

MARCH 2016 THROUGH FEBRUARY 2017

Department of Public Works
Consent Decree Program

City of Jackson Wastewater Consent Decree Program

Annual Report No. 4 March 2016 through February 2017

April 28, 2017

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City of Jackson, Mississippi Annual Report No. 4 March 2016 through February 2017

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.

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Jerriot Smash, Interim Director Department of Public Works

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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 in order 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.

- Training Coordinator has now been in place for 18 months and the program continues to develop.
- 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;

	of Public Works Training his Decree Training Lis		
Subject	Summary	Date	Status
OSHA 30 Hour Training	OSHA training offered by MDOT	2/21/2017 - 2/24/2017	Complete
Water/Wastewater Short Courses	Water Supply and Pollution Short Course	2/13/2017 -2/17-2017	Complete
Backhoe Loader Training III	Backhoe training conducted by MDOT	12/13/2016	Complete
Backhoe Loader Training II	Backhoe training conducted by MDOT	10/26/2016	Complete
Consent Decree Training	Consent Decree training conducted by Terry Williamson	10/13/2016	Complete
Mold Remediation Training	OSHA Training Class	8/2/2016 - 8/5/2016	Complete
Wastewater Operator Safety & Training	MsRWA	7/18/2016	Complete
Flow Meters: Installation and Operation	To be conducted by Bill Dawson (CSL) 5/24/201		Complete
Water Operator Training	Conducted by AWWA	5/17/2016	Complete
Water Operator Training	O.B Curtis plant in conjunction with MsRWA is conducting this training	4/21/2016	Complete

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 a number of 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					
Trench Shoring	Litmos Online Training Module	5/4/2017	Upcoming					
Hazard Communication	Litmos Online Training Module	5/11/2017	Upcoming					
Pole Camera Sewer Inspection	Samson Equipment Company is providing this training.	5/25/2017- 5/26/2017	Upcoming					
CCTV Training	Samson Equipment Company is providing this training.	5/25/2017- 5/26/2017	Upcoming					
Jet Truck Training	Samson Equipment Company is providing this training.	5/25/2017- 5/26/2018	Upcoming					
Dye Testing	Samson Equipment Company is providing this training.	5/25/2017- 5/26/2019	Upcoming					
Smoke Testing	Samson Equipment Company is providing this training.	5/25/2017- 5/26/2020	Upcoming					
SSO Training	Litmos Online Training Module	6/15/2017	Upcoming					
Identifying Inflow/Infiltration	In house training to be conducted by Dan Thomas	6/2/2017	Upcoming					
Cavity/Sinkholes Repair	In house training to be conducted by Dan Thomas	6/3/2017	Upcoming					
Lockout/Tagout	Litmos Online Training Module	6/10/2017	Upcoming					
Electrical Hazard Safety	Litmos Online Training Module		Upcoming					
Load Securement Safety	Litmos Online Training Module		Upcoming					
City Ordinances	In house training to be conducted by Terry Williamson	TBD	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

Significant milestones reached this period for this activity:

- 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 #12, #13, and # 14

Significant milestones anticipated during the next reporting period:

- Review SSO locations with multiple occurrences and determine needs
- 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:

- EPA approved Program on August 26, 2016
- No action has been required as of yet for this Program

Significant milestones anticipated during the next reporting period:

Implement Program procedures as required

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 in order 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 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.

- EPA approved Program on August 12, 2016.
- Only minor progress was made in the previous year on the Private Lateral Program due to staffing issues.

Significant milestones anticipated during the next reporting period:

- More significantly implement program, utilizing, as necessary, Program Manager staff to accelerate the process
- 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) Dry Weather Monitoring. The purpose of dry weather monitoring shall be to detect chronic line leaks. Dry weather sampling shall be conducted for a definite period of time, 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) Location of Source of Release. 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.
- c) Spill Impact Water Quality Monitoring Component. The City shall develop 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 upsewer 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) Water Quality Reporting. 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.

- Submitted Water Quality Monitoring Program documents to EPA on February 27, 2015.
- Comments on Program received from EPA on September 28, 2016.
- Response to EPA comments were sent in a letter of February 20, 2017.

Significant milestones anticipated during the next reporting period:

- Update Program documents with the changes suggested in the City's letter of February 20, 2017.
- Upon approval of the updated Program Documents, begin implementation of Program.

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 through the use of 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.

Significant milestones reached this period for this activity:

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- Pump station SSOs occurrences were 4 for the period March 2016 through February 2017. This compares to a total of 5 for the previous reporting period
- No pump station SSOs were reported from March 2016 through November 2016

Significant milestones anticipated during the next reporting period:

- 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 develop for adding bypass pumping connections to allow use of portable pumps to pump stations

where this capability is required. Currently 19 stations have this capability.

 Conduct Program review to identify areas of improvement and, if necessary, request Program amendment approval from USEPA.

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.

- EPA approved Program on August 9, 2016.
- Only minor progress was made in the previous year on the FOG program due to staffing issues.

Significant milestones anticipated during the next reporting period:

More significantly implement program, utilizing, as necessary,
 Program Manager staff to accelerate the process.

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.

Name	Repairs Required	Comments		
Lakeshore C	Check valves required	New check valves installed		
McClure #5	Base elbows replaced	New elbows installed		
River Thames #1	New pump required	Purchased and installed		
Scottsdale #1	Pump repaired	Repaired pump and reinstalled		
McRaven #1	Pump starter	Repaired and placed back in service		
Westside #6	Check valve replacement	Valves replaced		
Siwell Road #1	Bypass line leak	Line repaired		
Brookhollow #3	#2 Pump failure	Pump repaired and back in service		
Westside #3	Pump cutter blades	Cutters replaced		
Stratford	Replacement pump	Replacement pump purchased		
Lakeshore E	Replacement pump	Replacement pump purchased		
Timberlawn #1	Guide railing	Guide railing replaced		
Westside #7	Guide railing	Guide railing replaced		
Flag Chapel #2	Replacement pump required	Received and installed		
Eltonwoods	Guide railing	Guide railing replaced		
Mayfair #3	Pump repair	Pump repaired		
Siwell Road #2	Pump repair	Pump repaired		
Flag Chapel #2	#2 Pump repair	Pump repaired		
Westside #6	Check insulation valves	Valves replaced		

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

 City and Veolia (Contract Operator) are currently working through a design package for Capital Improvements/rehabilitation of four pump stations

Asset Number		Name	Repairs Required
LS -	03	Brookhollow #2	Control panel replacement pending, gathering quote.
LS -	087	Westside #4	Repair of soil erosion at site. Capital Improvement project.
LS-	083	Western Hills	Evaluating rehabilitation of station. Capital improvement.
LS -	22	Forest Ave.	Evaluating rehabilitation of station. Capital improvement.
LS -	093	Whitestone	Evaluating rehabilitation of station. Capital improvement.
LS -	094	Windsor Forest 1	Evaluating rehabilitation of station. 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.

Significant milestones reached this period for this activity:

- Preventative Cleaning- 197,245 l.f.
- Root Control- 0 l.f.
- Maintenance Staffing 33 of 64 positions filled
- Current Major Equipment -
 - 6 of 9 let trucks
 - 1 of 2 rod trucks
 - 2 of 3 TV trucks
- There was no major equipment purchased in FY 2017 to date

- Some activities have been affected by staffing levels during the past year
- West Bank Contract Number 1 completed

Significant milestones anticipated during the next reporting period include:

- Initiate West Bank Interceptor Project # 4
- Continue WCTS Preventative Cleaning Program
- Get SSES projects for Group 1 bid and under contract
- Get Flow Monitoring Contract bid and under contract
- Focus on increased root control efforts
- Conduct Program review to identify areas of improvement and, if necessary, request Program amendment approval from USEPA.
- Evaluate the necessity of augmenting City staff with outside contractors to ensure milestones are met

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) <u>Preventive Maintenance</u>. 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:
 - 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 6171 Preventative/Predictive Work Orders
- Completed 925 Corrective Work Orders
- Contract Management of the WWTPs and the Pump Stations was taken over by Veolia, from the previous operator, United Water, in December 2016.

- Veolia is providing additional training for staff on the use of the ERPortal CMMS system to ensure uniformity in data collection and analysis.
- Prohibited bypasses for the period were 6 for the period March 2016 through February 2017. This compares to a total of 10 for the previous reporting period

Significant milestones anticipated during the next reporting period:

- Conduct Program review to identify areas of improvement and, if necessary, request Program amendment approval from USEPA.
- Continue implementation of Program as approved

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:

- Submitted Program documents to EPA on September 15, 2014
- Program documents were returned to the City on March 30, 2017. EPA has asked the City to review the document and request a schedule for re-submittal if they desire to make revisions.

Significant milestones anticipated during the next reporting period:

- Review Program documents and respond to EPA as appropriate.
- Submit revised Program if that is the preferred path forward.
- Continue program implementation

3.0 Trend Analysis of SSOs and Prohibited Bypasses

The trend analysis for the fourth year of CD implementation includes data for SSOs and prohibited bypasses for March 2015 through February 2017. 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 2015 through December 2016 have been included in Quarterly Reports 8-15. The events for January and February 2017 are included in Quarterly Report No. 16, 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.

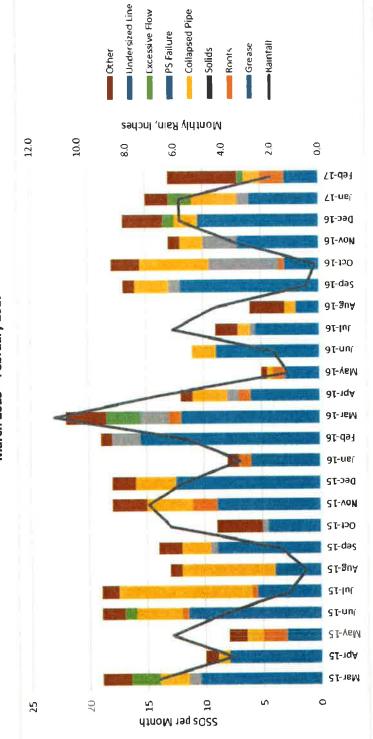
Figure 3.5 shows total duration of SSOs for each month.

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 correlation between rainfall and the number, volume, or duration of SSOs.

In March through May 2015, the number of collection system SSOs decreased from the same month the previous year. From June 2015 through March 2016, the number increased from the same month the previous year. The most significant increases were is the SSOs caused by grease and by collapsed pipes.

Figure 3.1: Collection System SSOs by Cause March 2015 – February 2017



_			_	_			_	_	_	_	
Other	Undersized Line	Excessive Flow	PS Failure	Collapsed Pipe	Solids	Roots	Grease	SSOs	Dainfall inchar	Nallitall, Illuico	
6.0	0.0	0.5	0.0	1.5	0.0	2.0	3.0	13	8	1.7	
5.0	0.0	2.0	0.0	4.0	1.0	0.0	0.9	15	_	9.0	
3.5	0.0	1.0	0.0	2.0	0.0	0.0	10.5	17	95	5.73	
1.0	0.0	0.0	0.0	2.0	3.0	0.0	7.0	13	12.	3.33	
2.5	0.0	0.0	0.0	6.0	0.9	0.5	3.0	81	2.45	U.15	
1.0	0.0	0.0	0.0	3.0	1.0	0.0	12.0	17	12.0	U.74	
3.0	0.0	0.0	0.0	1.0	0.0	0.0	2.0	9	10.	4.35	
2.0	0.0	0.0	0.0	1.0	0.5	0.0	5.5	6	1	9.08	
0.0	0.0	0.0	0.0	2.0	0.0	0.0	9.0	11		1.83	
0.5	0.0	0.0	0.0	0.5	0.0	1.0	3.0	2		1.32	
1.0	0.0	0.0	0.0	3.0	1.0	1.0	0.9	12		99'9	
3.5	0.0	3.0	0.0	0.0	2.5	1.0	12.0	ដ		11.03	
1.0	0.0	0.0	0.0	0.0	2.5	0.0	15.5	19		5.52	
1.0	0.0	0.0	0.0	0.0	0.0	1.0	6.0	∞		3.31	
2.0	00	0.0	0.0	3.5	0.0	0.0	12.5	18		5.65	
3.0	0.0	0.0	0.0	4.0	0.0	2.0	0.6	82		7.12	
4.0	00	00	0.0	0.0	0.5	0	4.5	6		6.20	
2.0	0	0	00	2.5	5.	00	0	14		1.69	
10		0.0	0.0	80		00	40	2		0.61	
1.5		8	9	11.5	2	2	1 2	1		1.32	
2.0	2 0	2 0		+	+	5	+-	9		4.01	
15	3 6	000	3 6	+	+-	+-	2 6	+		6.15	-
1,0	2 2	3 0		2			-	+		3.68	
3.5	000	2,5	5 0	2 2	3 5	2	10.0	19		6.74	

Figure 3.2: Percentage of Collection System SSOs by Cause March 2015 – February 2016

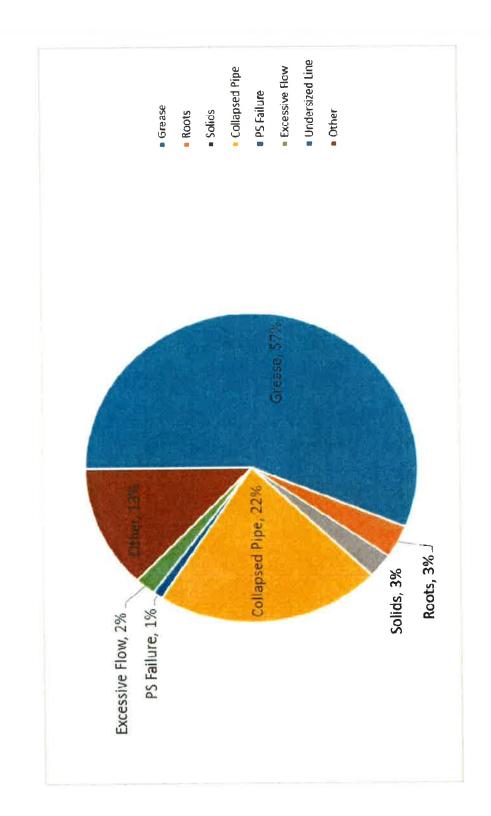
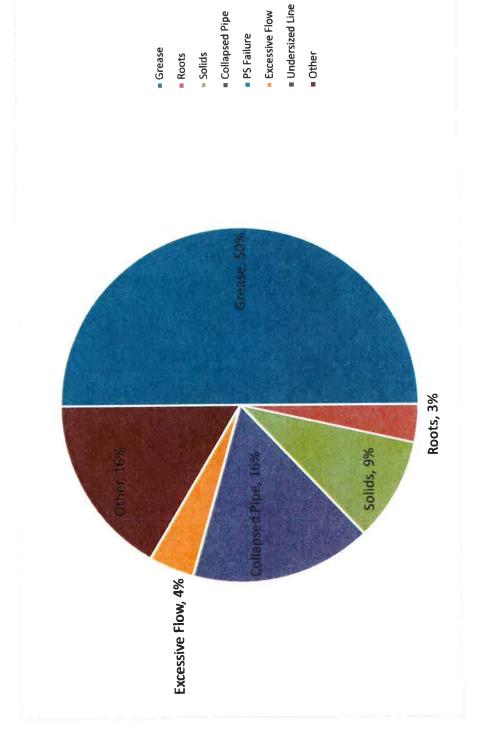


Figure 3.3: Percentage of Collection System SSOs by Cause March 2016 – February 2017



3-6

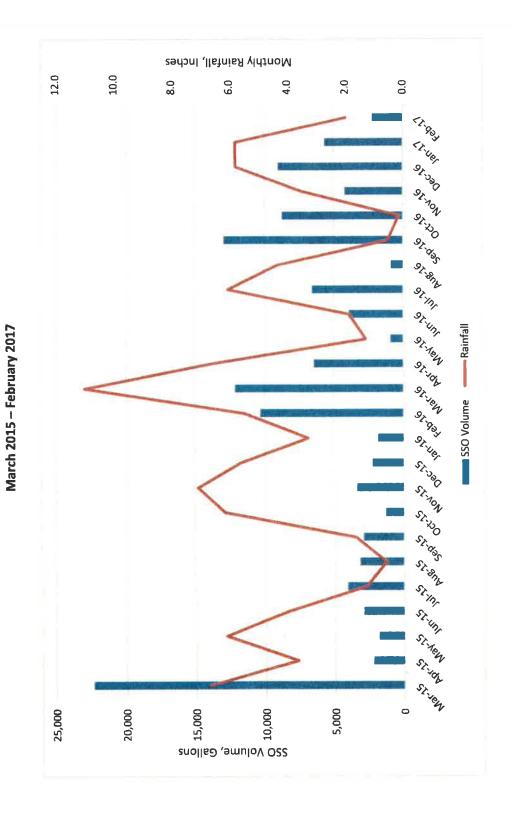


Figure 3.4: Collection System SSO Volume

3-7

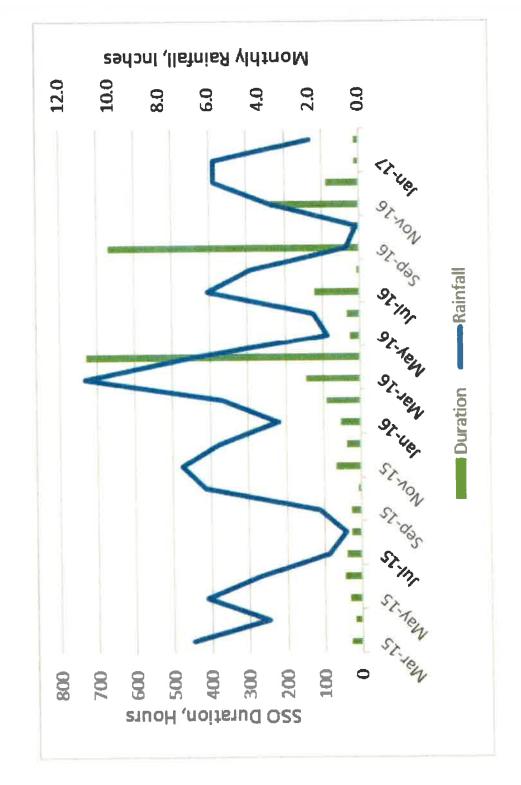
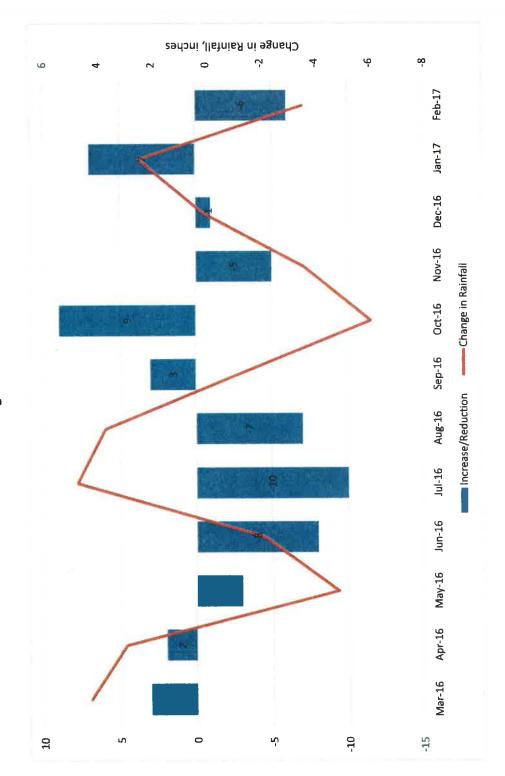


Figure 3.5: Collection System SSO Duration March 2015 – February 2017

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. It appears that there may be a slight correlation between rainfall and total monthly duration.

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 decreased as Pump Station Operation and Preventive Maintenance Programs have been implemented. It should be noted that were no pump station SSOs for 17 months from July 2015 through November 2016.

3-10

Undersized Line ■ Collapsed Pipe Excessive Flow PS Failure Solids ... Roots Monthly Rain, Inches 12.00 10.00 0.00 8.00 9.00 4.00 2.00 Feb-17 Figure 3.7: Pump Station SSOs by Cause 71-nel Dec-16 March 2015 – February 2017 9T-von Oct-16 26b-3ε 91-guA 9ፒ-լոՐ 9Ծ-սու 91-yeM Apr-16 Mar-16 £<mark>ep-</mark>τe gt-net Dec-12 Nov-15 Oct-72 26b-12 51-**3**υΑ յոլ-յշ St-nul May-15 Apr-15 Mar-15 SSOs per Month 2.5 0.5 0

							_	_	_
Other	Undersized Line	Excessive Flow	0 PS Failure	Collapsed Pipe	Solids	Roots	Grease	SSOs	6.7 3.7 6.2 4.0 1.3 0.6 1.7 6.2 7.1 5.7 3.3 5.5 11.0 6.7 1.3 1.9 6.1 4.3 0.5 0.1 3.5 5.8 5.8 5.8 2.0 Rainfall
0	0	0	0	0	0	0	0	0	2:0
0 0.5	0	0.5	1	0	0	0	0	7	2.8
0	0	П	П	0	0	0	0	7	5.8
0	0	0	0	0	0	0	0	0	3.5
0 0 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	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
0	0	0	0	0	0	0	0	0	5.5
0	0	0	0	0	0	0	0	0	3.3
0 0 0	0	0	0	0	0	0	0	0	5.7
0	0	0	0	0	0	0	0	0	7.1
0	0	0	0	0	0	0	0	0	6.2
0	0	0	0	0	0	0	0	0	1.7
0	0	0	0	0	0	0	0	0	9.0
0	0	0	0	0	0	0	0	0	1.3
0	0	0.5	0.5	0	0	0	0	1	4.0
0	0	0	2	0	0	0	0	2	6.2
0	0	0	0	0	0	0	0	0	3.7
0	0	0	1.5	0	0	0	0.5	7	6.7

3-11

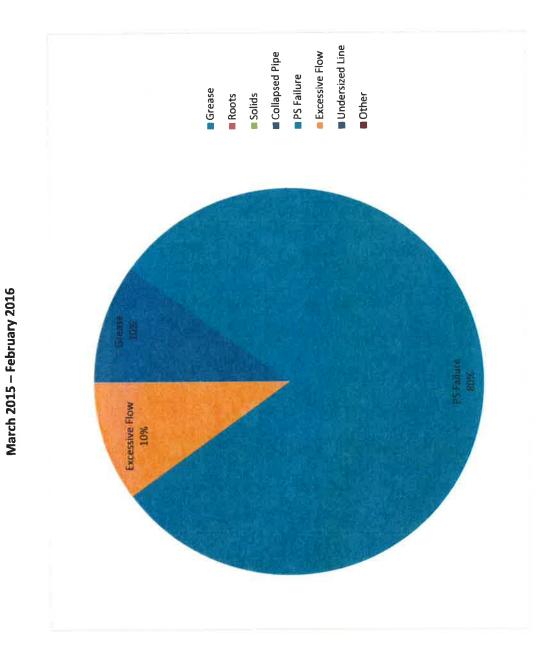
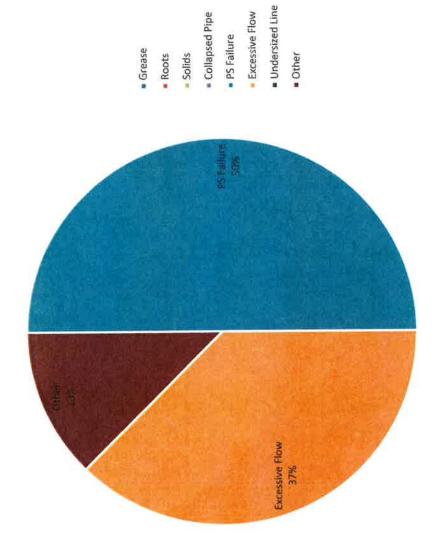
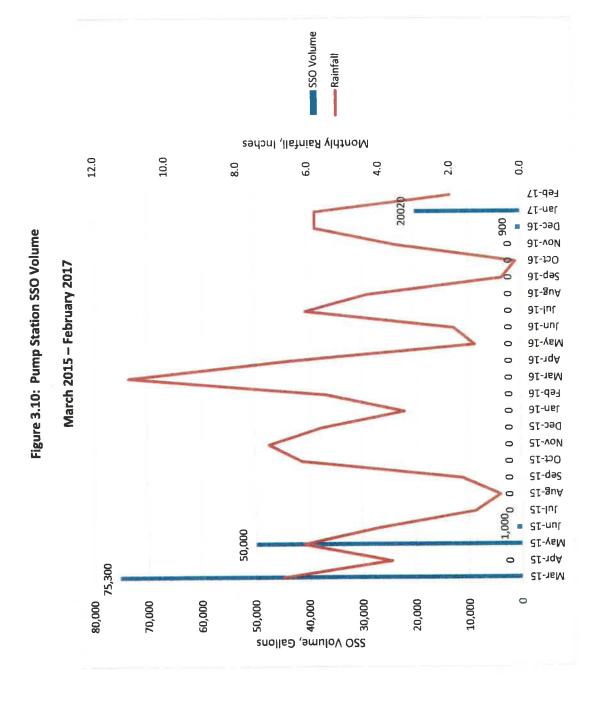


Figure 3.8: Percentage of Pump Station SSOs by Cause

Figure 3.9: Percentage of Pump Station SSOs by Cause March 2016 – February 2017





Monthly Rainfall, Inches 12.0 10.0 8.0 0.9 March 2015- February 2017

14

12

10

SSO Duration, Hours

Duration ----Rainfall

4.0

3.75

2.0

0.0

0

Feb-17 71-nsl

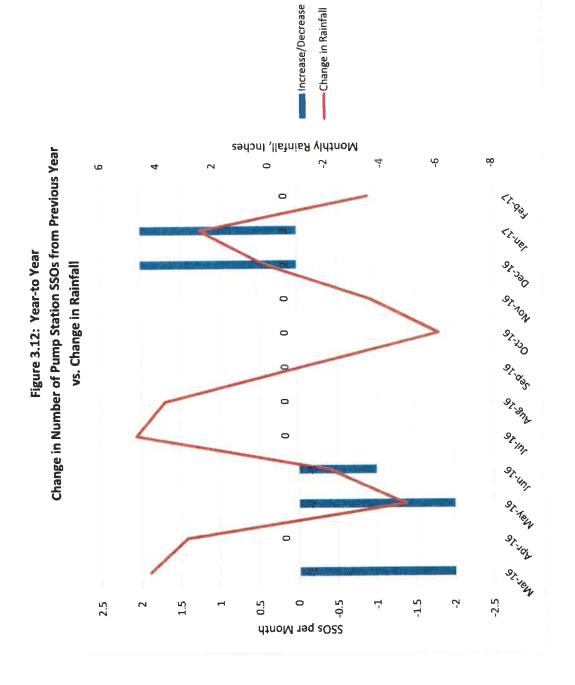
Dec-16

9T-VON Oct-16

Sep-16 91-guA Jul-16

9Շ-սու May-16 Apr-16 Mar-16 Feb-16 9T-nel Dec-15 ST-NON 04-12 Sep-15 Aug-15 ST-Inc 📕 ST-unr May-15 ZI-1qA Mar-15

Figure 3.11: Pump Station SSO Duration



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 average river stage and 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. Note that all of the SSOs were caused by excessive flow and occurred at one location on the WBI.

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.

A contributing factor to SSOs in the West Bank Interceptor is the level of the Pearl River. For much of its 15 mile length, the WBI is located in the floodplain of the river. NOAA has defined an "action" level at a stage of 24 feet and "flood" stage at 28 feet for the river. At water levels in this range and higher, inflow into the WBI increases through sources such as open manholes with missing covers or aging deteriorating pipe under flood waters. A major location of SSOs is at an open manhole at 408 S. Jefferson St. Flow monitoring results of upstream and downstream gauges verify a significant loss of flow in this area as wastewater overflows from this manhole. SSOs from the West Bank Interceptor have been alleviated somewhat by the rehabilitation of the WBI under the ongoing projects that were begun in 2013, 2015 & 2016 and the partial rehabilitation of the Savanna Influent Pump Station completed in November 2015.

3-17

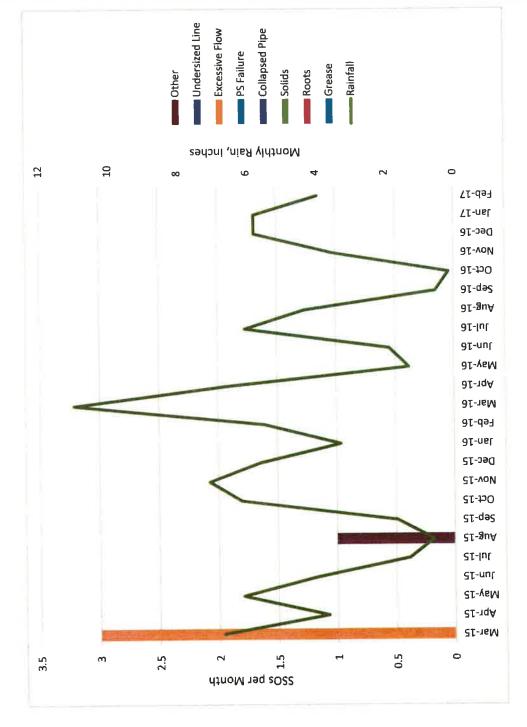


Figure 3.13: West Bank Interceptor SSOs by Cause March 2015 – February 2017

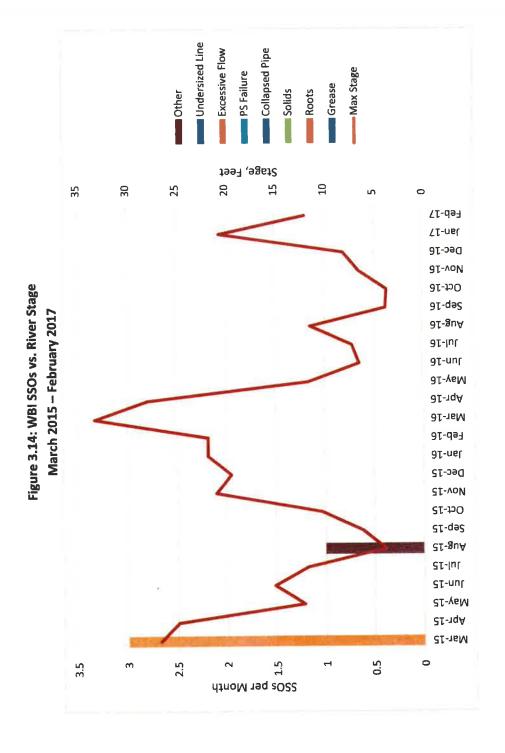
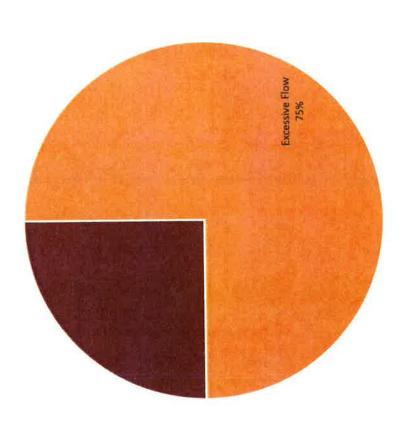


Figure 3.15: Percentage of WBI SSOs by Cause March 2015 – February 2017



Grease

Roots

Solids

Collapsed Pipe

PS Failure

Excessive Flow

Undersized Line

Other

3-20

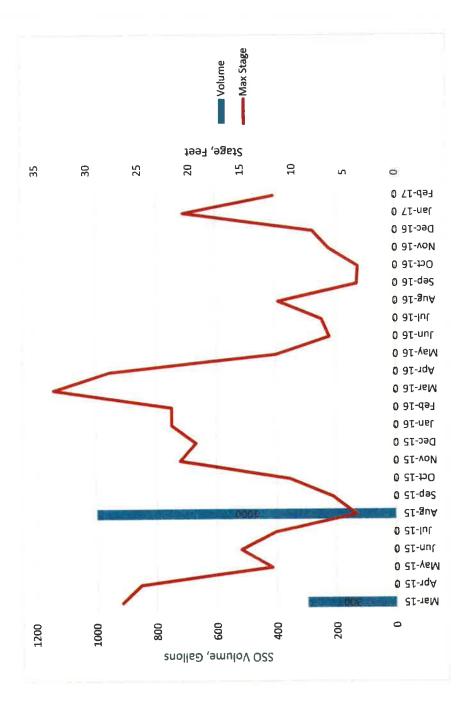


Figure 3.16: WBI SSO Volume vs. River Stage

March 2015 – February 2017

3-21

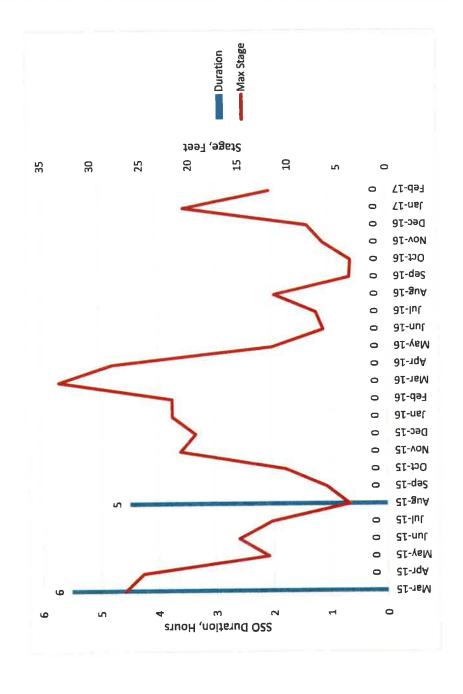
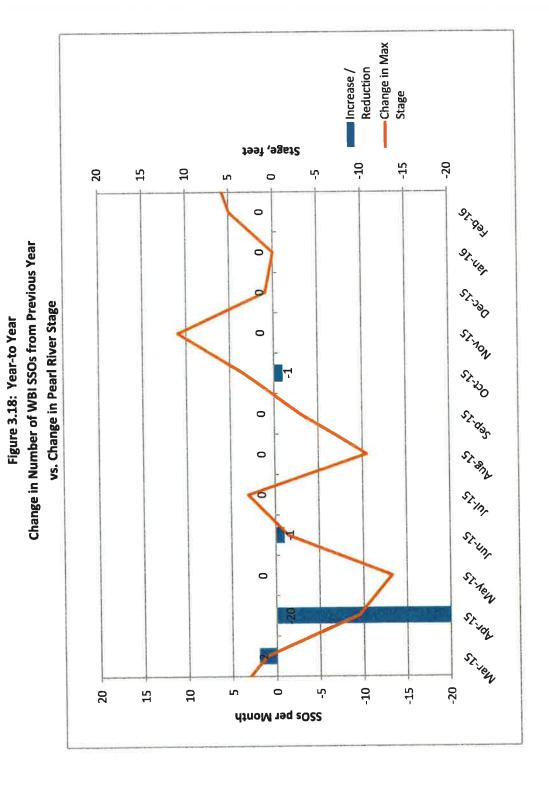


Figure 3.17: WBI SSO Duration vs. River Stage March 2014 – February 2016

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. 100 percent of the prohibited bypasses were attributed to excessive flow.

Figure 3.22 shows total volume of prohibited bypasses for each month plotted logarithmically, 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.

For prohibited bypasses, there appears to be more of a correlation with river levels than with rainfall. As discussed with the West Bank Interceptor, this is due to inflow in the WBI during high water levels. However, rehabilitation of the WBI is a contributing factor to the reduction in prohibited bypasses.

The number of prohibited bypasses was reduced after completion of the partial rehabilitation of the influent pump station repairs In November 2015. However, because of hydraulic limitations of piping, storm cells, and the influent pumping station, wastewater cannot always be recovered from the storm cells and must be discharged. These conditions will be addressed in the Composite Correction Program (CCP).

3-24

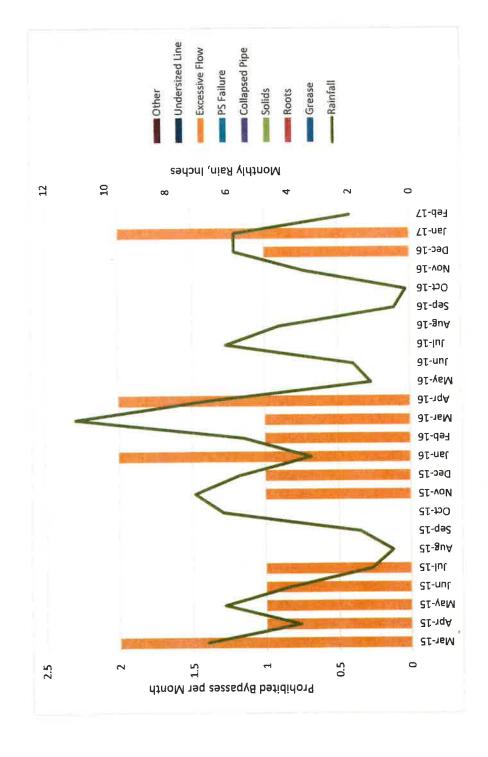
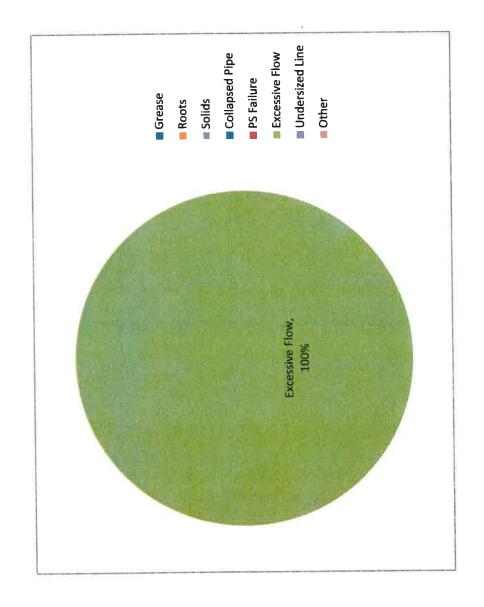


Figure 3.19: Prohibited Bypasses by Cause March 2015 – February 2017

3-25

Undersized Line Excessive Flow Collapsed Pipe --- Max Stage PS Failure Grease Other Roots Solids 25 15 Stage, feet 10 35 30 25 0 Figure 3.20: Prohibited Bypasses vs. River Stage True St.non March 2015 – February 2017 97.00g 97./ng or you St. Jew St. Up, Sinon Stides Styling Stren 0.5 Prohibited Bypasses per Month $\frac{1}{2}$ 0 2.5

Figure 3.21: Percentage of Prohibited Bypasses by Cause March 2015 – February 2017



3-27

■Max Stage Volume Stage, Feet 10 20 15 30 25 35 0 E6P-17 0 71-nel Dec-16 0 9T-VON Oct-76 0 ο 9τ-dəς 0 91-3uA 0 9T-Inf 0 9t-nul 0 91-ysM Apr-16 Mar-16 0 £6p-Ţe 9t-nel Dec-12 ST-VON O4-12 0 Sep-15 0 Aug-15 0 ST-IN գլ-unr May-15 ZL-1qA Mar-15 200 0 900 1400 1000 800 1600 1200 Prohibited Bypass Volume, Million Gallons

Figure 3.22: Prohibited Bypass Volume vs. River Stage March 2015 – February 2017

3-28

Dec-16 Jan-17 Feb-17

04-16 26p-16

91-guA

ցը-լու

ցҭ-սու

May-16

Apr-15

Apr-15

May-15

Jul-15

Aug-15

Jul-15

Oct-16

Mov-15

Jan-16

Teb-16

May-16

May-16

0

0

2

Stage, Feet 25 20 10 35 30 15 March 2015 - February 2017

40

35

DurationMax Stage

Prohibited Bypass Duration, Days 3 5 5 5

Figure 3.23: Prohibited Bypass Duration vs. River Stage March 2015 – February 2017

Figure 3.24: Year-to Year
Change in Number of Prohibited Bypasses from Previous Year
vs. Change in Pearl River Stage

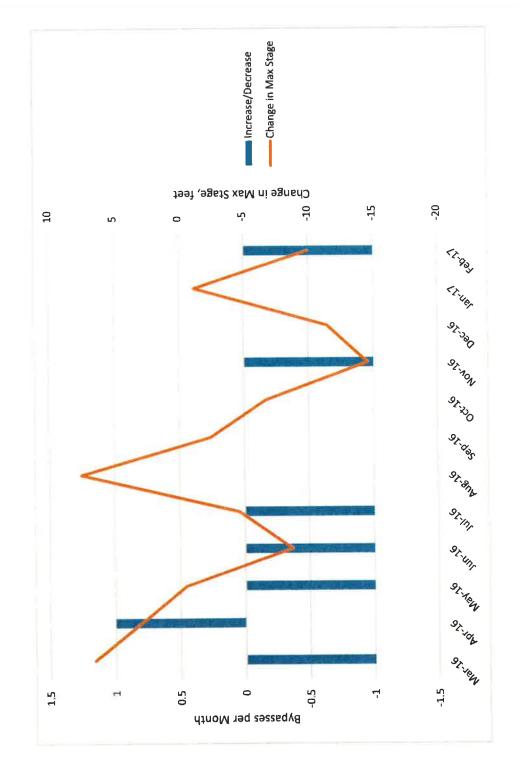


Table 1

City of Jackson, Mississippi
Annual Report No. 4 - March 2015 through February 2017
Collection System SSOs

	Reported Cause	Grease.	Collapsed Pipe. Main line is broke down at this location.	Grease.	Collapsed Pipe. City main line is broke down at this location.	Excessive Flow.	Grease. Collapsed Pipe.	Grease.	Excessive Flow. Rain Water,	Grease.	Solids.	Excessive Flow,	Grease.	Grease.	Collapsed Pipe.	Grease.	Grease.	(Human Error) Sewer main torn out by water main repair.	Grease.	Grease.	Grease.
	Rainfall, Inches	0.28	1,07	1.07	1.13	2.20	2.54	0.00	1.70	1.70	2.16	1.70	2.06	2.42	0.00	00.00	00.00	0.00	0.00	0.54	0.54
	Receiving	Eubanks	Town	Town	Томп	Town	Hanging Moss	Town	Lynch	Lynch	Cany	Lynch	Lynch	Eubanks	Town	Belhaven	Town	Lynch	Cany	Томп	Town
Time to the last of	Waters of the State	YES	YES	YES	YES	YES	YES	YES	YES	YES	ON	YES	ON	YES	YES	YES	YES	ON	YES	YES	YES
Control of the last of the las	Volume, Gallons	1,180	5,560	100	5,560	4,480	3,380	100	200	150	3	200	75	150	3	150	300	30	150	800	120
	Estimated Duration, Hours	0.58	2.85	1.47	2.85	0.12	1.82	1,13	1.60	1,10	1.10	0.47	4.68	0.73	0.37	1.62	3.02	1.50	1.38	2.67	1.17
	Source	Other	Manhole	Manhole	Manhole	Manhole	Ground Surface (defective pipe underground)	Manhole	Manhole	Manhole	Manhole	Manhole	Manhole	Manhole	Ground Surface (defective pipe underground)	Manhole	Manhole	Other	Manhole	Manhole	Manhole
	Location	764 BROADMOOR DR	2014 EDWARD LANE	W NORTHSIDE DR BOLING ST	2013 EDWARD LANE	BELL CT W BELL ST	155 N CULLEY DR	716 W MONUMENT ST	1235 CORINTH ST	5104 ANDOVER DR	448 COOPER ROAD	5140 QUEEN ELEANOR LANE	319 QUEEN JULIANNA LANE	721 KIRKLEY DR	362 RIDGEWAY ST	JEFFERSON ST BELLEVUE PL	BOYD ST NORTH ST	1765 SHADY LANE	2315 TIMBER CROSSING ROAD	145 LORENZ BLVD	LORENZ BLVD MILL ST
	Time Began	11:35 AM	8:54 AM	2:47 PM	8:54 AM	12:50 AM	2:15 PM	1:15 PM	1:55 PM	5:16 PM	5:34 PM	6:22 PM	6:09 PM	1:16 PM	12:51 PM	7:04 PM	11:56 AM	9:00 AM	12:37 PM	9:20 AM	2:00 PM
	Date Began	3/9/2015	3/10/2015	3/10/2015	3/11/2015	3/13/2015	3/13/2015	3/15/2015	3/21/2015	3/21/2015	3/21/2015	3/21/2015	3/23/2015	3/24/2015	3/25/2015	3/25/2015	3/27/2015	3/30/2015	3/30/2015	4/3/2015	4/3/2015

Reported Cause	Grease.	Collapsed Pipe. Defective Pipes.	Grease.	Grease.	Grease,	Grease.	Grease.	Collapsed Pipe. Cave- in over main line.	Grease.	Grease.	Roots.	Main Line is broken down.	Roots.	Gas company hit the main (broke).	Pump Station Failure.	Sewer service crossing inside storm drian.	Collapsed Pipe. Pipe crack at the bottom 1 ft outside manhole.	Grease.	Collapsed Pipe.	Grease. Rags.
Rainfall, Inches	0.00	0.00	0.36	1.54	0.00	0.00	0.05	0.00	0.00	0.00	00.00	0.00	0.00	00.00	0.00	1.64	0.00	2.33	1,11	0.00
Receiving	Eastover	White Oak	Three Mile	Town	Eubanks	Eastover	Eubanks	Hanging Moss	Eubanks	Trahon	Hanging Moss	Eubanks	Purple	Томп	Eubanks	Belhaven	Town	Hanging Moss	Eubanks	Eubanks
Reached Waters of the State	ON	YES	YES	YES	ON	ON	ON	ON	YES	YES	YES	YES	ON	ON	ON	ON	YES	YES	YES	YES
Estimated Volume, Gallons	20	40	750	400	06	200	40	50	40	200	400	100	85	100	300	25	400	125	09	250
Estimated Duration, Hours	2.07	1.03	1.45	2.23	1.47	2.38	2.23	2.57	2.23	0.67	1.23	0.93	1.23	2.52	6.48	2.00	10.18	1.85	2.12	2.13
Source	Other	Ground Surface (defective pipe underground)	Manhole	Manhole	Manhote	Manhole	Manhole	Ground Surface (defective pipe underground)	Ground Surface (defective pipe underground)	Manhole	Manhole	Manhole	Manhole	Other	Other	Other	Ground Surface (defective pipe underground)	Manhole	Ground Surface (defective pipe underground)	Manhole
Location	205 MAYWOOD CIR	316 COLONIAL CIR	2117 OAKHURST DR	301 MCTYERE AVE	3704 N STATE ST	2050 LONDON AVE	3704 N STATE ST	1404 WINCHESTER ST	4150 CRANE BLVD	4625 HERITAGE PL	5406 I 55 N	3611 N STATE ST	330 NORTHPOINTE	933 CENTRAL ST	1960 W NORTHSIDE DR	1004 NORTH ST	535 INDUSTRIAL DR	5754 I 55 N	4634 TENNYSON ST	MEADOW HEIGHTS DR
Time Began	4:10 PM	6:14 PM	11:33 AM	4:20 PM	12:41 PM	2:08 PM	10:37 AM	8:10 AM	9:32 AM	12-55 PM	10:35 AM	9:49 AM	12:54 PM	8:40 AM	5:30 PM	8:00 AM	1:48 PIM	3:47 PM	10:02 AM	3:54 PM
Date Began	4/9/2015	4/9/2015	4/13/2015	4/17/2015	4/21/2015	4/21/2015	4/23/2015	4/28/2015	5/1/2015	5/3/2015	5/4/2015	5/5/2015	5/6/2015	5/14/2015	5/14/2015	5/19/2015	5/27/2015	5/27/2015	5/31/2015	6/2/2015

Reported Cause	Grease. Rags.	Grease. Rags.	Grease, Roots.	Grease.	Collapsed Pipe.	Grease. Rags.	Grease.	Grease.	Collapsed Pipe.	Grease.	Grease.	Grease.	Excessive Flow.	Collapsed Pipe.	Collapsed Pipe.	Grease.	Grease.	Grease.	Grease.	Roots, Collapsed Pipe.	Collapsed Pipe.	Grease.
Rainfall, Inches	0.00	0.00	0.00	0.00	0.22	0.10	00.00	00.00	0.00	00.00	00.0	00'0	0.00	0.00	0.00	0.00	0.00	1.09	1.09	0.00	1:11	1.26
Receiving	Eubanks	White Oak	Trahon	Eubanks	Томп	Eubanks	Eubanks	Big Creek	Eubanks	Lynch	Lynch	Town	Hanging Moss	Lynch	Belhaven	Town	Eastover	Town	Lynch	Three Mile	Town	Lynch
Reached Waters of the State	YES	YES	ON	YES	ON	NO	ON	ON	YES	YES	ON	YES	ON	ON	YES	ON	YES	ON	ON	YES	YES	YES
Estimated Volume, Gallons	250	75		40	340	40	10	130	75	250	100	220	120	40	750	09	180	300	260	800	200	40
Estimated Duration, Hours	0.65	6.27	3.75	1.42	5.17	2.37	0.73	2.03	2.78	1.67	2.35	1.72	2.27	0.38	4.25	1.85	2.28	1.68	3.62	0.48	3.37	0.67
Source	Manhole	Manhole	Manhole	Ground Surface (defective pipe underground)	Ground Surface (defective pipe underground)	Manhole	Manhole	Manhole	Ground Surface (defective pipe underground)	Manhole	Manhole	Manhole	Manhole	Ground Surface (defective pipe underground)	Ground Surface (defective pipe underground)	Manhole	Manhole	Manhole	Manhole	Manhole	Manhole	Manhole
Location	4380 BROOK DR	316 COLONIAL CIR	448 CAMBRIDGE LANE	805 HICKORY RIDGE DR	202 E RIDGEWAY ST	MEADOWBROOK ROAD WEST ST	134 IRIS AVE	132 HICKORY CV	761 KENSINGTON PL	308 MELBA ST	1951 WINGFIELD CIR	202 E RIDGEWAY ST	212 PIMLICO PL	105 ELCREST ST	1114 LYNCREST AVE	316 ELM ST	2124 EASTOVER DR	3430 ALBERMARLE ROAD	332 QUEEN ISABELLA LANE	2027 CAMELLIA DR	202 E RIDGEWAY ST	4202 OAKMONT DR
Time Began	9:18 AM	10:55 AM	2:45 PM	5:44 PM	8:20 AM	2:17 PM	12:34 PM	3:18 PM	3:58 PM	11:13 AM	3:37 PM	3:04 PM	10:20 AM	4:55 PM	2:45 PM	6:30 PM	1:21 PM	4:16 PM	9:13 AM	11:31 AM	9:16 AM	5:33 PM
Date Began	6/3/2015	6/4/2015	6/4/2015	6/4/2015	6/12/2015	6/12/2015	6/18/2015	6/18/2015	6/18/2015	6/19/2015	6/19/2015	6/20/2015	6/21/2015	6/23/2015	6/27/2015	6/28/2015	6/30/2015	6/30/2015	7/1/2015	7/3/2015	7/6/2015	7/6/2015

Reported Cause		Grease.	Grease,	Collapsed Pipe.	Collapsed Pipe.	Collapsed Pipe,	Unknown	Collapsed Pipe.	Collapsed Pipe.	Collapsed Pipe.	Grease,	Grease, Rags.	Collapsed Pipe.	Collapsed Pipe.	Collapsed Pipe.	Collapsed Pipe.	Collapsed Pipe.	Collapsed Pipe.	Collapsed Pipe.	Collapsed Pipe.	Grease.	Collapsed Pipe.	Grease.	Grease. Rags.	Collapsed Pipe.	Grease, Rags.	Grease,
Rainfall, Inches		0.00	00'0	00'0	0.00	00.00	0.00	0.00	0.00	00.00	00.00	00.0	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	00:0	00.0	0.00	0.00	00'0	20.0	0.00
Receiving		Eubanks	White Oak	Town	Town	Town	Eastover	Hanging Moss	Eastover	Lynch	Eubanks	Eubanks	Belhaven	Eastover	Eubanks	Tawn	Eastover	Purple	Purple	Town	Hanging	Eubanks	Hardy	Eubanks	Eubanks	Lynch	Trahon
Reached Waters of the	State	YES	YES	ON.	YES	YES	YES	YES	YES	ON	YES	ON	YES	ON	ON	YES	ON	YES	YES	YES	ON	ON	YES	9	ON	YES	ON ON
Estimated Volume,	Gallons	20	75	110	50	009	100	02	90	400	09	160	200	30	20	200	09	180	180	08	120	40	120	350	40	240	1,500
Estimated Duration, Hours		0.58	1.25	1.13	0.53	3.98	2.12	3.13	1.15	1.47	0.85	4.37	4.23	1.43	0.73	4.08	3.68	2.50	1.23	0.80	3.10	1.20	1.35	5.67	1,18	1.87	1.28
Source	TO STORE	Manhole	Manhole	Manhole	Manhole	Manhole	Manhole	Manhole	Manhole*	Manhole	Manhole	Manhole	Manhole	Manhole	Manhole	Manhole	Manhole	Ground Surface (defective pipe underground)	Ground Surface (defective pipe underground)	Manhole	Manhole	Manhole	Manhole	Manhole	Manhole	Manhole	Manhole
Location		4005 N WEST ST	5915 I 55 N	1439 W CAPITOL ST	1439 W CAPITOL ST	426 PARKWAY AVE	4068 BOXWOOD CIR	5135 REDDOCH DR	4072 BOXWOOD CIR	417 N FLAG CHAPEL ROAD	120 WACKER DR	1116 FOREST AVE	296 UNIVERSITY DR	4065 BOXWOOD CIR	3611 N STATE ST	2424 BAILEY AVE	3827 EASTOVER DR	1643 PEAR ORCHARD PL	1643 PEAR ORCHARD PL	2424 BAILEY AVE	4725 I 55 N	3611 N STATE ST	2974 GREENWOOD AVE	787 E NORTHSIDE DR	3611 N STATE ST	850 LINDBERGH AVE	4052 RAINEY ROAD
Time Began		11:45 AM	12:00 PM	11:16 AM	5:33 PM	12:01 PM	2:08 PM	5:33 PM	9:27 PM	12:28 PM	3:44 PM	4:33 PM	10:14 AM	5:02 PM	10:31 AM	3:23 PM	12:08 PM	3:54 PM	10:07 AM	11:22 AM	4:45 PM	10:51 AM	12:38 PM	5:00 PM	8:00 AM	4:50 PM	2:05 PM
Date Began		7/9/2015	7/9/2015	7/13/2015	7/13/2015	7/16/2015	7/22/2015	7/24/2015	7/24/2015	7/27/2015	7/28/2015	7/28/2015	7/29/2015	7/30/2015	7/31/2015	7/31/2015	8/3/2015	8/3/2015	8/4/2015	8/4/2015	8/6/2015	8/10/2015	8/10/2015	8/11/2015	8/13/2015	8/20/2015	8/25/2015

Cause	Pipe.	Pipe.	ain (Inflow).	.ee	e e	ej.	- Se	d Pipe.	se.	e. Private	d Pipe.	se.	Se.	Solids,	Rags.	se.	Rags.	Rags.	Rags.
Reported Cause	Collapsed Pipe.	Collapsed Pipe.	Abandoned Main (Inflow)	Grease.	Grease	Grease.	Grease	Collapsed Pipe.	Grease	Collapsed Pipe. Line.	Collapsed Pipe.	Grease	Grease	Grease.	Grease.	Grease.	œ	Grease,	Grease.
Rainfall, Inches	0.00	0.00	00'0	92.0	00.00	0.00	00"0	0.00	0.00	0.00	0.03	0,03	90.0	0.00	0.16	0.00	0.00	0.00	00.00
Receiving	Eubanks	Eastover	Three Mile	Big Creek	Town	Lynch	Belhaven	Eubanks	Eubanks	Eubanks	Eubanks	Eubanks	White Oak	Lynch	Town	Town	Hanging Moss	Town	Hanging
Reached Waters of the State	YES	9	ON	YES	YES	YES	ON	YES	NO	ON	YES	ON	YES	YES	YES	YES	YES	ON	ON
Estimated Volume, Gallons	300	15	1,000	35	180	120	180	20	300	09	10	150	009	45	160	175	30	220	280
Estimated Duration, Hours	1.02	2.80	4.50	1.00	2.15	1.83	0.57	0.53	2.22	1,42	0.65	1,77	2.33	0.92	2.82	1.27	1.42	1.87	1,05
Source	Ground Surface (defective pipe underground)	Ground Surface (defective pipe underground)	Other	Manhole	Manhole	Manhole	Manhole	Ground Surface (defective pipe underground)	Manhole	Ground Surface (defective pipe underground)	Ground Surface (defective pipe underground)	Manhole	Manhole	Manhole	Manhole	Manhole	Manhole	Manhole	Manhole
Location	COLLIER AVE NEWMAN AVE	4025 DOGWOOD DR	2900 METER ROAD	141 RAMADA CIR	MADISON ST HARDING ST	GLENMONT DR MEADOWMONT DR	MADISON ST HARDING ST	3611 N STATE ST	4469 AZALEA DR	4821 N STATE ST	3611 N STATE ST	224 E NORTHSIDE DR	148 BROWN ST	528 FLAG CHAPEL CIR	DOUGLAS AVE CADILLAC DR	LIVINGSTON ST WILSON ST	5055 OLD CANTON RD	PLEASANT AVE Bell	148 BROWN ST
Time Began	10:46 AM	11:00 AM	11:00 AM	4:00 PM	9:27 AM	12:51 PM	2:41 PM	11:43 AM	2:53 PM	5:40 PM	10:03 AM	5:14 PM	11:50 AM	1:25 PM	11:46 AM	9:02 AM	2:35 PM	11:40 AM	2:36 PM
Date Began	8/26/2015	8/31/2015	9/1/2015	9/11/2015	9/15/2015	9/15/2015	9/15/2015	9/16/2015	9/16/2015	9/17/2015	9/21/2015	9/21/2015	9/22/2015	9/24/2015	9/30/2015	10/14/2015	10/16/2015	10/19/2015	10/19/2015

Table 1

City of Jackson, Mississippi
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Collection System SSOs

Reported Cause	Grease. Rags.	Grease. Rage.	Grease.	Grease. Solids.	Rain water	Roots.	Grease.	Grease.	Grease.	Water main break getting into main line.	Collapsed Pipe.	Brick.	Grease.	Grease.	Choked city main line.	Collapsed Pipe.	Grease.	Collapsed Pipe.	Grease.	Roots	Grease.	Collapsed Pipe.
Rainfall, Inches	0.00	0.08	4.72	4.61	1.75	0.01	90'0	00.00	1.74	1.74	3.08	00.00	00:00	0.00	0.00	0.00	0.00	0.00	0.00	0.14	0.00	0.21
Receiving	Hanging Moss	Lynch	Cany	Hanging	Hanging Moss	Lynch	Hanging Moss	Town	Hardy	Hardy	Cany	Hanging Moss	Pearl	Cany	Three Mile	Town	Eubanks	Lynch	Hardy	Town	Томп	Hanging Moss
Reached Waters of the State	ON	ON	YES	YES	YES	ON	ON	YES	ON	ON	ON	YES	YES	YES	YES	YES	YES	YES	ON	YES	YES	YES
Estimated Volume, Gallons	30	220	10	210	125	75	80	130	80	450	800	40	320	200	20	300	80	30	160	320	25	50
Estimated Duration, Hours	0.53	1,53	0.17	0.78		7.42	2.03	0.00	1.33	7,32	1.75	3.18	2.43	1.88	0.50	12.47	1.28	1.27	1.10	2.87	0.75	15.07
Source	Manhole	Manhole	Other	Manhole	Manhole	Manhole	Manhole	Manhole	Manhole	Manhole	Manhole	Manhole	Manhole	Manhole	Other	Ground Surface (defective pipe underground)	Ground Surface (defective pipe underground)	Manhole	Manhole	Manhole	Manhole	Manhole
Location	5009 ASHLEY DR	4207 OAKMONT DR	1033 WESTWAY ROAD	167 BRIARWOOD DR	503 SPRINGFIELD CIR	550 HOUSTON AVE	4754 55	137 ADELLE ST	2306 BRECKENRIDGE RD	GREENWOOD AVE SANTA CLAIR CIR	237 STOKES ROBERTSON ROAD	5055 OLD CANTON RD	49 NORTHTOWN DR	2570 CRESTLEIGH MANOR	ALVAREDO ST	700 N STATE ST	568 N PARK LANE	3101 J.R. LYNCH ST	1205 JOANNE ST	4126 PARKWAY DR	PALMYRA ST ELM ST	2573 E LAKE CIR
Time Began	2:17 PM	1:00 PM	11:46 AM	6:17 PM	12:40 PM	8:45 AM	2:32 PM	7:42 PM	3:10 PM	4:40 PM	8:30 AM	3:55 PM	9:46 AM	10:00 AM	4:16 PM	11:31 AM	11:30 AM	4:30 PM	10:32 AM	8:58 AM	10:30 AM	8:55 AM
Date Bogan	10/22/2015	10/24/2015	10/26/2015	10/29/2015	10/31/2015	11/5/2015	11/13/2015	11/16/2015	11/17/2015	11/17/2015	11/19/2015	11/19/2015	11/20/2015	11/20/2015	11/22/2015	11/23/2015	11/24/2015	11/25/2015	11/27/2015	11/28/2015	11/28/2015	11/30/2015

Table 1

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Reported Cause	Grease.	Grease.	Grease.	Bellsouth hit main line.	Pump Station Failure.	Grease.	Grease.	Grease.	Grease.	Grease.	Grease.	Grease.	Collapsed Pipe.	Grease. Rags.	Grease.	Grease.	Collapsed Pipe.	Collapsed Pipe.	Collapsed Pipe. Choked main line.	Grease.	Roots	Grease.	Grease.
Rainfall, Inches	0,21	0.55	0.00	0.00	0.00	0.00	0.00	00.00	0.00	0.00	0.00	0.01	1.10	0.95	0.99	0.02	00.00	2.95	3.73	1.00	0.00	0.00	0.27
Receiving	Eastover	Eubanks	Three Mile	Hardy	Big Creek	Three Mile	Belhaven	Enbanks	Lynch	Town	Lynch	Hanging	Hardy	Cany	Belhaven	Lynch	Town	Town	Eubanks	Town	Hanging Moss	Hanging Moss	Cany
Reached Waters of the State	ON	YES	YES	ON	YES	YES	ON	9	ON	ON	ON	ON	YES	ON	ON	YES	ON	YES	ON	ON	ON	YES	YES
Estimated Volume, Gallons	220	80	300	160	360	40	35	50	40	50	250	10	160	160	25	140	10	09	275	420	450	280	200
Estimated Duration, Hours	0.37	2.58	0.17	1.20	0.50	1.43	3.00	1.13	1.30	0.42	1.50	0.67	2.55	0.67	0.67	3.77	1.17	0.78	1.08	12.82	21.55	78.0	25.50
Source	Manhole	Manhole	Manhole	Other	Pump Station	Manhole	Manhole	Manhole	Manhole	Manhole	Manhole	Manhole	Other	Other	Manhole	Manhole	Other	Ground Surface (defective pipe underground)	Ground Surface (defective pipe underground)	Manhole	Manhole	Manhole	Manhole
Location	KIMWOOD DR	346 AUDUBON PL	1831 SHAMROCK DR	255 MCDOWELL ROAD	TRAHON WWTP	2059 CAMELLIA LANE	GREYMONT ST MOODY ST	4049 N WEST ST	319 QUEEN JULIANNA LANE	N JEFFERSON ST HIGH ST	409 WINDSOR DR	5471155 N	255 MCDOWELL ROAD	EDDY ST CAMERON ST	GREYMONT AVE MOODY ST	347 MAGNOLIA DR	2616 SKYLINE DR	3554 SUNSET DR	4607 CHURCHILL DR	4125 SUNSET DR	5147 RIDGEWOOD ROAD	4710 J 55 FRONTAGE ROAD	115 FRIARS COVE
Time Began	6:38 PM	1:00 PM	5:17 PM	7:15 AM	12:00 PM	2:10 PM	2:15 PM	7:40 PM	3:46 PM	4:58 PM	9:25 PM	5:29 PM	8:00 AM	12:25 PM	8:59 PM	9:54 AM	10:28 AM	8:39 AM	11:41 AM	11:10 AM	6:42 PM	1:29 PM	11:30 AM
Date Began	11/30/2015	12/3/2015	12/5/2015	12/6/2015	12/6/2015	12/6/2015	12/7/2015	12/8/2015	12/9/2015	12/9/2015	12/10/2015	12/11/2015	12/13/2015	12/13/2015	12/14/2015	12/18/2015	12/20/2015	12/26/2015	12/27/2015	12/30/2015	1/3/2016	1/4/2016	1/7/2016

A-7

Reported Cause	Grease.	Grease,	Grease,	Grease.	Grease.	Grease.	Grease.	Grease. Solids.	Solids.	Grease.	Grease.	Grease.	Grease.	Grease.	Grease.	Grease.	Grease.	Solids.	Grease.	Bypass pump malfuntion.	Grease.	Grease.	Grease. Rags.	Grease.
Rainfall, Inches	0.35	0,00	0.94	0.00	3.52	2.79	2.92	0.00	0.00	0.00	0.00	0.00	0.00	1.72	1.10	00.0	0.00	1.24	1.43	0.00	00.0	00.00	00.0	0.00
Receiving	Town	Eastover	Eastover	Purple	Town	Town	Eubanks	Eastover	Eubanks	Lynch	Hardy	Cany	Town	Eubanks	Lynch	Town	Hardy	Eubanks	Cany	Eubanks	Town	Three Mile	Town	Bogue Chitto
Reached Waters of the State	YES	YES	YES	ON.	YES	YES	ON	YES	ON	YES	YES	YES	YES	YES	ON	YES	YES	YES	YES	YES	YES	YES	YES	YES
Estimated Volume, Gallons	160	320	50	80	35	280	540	280	80	280	1,250	180	410	140	25	089	720	3,600	1,250	75	360	120	90	275
Estimated Duration, Hours	1.63	1.87	0.85	1.45	1.13	3.83	1.47	5.48	1.13	1.78	4.50	1.25	43.23	3.38	1.37	2.50	2.62	2.77	8.80	1.00	1.13	2.00	2.62	1.25
Source	Ground Surface (defective pipe underground)	Manhole	Manhole	Other	Manhole	Manhole	Manhole	Manhole	Manhole	Manhole	Manhole	Manhole	Manhole	Manhole	Ground Surface (defective pipe underground)	Manhole	Manhole	Manhole	Manhole	Manhole	Manhole	Manhole	Manhole	Manhole
Location	275 ELM ST	1200 E. NORTHSIDE DR	NORTHSIDE DR KIMWOOD CIR	345 SAINT ANDREWS DR	STATE ST	STONEWALL ST BAILEY AVE	1060 MEADOW HEIGHTS DR	730 BENNING ROAD	787 E NORTHSIDE DR	1741 WAYCONA DR	2318 BRECKENRIDGE RD	1572 MCDOWELL ROAD	137 CLOVER LEAF CIR	2525 LAKEWARD DR	160 WINDSOR DR	868 NORTH ST	2928 LAKEWOOD DR	4625 N STATE ST	1039 WOODDELL DR	4625 N STATE ST	868 NORTH ST	724 RAYMOND ROAD	200 E AMITE ST	6507 GEORGE WASHINGTON DR
Time Began	8:57 AM	4:30 PM	6:15 PM	9:52 AM	8:37 AM	9:27 AM	3:01 PM	9:24 AM	4:33 PM	7:00 AM	8:10 AM	4:04 PM	3:13 PM	4:07 PM	4:08 PM	2:45 PM	11:26 AM	8:37 AM	10-23 AM	7:00 PM	12:25 PM	1-37 PM	11:28 AM	10:52 AM
Date Began	1/8/2016	1/17/2016	1/21/2016	1/31/2016	2/3/2016	2/4/2016	2/5/2016	2/7/2016	2/8/2016	2/11/2016	2/11/2016	2/12/2016	2/16/2016	2/16/2016	2/17/2016	2/18/2016	2/20/2016	2/23/2016	2/24/2016	2/27/2016	2/28/2016	2/28/2016	2/29/2016	3/6/2016

Table 1
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Source Estimated Duration, Hours		Estima Duration,	ted	Volume, Gallons	Waters of the State	Receiving Water	Rainfall, Inches	orte
			3.08	480	ON	Cany	0.22	Grease. check main line.
Manhote	ate			120	YES	Hanging Moss	4.45	Rain.
Manhole	ele			009	YES	Town	4.94	Grease. Rain water.
Constructed Bypass	cted		2.77	200	YES	Eastover	6.21	Rain.
Manhole	ole		0.42	300	YES	Town	90.9	Excessive Flow.
Other	<u></u>	_	1.80	4,300	YES	Eubanks	6.59	Grease.
Manhole	ele ele	_	20.95	420	YES	Lynch	80.9	Grease.
Manhole	ole	_	0.75	25	YES	Eastover	6.59	Grease.
Manhole	ole		8.52	720	YES	Eubanks	96"0	Grease.
Manhole	ole	_	0.00	б	ON.	Eastover	1.96	Grease.
Manhole	ole		1.83	320	YES	Town	96'0	Grease.
Manhole	ole		9.40	25	YES	Bakers	1.82	Solids.
Manhole	ole		2.80		YES	Eastover	00.00	Roots.
Ground Surface (defective pipe underground)	surface e pipe ound)		4.33	100	ON N	Trahon	00'0	Grease.
Manhole	ole		1.37	300	YES	Eubanks	0.17	Grease, Solids.
Manhole	eloi		1.15	180	YES	Lynch	0.17	Grease.
Ground Surface (defective pipe underground)	Surface re pipe ound)		81.73	2,100	ON .	Lynch	0.51	Grease. choked main line.
Manhole	ole		3.58	700	YES	Lynch	0.51	Grease,
Manhole	ole			120	YES	Town	2.08	Excessive Flow.
Manhole	ole			800	YES	Lynch	2.08	
Manhole	alor		2.80	180	Yes	White Oak	4.13	Grease
Manhole	ole			1,300	Yes	Blg Creek	0.00	Other (Undetermined)
Manhole	olor	_	0.75	15	No	Lynch	0.00	Grease
				20	700	Three Mile	000	Roots

Table 1

City of Jackson, Mississippi
Annual Report No. 4 - March 2015 through February 2017
Collection System SSOs

Buration, Hours Gallons
693.62
11.27
3.60
2.72
3.27
1.85
2.65
3.85
0.70
1.18
0.97
2.43
21.65
3.83
13.30
4.67
2.60
1.08

Table 1 City of Jackson, Mississippi Annual Report No. 4 - March 2015 through February 2017 Collection System SSOs

Reported Cause	Grease	Grease	Grease	Grease	Grease	Grease	Grease	Grease/Solid	Grease	Grease	Grease	Other (Undetermined)	Other (Undetermined)	Grease	Collapsed Pipe	Other (Undetermined)	Other (Disjointed Pipe Segment)	Grease	Grease	Other (Undetermined)	Collapsed Pipe	Grease	Soilds
Rainfall, Inches	0.23	0.21	0.22	0.13	0.01	0.01	00.00	0.00	00.00	1.34	0.20	0.20	90.0	0.05	0.12	0.16	0.27	0.10	0.00	0.19	0.05	0.00	0.00
Receiving Water	Lynch	Lynch	Cany	Purple	Cany	Caney	Eubanks	Big Creek	Eubanks	Hanging Moss	Town	Hanging Moss	Town	Eubanks	Town	Trahon	Lynch	Trahon	Hardy	Eastover	Town	Bogue Chitto	Bogue Chitto
Reached Waters of the State	No	No	No	Yes	No	N _O	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	No	No	Yes	Yes	Yes	N _O
Estimated Volume, Gallons	580	15	30	725	360	360	30	30	120	780	120	4,500	180	780	09	90	50	40	8	240	480	360	80
Estimated Duration, Hours	1.65	0.65	1.20	3.93	1.43	1.26	4.36	2.41	1.47	2.41	0.45	104.50	0.57	3.32	2.30	1.11	1.30	2.32	2.29	0.22	1.33	0.59	1.24
Source	Manhole	Manhole	Manhole	Manhole	Manhole	Manhole	Manhole	Manhole	Manhole	Ground Surface (defective pipe underground)	Manhole	Manhole	Manhole	Manhole	Manhole	Manhole	Ground Surface (defective pipe underground)/Oth	Manhole	Cleanout	Manhole	Ground Surface (defective pipe underground)	Manhole	Cleanout
Location	4202 OAKMONT DR	1521 HIGHLAND DR	172 E WOODCREST DR	1410 AUTUMN OAKS DR	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	2424 BAILEY AVE	3004 CROSSWAY ST	718/722 PRIMOS AVE	1940 VENTURA DR	1135 MCDOWELL CIR	1248 EASTOVER DR	904 E. FORTIFICAITON ST	226 QUEEN VICTORIA	333 QUEEN ISABELLA LN
Time Began	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	6:24 PM	7:39 AM	7:00 AM	9:13 AM	2:13 9M	8:30 AM	4:19 PM	8:00 AM	8:02 AM	8.49 AM	11:06 AM	12:13 PM	2:21 PM	9:38 AM
Date Began	6/14/2016	6/16/2016	6/17/2016	6/18/2016	6/26/2016	6/26/2016	7/1/2016	7/3/2016	7/7/2016	7/9/2016	7/14/2016	7/20/2016	7/21/2016	7/22/2016	7/28/2016	8/5/2016	8/19/2016	8/20/2016	8/21/2016	8/23/2016	8/24/2016	9/8/2016	9/9/2016

Time Bega	mga	Location	Source	Estimated Duration, Hours	Volume, Gallons	Waters of the State	Receiving	Rainfall, Inches	Reported Cause
11:03 AM	A	2424 BAILEY AVE	Manhole	0.25	300	Yes	Town	00.00	Collapsed Pipe
12:07 PIV	1	1405 E. NORTHSIDE DR	Manhole	2.48	420	Yes	Eubanks	0.03	Grease
╀	+	2047 ALYCE DR	Cleanout	1.16	280	No	Caney	00.00	Grease
9/20/2016 12:39 PM	PM	3316 REVELS AVE	Ground Surface (defective pipe underground)	1.07	380	Yes	Eubanks	0.00	Grease
9/21/2016 10:36 AM	AM	125 TAYLOR ST	Cleanout	1.03	380	Yes	Town	00:00	Grease
⊢	AM	4576 WILL-O-LANE DR	Manhole	5.26	1,200	Yes	Big Creek	0.11	Other (Undetermined)
9/21/2016 5:38 PM	Ā	1235 MELWOOD PL	Other/Storm Drain	0.55	260	Yes	Eubanks	00.00	Grease
9/23/2016 3:32 PM	P.	WILL-O- I AKE/I AKECOVE	Manhole	1.28	1,500	No	Big Creek	0.02	Grease
9/24/2016 11:33 AN	AM	1040 MADISON ST	Manhole	3.55	540	Yes	Town	0.00	Grease
╁	₽ A	1405 E. NORTHSIDE DR	Manhole	09.0	800	No	Hanging Moss	00.00	Grease
9/24/2016 1:57 PM	M	4070 MEADOW LANE	Ground Surface (defective pipe underground)	2.58	720	Yes	Hanging Moss	0.11	Grease
9/24/2016 6:41 PM	M M	255 WOODROW WILSON	Manhole	0.45	75	Yes	Town	00:00	Collapsed Pipe
9/27/2016 5:28 PM	ĕ.	132 PINELAWN PL	Manhole	0.39	280	Yes	Lynch	0.00	Grease
╀	M	235 FACTORY ST	Manhole	648.00	5,000	Yes	Lynch	00.00	Grease
-	M _A	3811 TROY AVE.	Ground Surface (defective pipe underground)	1.52	360	Yes	Town	0.00	Collapsed Pipe
10/2/2016 12:19 AN	MAG	5055 OLD CANTON RD.	Manhole	1.50	20	Yes	Hanging Moss	0.00	Solids
10/4/2016 3:07 PM	Md	2424 BAILEY AVE	Manhole	0.36	300	Yes	Town	0.00	Collapsed Pipe
ROLL	12:01 PM	904 E. FORTIFICAITON ST	Ground Surface (defective pipe underground)	0.58	420	Yes	Town	0.00	Grease
10/9/2016 9:40 AA	AM	1734 CASTEEL DR.	Cleanout	5.28	160	No	Lynch	00.00	Collapsed Pipe
	AM C	544 WINWOOD DR.	Manhole	2.30	2,000	e _N	Caney	0.00	Grease & Roots
+	8 AM	5866 KINDER DR.	Cleanout	Cont.	240	N _O	Purple	0.00	Collapsed Pipe

Table 1 City of Jackson, Mississippi Annual Report No. 4 - March 2015 through February 2017 Collection System SSOs

Reported Cause	Collapsed Pipe	Soilds	Soilds	Other (Undetermined)	Other (Undetermined)	Soilds	Grease/Other	Soilds	Collapsed Pipe	Grease	Collapsed Pipe	Soilds	Soilds	Soilds	Grease	Grease
Rainfall, Inches	0.00	0.00	00.00	0.00	0.00	00.00	0.00	0.00	00.00	00.0	0.00	0.00	0.00	0.00	0.00	0.00
Receiving	Eubanks	Hanging Moss	Hanging Moss	Town	Town	Hardy	Unk	Томп	Eubanks	Caney	Lynch	Eubanks	Hanging Moss	Eastover	Hardy	Hardy
Reached Waters of the State	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	No	No	No	Yes	No	Yes	Yes	Yes
Estimated Volume, Gallons	480	75	80	240	320	1,500	150	370	009	200	800	480	09	130	210	260
Estimated Duration, Hours	Cont.	0.45	Cont.	Cont.	1.02	2.06	0.40	3.43	1.45	1.50	0.29	3.00	2.19	1.43	1.15	1,05
Source	Ground Surface (defective piple underground)	Manhole	Manhole	Ground Surface (defective pip undergroung)/Oth er	Ground Surface (defective pipe underground)/Oth er	Cleanout/Other	Other/Storm Drain	Ground Surface (defective pipe underground)	Ground Surface (defective pipe underground)	Manhole	Ground Surface (defective piple underground)	Ground Surface (defective piple underground)	Cleanout	Cleanout	Ground Surface (defective piple underground)	Manhole
Location	1135 MARTINGALE RD.	5055 OLD CANTON RD.	5028 OLD CANTON RD.	1717 W. CAPITOL ST.	904 E. FORTIFICAITON ST	964 COMBS ST.	228 FACTORY ST.	4265 N. STATE ST.	1135 MARTINGALE RD.	129 GLENSTONE CIR.	1502 COX ST.	4607 CHURCHILL DR.	847 WOODBURY RD	3845 DOGWOOD DR.	172 E. WOODCREST DR.	844 COMBS ST.
Time Began	1:32 PM	11:11 AM	11:09 AM	3:53 PM	2:05 PM	6:15 PM	11:50 AM	3:08 PM	12:00 PM	6:40 PM	5:52 PM	2:15 PM	10:13 AM	12:34 PM	4:45 PM	9:13 AM
Date Began	10/19/2016	10/23/2016	10/28/2016	10/25/2016	10/25/2016	10/25/2016	10/25/2016	10/26/2016	10/27/2016	10/27/2016	10/28/2016	10/30/2016	11/3/2016	11/4/2016	11/4/2016	11/5/2016

Reported Cause	Solids	Grease	Grease	Grease	Collapsed Pipe	Grease	Grease	Collapsed Pipe	Other (Undetermined)	Other	Grease	Grease/Collapsed Pipe	Grease	Other (Undetermined)	Grease	Grease	Grease/Other	Collapsed Pipe/Grease	Other
Rainfall, Inches	0.19	0.19	0.00	0.00	0.15	0.15	00.00	0.00	1,15	0.71	0.71	1.29	0.00	0.00	0.00	0.31	0.01	0.00	90.02
Receiving Water	Hanging Moss	Purple	Hardy	Town	Town	Hanging Moss	White Oak	Eubanks	Town	Caney	Lynch	Town	Caney	White Oak	Hanging Moss	Town	Lynch	Lynch	Pearl
Reached Waters of the State	Yes	Yes	No	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	ON	Yes	No
Estimated Volume, Gallons	360	540	50	160	560	160	220	180	1,500	300	160	2,000	2,000	380	80	1,500	100	90	200
Estimated Duration, Hours	2.01	2.25	1.54	0.53	3.52	0.53	1.25	0,57	30.05	Cont.	0.22	8.00	8.25	1.55	0.45	4.02	3.00	2.35	0.15
Source	Ground Surface (defective pipe underground)	Manhole	Cleanout	Cleanout	Ground Surface (defective pipe underground)	Manhole	Cleanout	Ground Surface (defective pipe underground)	Manhole	Manhole	Cleanout	Manhole	Manhole	Manhole	Manhole	Manhole	Manhole	Ground Surface (defective pipe underground)/Man hole	Other/RAS Pump Replacement
Location	5028 Old Canton Road	6130 L55 FRONTAGE RD.	2250 MONACO ST.	1645 BLAIR ST,	904 E, FORTIFICAITON ST	2416 CULLEYWOOD RD.	251 PERKINS DR.	4612 BELMEDE PL.	816 GALLATIN ST.	206 SAVANNA ST	4459 MEADOWMONT DR.	BOLING ST /W.NORTHSIDE	SAVANNA ST/EDDY ST	2045 SOUTHWOOD RD.	1116 FOREST AVE.	325 MCTYERE AVE.	1253 WOOD VILLAGE DR.	1521 W. HIGHLAND DR.	SAVANNA ST. WWTP
Time Began	9:52 AM	3:20 PM	10:50 AM	4:31 PM	12:02 PM	5:32 PM	1:25 PM	11:04 AM	9-25 AM	11:13 AM	4:08 PM	11:45 AM	9:20 PM	12:43 PM	2:39 PM	11:17 AM	10:00 AM	10:00 AM	1:45 AM
Date Began	11/8/2016	11/8/2016	11/12/2016	11/22/2016	11/23/2016	11/23/2016	11/25/2016	11/26/2016	11/30/2016	12/3/2016	12/3/2016	12/5/2016	12/6/2016	12/9/2016	12/9/2016	12/12/2016	12/13/2016	12/13/2016	12/13/2016

Table 1 City of Jackson, Mississippi Annual Report No. 4 - March 2015 through February 2017 Collection System SSOs

Reported Cause	Grease	Grease	Grease	Grease	Collapsed Pipe	Grease	Excessive Flow	Grease	Grease	Collapsed Pipe	Collapsed Pipe	Grease	Grease	Collapsed Pipe	Grease, Solids	Collapsed Pipe	Excessive Flow	Excessive Flow	Creek crossing wash out	Grease, Solids	Collapsed Pipe
Rainfall, Inches	0.00	0.00	00.00	0.00	0.00	00.0	0.67	0.03	0.05	0.10	00.00	00.00	00.00	00.00	0.25	0.25	1.75	1,75	0.00	0.05	0.00
Receiving	Town	Hanging Moss	Purple	Eubanks	Town	Lynch	Hanging Moss	Trahon	Cany	Hardy	Eubanks	Hanging Moss	White Oak	Town	Town	Lynch	Lynch	Lynch	Big Creek	Town	Lynch
Reached Waters of the State	Yes	No	Yes	Yes	Š.	Yes	Yes	ON	YES	ON	ON	YES	YES	ON	ON	YES	YES	YES	YES	ON	YES
Estimated Volume, Gallons	270	7.0	1,500	110	25	230	30	100	240	8	500	680	190	300	200	100	20	475	1,500	20	300
Estimated Duration, Hours	0.58	11.10	23.25	0.24	25.00	0:30		0:30	2:11	0:55	7:10	4:32	11:32	0:42	0:29	1:00	Z.	N.	NR	0:10	0:45
Source	Manhole	Cleanout	Manhole	Manhole	Ground Surface (defective pipe underground)/Man hole	Manhole	Cleanout	Manhole	Manhole	Manhole	Ground Surface (defective pipe underground)	Manhole	Manhole	Manhole	Manhole	Ground Surface (defective pipe underground)	Manhole	Manhole	Other	Manhole	Manhole
Location	1620 ASHDOWN ST.	4911 OLD CANTON RD.	153 WINGED FOOT CIR	3324 NASHVILLE ST	Excon @ BAILEY AVE	417 WINDSOR DR.	1519 E. NORTHSIDE DR	121 CYPRESS DR	646 CHELSEA DR	WOODROW WILSON AVE & BAIL EY AVE	202 RIDGEWAY ST	5662 ANGLE DR	601 JAMESTOWN WAY	WOODROW WILSON	1645 BLAIR ST	315 LEXINGTON AVE	265 COLEBROOK AVE	503 SPRINGFIELD CIR	FOREST HILL DR & BROOKWOOD PLACE	WOODROW WILSON AVE & WILLIAMSON AVE	5425 CLINTON BLVD
Time Began	10:33 AM	11:38 AM	2:35 PM	4:07 PM	Cont.	12:52 PM	1:21 PM	1.15 AM	1.06 PM	7:20 PM	12:00 AM	7:01 AM	12:28 AM	8:42 PM	9:47 PM	9:00 PM	5:39 PM	5:16 PM	2:30 PM	7:20 PM	7:18 PM
Date Began	12/14/2016	12/20/2016	12/20/2016	12/24/2016	12/27/2016	12/28/2018	12/31/2016	1/5/2017	1/6/2017	1/8/2017	1/10/2017	1/10/2017	1/11/2017	1/14/2017	1/18/2017	1/18/2017	1/19/2017	1/19/2017	1/24/2017	1/25/2017	1/28/2017

Table 1 City of Jackson, Mississippi Annual Report No. 4 - March 2015 through February 2017 Collection System SSOs

Reported Cause	Grease	Roots	Collapsed Pipe	Collapsed Pipe	Excessive Flow	Grease	Grease	Grease, Excessive Flow	defective pipe underground	NA NA	Grease	Grease	Roots
Reports	a.G.	R	Collaps	Collapt	Excess	ອັ	ຮັ	Grease, Ex	defect		ъ	ъ	œ
Rainfall, Inches	00'0	0.00	00.00	0.00	0.24	0.24	0.24	0.24	0.01	00.00	00.00	00.00	90.0
Receiving Water	Eubanks	Hanging Moss	Town	Town	Town	White Oak	Eubanks	Hanging Moss	Lynch	Purple	Hanging Moss	Томп	Big Creek
Reached Waters of the State	ON.	YES	YES	YES	YES	ON.	YES	YES	ON	YES	YES	YES	<u>Q</u>
Estimated Volume, Gallons	1,010	320	75	100	200	09	280	40	10	NR	420	130	400
Estimated Duration, Hours	0:57	1:19	2:00	2:00	NR	1:51	0:33	0:45	NR - Private Property	NR	0:43	0:53	2:40
Saurce	Manhole	Manhole	Manhole	Manhole	Manhole	Manhole	Manhole	Manhole	Ground Surface (defective pipe underground)	Manhole	Manhole	Manhole	Manhole
Location	4051 WEST ST	2416 CULLEYWOOD ROAD	WOODROW WILSON AVE & BAILEY AVE	202 E RIDGEWAY ST	1580 W RIDGEWAY ST	4125 CRANE BLVD	4141 CRANE BLVD	1429 NORTHSIDE DR	3776 MEADOW LANE	1140 WOODFIELD DR	4791 MCWILLIE DR	3190 MEDGAR EVERS BLVD	5036 FOREST HILL DR
Time Began	1:10 PM	10:18 AM	11:00 AM	8:00 AM	2:00 PM	12:20 PM	1:54 PM	2:50 PM	8:44 PM	NR.	9:42 AM	5:04 PM	9:30 AM
Date Began	1/28/2017	2/3/2017	2/6/2017	2/6/2017	2/7/2017	2/7/2017	2/7/2017	2/7/2017	2/8/2017	2/9/2017	2/9/2017	2/9/2017	2/14/2017

Table 2
City of Jackson, Mississippi
Annual Report No. 4 -March 2015 through February 2017
Pump Station SSOs

			The same of the same of			
Source	Estimated Duration, Hours	Estimated Volume, Gallons	Reached	Receiving Water.	Rainfall, Inches	Reported Cause
Manhole	09:0	75,000	YES	Cany	2.00	Grease. Pump Station Failure.
Manhole	3.75	300	ON	Trahon	5.00	Pump Station Failure.
Pump Station	10.98	42,000	ON	Eubanks	2.50	Pump Station Failure.
Pump Station	1.50	8,000	ON	Eubanks	2.50	Pump Station Failure.
Pump Station	0.25	1,000	YES	Lynch	0.50	Pump Station Failure.
Pumo Station	0.39	100	ON	Lynch	00.0	PS Fallure
Pump Station	3.36	800	ON	Bogue Chitto	05.0	Excessive Flow
Pump Station	0.54	20,000	YES	Big Creek	1.75	Excessive Flow.
Pump Station	00:00	20	Q	Trahon	1.75	Pump Station Failure.
4 4 4	imp Station imp Station imp Station imp Station		0.39 3.36 0.54 0.00	0.39 100 3.36 800 0.54 20,000 0.00 20	0.39 100 NO 3.36 800 NO 0.54 20,000 YES 0.00 20 NO	0.39 100 NO Lynch 3.36 800 NO Bogue Chitto 0.54 20,000 YES Big Creek 0.00 20 NO Trahon

Table 3
City of Jackson, MissIssIppi
Annual Report No. 4 - March 2015 through February 2017
West Bank Interceptor SSOs

Sate Bugsin	Thme Began	Location	Source	Estimated Duration, Hours	ğ	Estimated Volume, Gallons	Reached	Reached	Receiving Water	Rainfall, Inches	Reported Course
24,004,0	0:40 014	1200 LAKELAND DR	Manhole	0.18	0.18	Undetermined FALSE	FALSE	9	Eubanks	2.42	Excessive Flow.
5/2/1/2013	3.13 Ale							9.		07.0	3
3/21/2015	10:00 AM	2148 RIVERSIDE DR	Manhole	5.00	5.00	300	FALSE	2	EUDANKS	74.7	
2117012						TIOT Pagements	TIPLE	SHA	Pasad	2.72	Excessive Flow.
2 MODING E	A-30 DAA	TO NO STEERED SON ST	Manhole	0.33	55.0		מסצו	071		1	

Table 4
City of Jackson, Mississippi
Annual Report No. 4- March 2015 through February 2017
Prohibited Bypasses

Savanna St WWTP	Source WWTP WWTP	Days Days 13	Wolume, Millen Gallons 489.78	Materioral Waterway YES YES	Water Water Pearl	Raintati, Inches. 1.75	Heavy rainfall generated influent flow in excess of mechanical plant's capacity. Heavy rainfall generated influent flow in excess of mechanical plant's capacity.
Savanna St WWTP Savanna St WWTP	WWTP	2 4	74.86	YES	Pearl	1.24	excess of mechanical plant's capacity. Heavy rainfall generated influent flow in excess of mechanical plant's capacity.
Savanna St WMTP	WWTP	м	84.65	YES	Pearl	1.96	Heavy rainfall generated influent flow in excess of mechanical plant's capacity. Heavy rainfall generated influent flow in
	WWTP	ы г	77.48	YES	Pearl	1.23	excess of mechanical plant's capacity. Heavy rainfall generated influent flow in excess of mechanical plant's capacity.
	WWTP	o	261.81	YES	Pearl	1.30	Heavy rainfall generated influent flow in excess of mechanical plant's capacity.
	WWTP	ю	42.02	YES	Pearl	1.31	excess of mechanical plant's capacity.
U I	WWTP	ო	95.33	YES	Pearl	2.00	excess of mechanical plant's capacity.
	WWTP	24	873.27	YES	Pearl	7.70	excess of mechanical plant's capacity.
1.0	WWTP	6	262.79	YES	Pearl	1.90	flow in excess of the plant's capacity.
	WWTP	26	1,172.97	YES	Pearl	11.86	Heavy rainfall generated influent flows in excess of mechanical plant's capacity
	WWTP	8	301.94	YES	Pearl	6.39	Heavy rainfall generated influent flows in excess of mechanical plant's capacity
	WWTP	5	104.02	YES	Pearl	2.21	Heavy rainfall generated influent flows in excess of mechanical plant's capacity
	WWTP	2	68.83	YES	Pearl	2.99	Heavy rainfall generated influent flow in excess of mechanical plant's capacity.
	WWTP	8	261.79	YES	Pearl	4.16	Heavy rainfall generated influent flow in excess of mechanical plant's capacity.
h .	WWTP	Ongoing	61.80	YES	Pearl	1.14	Heavy rainfall generated influent flow in excess of mechanical plant's capacity.

