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Tony T. Yarber, Mayor



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March 31, 2016

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

Brad Ammons
Environmental Engineer
Clean Water Enforcement Branch
Municipal & Industrial Enforcement Section
U.S. EPA Region 4
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Atlanta, GA 30303

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

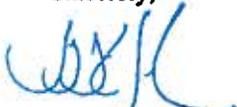
RE: City of Jackson, Mississippi, EPA Consent Decree
6th Semi-Annual Report, September 2015 through February 2016

Dear Gentlemen:

Attached please find the Semi-Annual Report for the period of September 2015 through February 2016. The report was developed and submitted by the City in accordance with the EPA Consent Decree dated March 1, 2013 and your correspondence of May 31, 2013.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering such information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Sincerely,



Tony T. Yarber
Mayor



cc: Les Herrington, P.E., Mississippi Department of Environmental Quality
Gus McCoy, Chief Administrative Officer
Monica Joiner, City Attorney
Nakesha M. Watkins, Legal Counsel
Kishia L. Powell, P.E., Director, Department of Public Works
Daniel Walker, Deputy Director of Public Works
Terry Williamson, Consent Decree Manager
Public Depository, Eudora Welty Public Library

A large, dynamic splash of water dominates the left side of the page, with a thick column of water falling from the top and creating a wide, turbulent base with many bubbles. The water is a clear, bright blue. The background behind the splash is a light, hazy blue, suggesting a bright sky or a clean, open environment.

The City *of*
jACKSON

**SEMI-ANNUAL
REPORT NO. 6**

AUGUST 2015 THROUGH FEBRUARY 2016

Department of Public Works
Wastewater Infrastructure Redevelopment Program



MARCH 31, 2016

City of Jackson
Wastewater Infrastructure Redevelopment
Program

Semi-Annual Report No. 6
September 2015 through February 2016

March 30, 2016

Prepared for:

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

Prepared by:

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

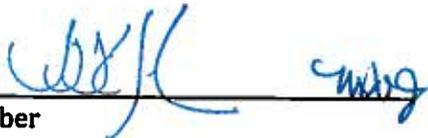
City of Jackson, Mississippi

Semi-Annual Report No. 6

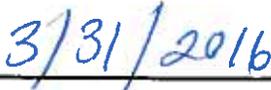
September 2015 through February 2016

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering such information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.





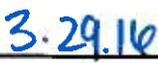
Tony T. Yarber
Mayor



Date



Kishia L. Powell, Director
Department of Public Works



Date

Semi-Annual Report No. 6

September 2015 through February 2016

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1.0 Introduction

1.1 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 City of Jackson Public Works Department (JPWD) established the Wastewater Infrastructure Redevelopment Program in 2004. The Waggoner Engineering/AJA Management and Technical Services joint venture company, WEI/AJA LLC, was retained to assist the City in addressing the requirements of the Consent Decree under the existing Program Management contract for the Wastewater Infrastructure Redevelopment Program. Accordingly, the Program Management team prepared this Semi Annual Report with input from the City and its various contractors to fulfill the requirements of Section IX ¶ 57 (b) set forth in the CD.

1.3 Consent Decree Requirements for Semi Annual Report

As stated in the Consent Decree Section IX ¶ 57 (b), the Semi Annual Report be submitted beginning thirty (30) Days after the first full six (6)-month period following the Date of Entry of this Consent Decree, and thirty (30) Days after each subsequent six (6)-month period until termination of the Consent Decree and shall contain the following, at a minimum:

Semi-Annual Reports ...the City shall submit to EPA for review and approval a Semi-Annual Report. Each Semi-Annual Report shall include, at a minimum:

- (i) *A description of projects and activities completed and milestones achieved during the previous applicable six (6)-month period pursuant to the requirements of this*

Consent Decree, in Gantt chart or similar format, including a description of the status of compliance or non-compliance with the requirements of this Consent Decree and, if applicable, the reasons for non-compliance. If any non-compliance cannot be fully explained at the time the report is due, the City shall include a statement to that effect in the report. The City shall investigate to determine the cause of the non-compliance and then shall submit an amendment to the report, including a full explanation of the cause of the non-compliance, within thirty (30) Days after submission of the Semi-Annual Report.

- (ii) *A summary of significant projects and activities anticipated to be performed, and milestones anticipated to be achieved*, in the successive applicable six (6)-month period to comply with the requirements of this Consent Decree, in Gantt chart or similar format.
- (iii) Any additional information the City determines is appropriate to demonstrate that the City is implementing the remedial actions required under this Consent Decree in an adequate and timely manner.

1.4 Compliance Statement

For the reporting period of September 1, 2015 through February 29, 2016, the City of Jackson, to the best of its knowledge, is in compliance with the requirements of the Consent Decree entered on March 1, 2013.

2.0 Summary of Activities for the Reporting Period

2.1 Wastewater Collection and Transmission System

2.1.1 West Bank Interceptor Work Plan

The Consent Decree requires that within five (5) months after the Date of Entry of this Consent Decree, the City shall submit to EPA for review and approval a West Bank Interceptor Work Plan. Upon approval by EPA, the City shall implement the West Bank Interceptor Work Plan. The West Bank Interceptor Work Plan shall include, at a minimum, the following:

- (a) The proposed locations selected, and proposed methodologies and criteria that the City will implement and use, to conduct sewage flow monitoring and inspection of the West Bank Interceptor to identify and analyze structural deficiencies in the West Bank Interceptor.
- (b) The methodologies and procedures the City will implement for monitoring and determining the total dry weather and wet weather (peak) flow rate in the West Bank Interceptor in order to estimate the severity of I/I in the West Bank Interceptor.
- (c) The methodologies and procedures the City will implement for evaluating and assessing the West Bank Interceptor to enable the City, in the West Bank Interceptor Rehabilitation Plan set forth below, to identify any deficiencies therein and a specific list of proposed remedial measures to correct such deficiencies. The proposed remedial measures shall be performed in two (2) phases. The first phase of such remedial measures shall include cleaning of debris accumulated in the West Bank Interceptor and repairs throughout the length of the West Bank Interceptor that have been evaluated as being necessary to prevent imminent structural failure or have been evaluated as necessary to correct a major structural defect, including sources of Excessive I/I. The first phase shall also include total rehabilitation of at least 20% of the total length of the West Bank Interceptor, or a lesser amount as approved by EPA based upon justification by the City in the West Bank Interceptor Work Plan. Examples of these repairs include, but are not limited to, point repairs, manhole repairs, and replacement of sections of sewer pipe or pipe lining of critical segments. The second phase of such remedial measures shall include rehabilitation of those segments throughout the length of the West Bank Interceptor that include long-term repairs necessary for proper “Asset Management” and/or addressing sources of non-Excessive I/I. Examples of these repairs include, but are not limited to, manhole repairs, sewer pipe lining, and replacement or construction of new gravity sewer pipe segments. Asset Management is a continuous process that guides the acquisition, use, and disposal of infrastructure assets to optimize service delivery and minimize costs over the asset’s entire life.

The West Bank Interceptor Work Plan was completed and submitted to EPA on July 30, 2013 in compliance with the requirements of the Consent Decree. The City received approval on June 17, 2014. The West Bank Rehabilitation Plan is due to EPA 22 months after approval of the Work Plan on April 17, 2016. A draft of the Plan is under review and it is anticipated that the Plan will be submitted on time.

2.1.1.1 West Bank Interceptor Flow Monitoring

As indicated in the West Bank Interceptor Work Plan, the first activity required is to conduct sewage flow monitoring in order to determine the severity of I/I in various segments along the length of West Bank Interceptor. The flow metering is needed for the completion of the West Bank Interceptor Rehabilitation Plan.

Significant milestones reached this period for the flow monitoring project are:

- **Continued long term flow monitoring and data analysis at 30 sites.**

Significant milestones anticipated to be completed during the next reporting period:

- **Continue Long Term Flow monitoring for cost allocation and I/I analysis**

2.1.1.2 West Bank Interceptor Condition Assessment

As indicated in the West Bank Interceptor Work Plan, the next activity required is to conduct a condition assessment of the West Bank Interceptor. The objective of the WBI condition assessment is to quantify the structural condition, performance, and/or progression of deterioration (i.e. remaining service life) of the system. The condition assessment is necessary for the completion of the West Bank Interceptor Rehabilitation Plan. As part of the condition assessment activities, it is also planned to inspect the entire West Bank Interceptor easement for any potential problem areas that can be identified from the surface.

Significant milestones reached this period for Condition Assessment project are:

- **Received sonar and laser results from Hibbard Inshore on September 25, 2015**
- **Completed review and analysis of all WBI condition assessment results**
- **Completed the Draft WBI Rehabilitation Plan.**

Significant milestones anticipated to begin during the next reporting period:

- **Transmit WBI Rehabilitation Plan for review and approval no later than April 17, 2016**

- **Address any comments by USEPA/MDEQ**
- **Receive Plan Approval**
- **Continue implementation of the WBI Rehabilitation Plan.**

2.1.2 Sewershed Prioritization Work Plan

The Consent Decree requires that within seven (7) months after the Date of Entry of this Consent Decree, the City shall submit to EPA for review and approval a Prioritization Work Plan which shall set forth the proposed locations selected, and proposed methodologies and criteria that the City will implement and use, to identify the severity of I/I within the WCTS, to map the Sewer System, to assess the capacity of WCTS, and to establish Sewershed priorities for further evaluation and rehabilitation of the WCTS pursuant to the Sewershed Evaluation Plan and Evaluation Report/Rehabilitation Plan. Upon approval by EPA, the City shall implement the Prioritization Work Plan. The Prioritization Work Plan shall include, at a minimum, the following:

- (a) The methodologies and procedures the City will implement to estimate the severity of I/I within each Sewershed.
- (b) The methodologies and procedures the City will implement for the development of a computerized digital mapping system for each Sewershed that shall include, and have the ability to display, the West Bank Interceptor, all Gravity Sewer Lines, Force Mains, Pump Stations, manholes, inverts, siphons, WWTP locations, diversion valves, outfall locations, and all other appurtenances relating to the City's Sewer System. The mapping system does not need to include Private Laterals. The mapping system shall have the capability to store, update, and display information in a manner that will aid City personnel in the development and implementation of a Hydraulic Model, the Sanitary Sewer Evaluation Survey and the proper operation and maintenance of the Sewer System.
- (c) The methodologies and procedures the City will implement for assessing the capacity of the WCTS including the West Bank Interceptor, all Pump Stations, all Major Sewer Gravity Lines, all Force Mains and siphons and their respective related appurtenances, all known SSO locations, and any other portions of each Sewershed. The capacity assessment shall include the WCTS that must be assessed so as to allow a technically-sound evaluation of the causes of SSOs and Prohibited Bypasses at the WWTPs. The capacity assessment shall specifically identify, at a minimum, the hydraulic capacities of the WCTS, and compare those capacities to existing and future projected average and peak flows in dry and wet weather. This assessment shall identify those portions of the WCTS that are expected to cause or contribute to SSOs and/or Prohibited Bypasses at the WWTPs under existing and future projected average and peak flows in dry and wet weather, and the degree to which those portions experience or cause, under current or projected future conditions, SSOs and/or Prohibited Bypasses at the

WWTPs. As part of the capacity assessment, the City shall use the information it is required to develop pursuant to Section VI.B to assess existing and future projected capacity of the WCTS and the ability of the WCTS to transmit peak flows experienced by and predicted for the WCTS.

- (d) The methodologies and procedures the City will implement to develop a computerized Hydraulic Model of the WCTS within each Sewershed using a hydraulic modeling software package. The City shall use the Hydraulic Model in the assessment of the hydraulic capacity of the WCTS in that Sewershed and in the identification of appropriate rehabilitative and corrective actions to address all capacity and condition limitations identified in that Sewershed's WCTS. The City shall develop the Hydraulic Model to provide a detailed understanding of the response of the WCTS to wet weather events and an evaluation of the impacts of proposed remedial measures and removal of I/I flow.

The City shall configure the Hydraulic Model to accurately represent the City's WCTS, in accordance with currently accepted engineering practice. The City may model its WCTS in different levels of detail, as necessary to identify the causes of all known SSOs and to assess proposed remedial measures with the goal of eliminating those SSOs. The City's Hydraulic Model shall include at a minimum the West Bank Interceptor, all Major Gravity Lines and associated manholes, and all Pump Stations and associated Force Mains.

The City shall configure the Hydraulic Model using adequate, accurate, and sufficiently current physical data (e.g., invert and ground elevations, pipe diameters, slopes, pipe run lengths, Manning roughness factors, manhole sizes and configurations, Pump Station performance factors) for its WCTS. In particular, the City shall field verify the physical data to allow calibration and verification of the model.

The City shall calibrate and verify the Hydraulic Model using appropriate rainfall data, actual hydrographs, and WCTS flow data. The City shall use at least three (3) separate data sets each for calibration and verification. As part of the calibration process, the City shall either use existing sensitivity analyses for the selected model, or carry out its own sensitivity analyses, such that calibration effectiveness is maximized.

The Hydraulic Model shall, at a minimum, include:

- (i) a description of the Hydraulic Model that includes the criteria set forth above;
- (ii) specific attributes, characteristics, and limitations of the Hydraulic Model;
- (iii) identification of all input parameters, constants, assumed values, and expected outputs;

- (iv) digitized map(s) and schematics that identify and characterize the portions (including the specific Gravity Sewer Lines) of the WCTS that shall be included in the Hydraulic Model;
- (v) identification of input data to be used;
- (vi) configuration of the Hydraulic Model;
- (vii) procedures and protocols for performance of sensitivity analyses (*i.e.*, how the Hydraulic Model responds to changes in input parameters and variables including the use of various design storms of varying durations and intensities);
- (viii) procedures for calibrating the Hydraulic Model to account for values representative of the WCTS and WWTPs using actual system and WWTP data (*e.g.*, flow data); and
- (ix) procedures to verify the Hydraulic Model's performance using additional, independent actual Sewer System data (*e.g.*, flow data).

(e) The methodology and criteria for prioritizing Sewersheds or groups of Sewersheds in order to conduct the phased evaluation and rehabilitation of the WCTS in each Sewershed as required by this Consent Decree. The criteria for prioritizing Sewersheds shall include, at a minimum, the following:

- (i) the severity of the estimated I/I in the Sewersheds;
- (ii) the frequency, volume and location of SSOs in the Sewersheds;
- (iii) the relative potential impact of SSOs in the Sewersheds to human health and the environment;
- (iv) the average age of Gravity Sewer Lines within each Sewershed;
- (v) the pipe material used within each Sewershed; and
- (vi) any ongoing rehabilitation or corrective action work in the Sewersheds including detailed information on the current status and completion dates for such work.

(f) The methodologies, procedures and criteria for developing proposed schedules for implementing and completing the evaluation and rehabilitation of the WCTS in each Sewershed or groups of Sewersheds as required by this Consent Decree.

The Sewershed Prioritization Report, as required in Paragraph 25 of the Consent Decree, shall be submitted within thirty-two (32) months after EPA approval of the Prioritization Work Plan. The Prioritization Work Plan was approved by EPA on **June 17, 2014**. The Sewershed Prioritization Report is due on or before **February 16, 2017**.

Significant milestones reached this period for the prioritization plan are:

- **Began prioritization sewersheds accordance with the approved Sewershed Prioritization Work Plan and Sewershed Evaluation Plan.**
- **Completed base system map on WCTS computerized mapping system using available City records with ESRI ArcMap 9.3.1**

- **Continued to research “as-built” drawings to determine pipe segment age (approximately 54% complete) and material**
- **Continued to research “as-built” drawings to QA/QC computerized mapping system**

Significant milestones anticipated to be continued during the next reporting period:

- **Continue work on WCTS computerized mapping system**
- **Continue to research “as-built” drawings to QA/QC computerized mapping system**
- **Continue development of Hydraulic model**
- **Continue to research available records to determine pipe segment age and material**
- **Continue Pump Station assessments in conjunction with Sewershed Evaluation Plan requirements**

2.1.3 Sewershed Evaluation Plan

The Consent Decree requires that within twelve (12) months after the Date of Entry of this Consent Decree, the City shall submit to EPA for review and approval a Sewershed Evaluation Plan that the City will implement for the Sewersheds in Sewer Groups 1 and 2 pursuant to the schedule set forth in the approved Prioritization Report. The Sewershed Evaluation Plan shall provide for the City to evaluate the WCTS within the Sewersheds in order to support the development of the Evaluation Report/Rehabilitation Plan for the Sewershed, as provided in Paragraph 27 and the identification of rehabilitative and corrective actions to meet the objectives of this Consent Decree. The City’s evaluation of the Sewersheds shall include (and the Sewershed Evaluation Plan shall describe) at minimum the following requirements:

- (a) Sanitary Sewer Evaluation Survey. The Sewershed Evaluation Plan shall provide for the City to characterize and address the structural integrity of the WCTS and to identify means to improve WCTS capacity and eliminate SSOs and Prohibited Bypasses at the WWTPs, including the identification and reduction of I/I, by conducting a Sanitary Sewer Evaluation Survey for the Sewershed. The Sanitary Sewer Evaluation Survey component of the Sewershed Evaluation Plan shall include, at a minimum, the following:
 - (i) the criteria that the City will use for establishing the location of flow and rainfall monitoring equipment installation for the Sewershed evaluations, and for determining whether the City will install the flow and rainfall monitoring equipment either permanently or temporarily, in order to adequately characterize flow in the Sewershed
 - (ii) a map showing the location of each permanent and temporary flow and rainfall monitoring site established in the WCTS;

- (iii) a description of the data management system that will organize, analyze, and report flow and rainfall data collected from the WCTS;
- (iv) a description of the quality assurance and quality control program the City will follow to ensure the accuracy and reliability of flow and rainfall data collected from the WCTS;
- (v) procedures to identify and evaluate I/I in the Sewersheds (including, without limitation, Private Laterals);
- (vi) dry weather monitoring to characterize base flows and wet weather monitoring following events of sufficient duration and intensity to characterize peak flows;
- (vii) techniques for reducing Infiltration;
- (viii) a program to eliminate sources of Inflow (including legal mechanisms and enforcement programs);
- (ix) a program to identify and eliminate cross connections between the WCTS and the City's municipal separate storm sewer system;
- (x) methodologies to evaluate the success of items (v) through (ix) above;
- (xi) a review of the legal authority in the current sewer use ordinance to require that the owner of an illegal stormwater connection to the WCTS take all appropriate steps necessary to eliminate the connection;
- (xii) if the review of the legal authority indicates a need to amend the legal authority in order to assume better control over illegal stormwater connections to the WCTS, the Plan shall include the proposed revisions to the ordinance with a schedule for proposing the draft ordinance to the City Council for adoption;
- (xiii) decision-making criteria, procedures, and protocols for prioritization of the evaluation and rehabilitation of Gravity Sewer Lines and associated manholes;
- (xiv) decision-making criteria, procedures, and protocols to determine the need for, and the conduct of, internal condition inspection of Gravity Sewer Lines and associated manholes;

(xv) decision-making criteria, procedures, and protocols to determine the need for, and the conduct of, grouting in Gravity Sewer Lines and associated manholes (e.g., leakage rate for application of grout);

(xvi) decision-making criteria, procedures, and protocols used to determine the need for, and the conduct of, smoke testing;

(xvii) decision-making criteria, procedures, and protocols used to determine the need for, and the conduct of, dye testing;

(xviii) decision-making criteria, procedures, and protocols used to determine the need for, and the conduct of, point repair(s), slip lining or line replacement;

(xix) decision-making criteria, procedures, and protocols to determine whether I/I from a Private Lateral is excessive and needs to be addressed;

(xx) decision-making criteria, procedures, and protocols to determine the need for, and the conduct of, flow isolation of Gravity Sewer Lines and associated manholes;

(xxi) guidelines for conducting a cost-effectiveness analysis to consider the rehabilitation costs for I/I sources and rainfall-induced I/I source eliminations versus the costs of transportation, storage, and treatment; and

(xxii) documentation of the basis and criteria for rehabilitation, transportation, storage, and treatment costs.

(b) Pump Station Evaluations. The Sewershed Evaluation Plan shall provide for the City to evaluate the design capacity, current effective capacity, equipment condition, and operational redundancy in its Pump Stations in the Sewersheds. This evaluation shall include, at a minimum, the following criteria:

(i) adequacy of station capacity;

(ii) critical response time, defined as the time interval between activation of the high wet well level alarm and the first SSO, under peak flow conditions;

(iii) adequacy of station condition, based upon both physical inspection and any available operating and mechanical failure history during at least the past five (5) years preceding the lodging date of the Consent Decree;

- (iv) adequacy of station design and equipment, including redundancy of pumps and electrical power supply (including whether emergency or back-up power is available on a portable or fixed basis), and other equipment installed, based upon the most current edition of MDEQ's *Guidance for the Design of Publicly Owned Wastewater Facilities*; and
- (v) the ability of maintenance personnel to take corrective action within the critical response time calculated for each Pump Station.

Significant milestones reached this period for the Sewershed Evaluation Plan are:

- **No milestone activities were required by the approved Sewershed Evaluation Plan during this period**
- **Continued work on Pump Station Evaluations in conjunction with Prioritization Work Plan**

Significant milestones anticipated to be continued during the next reporting period:

- **No milestone activities are required by the approved Sewershed Evaluation Plan during this period**
- **Continue work on Pump Station Evaluations in conjunction with Prioritization Work Plan**

The Sewershed Prioritization Report is due to EPA 32 months or **February 16, 2017** after approval. This report will determine which sewersheds will be grouped into Sewer Group 1. After approval of the Sewershed Prioritization Report, the City will begin implementation of the approved Sewershed Evaluation Plan which is currently projected to be on or about **May 16, 2017**.

2.2 Wastewater Treatment Facilities

2.2.1 Savanna WWTP Composite Correction Program (CCP)

The Consent Decree requires that within twelve (12) months after the approval of the CPE, the City shall submit to EPA for review and approval a CCP for the Savanna Street WWTP. The purpose of the CCP is to identify rehabilitation and/or upgrades to the Savanna Street WWTP to address the problems identified in the CPE as more particularly described below. To the extent applicable, the CCP shall be consistent with the EPA publications *Improving POTW Performance Using the Composite Correction Approach*, EPA CERL, October 1984, and *Retrofitting POTWs*, EPA CERL, July 1989; and the most current edition of MDEQ's *Guidance for the Design of Publicly Owned Wastewater Facilities*. Upon approval by EPA, the City shall implement the remedial measures in the approved CCP in accordance with the expeditious schedules contained therein.

The CCP shall include, at a minimum, the identification of specific Type 1, Type 2 and Type 3 remedial measures, as such terms are used in the above-referenced EPA publications and as further

clarified below. Type 1 and Type 2 remedial measures shall include, minor process changes, minor equipment additions or enhancements, or flow configuration changes to meet NPDES Permit effluent limits and to maximize Secondary Treatment of peak wet weather flow through the Savanna Street WWTP. Type 3 remedial measures shall include any capital improvements, including, without limitation, the addition of a clarifier of equal size to the existing clarifiers at the Savanna Street WWTP and Biological Nutrient Removal (“BNR”), necessary for the Savanna Street WWTP to meet the May 4, 2012 NPDES Permit effluent limits including nutrient limits. The CCP shall also include expeditious schedules for the implementation of such measures; provided, however, that all Type 1 and Type 2 measures shall be completed within twenty-four (24) months after EPA’s approval of the CCP and all Type 3 measures shall be completed within sixty (60) months after EPA’s approval of the CCP.

Significant milestones reached this period for this activity:

- **Completed Draft Composite Correction Program (CCP).**

Significant milestones anticipated to be completed during the next reporting period:

- **Submit Draft CCP to City of Jackson/Program Manager for review;**
- **Submit final CCP to EPA for review and approval on or before April 22, 2016.**
- **Begin implementation of CCP upon approval**

2.2.2 Savanna WWTP Storm Cell Sludge Disposal

The Consent Decree requires that as set forth in Section 2.D of the MDEQ Agreed Order I, the City has agreed to implement a Sludge and Solids Removal Plan that provides for the removal and proper disposal of excess, accumulated sludge/solids from the Savanna Street WWTP storm diversion cells. The Parties agree that the City shall implement the Sludge and Solids Removal Plan as an enforceable obligation under this Consent Decree. Section 2.D of the Agreed Order as amended September 29, 2011 states

“...In any event, Respondent , in accordance with the implementation schedule, shall remove all sludge not later than April 30, 2014 and shall dispose of all removed sludge no later than December 31, 2017”.

Significant milestones reached this period for this activity:

- **Order accepting proposal presented to City Council for a 2nd time on November 3, 2015. Order failed on a 1-5 vote**
- **New Request for Proposals was advertised on December 10, 2015**

- **Proposals were received on January 26, 2016**

Significant milestones anticipated during the next reporting period:

- **Evaluate proposals**
- **Present successful proposal to Council for approval and award of contract**
- **Issue Notice to Proceed with project**

2.3 Capacity, Management, Operations and Maintenance Programs

The Consent Decree Section VI, D ¶¶ 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. One of the reporting requirements of the Annual Report as outlined in the Consent Decree Section IX, D ¶ 57 (i) requires *"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."* Therefore, the status of development and implementation of the required CMOM programs for the period September 2015 through February 2016 will be reported as required in the Annual Report covering the period from March 2015 through February 2016 due April 30, 2016.

As discussed during the recent meeting in Jackson in late February 2016, the City intends to review CMOM programs submitted and/or approved and resubmit for approval any warranted revisions. The City intends to review closely the staffing and equipment specifications in the Sewer Overflow Response Plan and the Gravity Line Preventative Maintenance Program for any economies that are, or could be, achieved through the use of new technologies.

2.4 Supplemental Environmental Project

The purpose of the Supplemental Environmental Project ("SEP") is to reduce extraneous flows entering the Wastewater Collection and Transmission System (WCTS) through defective residential Private Laterals and through illicit connections from residential properties of eligible property owners. For purposes of this SEP, an illicit connection is any residential connection to the WCTS that discharges any substance or solution that is not intended to be transferred via the WCTS, such as stormwater, surface water runoff and roof runoff. The WCTS becomes a conduit for stormwater when defective Private Laterals or illicit connections allow rain or groundwater to enter the WCTS. Certain components of the WCTS Evaluation Plan required by Section VIII of the Consent Decree will assist the City in identifying defective Private Laterals in need of repair or replacement and illicit connections to the WCTS.

Significant milestones reached this period for this activity:

- Issued approximately 400 SEP packets to potential private lateral repair or replacement residential candidates. Packet encompassed the following: overview of the SEP Program with graphic flyer presentation delineating how inflow and infiltration cause sanitary sewer overflows and the impact it has on the sanitary sewer system, resident's notice of private lateral defect(s), instructions how to remit application and funding eligibility criteria, and pre-application form.
- Of the 400 packets hand delivered to residents whose private lateral was determined defective, the City received 140 applications seeking assistance of which 40 residents fully met the criteria to become potential recipients for SEP funding. 20 percent of the 400 packets delivered to the residents were renters in lieu of homeowners and multiple residences were abandoned.
- The City is securing work orders/contracts to engage plumbing contractor to provide corrective measures to mitigate inflow and infiltration for each residence.
- The City is notifying and securing authorizations from residents to allow construction to proceed on their property to implement the SEP program.
- Continued public notification of Private Service Lateral Program and determinations of eligible property owners.

Significant milestones anticipated to be completed during the next reporting period:

- The City will secure authorizations from qualified homeowners.
- Continue public notification of Private Service Lateral Program and determinations of eligible property owners.
- The City will notify the one qualified plumber for the limited number (40) of qualified homeowners solicited to date.
- Begin construction of private service lateral repair or replacement.
- Solicit qualifications from additional plumbing contractors to provide the repairs at pre-arranged unit prices for required work.
- Continue to solicit applications for the program and monitor the number of qualified homeowner applications received

3.0 Other Significant Activities

3.1 West Bank Interceptor Rehabilitation Projects

The West Bank Interceptor Sewer Rehabilitation, Phase 4 and 5, City Project No. 20505704. The City applied for and received a WPCRLF loan offer from MDEQ for \$19,000,000 on September 26, 2014. This project includes rehabilitation of approximately 14,300 LF of 54" interceptor, including manhole rehabilitation, from Eubanks Creek to near Meadowbrook Road, as well as an allowance for manhole rehabilitation/replacement along the reach of the West Bank Interceptor.

Significant milestones reached this period for this activity:

- **Bids received for Phase 4 contract on January 12, 2016**
- **City Council accepted the Bid of Hemphill Construction Co. in the amount of \$3,752,634.00 on January 26, 2016**
- **Notice to Proceed to contractor on Phase 4 delayed due to high Pearl River stages**
- **Secured 2 of 4 easements for Contract 5**
- **MDEQ disallowed any offsite rehabilitation identified during the West Bank Condition Assessments under the current loan agreement. Additional funding will have to be secured for remaining Phase I work identified in the West Bank Interceptor Rehabilitation Plan.**

Significant milestones anticipated to be completed during the next reporting period:

- **Issue Notice to Proceed to contractor on Phase 4**
- **Secure remaining easements for Phase 5**
- **Advertise for construction bids for Phase 5**

3.2 Collection System Replacement Projects

The City of Jackson has entered into a Performance Contracting Agreement with Siemens Industry, Inc., Building Technologies Division (Siemens) for Water Infrastructure Improvements. As part of that contract, SIEMENS will provide sewer collection line repairs at the below locations. This includes labor and material for a complete line repair as described. Asphalt repairs, erosion control, bypass pumping; select fill, traffic control, and fence removal/replacement are included on an as-needed basis.

- **Wilshire Avenue**
 - Remove and replace 600 linear feet of twenty-one inch (21") sewer line;
 - Remove and replace 400 linear feet of eighteen inch (18") sewer line;
 - Includes three (3) manholes;

- Includes one (1) stream crossing;
- 300 Block of Rollingwood Drive
 - Remove and replace 1,140 linear feet of eight inch (8") and ten inch (10") sewer line;
 - Includes four (4) manholes;
 - Includes one (1) stream crossing;
- 2704 Quail Run at Eastover
 - Remove and replace 320 linear feet of twelve inch (12") sewer line;
- 2115 Robin Drive
 - Remove and replace 1,125 linear feet of twelve inch (12") sewer line;
 - Includes six (6) manholes;
- 220 Dixon Road to 1-220
 - Remove and replace 1,200 linear feet of twelve inch (12") sewer line;
 - Includes three (3) manholes;
- East Northside Drive
 - Relocate 500 linear feet of sewer line from side of street to middle of street from Eastwood Road to Culleywood Drive;
 - Includes two (2) manholes;
- Pearl Street
 - Remove and replace 260 linear feet of eight inch (8") sewer line;
 - Includes two (2) manholes;
- 2234 West Highway 80
 - Repair of thirty inch (30") sewer line from Lynch Creek interceptor at Hattiesburg Street going west to the north turn of line;
- McClure Road at Meadow Lane
 - Replace 2,250 linear feet of fifteen inch (15") sewer line;
 - Replace ten inch (10") sewer line with a fifteen inch (15") sewer line from intersection of Meadow Lane and Wildwood Terrace to South Sunset Terrace;
- 3838 Eastover Drive to 3900 Eastover Drive
 - Replace six inch (6") sewer line with eight inch (8") sewer line;
 - Includes five (5) manholes;
- Beasley Road to Meadow Road
 - Repair of thirty inch (30") sewer line;
 - Includes two (2) stream crossings and lining of pipe;
- 2212 Heritage Hill Drive
 - Remove and replace 400 linear feet of eight inch (8") sewer line;
 - Includes one (1) manhole;
- 5044 Wayneland Drive
 - Removal of 700 linear feet of six inch (6") sewer line;
 - Replace six inch (6") sewer line with eight inch (8") sewer line;
 - Includes two (2) manholes;

- South Drive/ Galvez Street to Jayne Avenue
 - Remove and replace 2,300 linear feet of twenty-one inch (21") sewer line;
 - Includes six (6) manholes;
 - Includes two (2) stream crossings;

- Liberty Street to Coleman Avenue
 - Remove and replace 60 linear feet of fifteen inch (15") sewer line;
 - Includes one (1) stream crossing.

- 1500 Block of Sheffield Drive
 - Repair 8" Sewer Line Collapse

Additional Projects added to Scope of Siemens contract since last report:

- Pleasant Avenue (from Glendale Street to Hull Street intersection)
 - Install approx. 200 linear feet of twelve inch (12") sewer line;
 - Includes three (3) new manholes;
 - Abandon and grout existing sewer and fill manhole with sand

- Beatty Street (from Zhender Street to Allen Street intersection)
 - Replace approx. 250 linear feet of eight inch (8") sewer line;
 - Includes one (1) new manhole

All were completed during the previous reporting period.

3.3 Savanna WWTP Influent Pump Station

The Savanna Influent Pump station has a total of four raw sewage pumps. Three 30 MGD pumps, which pump to the headworks of the mechanical plant and one 100 MGD pump that is used during high flow conditions to divert the excess flow to the storm cells for storage and then later returned to the pump station for treatment in the mechanical plant. In February 2013, the 100 MGD Pump # 4 failed. Eleven temporary diesel bypass pump with a nominal capacity of 10 MGD each were installed to divert excess flows to the storm cells. Repair as well as replacement options were evaluated.

Significant events during the reporting period:

- **Issued Notice to Proceed on August 17, 2015**
- **Station placed into service on November 23, 2015**
- **Site restoration completed on January 7, 2016**
- **Final inspection was held January 13, 2016**

Significant milestones anticipated/events during the next reporting period:

- **Complete project close out**

4.0 Consent Decree Progress Schedule

A Gantt chart indicating the overall progress of Consent Decree required activities and major milestones is shown on the following page.

