract Operator) to receive construction bids on Western
 Hills and Whitestone Pump Stations on March 27, 2018
- City and Veolia are currently working through a design package for Capital Improvements/rehabilitation of Windsor Forest and Forest Avenue Pump Station

- Windsor Forest Pump Station will be eliminated, and additional gravity sewer will be installed to convey this flow downstream within the collection system
- Forest Avenue Pump Station is receiving numerous upgrade improvements to it, including

Asset Number		Name	Repairs Required
LS-	083	Western Hills	Construction bids to be received on March 27, 2018 for the capital improvements to this pump station.
LS -	22	Forest Ave.	Design of rehabilitation improvements to begin.
LS -	093	Whitestone	Construction bids to be received on March 27, 2018 for the capital improvements to this pump station.
LS -	094	Windsor Forest 1	Design to include elimination of lift station and install gravity interceptor to convey flow downstream.
LS -	087	Westside # 4	Repair of soil erosion at site. Capital improvement.

2.9 Gravity Line Preventative Maintenance Program

Within fifteen (15) months after the Date of Entry of this Consent Decree, May 31, 2014, the City shall submit to EPA for review and approval a Gravity Line Preventive Maintenance Program, including a schedule for full implementation of the program not to exceed twelve (12) months after its approval by EPA. The Gravity Line Preventive Maintenance Program shall include, at a minimum, the following:

(a) A preventive hydraulic cleaning component which shall include protocols for implementing routine hydraulic cleaning component of the preventive maintenance program for Gravity Sewer Lines. This component shall include provisions for needs determination, establishing priorities and scheduling, number of crews and personnel (including, where appropriate, contract crews), hydraulic cleaning equipment to be used, standard hydraulic cleaning maintenance procedures, standard forms, records and performance measures, and an information management.

- (b) A preventive mechanical cleaning component which shall include protocols for implementing routine mechanical cleaning component of the preventive maintenance program for Gravity Sewer Lines. This component shall include provisions for needs determination, establishing priorities and scheduling, number of crews and personnel (including, where appropriate, contract crews), mechanical cleaning equipment to be used, standard mechanical cleaning maintenance procedures, standard forms, records and performance measures, and an information management system.
- (c) A root control component which shall include protocols, methods, and approaches for implementing a root control component of the preventive maintenance program for Gravity Sewer Lines. This component shall include provisions for needs determination, establishing priorities and scheduling, number of crews and personnel (including, where appropriate, contract crews), root control methods and approaches, root control maintenance procedures, standard forms, records and performance measures, and an information management system.
- (d) A manhole preventive maintenance component which shall include protocols, methods, and approaches for implementing a routine inspection and maintenance component of the preventive maintenance program for Gravity Sewer Lines. This component shall include provisions for needs determination, establishing priorities and scheduling, number of crews and personnel (including, where appropriate, contract crews), inspection methods and approaches, standard maintenance procedures, standard forms, records and performance measures, and an information management system.
- (e) A prioritized and expedited schedule for implementation of the Program for the West Bank Interceptor.

- Preventative Cleaning- 42,265 LF
- Root Control- None; 0 LF
- Maintenance Staffing 5 positions filled; 34 still vacant
- Current Major Equipment -
 - 2 of 5 Jet trucks

- 1 of 1 rod trucks (in the shop)
- 2 of 2 TV trucks
- There was no major equipment purchased in FY 2018 to date
- Received unit price bids from 3 Contractors to clean, CCTV and perform sewer repairs/replacement as City identifies needs. These contracts will be issued and authorized as funding becomes available.
- Completed the following Collection System Emergency Repair/Replacement projects:
 - i. Woodland Circle- 700 LF
 - ii. Medgar Evans Blvd-70 LF
 - iii. Caney Creek Interceptor- 120 LF
 - iv. Bailey Avenue- 180 LF
 - v. Longwood Drive- 120 LF
 - vi. West Street- 600 LF
 - vii. North Street 2,700 LF
 - viii. Winchester Street- 300 LF
- Some activities have been affected by staffing levels during the past year
- West Bank Project # 3 completed in August 2017

Significant milestones anticipated during the next reporting period include:

- Initiate West Bank Interceptor Project # 4, if funding is available
- Utilize Unit Price Contractors to complete prioritized cleaning and sewer repairs/replacement of known collection system failures
- Obtain Flow Monitoring data/results from the 12 additional flow meters to be installed

- Evaluate cost-effectiveness of repairing inoperable Vactor trucks versus renting trucks or purchasing new trucks and proceed based on the findings
- Develop standard SOPs for the City's Sewer Maintenance
 Division work associated with this program

2.10 WWTP Operations and Maintenance Program

Within fifteen (15) months after the Date of Entry of this Consent Decree, May 31, 2014, the City shall submit to EPA for review and approval a WWTP Operations and Maintenance Program, including a schedule for full implementation of the program not to exceed twelve (12) months after its approval by EPA. The WWTP Operations and Maintenance Program shall include, at a minimum, the following:

- (a) Equipment, Parts, and Material Inventory. The City shall inventory its WWTPs' operating equipment and materials and evaluate the impacts of the loss of use or failure of each major system component. The City shall develop an inventory control system which shall have the capability of tracking spare parts use and inventory, as well as generating inventory replenishment needs reports. The City's inventory control system shall also include the following elements:
 - (i) prioritization of WWTP components as critical, semi-critical, or non-critical which shall allow the City to focus its maintenance capabilities and spare parts inventories on the WWTP components and potential failures that would have the greatest impact on treatment capacity, Prohibited Bypassing, and NPDES Permit compliance;
 - (ii) identification of critical spare parts and materials, and procedures to ensure that these parts and materials are stored and maintained in inventory at the WWTP;
 - (iii) a list of where the remaining spare parts may be secured to enable the repair or replacement of such equipment in a minimum amount of time and to ensure proper operation of the WWTP; and

- (iv) tracking of spare parts use and inventory, as well as generating inventory replenishment needs reports
- (b) <u>Sludge Processing and Removal</u>. Not inconsistent with the requirements of the MDEQ Agreed Order I, the maintenance program shall include sludge removal procedures, schedules, and standard practices for the WWTPs and from any storage lagoons, wet weather storage cells, equalization ponds, or any other wet weather storage facility that is, or is planned for use by, a WWTP.
- (c) Preventive Maintenance. The City develop and implement a preventive maintenance system for the WWTPs to ensure that preventive and corrective maintenance is conducted and that equipment integral to proper operation and maintenance, treatment units, and tanks are maintained so as to achieve compliance with the NPDES permit. The preventive maintenance system shall include, at a minimum, the following:
 - (i) identification of equipment used in the treatment of wastewater liquids and biosolids;
 - (ii) identification of the standard procedures to conduct preventive maintenance of such WWTP equipment;
 - (iii) identification of the frequency and duration of preventive maintenance necessary to ensure that all WWTP equipment is maintained in such a way so as to achieve compliance with the NPDES permit;
 - (iv) identification of the training and education required for maintenance personnel to perform the standard preventive maintenance procedures;
 - (v) procedures for recognition of indicators that corrective maintenance on WWTP equipment is necessary;
 - (vi) procedures for the generation of work orders for preventive and corrective maintenance of WWTP equipment;
 - (vii) procedures for the generation of purchase orders associated with preventive and corrective maintenance of WWTP equipment;
 - (viii) examples of the types of reports and forms which will be used in implementing the preventive maintenance system;

- (ix) a system for tracking preventive and corrective maintenance activities and histories including the generation of summary reports each month that identify major equipment failures occurring in the previous month and the end-of-month status of preventive and corrective maintenance work orders issued or outstanding in the previous month for equipment; and
- (x) procedures to ensure that failures of equipment and/or loss of power supply during abnormal and emergency conditions are corrected in a timely fashion so as to limit the downtime of the facility or component.

- Completed 3182 Preventative/Predictive Work Orders
- Completed 644 Corrective Work Orders
- Database reviewed, and all equipment checked, updated, added or deleted to database as needed.
- Data manager sent to CMMS training by software developer
- Prohibited bypasses for the period were 16 for the period
 March 2017 through February 2018. This compares to a total of 6 for the previous reporting period
- Capital equipment 5-year budget submitted to City

Significant milestones anticipated during the next reporting period:

- Continue tracking monthly a list of repair improvements for the WWTPs
- Continue implementation of Program as approved
- Continue identifying out of service equipment requiring capital improvement and making improvements as necessary pending City approval and available funding

2.11 Financing and Cost Analysis Program

Within eighteen (18) months after the Date of Entry of this Consent Decree, August 31, 2014, the City shall submit to EPA for review and approval a Financing and Cost Analysis Program. The Financing and Cost Analysis Program shall include, at a minimum, the following:

- (a) A process (including a schedule of implementation) that regularly analyzes, projects, plans, and finances management, operating, and maintenance costs of its Sewer System, including those management, operating, and maintenance costs associated with labor and equipment needed to properly implement the CMOM programs required pursuant to this Consent Decree.
- (b) A process (including a schedule of implementation) that regularly analyzes, projects, plans, and finances capital improvements to its Sewer System, including those capital improvements required pursuant to this Consent Decree. Capital improvement financing shall be planned, using, at a minimum, a five (5)-year planning horizon followed by annual updates.
- (c) A process, including a schedule of implementation, to ensure that life cycle cost analysis is incorporated into its operations cost analyses, maintenance cost analyses, and management cost analyses for all Sewer System equipment and infrastructure.
- (d) A process, including a schedule of implementation, to establish its annual budget and set customer rates that assures that the budget and rates are based on the programs referenced in Paragraph 43. (a) through (c) above.

Significant milestones reached this period for this activity:

- Program documents (FCAP) were returned to the City on March 30, 2017. EPA asked the City to review the document and request a schedule for re-submittal if they desired to make revisions.
- City responded to EPA on February 7, 2018 and indicated they had reviewed the Program documents and determined that no material changes were necessary at this time.

Significant milestones anticipated during the next reporting period:

- Receive approval of the FCAP from EPA
- Once approval of FCAP is received, continue program implementation as funding is available

3.0 Trend Analysis of SSOs and Prohibited Bypasses

The trend analysis for the fifth year of CD implementation includes data for SSOs and prohibited bypasses for March 2016 through February 2018. For each month, numbers of events, total volume, and total duration are plotted with rainfall for the month. Events per month are also plotted by cause.

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).

SSOs and prohibited bypasses are listed in **Appendix A**. The events for March 2016 through December 2017 have been included in Quarterly Reports 12-19. The events for January and February 2018 are included in Quarterly Report No. 20, which is submitted concurrently with this report.

3.1 Collection System SSOs

Figure 3.1 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.

Figures 3.2 and **3.3** shows percentages of collection system SSOs for the year by cause for each year. Note that the percentage of SSOs caused by grease and collapsed pipes increased between years.

Figure 3.4 shows total volume of SSOs for each month. Volumes are plotted on a logarithmic scale because of the large monthly variations.

Figure 3.5 shows total duration of SSOs for each month. Durations are plotted on a logarithmic scale

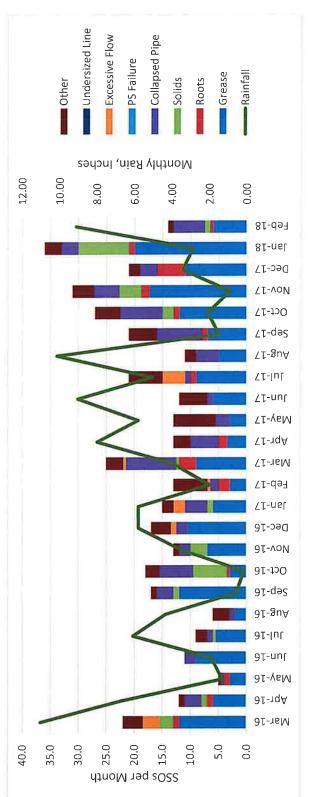
Figure 3.6 shows the change in number of collection system SSOs for the same month in the previous year.

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

As in the previous reporting period, the most common reported causes of SSOs are grease and collapsed pipe. For the reporting period March 2017 thru February 2018, 50% of the 245 SSOs were attributable to grease as the cause of the SSO. The FOG Program is now underway. It's implementation as well as a focus on implementation of the gravity line preventive and corrective maintenance measures (pending adequate funding) should result in the percentage of grease related to decrease.

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Figure 3.1: Collection System SSOs by Cause March 2016 – February 2018



Rainfall, inches	9.12	2.87	3.45	0.90	2.10	1.49	5.04 10.15	5.04	9.03	5.81	7.99	3.96	5.80 1.99	5.80	3.53 5.79	3.53	0.15	0.54	4.35	6.08	1.89	6.66 1.32 1.89 6.08	99.9	11.03
SSOs	14	36	71	31	72	21	11	21	12	13	13	22	13	15	17	13	18	17	9	6	11	2	15	22
Grease	0.9	20.0	11.0	17.3	12.0	7.0	5.0	9.0	6.0	3.0	3.5	9.0	3.0	6.0	10.5	7.0	3.0	12.0	2.0	5.5	9.0	3.0	9.0	12.0
Roots	0.5	1.0	5.0	1.5	1.0	1.0	0.0	1.0	0.0	0.0	1.5	3.0	2.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	1.0	1.0	1.0
Solids	1.0	9.0	0.0	3.8	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	1.0	0.0	3.0	6.0	1.0	0.0	0.5	0.0	0.0	1.0	2.5
Collapsed Pipe	5.5	3.0	3.0	4.5	7.5	8.0	4.0	1.0	1.0	2.5	2.0	9.0	1.5	4.0	2.0	2.0	6.0	3.0	1.0	1.0	2.0	0.5	3.0	0.0
PS Failure	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Excessive Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0	0.0	0.0	0.0	0.5	0.5	2.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0
Undersized Line	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other	1.0	3.0	2.0	3.8	4.5	5.0	2.0	0.9	5.0	7.5	3.0	3.0	6.0	2.0	3.5	1.0	2.5	1.0	3.0	2.0	0.0	0.5	1.0	3.5

Figure 3.2: Percentage of Collection System SSOs by Cause March 2016 – February 2017

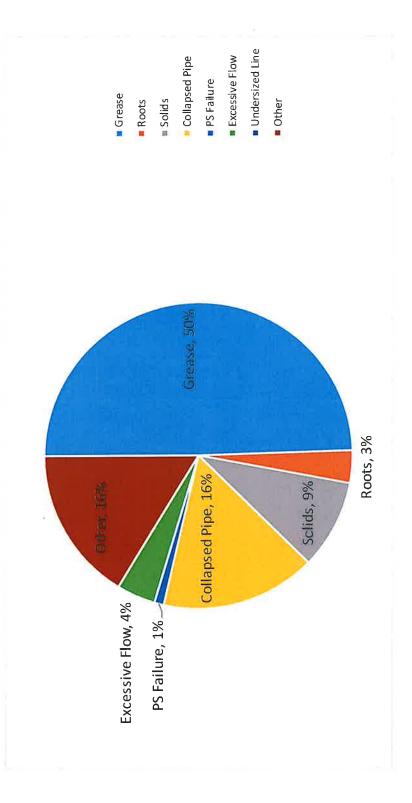
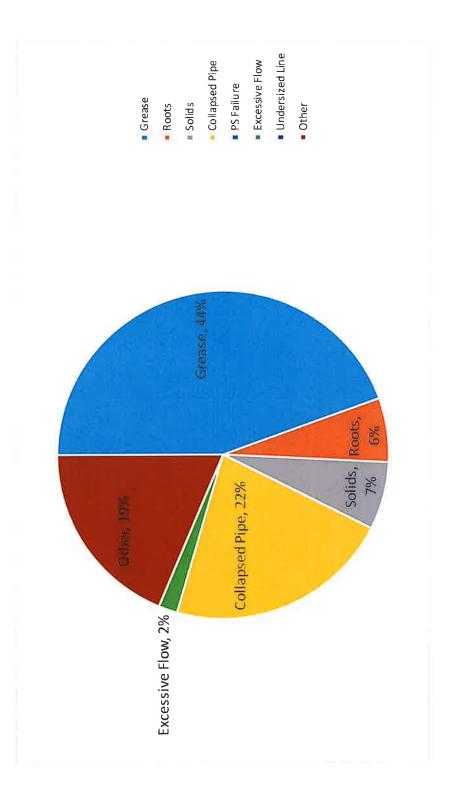
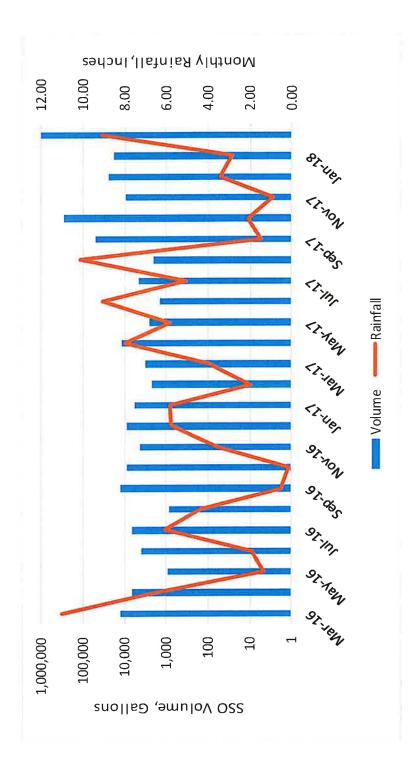


Figure 3.3: Percentage of Collection System SSOs by Cause March 2017 – February 2018



3-6

Figure 3.4: Collection System SSO Volume March 2016 – February 2018

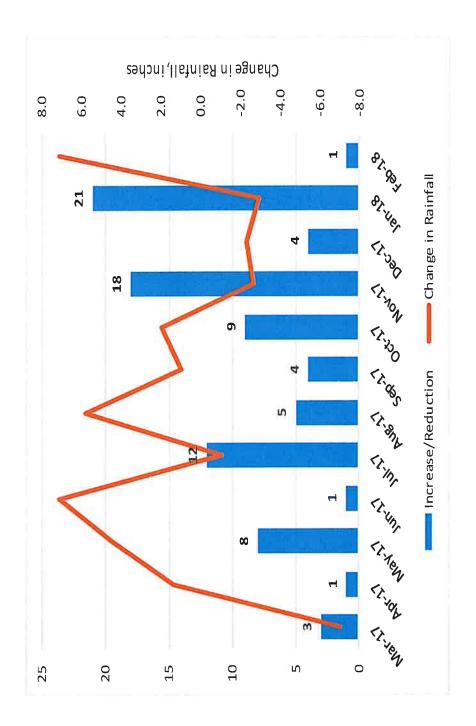


3-7

12.00 10.00 8.00 6.00 2.00 0.00 4.00 Figure 3.5: Collection System SSO Duration ■ Duration ■ Rainfall March 2016 – February 2018 1000.0 100.0 1.0 10.0 SSO Duration, Hours

Monthly Rainfall, Inches

Figure 3.6: Year-to-Year
Change in Number of Collection System SSOs from Previous Year
vs. Change in Rainfall



3.2 Pump Station SSOs

Figure 3.7 shows pump station SSO events by month by reported cause, as listed above, as well as monthly rainfall. As above, multiple causes were assigned fractional values, adding up to a total of one cause for each event.

Figure 3.8 and 3.9 show percentage of SSOs by cause for each year.

Figure 3.10 logarithmically plots total volume of pump station SSOs for each month, along with monthly rainfall.

Figure 3.11 shows total duration of pump station SSOs for each month.

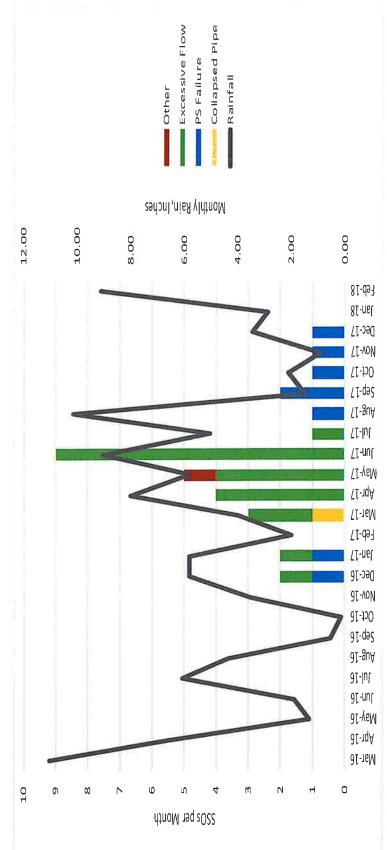
Figure 3.12 shows year-to-year change in the number of pump station SSOS from the same month the previous year.

The number of SSOs at pump stations has increased for this reporting period. Most significantly, there were seventeen (17) SSO events during the reporting period at 1465 Short Ave (LS-68) due to excessive flow entering the sewer system. A majority of these occurred while investigation was underway to locate the source of excessive inflow. The source of the inflow was located and repaired and no further events have occurred since July 1, 2017.

The six (6) most recent events (August 2017 through December 2107) were caused by electrical/control panel failures and one instance of suspected vandalism. All panels have been repaired or replaced.

The cause of the one (1) event in May of 2017 reported as "Other" was due to a short term power outage during which an estimated volume of 50 gallons was discharged.

Figure 3.7: Pump Station SSOs by Cause March 2016 – February 2018



Other	Undersized Line	Excessive Flow	0 PS Failure	Collapsed Pipe	Solids	Roots	Grease	SSOs	10.2 1.5 2.1 0.9 3.5 2.9 9.1 Rainfall
0	0	0	0	0	0	0	0	0	9.1
0	0	0	0	0	0	0	0	0	2.9
0	0	0	1	0	0	0	0	1	3.5
0	0	0	1	0	0	0	0	1	0.9
0	0	0	2	0	0	0	0	2	2.1
0	0	0	1	0	0	0	0	1	1.5
0	0	0	1	0	0	0	0	1	1 1
0	0	1	0	0	0	0	0	1	5.0
0	0	6	0	0	0	0	0	6	9.0
1	0	4	0	0	0	0	0	5	5.8
0	0	4	0	0	0	0	0	4	5.8 5.8 2.0 2.0 4.0 5.8 9.0
0	0	2	0	1	0	0	0	3	2.0
0	0	0	0	0	0	0	0	0	2.0
0	0	1.0	1	0	0	0	0	7	5.8
0	0	1	1	0	0	0	0	2	5.8
0	0	0	0	0	0	0	0	0	3.5
0	0	0	0	0	0	0	0	0	0.1
0	0	0	0	0	0	0	0	0	0.5
0	0	0	0	0	0	0	0	0	4.3
0	0	0	0	0	0	0	0	0	6.1
0	0	0	0	0	0	0	0	0	1.9
0	0	0	0	0	0	0	0	0	1.3
0	0	0	0	0	0	0	0	0	6.7
0	0	0	0	0	0	0	0	0	11.0

Figure 3.8: Percentage of Pump Station SSOs by Cause March 2016 – February 2017

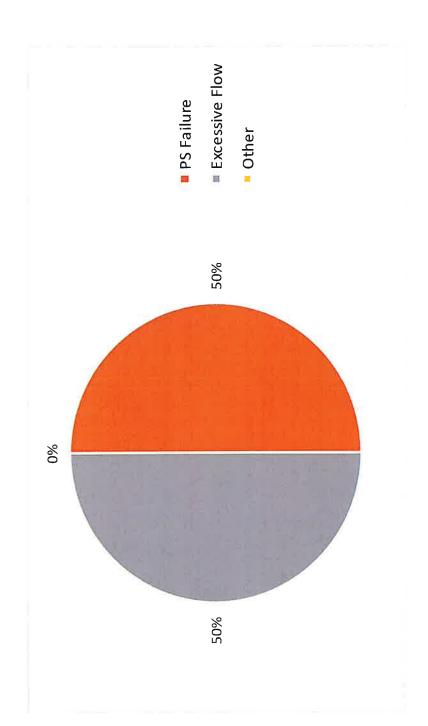
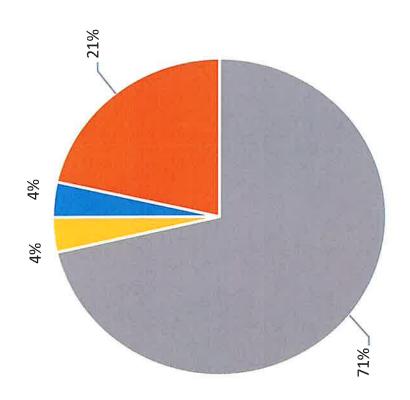


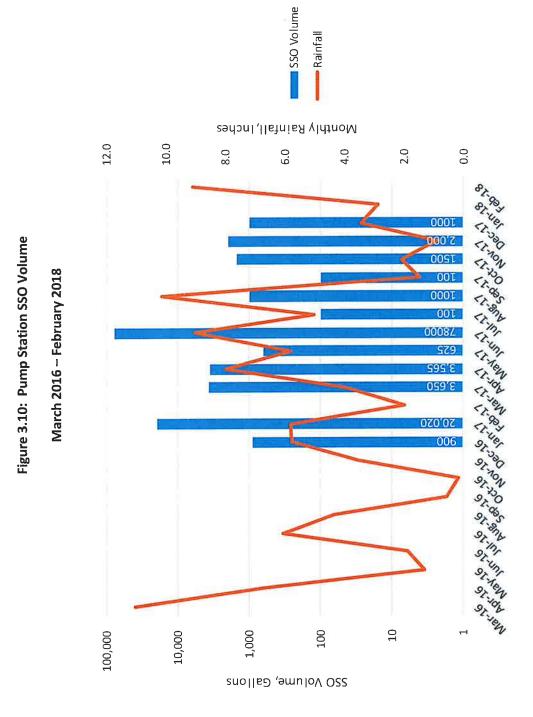
Figure 3.9: Percentage of Pump Station SSOs by Cause March 2017 - February 2018



PS Failure

- Excessive Flow

3-13



3-14

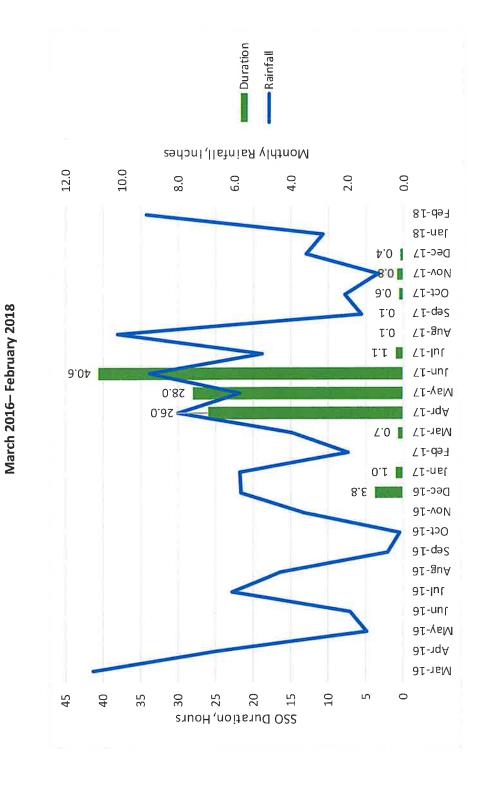
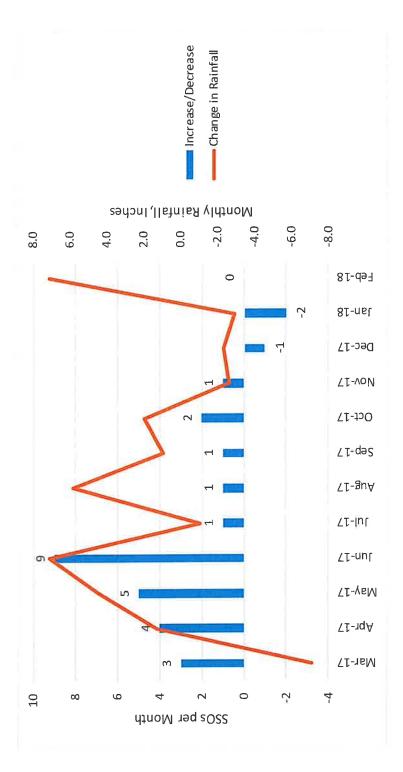


Figure 3.11: Pump Station SSO Duration

3-15

Figure 3.12: Year-to Year
Change in Number of Pump Station SSOs from Previous Year
vs. Change in Rainfall



3.3 West Bank Interceptor SSOs

Figure 3.13 shows SSO events each month by reported cause, as well as by monthly rainfall.

Figure 3.14 shows number of SSOs in the WBI, along with the maximum river stage for each month. River stages are those reported by the USGS gage at U.S. Highway 80.

Figures 3.15 show percentages of West Bank Interceptor SSOs for March 2015 through February 2017.

Figure 3.16 shows total volume of SSOs for each month, along with rainfall. Because of the large variations in volume, these are plotted on a logarithmic scale.

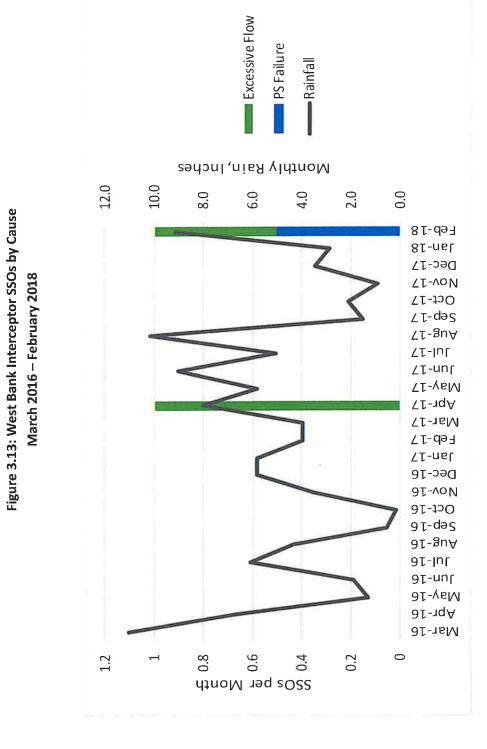
Figure 3.17 shows total duration of SSOs for each month, and monthly rainfall.

Figure 3.18 shows the relationship between the year-to-year number of West Bank Interceptor SSOs and the change in river stages for the same month the previous year.

There were two events reported for the period February 2016 thru March 2018. As reported in Quarterly Report 17, the April 3, 2017 event was caused by excessive rainfall and high river stage. The high river stage inundated the West Bank Interceptor rehabilitation site and entered an open construction pit. The river elevation rose 16.22 feet from 9:30 pm, April 2, 2017 to 8:00 am April 3, 2017 and entered the unsecured pit leading to the SSO event.

The February 4, 2018 event was caused by excessive flow with an equipment failure at the Savanna Influent Pump Station being a contributing factor. The liquid rheostat motor controller for the 100 mgd pump shorted disabling the equipment. Influent flows exceeded the capacity of the three remaining 30 mgd pumps until standby portable pumps could be placed into operation.

3-17

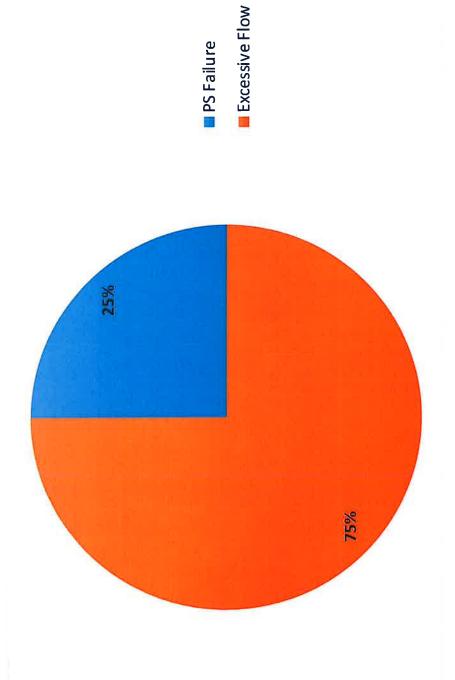


3-18

Excessive Flow Max Stage PS Failure Stage, Feet 20.0 10.0 30.0 25.0 15.0 35.0 5.0 0.0 Feb-18 81-nel Dec-17 **₹1-νοΝ** Oct-17 71-q92 71-guA Հൂ-lut ՀՇ-սու May-17 Apr-17 Mar-17 Ł∈p-J∆ 71-nel Dec-16 91-vo*N* Oct-16 9 τ-dəς 91-βuΑ 91-Լու ցፒ-սու 91-ysM Apr-16 Mar-16 SSOs per Month SSOs per SSOs 0

Figure 3.14: WBI SSOs vs. River Stage March 2016 – February 2018

Figure 3.15: Percentage of WBI SSOs by Cause March 2016 – February 2018



3-20

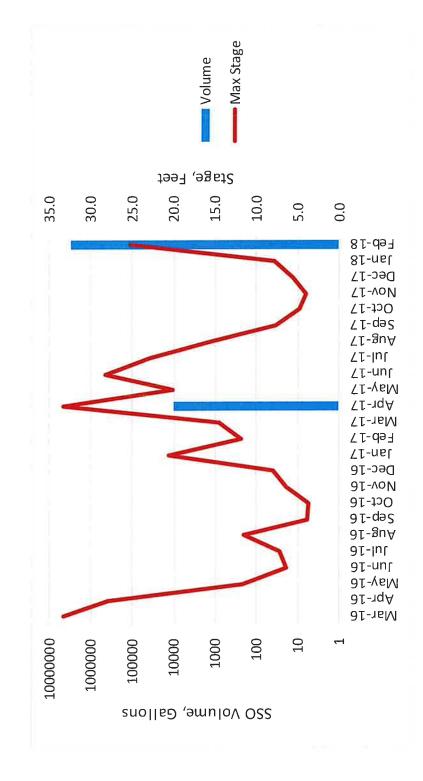


Figure 3.16: WBI SSO Volume vs. River Stage

March 2016 - February 2018

3-21

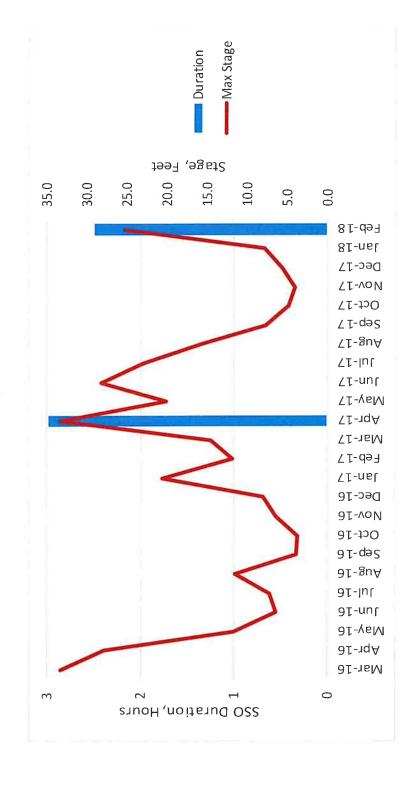
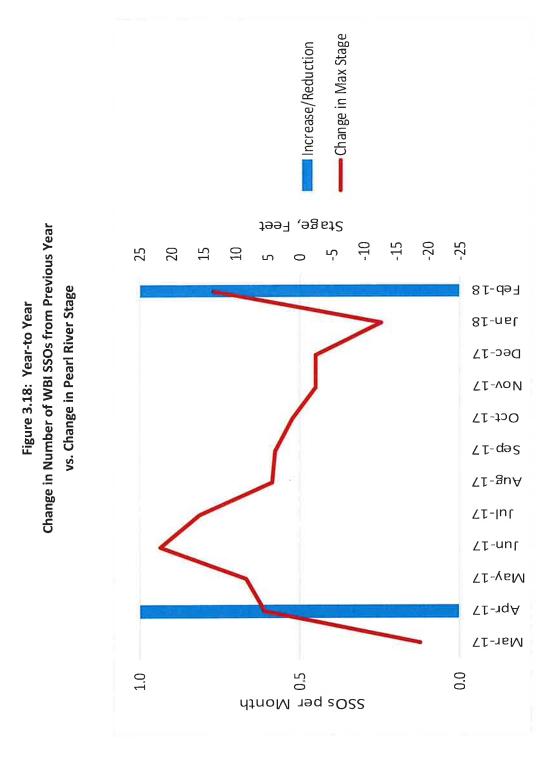


Figure 3.17: WBI SSO Duration vs. River Stage

March 2016 - February 2018

3-22



3.4 Prohibited Bypasses

Figure 3.19 shows prohibited bypass events by month by reported cause, as listed above, as well as monthly rainfall.

Figure 3.20 shows prohibited bypass events and maximum river stage levels for each month.

Figure 3.21 shows annual percentage by reported cause.

Figure 3.22 shows total volume of prohibited bypasses for each month plotted in million gallons, along with river stages.

Figure 3.23 shows total duration for the month. Note that duration of prohibited bypasses is plotted in days.

Figure 3.24 shows year-to-year change in duration of prohibited bypasses for each month with change in river stages for the same month in the previous year.

Excessive flow was reported as a cause in all events. The November 2017 bypass event occurred during the RAS header replacement project. The storm cells reached maximum capacity before the project was completed resulting in a bypass event. In the December 2017 through February 2018 events, two(2) of five(5) clarifiers were out of service due to mechanical problems with the drive mechanisms. With only three (3) clarifiers in service, the influent flows exceeded the plant capacity thus resulting in the bypass events.

The number of prohibited bypasses increased in the period March 2017 through February 2018 from the previous 12 months because of hydraulic limitations of piping, storm cells, influent pumping station and other process areas, wastewater cannot always be recovered from the storm cells and must be discharged. These conditions are identified in the Composite Correction Program (CCP) Report as well as the SRF Facilities Plan submitted to MDEQ in preparation for submitting an SFR Loan Application in FY 2018.

3-24

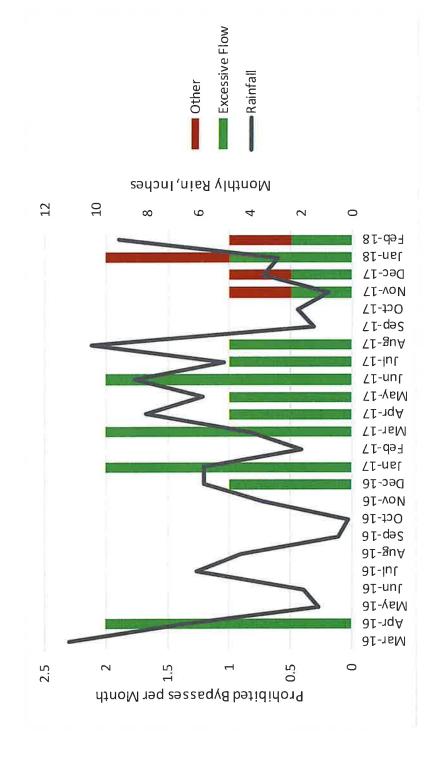


Figure 3.19: Prohibited Bypasses by Cause

March 2016 - February 2018

3-25

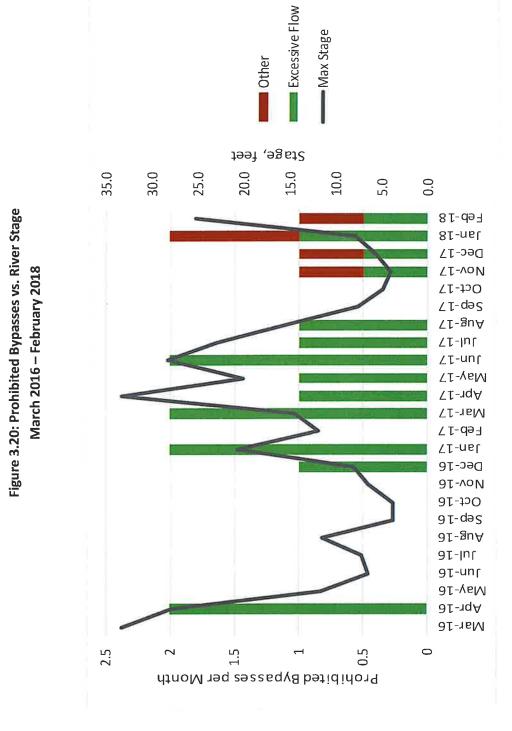
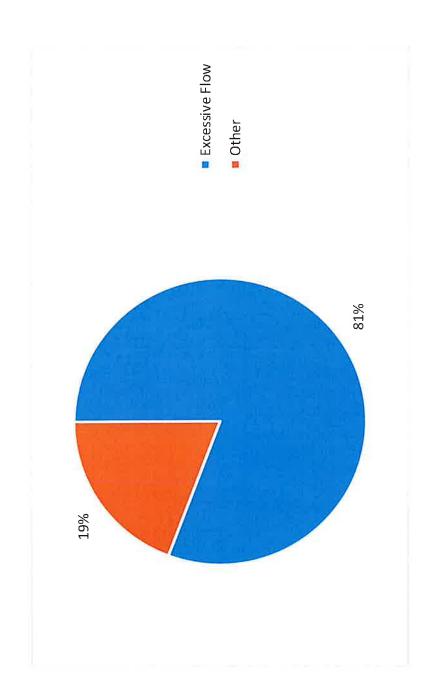


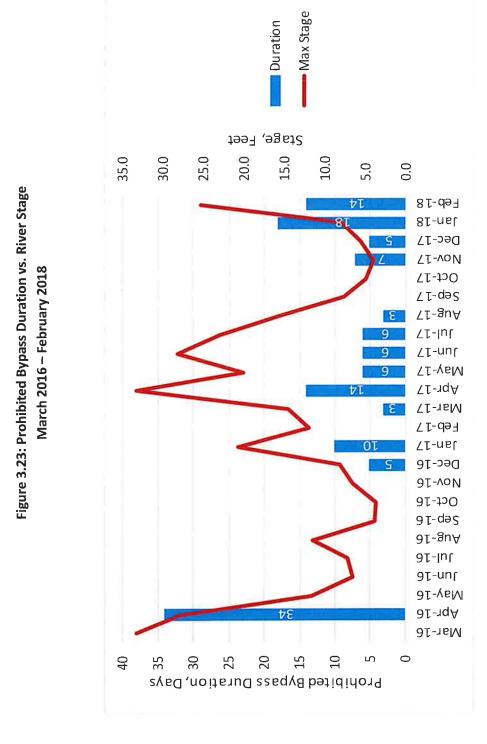
Figure 3.21: Percentage of Prohibited Bypasses by Cause March 2016 – February 2018



3-27

Max Stage ■ Volume Stage, Feet 30.0 25.0 20.0 15.0 10.0 35.0 5.0 0.0 Figure 3.22: Prohibited Bypass Volume vs. River Stage 2.082 81-d97 81-nsl 9.748 Dec-17 68 725.4 **Δ1-νο**Ν 71-J⊃O March 2016 - February 2018 7 1-q∍2 0.591 \\ \T-3u\ 7.891 71-lul ∠Ţ-unſ 6.782 12.45M Apr-17 2.478 Mar-17 🌃 Feb-17 3333 71-nsl Dec-16 040 9T-v0N Oct-16 9T-dəS ð£-guA 9T-Int 9T-unr May-16 6't/tT 4 Apr-16 Mar-16 800 900 400 200 0 1600 1400 1200 1000 Prohibited Bypass Volume, Million Gallons

3-28

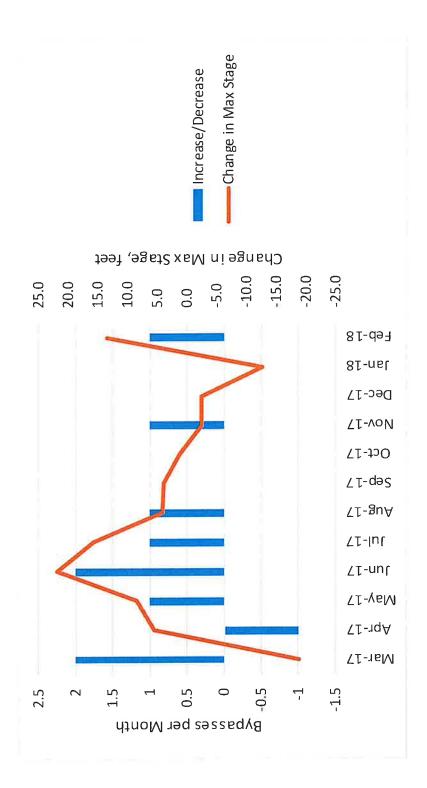


3-29

Figure 3.24: Year-to Year

Change in Number of Prohibited Bypasses from Previous Year

vs. Change in Pearl River Stage



Appendix A SSO and Bypass Tables

Date Began	Time Began	Location	Source	Estimated Duration, Hours	Estimated Volume, Gallons	Reached Waters of the State	Receiving Water	Rainfall, Inches	Reported Cause
3/6/2016	10:52 AM	6507 GEORGE WASHINGTON DR	Manhole	1,25	275	YES	Bogue Chitto	0.00	Grease.
3/9/2016	10:20 AM	2895 MCDOWELL ROAD EX		3.08	480	ON	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		009	YES	Town	4.94	Grease. Rain water.
3/11/2016	11:45 AM	1503 E NORTHSIDE DR	Constructed Bypass	2,77	200	YES	Eastover	6.21	Rain.
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	69.9	Grease.
3/17/2016	5:56 AM	4888 WATKINS DR	Manhole	8,52	720	YES	Eubanks	96.0	Grease,
3/19/2016	5:30 PM	1429 KIMWOOD DR	Manhole	0.00	6	ON	Eastover	1.96	Grease,
3/22/2016	7:28 AM	3190 MEDGAR EVERS BLVD	Manhole	1.83	320	YES	Town	96.0	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	00'0	Roots
3/23/2016	10:10 AM	HERITAGE PL	Ground Surface (defective pipe underground)	4.33	100	ON	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	ON	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	
4/15/2016	10:50 AM	240 SUN DR	Manhole	2.80	180	Yes	White Oak	4.13	Grease

Rainfall, Reported Cause Inches	0.00 Other (Undetermined)	0.00 Grease	0,00 Roots	0.21 Collapsed Pipe	0,21 Grease	0.30 Grease	0.24 Collapsed Pipe	0.00 Solids	0,04 Collapsed Pipe	0.00 Grease	0.12 Grease	Grease/Collapse d Pipe	0.00 Roots	0.00 Grease	0,23 Grease/Other (rags)	0,41 Grease	0.74 Collapsed Pipe	
Receiving Water	Big Creek	Lynch	Three Mile	Lynch	Lynch	Hanging Moss	Hanging Moss	Town	Town	Cany	Lynch	Town	Eubanks	Lynch	Eubanks	Cany	Eubanks	
Reached Waters of the State	Yes	No	Yes	Yes	No	N _O	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	
Estimated Volume, Gallons	1,300	15	50	1,840	40	740	420	300	380	420	800	08	თ	480	320	50	210	
Estimated Duration, Hours		0.75	4.00	11.27	693.62	3.60	2.72	3.27	1,85	2,65	3,85	0.70	1.18	0.97	2,43	21.65	3.83	
Source	Manhole	Manhole	Manhole	Other (pipe across creek crossing)	Manhole	Manhole	Other (creek)	Manhole	Ground Surface (defective pipe underground)	Ground Surface (defective pipe underground)	Manhole	Ground Surface (defective pipe underground)	Cleanout	Manhole	Manhole	Manhole	Ground Surface (defective pipe underground)	Ground Surface
Location	4576 WILL O LAKE DR	403 MAGNOLIA DR	4002 MERIGOLD DR	2840 ROBINSON ROAD	152 S DENVER ST	4880 MCWILLIE CIR	FOREST AVE	613 COURT ST	635 ASH ST	4946 SUNNYBROOK DR	5565 QUEEN MARY LANE	224 E, BELL STREET	4112 AZALEA DR	4375 WELOTA DR	1116 FOREST AVE	HAYNES ST and OAK FOREST DR	PARKWOOD PL	
Time Began	9:41 PM	4:15 PM	8:36 AM	5:53 PM	8:05 AM	10:02 AM	9:11 AM	8:01 AM	8:36 AM	7:33 AM	6:19 AM	1:28 PM	8:27 PM	7:43 AM	6:30 AM	1:21 PM	11:39 AM	
Dake Began	4/16/2016	4/17/2016	4/19/2016	4/20/2016	4/20/2016	4/21/2016	4/22/2016	4/23/2016	4/27/2016	4/29/2016	4/30/2016	5/6/2016	5/6/2016	5/7/2016	5/31/2016	5/31/2016	6/3/2016	

	Rainfall, Reported Cause	0.00 Grease	0.00 Grease		0.00 Grease																
		0.0	0.0			0.3	00.0	0 0 0	0.00												
Receiving Water	×	Eubanks	Eubanks	Bogue Chitto		Lynch	Lynch	Lynch Lynch Cany	Lynch Lynch Cany	Lynch Lynch Cany Purple	Lynch Lynch Cany Purple Three Mile	Lynch Lynch Cany Purple Three Mile Cany	Lynch Lynch Cany Purple Three Mile Cany Cany Cany	Lynch Lynch Cany Purple Three Mile Cany Cany Cany Big Creek	Lynch Lynch Cany Purple Three Mile Three Mile Cany Caney Big Creek Big Creek Eubanks	Lynch Lynch Cany Purple Three Mile Cany Caney Eubanks Big Creek Eubanks	Lynch Lynch Cany Purple Three Mile Three Mile Cany Caney Big Creek Eubanks Hanging Mos	Lynch Lynch Cany Purple Three Mile Cancy Cancy Eubanks Big Creek Eubanks Hanging Moss Hanging Moss	Lynch Lynch Cany Purple Three Mile Cany Cany Cany Hanging Mos Hanging Mos Hanging Mos Town Town	Lynch Lynch Cany Purple Three Mile Cany Cany Caney Hanging Mos Hanging Mos Hanging Mos Town Town Town Hanging Mos Eubanks	Lynch Lynch Cany Purple Three Mile Three Mile Cany Caney Big Creek Eubanks Hanging Mos Hanging Mos Town Town Town Town
Waters of the	State	Yes	Yes	Š		No	o N o	0 0 0 0 0 0 0	No No Yes	No No Yes	N N N N N N N N N N N N N N N N N N N	N N N N N N N N N N N N N N N N N N N	No No YES Yes No Yes	No No Yes Yes Yes Yes	No No Yes Yes Yes Yes Yes	No No Yes Yes Yes Yes Yes Yes Yes	No No No Yes Yes Yes Yes	No No No Yes Yes Yes Yes Yes Yes	No N	No No No Yes Yes Yes Yes Yes Yes Yes	No No No Yes Yes Yes Yes Yes No
Estimated Volume,	Gallons	460	320	25		580	580	580 15	580 15 30 725	580 15 30 725 100	580 15 30 725 100	580 15 30 725 100 360	580 15 30 725 100 360 360	580 15 30 725 100 360 360 30	580 15 30 725 725 100 360 360 30 30	580 15 30 725 100 360 360 30 30 120 780	580 15 30 725 100 360 360 30 120 780	580 15 30 725 725 100 360 360 30 120 780 4,500	580 15 30 725 100 360 360 360 37 120 120 180	580 15 30 725 725 100 360 360 30 120 780 4,500 4,500	580 15 30 725 100 360 360 360 30 120 120 4,500 180 780
Estimated Duration, Hours	2 STANDARDS CONT.	4.67	2.60	1,08		1,65	1.65	1,65 0,65 1,20	1.65 0.65 1.20 3.93	1,65	1.65 0.65 1.20 3.93 1.26	1.65 0.65 1.20 3.93 1.26 1.43 6.52	1,65 0,65 0,65 3.93 3.93 1,26 1,43 6.52	1,65 0,65 1,20 3,93 1,26 1,43 6,52 6,52 2,41	1,65 0,65 1,20 3,93 1,26 1,26 6,52 4,36 2,41 1,47	1,65 0,65 1,20 3,93 1,26 1,43 6,52 6,52 2,41 1,47	0.65 0.65 1.20 3.93 3.93 1.43 6.52 4.36 2.41 1.47	1,65 0,65 1,20 3.93 1,26 1,43 6,52 4,36 2,41 1,47 1,47	1,65 0,65 1,20 3,93 1,26 1,43 6,52 6,52 4,36 2,41 1,47 1,47 0,45	1,65 0,65 1,20 3,93 1,43 6,52 4,36 2,41 1,47 1,47 0,45 0,45 0,57 3,32	1,65 0,65 1,20 3.93 1,26 1,47 1,47 1,47 1,47 1,47 0,45 0,45 0,45 104,50
Source		Ground Surface (defective pipe underground)	Ground Surface (defective pipe underground)	Manhole		Manhole	Manhole	Manhole Manhole Manhole	Manhole Manhole Manhole	Manhole Manhole Manhole Manhole	Manhole Manhole Manhole Manhole Other	Manhole Manhole Manhole Other Manhole	Manhole Manhole Manhole Other Manhole Manhole	Manhole Manhole Manhole Other Manhole Manhole Manhole	Manhole Manhole Manhole Other Manhole Manhole Manhole Manhole	Manhole Manhole Manhole Other Manhole Manhole Manhole Manhole Ground Surface (defective pipe underground)	Manhole Manhole Manhole Other Manhole Manhole Manhole Manhole Ground Surface (defective pipe underground) Manhole	Manhole Manhole Manhole Other Manhole	Manhole	Manhole Manhole Manhole Manhole Manhole Manhole Ground Surface (defective pipe underground) Manhole Manhole Manhole Manhole Manhole Manhole	Manhole
	Location	150 MONTBROOK ST	4127 OAKLAWN DR	6434 ABRAHAM LINCOLN DR		4202 OAKMONT DR	4202 OAKMONT DR 1521 HIGHLAND DR	4202 OAKMONT DR 1521 HIGHLAND DR 172 E WOODCREST DR	4202 OAKMONT DR 1521 HIGHLAND DR 172 E WOODCREST DR 1410 AUTUMN OAKS	4202 OAKMONT DR 1521 HIGHLAND DR 172 E WOODCREST DR 1410 AUTUMN OAKS DR 5028 OLD CANTON ROAD	4202 OAKMONT DR 1521 HIGHLAND DR 172 E WOODCREST DR 1410 AUTUMN OAKS DR 5028 OLD CANTON ROAD ROAD CS2 MCDOWELL PARK CIR	4202 OAKMONT DR 1521 HIGHLAND DR 172 E WOODCREST DR 1410 AUTUMN OAKS DR 5028 OLD CANTON ROAD 252 MCDOWELL PARK CIR CIR CIR	4202 OAKMONT DR 1521 HIGHLAND DR 172 E WOODCREST DR 1410 AUTUMN OAKS DR 5028 OLD CANTON ROAD 252 MCDOWELL PARK CIR 252 MCDOWELL PARK CIR 252 MCDOWELL PARK CIR 252 MCDOWELL PARK CIR	4202 OAKMONT DR 1521 HIGHLAND DR 172 E WOODCREST DR 1410 AUTUMN OAKS DR 5028 OLD CANTON ROAD 252 MCDOWELL PARK CIR 252 MCDOWELL PARK CIR 4410 BROOKS DR. 147 ELMWOD PL.	4202 OAKMONT DR 1521 HIGHLAND DR 172 E WOODCREST DR 1410 AUTUMN OAKS DR 5028 OLD CANTON ROAD 252 MCDOWELL PARK CIR 252 MCDOWELL PARK CIR 4410 BROOKS DR. 147 ELMWOD PL. 976 PARK LANE	4202 OAKMONT DR 1521 HIGHLAND DR 172 E WOODCREST DR 1410 AUTUMN OAKS DR 5028 OLD CANTON ROAD 252 MCDOWELL PARK CIR 252 MCDOWELL PARK CIR 4410 BROOKS DR. 147 ELMWOD PL. 976 PARK LANE	4202 OAKMONT DR 1521 HIGHLAND DR 172 E WOODCREST DR 1410 AUTUMN OAKS DR 5028 OLD CANTON ROAD 252 MCDOWELL PARK CIR 252 MCDOWELL PARK CIR 4410 BROOKS DR. 147 ELMWOD PL. 976 PARK LANE 948 PARKWOOD PL	4202 OAKMONT DR 1521 HIGHLAND DR 172 E WOODCREST DR 1410 AUTUMN OAKS DR 5028 OLD CANTON ROAD 252 MCDOWELL PARK CIR 252 MCDOWELL PARK CIR 4410 BROOKS DR. 147 ELMWOD PL. 976 PARK LANE 976 PARK LANE 348 PARKWOOD PL 2820 NEWPORT ST. 5943 WESTMORE DR	4202 OAKMONT DR 1521 HIGHLAND DR 172 E WOODCREST DR 1410 AUTUMN OAKS DR 5028 OLD CANTON ROAD 252 MCDOWELL PARK CIR 252 MCDOWELL PARK CIR 4410 BROOKS DR. 147 ELMWOD PL. 976 PARK LANE 948 PARKWOOD PL 2820 NEWPORT ST. 5843 WESTMORE DR 5843 WESTMORE DR	4202 OAKMONT DR 1521 HIGHLAND DR 172 E WOODCREST DR 1410 AUTUMN OAKS DR 5028 OLD CANTON ROAD 252 MCDOWELL PARK CIR 252 MCDOWELL PARK CIR 4410 BROOKS DR. 147 ELMWOD PL. 976 PARK LANE 948 PARKWOOD PL 2820 NEWPORT ST. 5943 WESTMORE DR 2424 BAILEY AVE 304 MITCHELL AVE	4202 OAKMONT DR 1521 HIGHLAND DR 172 E WOODCREST DR 1410 AUTUMN OAKS DR 5028 OLD CANTON ROAD 252 MCDOWELL PARK CIR 252 MCDOWELL PARK CIR 4410 BROOKS DR. 147 ELMWOD PL. 976 PARK LANE 948 PARKWOOD PL 2820 NEWPORT ST. 2820 NEWPORT ST. 2824 BAILEY AVE 304 MITCHELL AVE 2424 BAILEY AVE
	Time Began	7:31 AM	12:54 PM	10:15 PM		8:41 AM	8:41 AM 3:15 PM	8:41 AM 3:15 PM 6:13 PM	8:41 AM 3:15 PM 6:13 PM 12:00 PM	8:41 AM 3:15 PM 6:13 PM 12:00 PM 1:05 PM	8:41 AM 3:15 PM 6:13 PM 12:00 PM 1:05 PM 1:12 PM	8:41 AM 3:15 PM 6:13 PM 12:00 PM 1:05 PM 1:12 PM	8:41 AM 3:15 PM 6:13 PM 12:00 PM 1:05 PM 1:12 PM 1:12 PM	8:41 AM 3:15 PM 6:13 PM 12:00 PM 1:05 PM 1:12 PM 1:12 PM 9:10 AM 9:30 AM	8:41 AM 3:15 PW 6:13 PW 12:00 PM 1:05 PW 1:12 PW 1:12 PW 9:30 AM 10:46 AM	8:41 AM 3:15 PM 6:13 PM 12:00 PM 1:05 PM 1:12 PM 1:12 PM 9:10 AM 9:30 AM 10:46 AM	8:41 AM 3:15 PM 6:13 PM 12:00 PM 1:05 PM 1:12 PM 1:12 PM 9:30 AM 9:30 AM 6:24 PM 6:24 PM	8:41 AM 3:15 PM 6:13 PM 12:00 PM 1:05 PM 1:12 PM 1:12 PM 9:30 AM 9:30 AM 7:39 AM 7:39 AM	8:41 AM 3:15 PM 6:13 PM 1:05 PM 1:12 PM 1:12 PM 9:10 AM 9:30 AM 10:46 AM 7:00 AM 7:00 AM	8:41 AM 3:15 PM 6:13 PM 12:00 PM 1:12 PM 1:12 PM 9:10 AM 9:30 AM 10:46 AM 7:39 AM 7:00 AM 7:00 AM	8:41 AM 3:15 PM 6:13 PM 12:00 PM 1:05 PW 1:12 PW 9:10 AM 9:30 AM 6:24 PM 6:24 PM 7:39 AM 7:00 AM 9:13 AM 8:30 AM
	Date Began	6/7/2016	6/8/2016	6/10/2016		6/14/2016	6/14/2016	6/14/2016 6/16/2016 6/17/2016	6/14/2016 6/16/2016 6/17/2016 6/18/2016	6/14/2016 6/16/2016 6/17/2016 6/18/2016 6/26/2016	6/14/2016 6/16/2016 6/17/2016 6/18/2016 6/26/2016	6/14/2016 6/16/2016 6/17/2016 6/18/2016 6/26/2016 6/26/2016	6/14/2016 6/16/2016 6/17/2016 6/26/2016 6/26/2016 6/26/2016	6/14/2016 6/16/2016 6/17/2016 6/18/2016 6/26/2016 6/26/2016 7/1/2016 7/3/2016	6/14/2016 6/16/2016 6/17/2016 6/18/2016 6/26/2016 6/26/2016 7/1/2016 7/7/2016	6/14/2016 6/16/2016 6/17/2016 6/18/2016 6/26/2016 6/26/2016 7/1/2016 7/17/2016	6/14/2016 6/17/2016 6/17/2016 6/26/2016 6/26/2016 7/1/2016 7/3/2016 7/9/2016	6/14/2016 6/16/2016 6/17/2016 6/26/2016 6/26/2016 7/1/2016 7/1/2016 7/14/2016 7/14/2016	6/14/2016 6/16/2016 6/18/2016 6/26/2016 6/26/2016 7/11/2016 7/11/2016 7/14/2016 7/14/2016 7/20/2016	6/14/2016 6/16/2016 6/17/2016 6/26/2016 6/26/2016 7/1/2016 7/1/2016 7/14/2016 7/20/2016 7/20/2016	6/14/2016 6/16/2016 6/17/2016 6/26/2016 6/26/2016 6/26/2016 7/11/2016 7/11/2016 7/14/2016 7/21/2016 7/21/2016

g Water Rainfall, Reported Cause Inches	och 0.27 Other (Disjointed Pipe Segment)		hon 0.10 Grease	0.10	0.10 0.00 0,19 (Unc	0.00	0.00	0.00	0.00 0.00 0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00	0.10 0.00 0.19 0.19 0.00 0.00 0.00 0.00	0.00 0.	0.10 0.00 0.00 0.00 0.00 0.00 0.00 0.00	0.10 0.00 0.00 0.00 0.00 0.00 0.00 0.00	0.10 0.00 0.00 0.00 0.00 0.00 0.00 0.00	0.10 0.00 0.00 0.00 0.00 0.00 0.00 0.00	0.10 0.00 0.00 0.00 0.00 0.00 0.00 0.00	0.10 0.00 0.00 0.00 0.00 0.00 0.00 0.00
Waters of the State	Yes Lynch	No Trahon		No Hardy			ă ă											
Gallons	50	40		ω	8 240	240	240 480 360	240 480 360 80	240 480 360 300	240 480 360 300 420	240 480 360 300 420 280	8 240 480 360 300 280 380	8 240 480 360 300 420 420 380	8 480 360 300 420 420 380 380 260	8 240 360 360 380 280 260 1,500	8 240 360 360 480 380 420 420 420 280 280 260 1,500	8 240 360 360 380 280 260 1,500 540 540	8 240 360 300 300 280 280 260 1,500 540 575
Duration, Hours	1.30	2.32		2,29	0.22													
Source	Ground Surface (defective pipe underground)/Oth er	Manhole	Cleanout		Manhole	Gro hu												
Location	718/722 PRIMOS AVE	1940 VENTURA DR	1135 MCDOWELL CIR		1248 EASTOVER DR	1248 EASTOVER DR 904 E. FORTIFICAITON ST	1248 EASTOVER DR 904 E. FORTIFICAITON ST 226 QUEEN VICTORIA LN	1248 EASTOVER DR 904 E. FORTIFICAITON ST 226 QUEEN VICTORIA LN 333 QUEEN ISABELLA LN	1248 EASTOVER DR 904 E. FORTIFICAITON ST 226 QUEEN VICTORIA LN 333 QUEEN ISABELLA LN 2424 BAILEY AVE	1248 EASTOVER DR 904 E. FORTIFICAITON ST 226 QUEEN VICTORIA LN 333 QUEEN ISABELLA LN 2424 BAILEY AVE 1405 E. NORTHSIDE DR	1248 EASTOVER DR 904 E. FORTIFICAITON ST 226 QUEEN VICTORIA LN 333 QUEEN ISABELLA LN 2424 BAILEY AVE 1405 E. NORTHSIDE DR	1248 EASTOVER DR 904 E. FORTIFICAITON ST 226 QUEEN VICTORIA LN 333 QUEEN ISABELLA LN 2424 BAILEY AVE 1405 E, NORTHSIDE DR 2047 ALYCE DR 3316 REVELS AVE	904 E. FORTIFICAITON ST 226 QUEEN VICTORIA LN 333 QUEEN ISABELLA LN 2424 BAILEY AVE 1405 E, NORTHSIDE DR 2047 ALYCE DR 3316 REVELS AVE	1248 EASTOVER DR 904 E. FORTIFICAITON ST 226 QUEEN VICTORIA LN 333 QUEEN ISABELLA LN 2424 BAILEY AVE 1405 E. NORTHSIDE DR 2047 ALYCE DR 3316 REVELS AVE 125 TAYLOR ST 1235 MELWOOD PL	1248 EASTOVER DR 904 E. FORTIFICAITON ST 226 QUEEN VICTORIA LN 333 QUEEN ISABELLA LN 2424 BAILEY AVE 1405 E, NORTHSIDE DR 2047 ALYCE DR 3316 REVELS AVE 1235 MELWOOD PL WILL-O- LAKE/LAKECOVE	904 E. FORTIFICAITON ST 226 QUEEN VICTORIA LN 333 QUEEN ISABELLA LN 2424 BAILEY AVE 1405 E. NORTHSIDE DR 2047 ALYCE DR 3316 REVELS AVE 125 TAYLOR ST 1235 MELWOOD PL WILL-O- LAKE/LAKECOVE 1040 MADISON ST	1248 EASTOVER DR 904 E. FORTIFICAITON ST 226 QUEEN VICTORIA LN 333 QUEEN ISABELLA LN 2424 BAILEY AVE 1405 E. NORTHSIDE DR 2047 ALYCE DR 3316 REVELS AVE 1235 MELWOOD PL WILL-O- LAKE/LAKECOVE 1040 MADISON ST 4070 MEADOW LANE	1248 EASTOVER DR 904 E. FORTIFICAITON ST 226 QUEEN VICTORIA LN 333 QUEEN ISABELLA LN 2424 BAILEY AVE 1405 E, NORTHSIDE DR 2047 ALYCE DR 3316 REVELS AVE 1235 MELWOOD PL WILL-O- LAKE/LAKECOVE 1040 MADISON ST 4070 MEADOW LANE 255 WOODROW WILSON
Time Began	8:00 AM	8:02 AM	8:49 AM	11:06 AM		12:13 PM	12:13 PM 2:21 PM	12:13 PM 2:21 PM 9:38 AM	12:13 PM 2:21 PM 9:38 AM 11:03 AM	12:13 PM 2:21 PM 9:38 AM 11:03 AM	12:13 PM 2:21 PM 9:38 AM 11:03 AM 12:07 PM 5:59 PM	12:13 PM 2:21 PM 9:38 AM 11:03 AM 12:07 PM 5:59 PM	12:13 PM 2:21 PM 9:38 AM 11:03 AM 12:07 PM 5:59 PM 12:39 PM	12:13 PM 2:21 PM 9:38 AM 11:03 AM 12:07 PM 5:59 PM 12:39 PM 10:36 AM 5:38 PM	12:13 PM 2:21 PM 9:38 AM 11:03 AM 12:07 PM 5:59 PM 12:39 PM 10:36 AM 5:38 PM 3:32 PM	12:13 PM 2:21 PM 9:38 AM 11:03 AM 12:07 PM 5:59 PM 12:39 PM 12:39 PM 10:36 AM 5:38 PM 5:38 PM	12:13 PM 2:21 PM 9:38 AM 11:03 AM 12:07 PM 5:59 PM 12:39 PM 12:39 PM 11:33 AM 11:33 AM	12:13 PM 2:21 PM 9:38 AM 11:03 AM 12:07 PM 5:59 PM 12:39 PM 12:39 PM 11:33 AM 11:57 PM
Date Began	8/19/2016	8/20/2016	8/21/2016	8/23/2016		8/24/2016	8/24/2016	8/24/2016 9/8/2016 9/9/2016	8/24/2016 9/8/2016 9/9/2016 9/13/2016	8/24/2016 9/8/2016 9/9/2016 9/13/2016	8/24/2016 9/8/2016 9/9/2016 9/13/2016 9/16/2016	8/24/2016 9/8/2016 9/13/2016 9/13/2016 9/19/2016	8/24/2016 9/8/2016 9/13/2016 9/16/2016 9/19/2016 9/20/2016	9/24/2016 9/8/2016 9/9/2016 9/13/2016 9/16/2016 9/19/2016 9/20/2016 9/21/2016	9/8/2016 9/8/2016 9/13/2016 9/13/2016 9/19/2016 9/20/2016 9/21/2016 9/21/2016	9/8/2016 9/8/2016 9/13/2016 9/16/2016 9/19/2016 9/20/2016 9/21/2016 9/21/2016 9/21/2016	9/8/2016 9/8/2016 9/9/2016 9/13/2016 9/19/2016 9/20/2016 9/21/2016 9/21/2016 9/24/2016	9/8/2016 9/8/2016 9/9/2016 9/13/2016 9/19/2016 9/21/2016 9/21/2016 9/24/2016 9/24/2016

Table 1
City of Jackson, Mississippi
Annual Report No. 5 - March 2016 through February 2018
Collection System SSOs

Date Began	Time Began	Location	Squrce	Estimated Duration, Hours	Estimated Volume, Gallons	Reached Waters of the	Receiving Water	Rainfall, Inches	Reported Cause
9/25/2016	5:40 PM	1405 E. NORTHSIDE DR	Manhole	5.26	800	ON.	Hanging Moss	00.00	Grease
9/27/2016	5:28 PM	132 PINELAWN PL	Manhole	0.39	280	Yes	Lynch	00.00	Grease
9/28/2016	5:35 PM	235 FACTORY ST	Manhole	648.00	5,000	Yes	Lynch	00.00	Grease
9/30/2016	4:06 PM	3811 TROY AVE.	Ground Surface (defective pipe underground)	1,52	360	Yes	Town	0.00	Collapsed Pipe
10/2/2016	12:19 AM	5055 OLD CANTON RD.	Manhole	1.50	20	Yes	Hanging Moss	00.00	Solids
10/4/2016	3:07 PM	2424 BAILEY AVE	Manhole	0.36	300	Yes	Town	00.00	Collapsed Pipe
10/4/2016	12:01 PM	904 E. FORTIFICAITON ST	Ground Surface (defective pipe underground)	0.58	420	Yes	Томп	00.00	Grease
10/9/2016	9:40 AM	1734 CASTEEL DR.	Cleanout	5.28	160	No	Lynch	00.0	Collapsed Pipe
10/11/2016	7:00 AM	544 WINWOOD DR.	Manhole	2,30	2,000	No	Caney	0.00	Grease & Roots
10/19/2016	10:28 AM	5866 KINDER DR.	Cleanout	Cont.	240	No	Purple	00.00	Collapsed Pipe
10/19/2016	1:32 PM	1135 MARTINGALE RD,	Ground Surface (defective piple underground)	Cont.	480	Yes	Eubanks	0,00	Collapsed Pipe
10/23/2016	11:11 AM	5055 OLD CANTON RD,	Manhole	0.45	75	Yes	Hanging Moss	0.00	Soilds
10/25/2016	3:53 PM	1717 W. CAPITOL ST.	Ground Surface (defective pip undergroung)/Oth er	0,40	240	Yes	Town	0.00	Other (Undetermined)
10/25/2016	2:05 PM	904 E. FORTIFICAITON ST	Ground Surface (defective pipe underground)/Oth er	1.02	320	Yes	Town	0,00	Other (Undetermined)
10/25/2016	6:15 PM	964 COMBS ST.	Cleanout/Other	2.06	1,500	No	Hardy	0.00	Soilds
10/25/2016	11:50 AM	228 FACTORY ST.	Other/Storm Drain	Cont	150	Yes	Unk	0,00	Grease/Other
10/26/2016	3:08 PM	4265 N, STATE ST.	Ground Surface (defective pipe underground)	3.43	370	Yes	Томп	0.00	Soilds
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Reported Cause	Collapsed Pipe	Grease	Soilds	Collapsed Pipe	Soilds	Soilds	Soilds	Grease	Grease	Solids	Grease	Grease	Grease	Collapsed Pipe	Grease	Grease	Collapsed Pipe
															10		
Rainfall, Inches	00.0	00.00	00.00	00.00	00.00	00.00	00.00	00.00	0.00	0.19	0.19	00.00	00.00	0.15	0.15	00.00	00.00
Receiving Water	Eubanks	Caney	Hanging Moss	Lynch	Eubanks	Hanging Moss	Eastover	Hardy	Hardy	Hanging Moss	Purple	Hardy	Town	Town	Hanging Moss	White Oak	Eubanks
Reached Waters of the State	o _N	No	Yes	ON	Yes	No No	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	No	Yes
Estimated Volume, Waters of th Gallons State	900	500	80	800	480	09	130	210	260	360	540	90	160	560	160	220	180
Estimated Duration, Hours	1.45	1.50	0.29	Cont.	3.00	2.19	1,15	1.43	1.05	2.01	2.25	1.54	0.53	0,53	3.52	1.25	0.57
Source	Ground Surface (defective pipe underground)	Manhole	Manhole	Ground Surface (defective piple underground)	Ground Surface (defective piple underground)	Cleanout	Cleanout	Ground Surface (defective piple underground)	Manhole	Ground Surface (defective pipe underground)	Manhole	Cleanout	Cleanout	Ground Surface (defective pipe underground)	Manhole	Cleanout	Ground Surface (defective pipe underground)
Time Began Location Source	1135 MARTINGALE RD.	129 GLENSTONE CIR.	5028 OLD CANTON RD.	1502 COX ST.	4607 CHURCHILL DR.	847 WOODBURY RD	3845 DOGWOOD DR.	172 E. WOODCREST DR.	844 COMBS ST.	5028 Old Canton Road	6130 I-55 FRONTAGE RD.	2250 MONACO ST.	1645 BLAIR ST.	904 E. FORTIFICAITON ST	2416 CULLEYWOOD RD.	251 PERKINS DR.	4612 BELMEDE PL.
Time Began	12:00 PM	6:40 PM	11:09 AM	5:52 PM	2:15 PM	10:13 AM	12:34 PM	4:45 PM	9:13 AM	9:52 AM	3:20 PM	10:50 AM	4:31 PM	12:02 PM	5:32 PM	1:25 PM	11:04 AM
Date Began	10/27/2016	10/27/2016	10/28/2016	10/28/2016	10/30/2016	11/3/2016	11/4/2016	11/4/2016	11/5/2016	11/8/2016	11/8/2016	11/12/2016	11/22/2016	11/23/2016	11/23/2016	11/25/2016	11/26/2016

Table 1 City of Jackson, Mississippi Annual Report No. 5 - March 2016 through February 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
11/30/2016	9:25 AM	816 GALLATIN ST.	Manhole	30,05	1,500	Yes	Town	1:15	Other (Undetermined)
12/3/2016	11:13 AM	206 SAVANNA ST	Manhole	0,22	300	Yes	Caney	0.71	Other
12/3/2016	4:08 PM	4459 MEADOWMONT DR.	Cleanout	Cont.	160	Yes	Lynch	0.71	Grease
12/5/2016	11:45 AM	BOLING ST /W.NORTHSIDE	Manhole	8.00	2,000	Yes	Town	1,29	Grease/Collapse d Pipe
12/6/2016	9:20 PM	SAVANNA ST/EDDY ST	Manhole	8,25	2,000	Yes	Caney	00.00	Grease
12/9/2016	12:43 PM	2045 SOUTHWOOD RD.	Manhole	0.45	380	Yes	White Oak	00.00	Other (Undetermined)
12/9/2016	2:39 PM	1116 FOREST AVE.	Manhole	1.55	80	Yes	Hanging Moss	00.00	Grease
12/12/2016	11:17 AM	325 MCTYERE AVE.	Manhole	4.02	1,500	Yes	Town	0,31	Grease
12/13/2016	10:00 AM	1253 WOOD VILLAGE DR.	Manhole	0.15	100	No	Lynch	0.01	Grease/Other
12/13/2016	10:00 AM	1521 W. HIGHLAND DR.	Ground Surface (defective pipe underground)/Ma nhole	2.35	50	Yes	Lynch	00'0	Collapsed Pipe/Grease
12/13/2016	1:45 AM	SAVANNA ST. WWTP	Other/RAS Pump Replacement	3,00	200	ON	Pearl	0.05	Other
12/14/2016	10:33 AM	1620 ASHDOWN ST.	Manhole	0.58	270	Yes	Town	00.00	Grease
12/20/2016	11:38 AM	4911 OLD CANTON RD.	Cleanout	11.10	70	N _o	Hanging Moss	00:00	Grease
12/20/2016	2:35 PM	153 WINGED FOOT CIR	Manhole	23.25	1,500	Yes	Purple	00'0	Grease
12/24/2016	4:07 PM	3324 NASHVILLE ST	Manhole	0.24	110	Yes	Eubanks	00'0	Grease
12/27/2016	Cont.	Exxon @ BAILEY AVE	Ground Surface (defective pipe underground)/Ma	25.00	25	o Z	Town	0,00	Collapsed Pipe
12/28/2016	12:52 PM	417 WINDSOR DR.	Manhole	0.30	230	Yes	Lynch	00.00	Grease
12/31/2016	1:21 PM	1519 E, NORTHSIDE DR	Cleanout		30	Yes	Hanging Moss	0.67	Excessive Flow
1/5/2017	1:15 AM	121 CYPRESS DR	Manhole	0.50	100	ON	Trahon	0.03	Grease
1/6/2017	1:06 PM	646 CHELSEA DR	Manhole	2,18	240	YES	Cany	0.05	Grease

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Reported Cause	defective pipe underground	N.	Grease	Grease	Roots	Collapsed Pipe	Grease, Solids	Grease, Solids	Collapsed Pipe	Grease	Collapsed Pipe	Choked service line	Grease	Grease	Grease	Bypass Pump off	Collapsed Pipe	Defective service line	Grease	Collapsed Pipe	Defective service
Rainfall, Inches	0.01	0.00	00.0	0.00	90.0	0.19	0.14	0.14	00.00	00.0	00'0	00'0	00'0	00'0	00.00	00.00	0.00	00.00	00'0	00.00	0.0
Receiving Water	Lynch	Purple	Hanging Moss	Town	Big Creek	Hardy	Bakers	Town	Hardy	Hanging Moss	Town	Town	Purple	Hardy	Hardy	Town	Eubanks	Town	Town	Hanging Moss	Lynch
Reached Waters of the State	ON	YES	YES	YES	ON	YES	YES	ON	NO	ON	YES	ON	YES	YES	YES	YES	ON	ON	ON	YES	ON
Estimated Volume, Gallons	10	NR.	420	130	400	220	250		185	180	2,820	15	160	15	360	50	40	50	99	520	
Estimated Duration, Hours	NR - Private Property	0.72	0.88	NR	2.67	6.22	08'0	2.08	Undetermined	0.27	NR - Private Property	Undetermined	1.22	0,28	0.80	0.72	0.37	NR	NR - Private Property	Undetermined	1 00
Source	Ground Surface (defective pipe underground)	Manhole	Manhole	Manhole	Manhole	Manhole	Manhole	Cleanout	Cleanout	Manhole	Cleanout	Cleanout	Manhole	Manhole	Manhole	Ground Surface (defective pipe underground)	Ground Surface (defective pipe underground)	Cleanout	Cleanout	Ground Surface (defective pipe underground)	Cleanout
Location	3776 MEADOW LANE	1140 WOODFIELD DR	4791 MCWILLIE DR	3190 MEDGAR EVERS BLVD	5036 FOREST HILL DR	442 DANIEL CIR	5551 SHAW ROAD	2522 RUTLEDGE AVE	2076 SHADY LANE	787 E NORTHSIDE DR	3727 N WEST ST	1665 AURORA ST	6029 BRENNER DR	3051 GREY BLVD	3875 55 S	904 FORTIFICATION ST	129 WOODLAND CIR	172 GLEN MARY ST	308 LIVINGSTON ST	4070 MEADOW LANE DR	FORD AVE
Time Began	8:44 PM	N.	9:42 AM	5:04 PM	9:30 AM	1:59 PM	2:12 PM	10:15 AM	4:09 PM	6:49 PM	2:54 PM	1:07 PM	2:36 PM	1:09 PM	6:53 PM	3:53 PM	8:58 AM	4:37 PM	1:54 PM	2:46 PM	4:00 PM
Date Began	2/8/2017	2/9/2017	2/9/2017	2/9/2017	2/14/2017	3/12/2017	3/13/2017	3/13/2017	3/14/2017	3/15/2017	3/15/2017	3/15/2017	3/16/2017	3/17/2017	3/22/2017	3/22/2017	3/23/2017	3/23/2017	3/23/2017	3/23/2017	3/24/2017

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Date Began	Time Began	Location	Source	Estimated Duration, Hours	Estimated Volume, Gallons	Reached Waters of the State	Roseiving Water	Rainfall, Inches	Reported Cause
3/25/2017	2:39 PM	3927 ROXBURY ROAD	Manhole	2,23	160	YES	Eastover	0.49	Undetermined
3/27/2017	11:05 AM	EASTOVER DR & REDBUD ROAD	Manhole	11,92	150	YES	Eastover	0.58	Collapsed Pipe
3/28/2017	11:43 AM	2251 FOREST GLEN DR	Cleanout	1.62	480	YES	Hanging Moss	00.00	Grease
3/29/2017	2:06 PM	132 DELANO DR	Ground Surface (defective pipe underground)	0.42	09	YES	Bogue Chitto	00.00	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	0.93	100	YES	Three Mile	1.04	Grease, Solids
3/30/2017	10:04 AM	1439 NORTHSIDE DR	Manhole	9,57	40	YES	Hanging Moss	1.04	Grease, Excessive Flow
3/31/2017	9:59 AM	1957 MEADOWBROOK ROAD	Manhole	3,38	80	ON	Hanging Moss	00.00	Roots
3/31/2017	9:57 AM	1957 MEADOWBROOK ROAD	Manhole	3,42	80	YES	Hanging Moss	00.00	Roots
4/1/2017	9:29 PM	1720 DEVINE ST	Cleanout	1.88	30	YES	Town	0.00	Collapsed Pipe
4/3/2017	5:20 PM	3050 LONGWOOD DR	Creek Crossing	2.03	100	YES	Cany	2.19	Other
4/3/2017	9:30 AM	760 LAKELAND DR	Manhole	Undetermined	300	ON	Eubanks	2,19	Collapsed Pipe
4/5/2017	11:00 AM	1404 WINCHESTER ST	Ground Surface (defective pipe underground)	Undetermined	75	ON	Eubanks	0,01	Roots
4/6/2017	MG 62:7	1048 MEADOW HEIGHTS DR	Manhole	0.08	100	ON	Eubanks	0.00	Grease
4/6/2017	5:51 PM	4420 RIDGEWOOD ROAD	Manhole	0.08	50	YES	Eubanks	0.00	Other
4/6/2017	8:50 AM	442 DANIEL CIR	Manhole	0.35	10	YES	Hardy	00.00	Collapsed Pipe
4/11/2017	1:04 PM	4888 WATKINS DR	Ground Surface (defective pipe underground)	0.73	360	YES	Hanging Moss	0.00	Collapsed Pipe
4/11/2017	11:51 AM	831 COLONIAL CIR	Constructed Bypass	Undetermined	09	YES	Purple	0.00	Grease

	Time Began	Location	Source	Estimated Duration, Hours	Estimated Volume, Gallons	Reached Waters of the State	Receiving Water	Rainfall, Inches	Reported Cause
	6:12 PM	1240 JEFFERSON ST	Manhole	0.05	250	YES	Town	00.00	Grease
	9:37 AM	536 LAUNCELOT ROAD	Manhole	1.13	60	YES	Hanging Moss	0.00	Grease & Roots
	12:24 PM	N GRANDVIEW CIR & TERRY ROAD	Ground Surface (defective pipe underground)	123,10	150	YES	Lynch	0.00	Collapsed Pipe
	3:53 PM	5354 55 N FRONTAGE ROAD	Manhole	Undetermined	100	YES	Hanging Moss	00.00	Other
H	11:31 AM	321 RESERVE DR	Manhole	4.62	150	ON	Lynch	0.91	Grease
	4:37 PM	1915 EASTOVER DR	Other	06:0	65	ON	Hanging Moss	00'00	Collapsed Pipe, Other
	12:33 PM	949 MEADOW HEIGHTS DR	Ground Surface (defective pipe underground)	0.28	700	YES	Eubanks	00°0	Collapsed Pipe
	9:48 PM	1253 EASTOVER DR		3.87	100	ON	Eastover	00.00	Collapsed Pipe
	11:14 AM	5845 KINDER DR	Cleanout	NR - Private Property	10	ON	Purple	00.00	Choked Service line
	2:01 PM	2920 GREENWOOD AVE	Manhole	Undetermined	420	YES	Hardy	00.00	Unknown
	7:19 PM	4966 BROOKWOOD PL	Pump Station	0.20	480	YES	Trahon	00'0	PS Failure
	11:14 AM	5854 CANTON PARK DR	Cleanout	0,58	15	ON	Purple	00.00	Choked Service line
	10:38 AM	1032 PINEHURST ST	Cleanout	1,77	40	ON	Belhaven	00'0	Defective service line
	7:31 PM	NORTHSIDE DR & KIMWOOD DR	Ground Surface (defective pipe underground)	1.23	75	ON	Eastover	0.87	Grease
	9:45 AM	CAVALIER DR & WOOD DALE DR	Ground Surface (defective pipe underground)	2,00	100	YES	Eastover	0.39	Defective manhole
	10:15 AM	2204 TIMBER FALLS DR	Manhole	1.42	80	YES	Cany	0.01	Grease
	11:50 AM	202 E RIDGEWAY ST	Manhole	Undetermined	200	YES	Town	0.01	Unknown
4	9:50 PM	3432 DUNDEE LANE	Other	0.17	15	ON	Cany	0.00	Grease
	6:12 PM	2021 CHEROKEE DRIVE	Manhole	1,40	150	YES	Eubanks	1,11	Grease
	2:21 PM	610 FOREST AVE	Other	2,30	25	YES	Hanging Moss	1.11	Collapsed Pipe

	Time Began	Location	Source	Duration, Hours	Estimated Volume, Gallons	Waters of the State	Receiving Water	Rainfall, Inches	Reported Cause
6/16/2017	11:09 AM	6 BRANDYWINE CT	Manhole	Undetermined	100	YES	Cany	1,11	Grease
6/21/2017	5:00 PM	1454 NORTHSIDE DR	Manhole	4.35	30	YES	Eubanks	1.26	Grease
6/27/2017	12:01 PM	4380 BROOK DR	Other	05.0	480	YES	Eubanks	00.00	Bypass Pump
6/27/2017	1:33 PM	4150 CRANE BLVD	Other	0.52	320	YES	Eubanks	00.00	Bypass Pump
6/27/2017	11:45 AM	MEADOW HEIGHT DR	Manhole	NR	200	YES	Eubanks	00.00	Bypass Pump
6/27/2017	11:16 AM	4568 KIRKLEY CIR	Cleanout	NR - Private Property	15	YES	Eubanks	00 0	Defective service line
6/30/2017	3:43 PM	4675 CLINTON BLVD	Manhole	0.36	е	ON	Trahon	0.01	Grease
6/30/2017	11:59 AM	1155 JOANNE ST	Manhole	0.70	2	ON	Hardy	0.01	Grease
7/4/2017	1:25 PM	2416 CULLEYWOOD ROAD	Manhole	0.38	450	ON	Hanging Moss	00.00	Excessive Flow
7/4/2017	10:25 AM	210 HIGHLAND PLACE DR	Cleanout	1,02	25	ON	Hanging Moss	00.00	Excessive Flow
7/5/2017	3:35 PM	2026 ALTA WOODS BLVD	Manhole	0.67	ю	ON	Lynch	00.00	Excessive Flow
7/5/2017	10:15 AM	1747 HAMPTON ST	Manhole	5,30	5	YES	Lynch	00'0	Grease
7/6/2017	10:40 AM	4860 WATKINS DR	Other	0.43	100	ON	Hanging Moss	00.00	Other
7/6/2017	2:19 PM	CHURCHILL DR	Manhole	1,07	5	ON	Belhaven	00'0	Grease
7/6/2017	3:40 PM	5267 SYCAMORE DR	Other	3,62	300	YES	White Oak	00.00	Excessive Flow
7/8/2017	7:39 PM	340 DEWITT AVE	Manhole	2.10	75	ON.	Eubanks	0.03	Grease
7/11/2017	10:50 AM	3921 BISHOP AVE	Manhole		150	YES	Eastover	0,23	Collapsed Pipe
7/12/2017	4:40 PM	223 MCCLUER ROAD	Other	2.12	700	YES	Cany	0.78	Other
7112/2017	11:53 AM	2416 CULLEYWOOD ROAD	Manhole	NR	150	YES	Hanging Moss	0.78	Roots
7/13/2017	8:22 AM	510 BRIARCLIFF CIR	Manhole	1,48	240	YES	Cany	0.15	Grease
7/13/2017	1:25 PM	6114 FLORAL DR	Pump Station	N.R.	NR	YES	Hanging Moss	0.15	Other
7/14/2017	10:30 AM	5341 REDDOCH DR	Manhole	1,88	20	ON	Purple	0.26	Grease
7/17/2017	9:34 AM	123 RAMADA CIR	Cleanout	1,22	910	YES	Cany	0.01	Grease
7/17/2017	11:30 PM	470 WILLIAMS ST	Manhole	4.50	3	ON		0.01	Grease
7/19/2017	4:40 PM	2750 COLEMAN AVE	Manhole	1,68	400	YES	Town	0.00	Other
7/21/2017	2:00 PM	716 PENNSYLVANIA AVE	Ground Surface (defective pipe underground)	N N	400	YES	Eubanks	0.03	Other
7/25/2017	11:54 AM	266 DELAWARE AVE	Manhole	0,68	420	YES	Lynch	0.12	Grease
7/25/2017	7:58 PM	5449 WILLIAM DR	Cleanout	1.80	50	ON	Eubanks	0.12	Other

Receiving Water Inches White Oak 0.51
Eubanks 0.03
Lynch 0,03
0.03
Lynch 1.27
Town 0.18
Hanging Moss 0.18
Lynch 1,21
Hanging Moss 0.04
Hanging Moss 0,00
Town 0.00
Cany 0,12
Hanging Moss 0.01
Hardy 0,00
Town 0.00
Town 0.00
Томп 0.01
Eubanks 0.00
Eubanks 0.00
Eubanks 0.00
Town 0,00

Date Began	Time Began	Location	Source	Estimated Duration, Hours	Estimated Volume, Gallons	Reached Waters of the State	Receiving Water	Rainfall, Inches	Reported Cause
9/8/2017	10:35 AM	787 E. NORTHSIDE DR	Manhole	1,92		YES	Hanging Moss	0.00	Grease
9/14/2017	4:50 PM	941 BELHAVEN ST	Cleanout	NR	25	ON	Eubanks	00.00	Other
9/14/2017	5:45 PM	919 PINEHURST ST	Cleanout	NR	15	ON	Eubanks	00.00	Other
9/18/2017	7:00 AM	787 E, NORTHSIDE DR	Manhole	6.25	250	YES	Eastover	0,01	Grease
9/20/2017	9:24 AM	116 SOUTH BROOK DR	Manhole	27,27	550	YES	Purple	0.77	Other
9/21/2017	4:58 PM	3675 HORTON AVE	Ground Surface (defective pipe underground)	0,53	260	YES	Town	0.01	Grease
9/21/2017	4:04 PM	619 FOREST AVE	Ground Surface (defective pipe underground)	0.57	360	YES	Hanging Moss	0.01	Collapsed Pipe
9/21/2017	6:37 PM	5426 QUEEN CHRISTINA LANE	Manhole	NR	720	YES	Town	0.01	Grease
9/22/2017	3:50 PM	3665 SYKES ROAD	Other	456.00	15,000	YES	Cany	00'0	Collapsed Pipe
9/22/2017	1:10 PM	3665 SYKES PLACE ROAD	Other	ongoing	285,000	YES	Cany	00.00	Collapsed Pipe
9/26/2017	6:15 AM	3665 SYKES ROAD	Other	ongoing	15,000	YES	Cany	00.00	Collapsed Pipe
9/30/2017	5:00 PM	3665 SYKES ROAD	Other	NR	15,000	YES	Cany	00.00	Collapsed Pipe
9/30/2017	3:15 PM	4095 SIWELL ROAD	Pump Station	ongoing	NR	YES	Big Creek	00.00	Other
10/2/2017	7:10 PM	LAMAR ST	Manhole	ONGOING	200	YES	Town	90.0	Grease
10/2/2017	5:00 PM	1119 PRIMROSE ST	Cleanout	ONGOING	50	ON	Eubanks	0.20	Collapsed Pipe
10/3/2017	12:51 PM	3347 Robinson Street	Other	0.78	400	YES	Lynch	00'0	Grease
10/4/2017	4:06 PM	2982 MCDOWELL ROAD EX	Manhole	0.32	180	YES	Cany	00.00	Grease
10/4/2017	2:53 PM	140 CHERRY HILL DR	Other	ONGOING	450	YES	Hardy	00'0	Other
10/5/2017	12:57 PM	5551 SHAW ROAD	Manhole	ONGOING	1,800	YES	Bakers	00.00	Grease / Solids
10/7/2017	10:26 AM	4617 Hillsdale Drive	Manhole	0.43	120	YES	Hanging Moss	0.13	Grease
10/7/2017	8:59 AM	815 MONTEREY ST	Manhole	ONGOING	009	YES	Hardy	0.13	Roots
10/13/2017	9:00 AM	LINDSEY DR / OAKMONT DR	Ground Surface (defective pipe underground)	6.17	200	YES	Lynch	00'00	Collapsed Pipe
10/15/2017	11:45 AM	864 REAVES ST	Manhole	1,17	200	YES	Hardy	00'0	Grease
10/16/2017	6:15 PM	1962 TEAKWOOD DR	Cleanout	0.52	50	ON	Eubanks	0.20	Other
10/17/2017	6:06 PM	5453 MIMOSA DR	Manhole	0.70	09	YES	Hanging Moss	00.00	Grease

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Reported Cause	Collapsed Pipe	Grease	Collapsed Pipe	Collapsed Pipe	Other	Grease	Grease	Grease	Other	Grease / Solids	Collapsed Pipe / Other	Collapsed Pipe	Grease	Solids	Other	Grease	Solids / Other	Grease
Rainfall, Inches	00.00	00.00	00.00	00.00	0.24	00'0	0.00	00.0	00'0	00.0	0.00	0.86	98.0	00.0	0.21	0.21	0,04	00.00
Receiving Water	Томп	Lynch	Lynch	Lynch	Hanging Moss	Big Creek	Hanging Moss	Town	Town	Lynch	Town	Hanging Moss	Hardy	Cany	Town		Eastover	Lynch
Reached Waters of the State	YES	YES	YES	YES	ON	YES	YES	YES	YES	YES	YES	YES	YES	ON	YES	ON	YES	YES
Estimated Volume, Gallons	80	200	320	120	2	09	420	120	220		380	40	470	125	126	21	200	50
Estimated Duration, Hours	0.70	06°0	1.27	0.32	2,12	0,32	0,18	0.70	0.82	28,75	ONGOING	86°0	ONGOING	0,75	1.42	3.48	4.00	0.57
Source	Ground Surface (defective pipe underground)	Ground Surface (defective pipe underground)	Other	Ground Surface (defective pipe underground)	Other	Manhole	Manhole	Manhole	Manhole	Manhole	Other	Ground Surface (defective pipe underground)	Manhole	Manhole	Manhole	Manhole	Ground Surface (defective pipe underground)	Manhole
Location	1655 FIRST AVE	1224 FAIRMONT AVE	1706 HAIR ST	443 QUEEN CATHERINE LANE	4417 AZALEA DR	2362 PRINCESS PINE DR	5000 RIDGEWOOD ROAD	503 WESLEY AVE	262 QUEEN ANNE LANE	5551 SHAW ROAD	1110 JEFFERSON ST	4328 N. State Street	941 VALENCIA ST	3418 FOREST HILL ROAD	ELRAINE BLVD / COLEMAN BLVD	4110 CRESTVIEW ST	4125 CRANE BLVD	2980 BELVEDERE DR
Time Began	2:39 PM	1:36 PM	10:17 AM	10:14 AM	2:26 PM	9:49 AM	2:18 PM	1:41 PM	9:21 AM	7:00 AM	4:41 PM	2:39 PM	1:14 PM	10:11 AM	3:15 PM	9:46 AM	6:00 PM	9:45 PM
Date Began	10/17/2017	10/17/2017	10/17/2017	10/18/2017	10/21/2017	10/24/2017	10/25/2017	10/25/2017	10/25/2017	10/25/2017	10/26/2017	10/28/2017	10/28/2017	10/30/2017	11/1/2017	11/1/2017	11/3/2017	11/6/2017

Table 1
City of Jackson, Mississippi
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	Reported Cause	Other	Grease	Solids	Grease	Grease	Grease	Grease	Grease	Collapsed Pipe	Grease	Grease / Other	Grease	Solids / Other	Grease	Solids	Roots	Collapsed Pipe / Other	Collapsed Pipe
Workston, or	Rainfall, B	00'0	0.07	00,00	00.00	00'0	0.00	00.0	00.0	00.0	00.00	00.0	00.00	00.0	00.00	00.00	00.00	O.00	0.00
	Receiving Water	Town	Town	Hanging Moss	Hardy	Lynch	Lynch	Hanging Moss	Cany	Town	Cany	Томп	Lynch	Lynch	Hardy	Big Creek	Hardy		Cany
Reached	Waters of the State	YES	YES	YES	YES	YES	YES	YES	YES	NO	YES	ON	YES	YES	ON	ON	YES	ON	ON
O DESCRIPTION OF THE PARTY OF T	Estimated Volume, Gallons	750	06	30	250	720	80	120	320	90	280		50	200	170	180	150	15	100
	Estimated Duration, Hours	6.00	0.63	0.13	1.02	1.47	0.37	09.0	09.0	1.67	0.68	0,58	0,67	NR	0.73	0.32	0.90	2.07	4.63
	Source	Ground Surface (defective pipe underground)	Cleanout	Manhole	Manhole	Manhole	Manhole	Ground Surface (defective pipe underground)	Cleanout	Other	Manhole	Ground Surface (defective pipe underground)	Manhole	Ground Surface (defective pipe underground)	Cleanout	Ground Surface (defective pipe underground)	Manhole	Other	Ground Surface (defective pipe underground)
	Location	COLEMAN AVE	917 INGE ST	5055 OLD CANTON RD	2024 WILLOW WAY	201 WESTHAVEN BLVD	2821 GRETNA GREEN DR	1214 MELWOOD PL	2804 SUNCREST DR	147 ADELLE CT	2981 MCDOWELL ROAD	913 CARLISLE ST	237 KIMBROUGH DR	1301 HAIR ST	831 RAYMOND ROAD	4879 RAYMOND ROAD	309 MCDOWELL ROAD	1119 PRIMROSE ST	5192 SYCAMORE DR
	Time Began	7:00 AM	10:45 AM	2:14 PM	12:43 PM	7:49 AM	11:30 AM	1:55 PM	11:07 AM	9:49 AM	10:05 AM	9:30 AM	5:00 PM	3:20 PM	11:28 AM	6:49 PM	8:37 AM	12:26 PM	11:21 AM
	Date Began	11/7/2017	11/8/2017	11/10/2017	11/10/2017	11/10/2017	11/11/2017	11/14/2017	11/15/2017	11/15/2017	11/16/2017	11/17/2017	11/20/2017	11/20/2017	11/21/2017	11/22/2017	11/22/2017	11/22/2017	11/22/2017

Table 1
City of Jackson, Mississippi
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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
11/27/2017	6:00 PM	North State	Ground Surface (defective pipe underground)	0,75	NR	ON	Hanging Moss	00.00	Collapsed Pipe / Other
11/27/2017	4:15 PM	346 AUDUBON PL	Manhole	1.25		ON	Hanging Moss	00'0	Grease / Solids
11/27/2017	12:20 PM	347 MAGNOLIA ROAD	Manhole	1,37	320	YES	Town	00'0	Grease
11/27/2017	11:46 AM	1643 PEAR ORCHARD PL	Ground Surface (defective pipe underground)	14.08	640	YES	Purple	00.00	Collapsed Pipe
11/27/2017	8:14 AM	347 WILLIAM MCKINLEY CIR	Cleanout	ONGOING	80	YES	Bogue Chitto	00.00	Grease
11/28/2017	12:44 PM	629 FONDREN PL	Manhole	0.63	2,992	YES	Eubanks	00.00	Grease
11/28/2017	10:16 AM	1520 ELLIS AVE	Manhole	0.82	1,220	YES	Lynch	00.00	Grease
11/30/2017	12:00 PM	148 HOLLY HILL DR	Manhole	1.18	NR	YES	Trahon	00'0	Roots / Collapsed Pipe
11/30/2017	11:00 AM	1429 NORTHSIDE DR	Manhole	NR-previous SSO	NR	ON	Hanging Moss	0,01	Grease
12/1/2017	11:28 AM	316 QUEEN THERESA LANE	Manhole	2.53	1,220	YES	Lynch	00.00	Grease
12/4/2017	12:45 PM	5507 GEORGE WASHINGTON DR	Manhole	0.50	75	YES	Hanging Moss	00:00	Grease
12/7/2017	10:57 AM	5192 SYCAMORE DR	Ground Surface (defective pipe underground)	0.05	100	YES	Hardy	0,02	Collapsed Pipe
12/11/2017	11:06 AM	1253 EASTOVER DR	Manhole	0.40	2,000	ON	Eastover	00'0	Grease / Solids
12/11/2017	10:26 AM	3540 SUNSET DR	Manhole	28.82	100	YES	Town	00.00	Grease
12/12/2017	9:30 AM	ARLINGTON ST / PEACHTREE ST	Manhole	1.27	100	ON	Belhaven	0.00	Solids
12/12/2017	9:29 AM	5702 Megar Ever Blvd	Manhole	6.47	100	YES	Town	0.00	Grease
12/13/2017	3:46 PM	2545 PROSPERITY ST	Manhole	145.95	17,280	YES	Town	00'0	Grease / Solids
12/14/2017	6:00 PM	Jefferson St /Carlisle St	Ground Surface (defective pipe underground)	2,25	100	YES	Belhaven	0.00	Grease / Solids
12/15/2017	10:19 AM	2573 Lake Circle	Manhole	1.98	435	YES	Hanging Moss	00.00	Other
12/18/2017	9:55 AM	4515 Ridgewood Rd	Manhole	3.75	125	ON	Eubanks	0.01	Grease

Date Began	Time Began	Location	Source	Estimated Duration, Hours	Estimated Volume, Gallons	Reached Waters of the State	Receiving Water	Rainfall, Inches	Reported Gause
12/20/2017	8:05 AM	3144 WOODSIDE DR	Manhole	0.92	009	ON	Cany	0.64	Grease / Solids
12/21/2017	2:32 PM	3347 ROBINSON ROAD	Cleanout	24.97	1,000	ON	Lynch	0,01	Grease / Solids
12/26/2017	10:03 AM	4083 ROBIN DR	Ground Surface (defective pipe underground)	2.28	80	YES	Hanging Moss	0.56	Collapsed Pipe
12/26/2017	9:30 AM	2828 N. Downing St.	Other	ONGOING	160	YES	Town	0.56	Collapsed Pipe
12/27/2017	11:15 AM	428 SPRINGFIELD CIR	Manhole	86.0	NR-Previous SSO	ON	Town	60.0	Other
12/27/2017	8:30 PM	136 Glenstone Cir	Manhole	2.00	200	ON	Cany	60.0	Grease / Solids
12/27/2017	1:35 PM	4654 Casa Blanca	Cleanout	NR-Previous SSO	300	ON	Eubanks	0.09	Grease / Solids
12/28/2017	7:30 PM	4515 RIDGEWOOD	Manhole	29.0		ON	Eubanks	00'0	Grease / Solids
12/28/2017	11:15 AM	410 MEADOWBROOK ROAD	Cleanout	1.50	100	ON	Belhaven	00'0	Grease
12/29/2017	1:00 PM	641 CHELSEA DR	Manhole	1.05	500	ON	Big Creek	00.00	Grease
1/1/2018	12:30 PM	ELLIS AVE / 120	Manhole	0.50	700	ON	Lynch	00.00	Grease
1/3/2018	12:00 PM	4205 OAKMONT DR	Cleanout	0.83	250	YES	Lynch	00.00	Grease
1/4/2018	12:00 PM	329 WILLIAM MCKINLEY CIR	Manhole	1.17	250	YES	Bogue Chitto	00.00	Grease, Solids
1/5/2018	12:00 PM	1115 PALMYRA ST	Ground Surface (defective pipe underground)	2.23	80	YES	Томп	0.00	Grease
1/5/2018	7:58 AM	2981 MCDOWELL ROAD	Manhole	3.12	280	YES	Cany	00.0	Grease
1/8/2018	1:15 PM	275 MANSHIP ST	Manhole	0.17	400	ON	Town	0.43	Grease
1/8/2018	8:13 AM	5745 GLADEWOOD DR	Cleanout	370.13	2,125	YES	White Oak	0.49	Grease
1/9/2018	11:10 AM	749 BROADMOOR DR	Cleanout	6,10	680	YES	Eubanks	0.02	Grease
1/10/2018	3:50 PM	1644 CAMELLIA LANE	Manhole	0.88	3,240	YES	Lynch	00.00	Grease
1/10/2018	2:00 PM	629 FONDREN PL	Manhole	23.72	80	YES	Town	0.00	Grease
1/11/2018	11:10 AM	209 PARCEL DR	Manhole	6,10	80	YES	Three Mile	0.24	Solids
1/12/2018	8:18 AM	1021 TRINITY ST	Cleanout	3.82	70	ON	Town	00.00	Grease
1/13/2018	12:18 PM	4023 KINGS HWY	Manhole	1,65	09	YES	Eubanks	00.00	Solids

Table 1 City of Jackson, Mississippi Annual Report No. 5 - March 2016 through February 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
	8:13 AM	34 ROBINWOOD PL	Ground Surface (defective pipe underground)	2,25	130	YES	Purple	00 0	Grease
	8:33 AM	488 CAMBRIDGE LANE	Manhole	8,23	2,040	YES	Trahon	00.00	Roots
\vdash	11:57 AM	3957 BERKLEY DR	Cleanout	27.43	120	ON	Eubanks	0.00	Undetermined
	11:27 AM	134 GLENSTONE CIR	Manhole	30.95	009	ON	Cany	00,00	Grease, Solids
	10:04 AM	136 E ASH ST	Manhole	7.45	1,400	YES	Town	00'00	Grease
	9:57 AM	619 FOREST AVE	Manhole	9.00	180	YES	Eubanks	00.00	Collapsed Pipe
	3:20 PM	1933 VENTURA DR	Manhole	1,78	300	YES	Three Mile	00.00	Undetermined
	10:04 AM	4863 WINDERMERE TER	Cleanout	6.32	40	ON	Eubanks	00.00	Solids
	10:24 PM	5735 GLADEWOOD DR	Cleanout	55,95	1,425	YES	White Oak	00'0	Grease
	9:39 AM	2118 EAST DR	Ground Surface (defective pipe underground)		900	ON	Three Mile	0.00	Collapsed Pipe
	8:43 PM	6519 GEORGE WASHINGTON DR	Manhole	3.48	200	ON	Bogue Chitto	00'0	Grease, Solids
	1:13 PM	1253 EASTOVER DR	Manhole	9.28	1,000	ON	Eubanks	0.94	Grease, Solids
Н	12:33 PM	134 GLENSTONE CIR	Manhole	48.95	120	ON	Cany	1.24	Grease, Solids
	8:58 AM	1119 PRIMROSE ST	Cleanout	4.25	80	ON	Cany	00.00	Collapsed Pipe
	7:00 AM	1049 J R Lynch Street	Manhole	4.50	120	ON	Town	00'0	Grease, Solids
	10:06 PM	121 TAYLOR ST	Cleanout	0,75		ON	Town	00'00	Grease, Solids
	4:28 PM	5420 HWY I-55	Manhole	1.30	120	ON	Hanging Moss	00'0	Undetermined
	11:15 AM	6035 WOODHAVEN ROAD	Cleanout	1.73	20	ON	Hanging Moss	00'0	Grease, Solids
	8:17 AM	6011 WOODHAVEN ROAD	Cleanout	49.72	200	ON	Hanging Moss	00'0	Grease, Solids
	1:40 PM	3945 STOVER AVE	Ground Surface (defective pipe underground)	3.05	100	ON	Town	00'0	Grease, Solids
	12:26 PM	2046 WILLOW WAY	Other	1.32	1,030	YES	Three Mile	00.00	Grease
	9:43 AM	3540 SUNSET DR	Manhole	4.20	150	ON	Town	00'0	Grease, Solids

Table 1

City of Jackson, Mississippi
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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
1/30/2018	9:29 AM	1932 WILLOW WAY	Ground Surface (defective pipe underground)	2.70	100	ON	Three Mile	0.00	Grease, Solids
2/1/2018	7:00 AM	4641155 N. FRONTAGE RD	Cleanout	1,12	420	ON	Eastover	0.03	Grease
2/4/2018	8:24 AM	324 ROLLINGWOOD DR	Manhole	2,08	300	ON	Hanging Moss	1.10	Grease, Solids
2/4/2018	2:10 AM	308 S, JEFFERSON ST	Manhole	6,82	3,000,000	ON	Pearl	0.85	Excessive Flow
2/5/2018	8:33 AM	5519 GEORGE WASHINGTON DR	Manhole	3.63	1,180	YES	Bogue Chitto	0.00	Grease
2/7/2018	1:34 PM	5055 OLD CANTON RD	Manhole	0.97	100	ON	Hanging Moss	2.29	Grease, Solids
2/8/2018	12:21 PM	2865 CHARLESTON AVE	Manhole	6.28	009	ON	Cany	00.00	Grease, Solids
2/12/2018	11:00 AM	N.STATE ST	Ground Surface (defective pipe underground)	Undetermined	Undetermined	ON	Eubanks	00.00	Collapsed Pipe
2/12/2018	9:20 AM	814 AVONDALE DR	Ground Surface (defective pipe underground)	Undetermined	Undetermined	ON	Eubanks	0.14	Collapsed Pipe
2/26/2018	12:19 PM	4910 I 55 N	Cleanout	3.75	2,160	YES	Hanging Moss	0.28	Grease
2/26/2018	10:00 AM	815 BROOKWOOD DR	Ground Surface (defective pipe underground)	Undetermined	200	YES	Eubanks	0,26	Roots, Collapsed Pipe
2/27/2018	1:00 PM	2684 KEY ST	Cleanout	9 00	75	ON	Hardy	0,08	Collapsed Pipe

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
2/28/2018	4:24 PM	1644 CAMELLIA LANE	Manhole	4,92	8,640	YES	Lynch	0.47	Grease
2/28/2018	12:51 PM	3921 BISHOP AVE	Ground Surface (defective pipe underground)	7.02	800	YES	Eubanks	0.00	Collapsed Pipe
2/28/2018	10:55 AM	1021 TRINITY ST	Cleanout	45,25	1,400	YES	Town	00.00	0.00 Collapsed Pipe

Table 2 City of Jackson, Mississippi Annual Report No. 5 -March 2016 through February 2018 Pump Station SSOs

Pumps turned off and alarm Pump Station Failure. Control Panel Failure Pump Station Failure Float Panel Failure Excessive Flow. Excessive Flow. Electrical failure Excessive Flow. Excessive Flow, Excessive Flow. Excessive Flow. Excessive Flow. Excessive Flow Excessive Flow. Excessive Flow. Collapsed Pipe Excessive Flow. Excessive Flow. Excessive Flow, Excessive Flow, Excessive Flow. Excessive Flow. Excessive Flow. Excessive Flow. Excessive Flow. Excessive Flow, Excessive Flow. Excessive Flow. Reported Cause Power Outage Panel Failure disconnected PS Failure 1.04 0,32 0.54 0.75 1,11 1.09 0.00 0.13 0.00 0.00 0.50 1.75 0.83 1.04 2.94 2,19 0,68 0,46 0.75 0.25 1.26 1.00 90.0 0.00 0,00 1,75 1.04 1.12 0.91 0.87 0.01 0.57 Receiving Water Trahon Creek Bogue Chitto Lynch Creek Big Creek Lynch Lynch Lynch Town Trahon Cany Waterway Reached YES 9 9 9 8 2 일 Volume, Gallons Estimated 20,000 1,000 1,000 1,000 1,000 1,000 1,500 1,500 1,000 1,000 2,000 1,000 1,000 2,500 2,500 800 9 250 200 250 200 100 100 100 150 5 20 25 20 20 20 Duration, Hours Estimated 10,02 12,82 11,18 11.30 4,33 3,63 3,36 0.54 0.00 0,17 0.16 2.75 2.02 0.50 2.80 5,50 1.25 9.18 4.50 1.05 0.33 0,83 0.39 0.39 2.02 1,17 4,67 4.97 0.07 0.08 0.25 0.40 Pump Station 2102 Thousand Oak (LS-05) 1450 COUNTRY CLUB DR 575 Hillandale Dr. (LS-28) 1465 SHORT AVE (LS-68) 1914 Hwy 80 W (LS-87) 2285 FOREST PARK DR 836 McClure Rd. (LS-82) 1914 Hwy 80 W (LS-87) 992 FLAG CHAPEL CIR TIMBERLAWN ROAD 4210 CHURCH CIR 1465 SHORT AVE 1465 SHORT AVE 4210 CHURCH CIR LS-13 Country Club 1465 SHORT AVE LS-86 Westside #3 1465 SHORT AVE 316 Covington Dr. 3810155S Location 12:30 PM Time Began 2:07 AM 11:00 PM 4:39 PM 10:51 AM 12:07 AM 6:35 AM 4:56 PM 10:30 PM 7:47 PM 3:24 PM 9:09 AM 11:06 PM 4:45 PM 9:40 AM 3:57 AM 8:55 PM 9:00 AM 6:18 PM 8:04 PM 7:20 PM 8:01 AM 1:06 PM 4:20 PM 5:25 PM 1:48 AM 9:50 PM 8:41 AM 2:30 PM 9:30 AM 9:42 AM 1:44 PM 12/18/2016 10/13/2017 12/11/2017 12/16/2016 11/26/2017 Date Began 1/19/2017 4/30/2017 5/20/2017 5/21/2017 5/24/2017 7/1/2017 1/19/2017 3/30/2017 3/30/2017 5/22/2017 6/4/2017 6/6/2017 6/13/2017 6/16/2017 6/19/2017 6/21/2017 6/23/2017 8/11/2017 10/7/2017 4/2/2017 4/3/2017 4/26/2017 5/3/2017 6/2/2017 6/6/2017 9/7/2017 3/7/2017

Table 3
City of Jackson, Mississippi
Annual Report No. 5 - March 2016 through February 2018
West Bank Interceptor SSOs

		-				
Reported Cause	Excessive Flow	Excessive Flow, Equipment failure(WWTP)				
Rainfall, Inches	2.19	1,17"				
Receiving Water	Town	Pearl				
Reached	YES	YES				
Estimated Volume, Gallons	10,000	3,000,000				
Estimated Duration, Hours	2.98	13.75				
Source	Manhole	Manhole				
Location	410 JEFFERSON ST	308 S. Jefferson St.				
Time Began	1:08 PM	2:30 AM				
Date Began	4/3/2017	2/4/2018				

Table 4
City of Jackson, Mississippi
Annual Report No. 5- March 2016 through February 2018
Prohibited Bypasses

Reported Cause	Heavy rainfall generated influent flows in excess of mechanical plant's capacity	Heavy rainfall generated influent flows in excess of mechanical plant's capacity	Heavy rainfall generated influent flow in excess of mechanical plant's capacity.	Heavy rainfall generated influent flow in excess of mechanical plant's capacity.	Heavy rainfall generated influent flow in excess of mechanical plant's capacity,	Heavy rainfall generated influent flow in excess of mechanical plant's capacity.	Heavy rainfall, high river stage & open pit on WBI generated influent flow in excess of mechanical plant's capacity.	Excessive flow contributed to full lagoon levels thus creating the bypass	Excessive flow over the last 4 days contributed to full lagoon levels thus creating the bypass	Excessive flow contributed to full lagoon levels thus creating the bypass	Excessive flow contributed to full lagoon levels thus creating the bypass	There was a rainfall accumulation of 2.9" five days prior to the bypass. The excessive flow due to I/I caused us to divert, thus filling the storm lagoons.	There was a rainfall accumulation of 2,8" five days prior to the bypass in addition to another 2,9" during the duration of the bypass. The excessive flow due to I/I caused the diversion to the stom lagoons and subsequent bypass to the river.	RAS header pipe replacement project and rainfall event totaling 0.43" over the course of two days	Limited Capacity due to two Clarifiers out of service and rainfall event totaling 1,46" during the bypass event	Limited Capacity due to two Clarifiers out of service and rainfall event totaling 0.92" during the bypass event	Limited Capacity due to two Clarifiers out of service and rainfall event totaling 1.41" during the bypass event	Limited Capacity due to two Clarifiers out of service and rainfall event totaling 5.07" during the bypass event	Limited Capacity due to two Clarifiers out of service and rainfall event totaling 4.05" during the bypass event
Rainfall, Inches	11.86	6:39	2.99	2.99	4.16	1.14	5.27	0.68	1.95	2.14	3.81	2.90	2,80	0.43	1.46	0.92	1.41	5.07	4.05
Receiving	Pearl	Pearl	Pearl	Pearl	Pearl	Pearl	Pearl	Pearl	Pearl	Pearl	Pearl	Pearl	Pearl						
Reached	YES	YES	YES	YES	YES	YES	YES	YES	YES	ON	YES	YES	YES						
Estimated Volume, Million Gallons	1,172,97	301.94	104.02	71.51	261.79	61.80	974,20	85.66	94 19	125.49	162.38	163.73	192.96	255.39	89,10	176.38	171.21	580 15	Ongoing
Estimated Duration, Days	26	α	5	2	80	ю	14	4	2	2	4	9	Ø	7	Ŋ	2	11	14	Ongoing
Source	WWTP	WWTP	WWTP	WWTP	WWTP	WWTP	WWTP	WWTP	WWTP	WWTP	WWTP	WWTP	WWTP						
Location	3810 55 S	3810 55 S	3809 I 55 S	38101558	3810 55 S	3810 55 S	38101558	38101558	3810 55 S	3810 55 S	3810 55 S	3810155 S	3810155 S	38101558	3810 I 55 S	3811155 S	3810 55 S	3810155 S	38101558
Time Began	1:55 PM	10:45 AM	NA	NA	NA	NA	2:20 PM	3:00 AM	8:25 AM	9:40 AM	10:40 AM	10:50 PM	6:30 AM	3:30AM	2:45 PM	12:44 PM	1:00 PM	6:45 PM	4:40 PM
Date Began	03/10/16	04/12/16	12/06/16	01/02/17	01/20/17	02/28/17	03/30/17	04/27/17	05/24/17	06/06/17	06/21/17	06/27/17	08/09/17	11/09/17	12/17/17	01/08/18	01/17/18	02/01/18	02/16/18