City of Memphis

Semi-Annual Report October 1, 2014 through March 31, 2015

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

Bobby D. Allen, P.E.

Apr, 1 29, 2015

Introduction

On September 20, 2012, the United States District Court for the Western District of Tennessee entered a Consent Decree between the City of Memphis (the City) and the United States, the State of Tennessee, and the Tennessee Clean Water Network.

To fulfill the reporting requirements defined in Paragraph VIII.25. of the Consent Decree, the City has prepared this Semi-Annual Report, which includes the following information:

- A description of projects and activities completed and milestones achieved during the previous six month period pursuant to the requirements of the Consent Decree.
- A summary of significant projects and activities anticipated to be performed, and milestones
 anticipated to be achieved, in the next six month period pursuant to the requirements of the
 Consent Decree.
- Any additional information determined to be appropriate to demonstrate implementation of the remedial actions required under the Consent Decree.

This report is organized into four sections:

- Section 1 provides an introduction.
- Section 2 documents recent progress and anticipated continuing activities related to development and implementation of the Management, Operations, and Maintenance (MOM) Programs noted in the Consent Decree.
- **Section 3** identifies recent progress and anticipated continuing activities related to the Priority Rehabilitation Projects noted in the Consent Decree.
- Section 4 provides a summary of additional actions that the City has recently completed and anticipates completing over the next six months to maintain compliance with the Consent Decree.

Management, Operations, and Maintenance Programs

As defined in Paragraph V.10 of the Consent Decree, the City shall develop and implement specific MOM Programs. These MOM Programs are listed below along with a summary of activities completed in the previous six months and activities anticipated to be performed during the upcoming six months. A chart showing the status of compliance is presented as **Figure 2-1**. All MOM Programs activities are currently in compliance.

2.1 Sewer Overflow Response Plan

Activities Completed During This Reporting Period

The City submitted a Sewer Overflow Response Plan (SORP) to the U.S. Environmental Protection Agency (EPA) and Tennessee Department of Environment and Conservation (TDEC) on March 11, 2011, before the Consent Decree was entered. A copy of the SORP is included in Appendix B of the Consent Decree. The City continued to operate under the processes described in the SORP during the reporting period.

Activities Anticipated to be Performed During the Next Reporting Period

The City will continue to operate under the approved SORP.

2.2 Fats, Oil, and Grease Management Program

Activities Completed During This Reporting Period

In the previous reporting period, EPA approved the updated Fats, Oil and Grease (FOG) Management Program (Program) previously submitted by the City. During this reporting period, the City operated under this Program. In addition to conducting the required inspection and reporting activities, the City has continued public outreach efforts, such as the use of billboard and bus stop advertising and the distribution of "Can the Grease" door hangers and can lids to discourage residents from discarding cooking oils and other FOG in the sewer system.

Activities Anticipated to be Performed During the Next Reporting Period

The City will continue to operate under the approved updated FOG Management Plan.

2.3 Lift Station and Force Main O&M Program

Activities Completed During This Reporting Period

The City received comments from EPA on the Lift Station and Force Main Operations and Maintenance (0&M) Program in a letter dated February 5, 2015. The City revised the Lift Station and Force Main O&M Program to address these comments and submitted the revised version to EPA and TDEC on April 8, 2015.

Figure 2-1 MOM Programs Progress

Program	CD	CD	Progress Last Six Months	Anticipated Activities Next Six Months								
	Reference	Milestone	Oct Nov Dec Jan Feb Mar	Apr May Jun Jul Aug Sep								
Sewer Overflow Response Program	V.10.a	-	Continuing to implement program. Continue to implement program.									
Fats, Oils, and Grease Management Program	V.10.b	-	Continue to implement program.	Continue to implement program.								
Lift Station & Force Main O&M Program	V.10.c	9/19/2013	Received comments from EPA on February 5, 2015. Provided revised report on April 8, 2015.	Respond to any further comments received, revise program as appropriate, and implement approved program.								
SCADA installation at lift stations	V.10.c.iii	3/19/2013	Previously completed. SCADA is operational.									
Gravity Sewer System O&M Program	V.10.d	9/19/2013	Received comments from EPA on February 5, 2015. Provided revised report on April 8, 2015.	Respond to any further comments received, revise program as appropriate, and implement approved program.								
Inter-Jurisdictional Agreement Program	V.10.e	3/19/2013	Received comments from EPA on February 5, 2015. Provided revised report on April 8, 2015.	Respond to any further comments received, revise program as appropriate, and implement approved program.								
Continuing Sewer Assessment Program	V.10.f	9/19/2013	Continue to implement program.	Continue to implement program.								
Infrastructure Rehabilitation Program	V.10.g	Within 180 days of EPA approval of CSAP	Submitted to EPA and TDEC on February 25, 2015.	Respond to any comments received, revise program as appropriate, and implement approved program.								

Activities Anticipated to be Performed During the Next Reporting Period

It is anticipated during the next reporting period that EPA, after consultation with TDEC, will review the revised submittal and provide the City comments or approve the document as submitted. The City will respond to any additional comments received from EPA and will revise the Lift Station and Force Main O&M Program, as appropriate. Once approved, the City will implement the Lift Station and Force Main O&M Program.

2.4 Gravity Sewer System O&M Program

Activities Completed During This Reporting Period

The City received comments from EPA on the Gravity Sewer Operations and Maintenance (O&M) Program in a letter dated February 5, 2015. The City revised the Gravity Sewer O & M Program to address these comments and submitted the revised version to EPA and TDEC on April 8, 2015.

Activities Anticipated to be Performed During the Next Reporting Period

It is anticipated during the next reporting period that EPA, after consultation with TDEC, will approve the resubmitted Gravity Sewer System 0&M Program or provide additional comments. The City will respond to additional comments received from EPA, if any, and will revise the Gravity Sewer System 0&M Program, as appropriate. Once approved, the City will implement the Gravity Sewer System 0&M Program.

2.5 Inter-Jurisdictional Agreement Program

Activities Completed During This Reporting Period

The City received comments from EPA on the Inter-Jurisdictional Agreement Program in a letter dated February 5, 2015. Following discussions with EPA, the City revised the Inter-Jurisdictional Agreement Program to address these comments and submitted the revised version to EPA and TDEC on April 8, 2015.

Activities Anticipated to be Performed During the Next Reporting Period

It is anticipated during the next reporting period that EPA, after consultation with TDEC, will approve the resubmitted IJAP or provide additional comments. The City will respond to additional comments received from EPA, if any, and will revise the IJAP, as appropriate. Once approved, the City will follow the IJAP for new agreements and renewal of existing agreements related to the collection, conveyance, and treatment of sewage by the City from municipal satellite sewer systems.

2.6 Continuing Sewer Assessment Program

Activities Completed During This Reporting Period

The City has continued to implement the approved Continuing Sewer Assessment Program (CSAP).

Activities Anticipated to be Performed During the Next Reporting Period

During the next reporting period, the City will continue implementation of the CSAP in accordance with the timeframes presented in the Consent Decree. This is further described in Section 3.1.

2.7 Infrastructure Rehabilitation Program

Activities Completed During This Reporting Period

The City completed the development of the Infrastructure Rehabilitation Program (IRP), as required in Paragraph V.10.g of the Consent Decree, and submitted the document to EPA and TDEC for review on February 25, 2015.

Activities Anticipated to be Performed During the Next Reporting Period

It is anticipated during the next reporting period that EPA, after consultation with TDEC, will provide the City comments on the IRP or approve the IRP as submitted. Section 14 of the Consent Decree generally envisions up to a 120 day period for EPA comments on deliverables. The City will respond to comments received from EPA, if any, and will revise the IRP, as appropriate. Once approved, the City will implement the IRP.

Priority Rehabilitation Projects

As defined in Paragraph V.11 of the Consent Decree, the City shall complete various Priority Rehabilitation Projects. These projects are listed below along with a summary of activities completed in the previous six months and activities anticipated to be performed during the upcoming six months. A chart showing the status of compliance is presented as **Figure 3-1**. All Priority Rehabilitation Project activities are currently in compliance.

3.1 Priority Areas Projects

Paragraphs V.10.f and V.11.a of the Consent Decree identify several areas of the City's wastewater collection and transmission system (WCTS) that should be assessed during the first and second years following approval of the CSAP. These areas are shown in Appendix E and F of the Consent Decree, respectively. Additionally, a subset of the first year priority area (Appendix E), as shown in Appendix G of the Consent Decree, is identified as a priority during implementation of the IRP. Rehabilitation projects within this area (Appendix G) are to be completed within six years and seven months after EPA's approval of the IRP.

The total estimated quantity of pipe to be assessed in the Year 1 Priority Area (Appendix E) is 1,329,600 linear feet. The total estimated quantity of pipe to be assessed in the Year 2 Priority Area (Appendix F) is 597,400 linear feet.

Activities Completed During This Reporting Period

Condition assessment work in the Year 1 and Year 2 priority areas was tied to approval of the CSAP, which occurred on September 10, 2014. However, some activities were completed, including work associated with pilot areas, prior to receiving CSAP approval. The pilot study, as further described in Section 4, included the assessment of portions of the Year 1 (Appendix E) and Year 2 (Appendix F) areas, as well as portions of the WTCS outside those areas. Contracts for assessment work were issued in phases with some of the assessment work for Year 1 and Year 2 areas being undertaken under the first round of contracts (i.e., Phase 1). Phase 1 assessment work was initiated during the previous reporting period and completed during this reporting period (January 2015). Subsequently, Phase 2 assessment work, which comprises the remaining Year 1 and Year 2 areas not included in Phase 1, was initiated in January 2015 and is currently on-going. During this reporting period, approximately 263,000 linear feet of gravity sewer and associated manholes in the Year 1 area and approximately 104,000 linear feet of gravity sewer and associated manholes in the Year 2 area were assessed and the associated data reviewed and accepted. The total gravity sewer and associated manholes completed (with data accepted) to date for Year 1 and 2 areas is approximately 675,000 and 216,000, respectively. The total completed and accepted to date, including areas outside of Year 1 and 2, for the entire project is approximately 1,378,000 linear feet. This assessment work is being completed in accordance with the procedures outlined in the approved CSAP. Assets that could not be assessed, such as buried manholes, were identified, and these assets will be assessed as reasonable as work continues in the priority areas. As an additional step in the data review, areas in need of immediate repair are being identified and scheduled for future work.

Figure 3-1
Priority Rehabilitation Projects Progress

Project	CD Reference	CD	Progress Last Six Months						Anticipated Activities Next Six Months						
		Milestone	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	
Priority Area Projects	V.11.a														
Assess areas identified in Appendix E		Within one year of EPA approval of CSAP	Completed condition assessment work in Phase 1. Initiated work in Phase 2.						Continue condition assessment activities, including completion of condition assessment in the Year 1 (Appendix E) area.						
Prioritize areas identified in Appendix G		Via implementation of IRP	No work this period						No work anticipated until approval of the IRP						
Complete Appendix G rehabilitation projects		Six years and seven months after EPA approval of IRP						No work anticipated until approval of the IRP							
Interim Priority Areas Project Report		Within 27 months of EPA approval of IRP No work this period							No work anticipated until IRP has been approved and rehabilitation projects are underway						
Final Priority Areas Project Report		Within six months of rehabilitation projects completion	No work this period							No work anticipated until rehabilitation projects are complete					
Critical Infrastructure Areas Projects	V.11.b														
Complete Appendix H rehabilitation projects		9/19/2017	Preliminary work associated with the second critical area continued. The first and third critical areas were previously completed.					Continued evaluation and design of work for the second area.							
Final Critical Areas Project Report		Within six months of rehabilitation projects completion	No work this period					Final Critical Areas Project Report will be prepared after the second area is complete.							
Priority Assessment Area Projects															
Nonconnah Interceptor	V.11.c.(i)	9/19/2016	Previously						completed.						
Mud Island Manholes	V.11.c.(ii)	9/19/2016	Plans and specifications were developed, and a contract was issued for assessment of the manholes.					Complete manhole assessments.							
Burchart-Horn Manholes	V.11.c.(iii)	9/19/2016	Completed rehabilitation of 28 of the manholes. Developed plans and specifications for rehabilitation of the remaining 4 manholes.					Plans and specifications will be completed, and the contract issued for the rehabilitation of the remaining 4 manholes.							
Wolf River Interceptor	V.11.c.(iv)	9/19/2016	Previously o						completed.						

Proposals for assessment of lift stations and force mains in the Year 1 and Year 2 areas were solicited from engineering firms. Proposals were received and the review process initiated during this reporting period.

Activities Anticipated to be Performed During the Next Reporting Period

Phase 2 assessment work and assessment of the previously unassessed portions of the Year 1 area are anticipated to be completed as reasonable during the upcoming reporting period (scheduled for July 2015). Firms are anticipated to be selected to assess the force mains and lift stations in the Year 1 area. This work is anticipated to be completed by July 2015.

3.2 Critical Infrastructure Areas Projects

Activities Completed During This Reporting Period

As discussed in Paragraph V.11.b of the Consent Decree, three areas within the WCTS were identified to receive prioritized rehabilitation due to the critical nature of the infrastructure and the potential consequences of large sanitary sewer overflows volumes in the event of a failure. A map showing the locations of these areas is included as Appendix H of the Consent Decree.

Preliminary work associated with the second critical area, which is a portion of the 96-inch interceptor at the entrance/exit ramp located at mile 51 of Interstate 240, continued through this reporting period.

Activities Anticipated to be Performed During the Next Reporting Period

It is anticipated that work associated with the second critical area will continue through the next reporting period and will be completed within the timeframe established in the Consent Decree. Inasmuch as the first and third critical infrastructure areas projects have been completed, the Final Critical Areas Project Report is anticipated to be submitted within six months of completion of the second critical area, consistent with the terms of the Consent Decree.

3.3 Prior Assessment Areas Projects

Activities Completed During This Reporting Period

As discussed in Paragraph V.11.c of the Consent Decree, four additional rehabilitation projects have been identified based on previous inspection and assessment activities. These projects are to be completed within four years from the effective date of the Consent Decree.

During this reporting period, plans and specifications were developed and a contract issued for assessment of the Mud Island manholes and associated piping as per Paragraph V.11.c(ii).

Paragraph V.11.c.(iii) of the Consent Decree requires the rehabilitation of 64 manholes identified in the June 6, 2006 Buchart-Horn study report. Thirty-two of these manholes have previously been rehabilitated. During the previous reporting period, the City issued a contract and began rehabilitation of 28 of the remaining 32 manholes. The work was completed during this reporting period. Development of plans and specifications for rehabilitation of the remaining four manholes was initiated during this reporting period.

Activities Anticipated to be Performed During the Next Reporting Period

During the next reporting period it is anticipated that assessment of the Mud Island manholes and associated piping as per Paragraph V.11.c(ii) will be completed.

It is anticipated that plans and specifications will be completed and a contract issued for rehabilitation of the remaining four manholes as discussed in Paragraph V.11.c.(iii).

Work associated with the remaining activities is anticipated to be completed within the timeframes established in the Consent Decree.

Additional Measures to Maintain Compliance

In addition to the projects and activities described in the previous sections, the measures described below are related to the City's ongoing Consent Decree compliance.

4.1 M.C. Stiles WWTP Foam Study and Outfall Improvements

As described in Paragraph V.12 of the Consent Decree, the City is required to implement the M.C. Stiles Wastewater Treatment Plant (WWTP) Foam Study and Outfall Improvements Work Plan that was included as Appendix I of the Consent Decree. On May 19, 2014, the first amendment of the Consent Decree, which identified a preferred alternative design consisting of a vortex structure and which included a revised construction schedule, was approved and filed with the court.

Activities Completed During This Reporting Period

During this reporting period, the City solicited bids from engineering/construction teams for design and construction of the vortex structure. Upon review of the bids, the City selected a contractor and a notice to proceed was issued on February 16, 2015. The 60% design was submitted by the contractor on March 25, 2015, and is currently under review.

Activities Anticipated to be Performed During the Next Reporting Period

It is anticipated that project design will be completed and construction activities commenced during the next reporting period.

4.2 State Projects

As outlined in Appendix J of the CD, the City agreed to spend \$645,000 to implement two state projects. The initial project is the color study which is being implemented at a cost of \$290,900. The remaining funds, or \$354,100, are required to be spent on converting the City's sanitary sewer drawings into a GIS format. Through the end of this reporting period, the City has expended funds significantly beyond this requirement. This satisfies the requirements of Appendix J for conducting the two state projects. Activities associated with the two state projects are described in the following subsections.

4.2.1 State Project A - Color Study

As described in Appendix J of the Consent Decree, the City is required to undertake a color study to assist TDEC in the development of a numerical color permit limit.

Activities Completed During This Reporting Period

The University of Memphis' Ground Water Institute, through their contract with the City, completed the TDEC-approved color study project during the previous reporting period. The final color study, entitled *Perception studies to determine receiving-stream color objectionability due to effluent discharge*, was submitted to TDEC on October 29, 2014, in accordance with Appendix J of the Consent Decree.

Activities Anticipated to be Performed During the Next Reporting Period

It is anticipated that a state project completion report for both the color study and GIS will be submitted during the next reporting period.

4.2.2 State Project B – Geographic Information System

As provided by Appendix J of the Consent Decree, the City began implementing the transition of its sanitary sewer record information, primarily on paper maps, into an electronic Geographic Information System (GIS). This work is being completed by the University of Memphis Center for Partnerships in Geographic Information Systems (CPGIS).

Activities Completed During This Reporting Period

CPGIS completed converting basic information for the Year 1 and Year 2 Priority Areas from paper block maps into GIS. CPGIS developed maps showing the assets and associated asset number in these areas. Upon completion of the Year 1 and 2 Priority Areas, digitization efforts were extended to other areas of the WCTS. At the end of this reporting period, CPGIS has digitized approximately 80% of the City's WCTS.

As condition assessment GPS data is collected in the field, this data subsequently replaces the digitized data being developed by CPGIS. At the end of this reporting period, GIS data for approximately 11% of the City's WCTS has been updated based on field assessment data.

Activities Anticipated to be Performed During the Next Reporting Period

While not required by the Consent Decree, at the City's sole discretion it expended additional funds undertaking additional GIS work beyond the minimum required amount. During the next reporting period it is anticipated that CPGIS will continue to digitize future assessment areas, and the existing WCTS GIS data will be updated with information collected during field investigation activities. It is anticipated that a state project completion report for both the color study and GIS will be submitted during the next reporting period.

4.3 Program Administration Activities

Since entering into the Consent Decree, the City has conducted several administrative activities for the implementation of the Consent Decree program, known as the Sewer Assessment and Rehabilitation Program or SARP10.

Activities Completed During This Reporting Period

- Coordination with Emergency Personnel: Through the condition assessment process, the City coordinated weekly with fire and police departments' leadership to keep them abreast of ongoing activities and work locations.
- Coordination with Special Projects: The SARP10 Team has been working closely with City
 personnel to identify upcoming City special projects that may require coordination with
 future sewer improvements. The sewer lines associated with the projects are assessed using
 CCTV to identify areas in need of repair. The repairs are subsequently conducted to avoid
 disrupting future construction activities and to avoid patching associated paved areas.
- Street Paving Projects: The SARP10 Team has been working closely with City and State personnel to identify upcoming street paving projects. The sewer lines associated with these

streets are assessed using CCTV to identify areas in need of repair, and required repairs are subsequently made to avoid patching newly paved areas.

• Workforce Development: The City continued with its workforce development program. The program is comprised of five-stages: assess, recruit, train, place, and retain. The assessment phase identifies the types of jobs that will be needed to complete the Consent Decree-related work and that could be filled by local personnel. Subsequently potential candidates are identified and screened. These personnel are provided training as necessary to avail them for potential employment by contractors working on Consent Decree-related projects. As candidates are placed, their progress is monitored.

During this reporting period, approximately eleven new candidates were provided public engagement training. They provided a key piece of the SARP10 phase 1 public engagement project. These participants, identified as the "Green Team", went door to door in the neighborhoods prior to work beginning in these areas. The Green Team distributed door hangers providing information about smoke testing and grease disposal. They also interacted with residents when possible. The team provided information to over 13,000 homes bringing the total to date to 24,000.

Also as a result of this program and other initiatives, a total of twenty-two local personnel have obtained full-time employment with SARP10 program companies or assessment contractors working for the City.

- Public Relations: The program continued to conduct public meetings in the assessment areas and will continue these efforts in the future. Also, a SARP10 website was developed and is anticipated to be available to the public during the next reporting period.
- Manhole Adjustment Contract: A contract was procured to raise buried manholes to grade so that they can be accessed and assessed. Plans and specifications for a second manhole raising contract were developed during this reporting period. It is anticipated that the project will be bid and a contract awarded during the next reporting period. Through the end of this reporting period, 88 manholes have been raised.
- Point Repair Contract: A contract was procured to complete high priority point repairs identified as part of the condition assessment program. A second point repair contract was issued for bids during this reporting period. It is anticipated that a contract will be procured during the next reporting period. During this reporting period 24 point repairs were completed bringing the total completed to date to 34.

Activities Anticipated to be Performed During the Next Reporting Period

Implementation of the activities described above will continue through the upcoming reporting period.

4.4 Snowden Assessment and Rehabilitation

Although not required at the time by the Consent Decree (except to the extent that there is some minor overlap with the Appendix E and Appendix F areas), the City is undertaking assessment and rehabilitation work in the Snowden area. The assessment area included approximately 87,400 linear feet of pipe and 251 manholes.

Activities Completed During This Reporting Period

Due to conditions encountered in the field, revisions to the original rehabilitation scope of work were required. During this reporting period, a revised scope of work was developed and negotiated with the contractor to address the remaining work which comprises approximately 25% of the Snowden project.

Activities Anticipated to be Performed During the Next Reporting Period

Rehabilitation work in the Snowden area is anticipated to be completed during the next six to twelve months.

4.5 Cane Creek and Hickory Hill Pilot Assessment Areas

Although not required at this time by the Consent Decree, the City identified two areas to serve as pilot areas to test the procedures being established through the CSAP and help the City in the development of the IRP. The first area, Cane Creek, includes a portion of the Year 1 Priority Area and encompasses approximately 283,000 linear feet of sewer. The second area, Hickory Hill, is located in the southeast portion of the City and includes approximately 40,900 linear feet of sewer. The Hickory Hill area, which was constructed much more recently than the Cane Creek area, was included as part of the pilot to provide assessment data that is more representative of the range of conditions found within the WCTS.

Activities Completed During This Reporting Period

The remaining assessment work in these areas (except non-accessible areas) was completed and the data reviewed during the reporting period. Inaccessible areas, i.e. buried manholes and associated lines, were identified.

Activities Anticipated to be Performed During the Next Reporting Period

During the upcoming reporting period, it is anticipated that the buried manholes in the Year 1 and 2 areas will be raised and the remaining condition assessment work completed as reasonable. As the data is reviewed, areas in need of immediate repairs will be scheduled for rehabilitation as necessary.

4.6 Loosahatchie Interceptor Assessment

The City is undertaking condition assessment of approximately 46,800 linear feet of the Old Loosahatchie Interceptor and 53,400 linear feet of the New Loosahatchie Interceptor to further understand its condition and to evaluate the need for cleaning and rehabilitation.

Activities Completed During This Reporting Period

The City had previously identified 22,000 linear feet of the Loosahatchie Interceptor for CCTV and sonar inspections to assess the condition of this interceptor but has expanded the project to include both the Old and New Loosahatchie Interceptors. The expanded project includes the assessment of 100,200 linear feet of interceptor and surveying manhole rim and pipe invert elevations. The survey work, which was initiated during the previous reporting period, was completed during this reporting period. In addition, a contract was issued for assessment of the both interceptor sewers. Approximately 40 manholes and 20,400 linear feet of pipe were assessed during this reporting period. Due to rainfall and high groundwater elevations, the remaining assessment work had to be postponed.

Activities Anticipated to be Performed During the Next Reporting Period

It is anticipated that during the upcoming reporting period that the additional assessment work will be conducted. The assessment data collected will be used to identify the amount of cleaning necessary and to document the condition of both interceptors for rehabilitation considerations. Development of bid documents for the rehabilitation work is anticipated to begin during the next reporting period.

4.7 Woodview Subdivision

Although not required by the Consent Decree, SARP10 Program conducted an assessment of the sanitary sewer system in the Woodview subdivision area just northeast of the city's corporate limits. Although this area is outside of the Memphis city limits, its sewer system is connected to the City of Memphis system. This area has experienced sanitary sewer overflow issues in the past.

Activities Completed During This Reporting Period

Sewer line condition assessment and cleaning efforts consisting of manhole inspections, smoke testing, jet nozzle high pressure cleaning, and CCTV inspections were conducted during this reporting period. Approximately 23,000 linear feet of pipe and associated manholes were assessed. Based on the results of the assessment, one sewer line will be upgraded in size, a relief line will be installed and a back-flow preventer valve will be installed at one residence.

Activities Anticipated to be Performed During the Next Reporting Period

The rehabilitation work is anticipated to be completed during the next reporting period. In addition, the City will increase the line cleaning frequency in this area.