

KARL F. DEAN
MAYOR



METROPOLITAN GOVERNMENT OF NASHVILLE AND DAVIDSON COUNTY

April 28, 2015

DEPARTMENT OF WATER AND SEWERAGE SERVICES
1600 SECOND AVENUE, NORTH
NASHVILLE, TENNESSEE 37208-2206

Chief, Environmental Enforcement Section
Environmental and Natural Resources Division
U. S. Department of Justice
Post Office Box 7611
Washington, D. C. 20044-7611

United States Attorney
Middle District of Tennessee
110 Ninth Avenue, South, Suite A961
Nashville, TN 37203

Chief, Water Programs Enforcement Branch
Water Management Division
U. S. Environmental Protection Agency, Region 4
Atlanta Federal Center
61 Forsyth Street, S.W.
Atlanta, GA 30303

Mr. Barry Turner, Deputy Attorney General
Office of the Tennessee Attorney General
Environmental Division
P. O. Box 20207
Nashville, TN 37202

Mr. Patrick Parker, Assistant General Counsel
Tennessee Department of Environment and Conservation
Division of Water Resources
William R. Snodgrass Tennessee Tower
312 Rosa L. Parks Avenue, 2nd Floor
Nashville, TN 37243

Re: DOJ Case No. 90-5-1-1-09000
Submittal of Quarterly Progress Report

Gentlemen and Madam:

In accordance with the provisions of the Consent Decree, Section XIX (Reporting Requirements), Subsection A, herewith we are transmitting the Quarterly Progress report which covers the time period from January 1, 2015 through March 31, 2015.



If you need assistance or accommodations, please contact Metro Water Services,
William E. Coleman, Jr., at (615) 862-4862, 1600 Second Avenue North, Nashville, TN 37208.



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A copy of this report is concurrently being placed in the Public Document Repository (PDR).

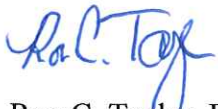
I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage 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.

If you have any questions concerning this report please contact me.

Sincerely,



Scott A. Potter, P.E.
Director



Ron C. Taylor, P.E.
Overflow Abatement Program Director
Engineering Division

Cc: Mr. David Tucker, Assistant Director, Operations
Mr. Cyrus Q. Toosi, P.E., Assistant Director / Chief Engineer, Engineering
Mr. Gregory A. Ballard, P.E., Engineer 3
Mr. Thomas G. Cross, Associate Director, Metropolitan Department of Law

Clean Water Nashville Overflow Abatement Program

**Metropolitan Government of Nashville and Davidson County
Department of Water and Sewerage Services**

CONSENT DECREE QUARTERLY PROGRESS REPORT

January 1 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.

Ron C. Taylor

Ron C. Taylor, P.E., Program Director

4/20/15

Date

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Section 1

Introduction

On March 12, 2009, the Metropolitan Government of Nashville and Davidson County, Tennessee (Metro), entered into a Consent Decree with the United States and the State of Tennessee. To fulfill the reporting requirements defined in Section XIX.A. of the Consent Decree, Metro has prepared this *Quarterly Progress Report*, which includes the following information:

1. Information on sanitary sewer overflows (SSOs) and dry-weather combined sewer system overflows (CSOs) occurring during the reporting period
2. A description of the work conducted during the reporting period to comply with the requirements of the Consent Decree
3. The anticipated work for the upcoming quarter to comply with the requirements of the Consent Decree
4. Any additional information necessary to demonstrate that Metro is adequately implementing the work

Work, as defined in the Consent Decree, includes all activities that Metro is required to perform under the Consent Decree. For the purposes of this *Quarterly Progress Report*, however, the focus will remain on current and upcoming work related to the *Corrective Action Plan/Engineering Report (CAP/ER)*, the *Long Term Control Plan (LTCP)*, and additional activities to address SSOs and CSOs.

1.1 Additional Programs

Several additional programs, listed below, were also required to be developed or implemented as part of the Consent Decree. Any modifications or updates to these programs will be identified in Section 4 of this report.

- *Spill and Overflow Response Plan (Section VII.C.2)* – Metro continues to operate under the current *Spill and Overflow Response Plan (SORP)*. A review of the SORP will be conducted annually with any proposed changes submitted for U.S. Environmental Protection Agency (EPA) review and approval by June 1 each year.
- *Inter-jurisdictional Agreement Program (Section VII.C.3)* – All required inter-jurisdictional agreements are now in place, and Metro will continue to operate under these agreements, including monitoring peak flows received.
- *Capacity Assurance Plan (Section VII.C.4)* – The *Capacity Assurance Plan* will continue to be applied as a tracking/approval tool for new development/flow in the sanitary sewer system (SSS).
- *Pump Station Operation Plan for Power Outages (Section VII.C.5)* – All projects identified in the *Pump Station Operation Plan for Power Outages* were completed prior to the start of the reporting period.

- *Nine Minimum Controls Compliance Plan* (Section VII.D.1) – All elements of the *Nine Minimum Controls Compliance Plan* (NMC) were completed in 2012.
- Supplemental Environmental Projects (Section VIII) – The Supplemental Environmental Projects (SEPs) required in the Consent Decree were completed in 2010.

1.2 Report Organization

This *Quarterly Progress Report* is organized as follows:

Section 1 – Introduction

Section 2 – *Corrective Action Plan/Engineering Report*

Section 3 – *Long Term Control Plan*

Section 4 – Additional Measures to Maintain Consent Decree Compliance

Section 5 – Quarterly SSO and Dry-Weather CSO Report

Section 2

Corrective Action Plan/Engineering Report

To address the conditions causing overflows in their sanitary sewer system, Metro developed a *Corrective Action Plan/Engineering Report (CAP/ER)* that was submitted to EPA and the Tennessee Department of Environment and Conservation (TDEC) on September 11, 2011.

The CAP/ER development began with a characterization of Metro's sanitary sewer system through extensive monitoring and modeling to understand the existing system's limitations. The need for improvements to address both current and future sewer capacity needs was then assessed, and potential alternatives were evaluated to select efficient and cost effective solutions. These recommended projects, which include infrastructure rehabilitation, additional conveyance capacity, and storage of wet weather flows, are presented in the CAP/ER.

While EPA and TDEC review the report, Metro continues to move forward with the implementation of multiple projects presented in the CAP/ER. These projects are described in the following subsections, and a schedule illustrating current and upcoming work on CAP/ER projects is presented as Appendix A.

2.1 Completed CAP/ER Projects

The following projects, discussed in the CAP/ER, achieved substantial completion prior to the start of the reporting period:

- Dry Creek Wastewater Treatment Plant Optimization
- Smith Springs Equalization Storage
- Barker Road / Omohundro Equalization Storage Phase I
- West Park Equalization Storage Phase I
- Mill Creek 36-inch Trunk Sewer System Rehabilitation
- Rockwood Conveyance Improvements
- Holiday Travel Park Gravity Conversion
- Whites Creek Wastewater Treatment Plant (WWTP) Optimization and Disinfection Project
- Whites Creek Wastewater Pumping Station
- Dodson Chapel Equalization Tank and Wastewater Pumping Station Expansion
- Joelton Rehabilitation
- Neely's Bend Rehabilitation

2.2 CAP/ER Projects under Construction

The following projects, discussed in the CAP/ER, were under construction during the reporting period:

- Shelby Park Rehabilitation – Area 1 - Virginia Avenue

This rehabilitation project is the first of multiple projects that will be conducted in the Shelby Park Rehabilitation project area. The area evaluated for rehabilitation included approximately 54,400 linear feet of gravity sewer. The resulting construction project consists of cured-in-place pipe lining of over 50,000 linear feet of gravity sewer, rehabilitation of associated manholes, and over 700 service renewals using cured-in-place pipe lining or open-cut techniques.

Design began on September 11, 2012, and was completed in June 2013. Advertisement for construction began on August 14, 2013, and the contract was awarded in September 2013. Construction activities began on January 13, 2014, and are expected to be substantially complete in the upcoming quarter.

- Lakewood Water and Sewer Replacement

The design of sewer, water, and stormwater improvements in the Lakewood area is complete. Advertisement for a two-step procurement process began during the 2nd Quarter of 2013. Bids for construction from the three pre-qualified contractors were received on October 4, 2013, and the Notice of Award was issued on October 17, 2013. Construction activities began on January 27, 2014, and are anticipated to continue during the upcoming quarter.

This project represents the first of two phases of work in the Lakewood area.

- Mill Creek / Opryland Equalization Facility - Phase II

Phase II of the Mill Creek / Opryland Equalization Facility project includes the construction of approximately 19 million gallons of additional storage. Design began on August 10, 2012, and was complete, including obtaining the required permits and approvals, in July 2013. Advertisement for construction began on August 14, 2013, and the contract was awarded in September 2013. Construction activities began on January 8, 2014, and are expected to be substantially complete in the upcoming quarter.

- Cowan / Riverside Rehabilitation - Area 1 - Jones Avenue

This rehabilitation project is the first of multiple projects that will be conducted in the Cowan / Riverside Rehabilitation project area. The area evaluated for rehabilitation included approximately 50,200 linear feet of gravity sewer and 270 manholes. The resulting construction project consists of cured-in-place pipe lining of over 40,000 linear feet of gravity sewer, rehabilitation of associated manholes, and over 630 service renewals using cured-in-place pipe lining or open-cut techniques.

Design began on February 4, 2013, and was completed in September 2013. Advertisement for construction began on October 7, 2013, and bids were received on November 8, 2013. Construction began on January 29, 2014, and is anticipated to be substantially complete in the upcoming quarter.

- **Shelby Park Rehabilitation - Area 2 - Norvel Avenue**

This rehabilitation project is the second of multiple projects to be conducted in the Shelby Park Rehabilitation project area. The area evaluated for rehabilitation included approximately 57,000 linear feet of gravity sewer and 330 manholes. The resulting construction project consists of cured-in-place pipe lining of approximately 57,000 linear feet of gravity sewer, rehabilitation of associated manholes, and over 700 service renewals using cured-in-place pipe lining or open-cut techniques.

Design began on July 3, 2013, and was completed in January 2014. Advertisement for construction began on February 5, 2014, and the contract was awarded in March 2014. Construction began on May 12, 2014, and is expected to continue through the upcoming quarter.

- **Cowan / Riverside Rehabilitation - Area 2 - Dickerson Pike**

This rehabilitation project is the second of multiple projects that will be conducted in the Cowan / Riverside Rehabilitation project area. The area evaluated for rehabilitation included approximately 51,400 linear feet of gravity sewer and 290 manholes. The resulting construction project consists of cured-in-place pipe lining of approximately 42,000 linear feet of gravity sewer, rehabilitation of associated manholes, and over 400 service renewals using cured-in-place pipe lining or open-cut techniques.

Design began on July 3, 2013, and was completed in March 2014. Advertisement for construction began on March 14, 2014, and a contract was awarded in May 2014. Construction activities began on July 7, 2014, and are anticipated to continue through the upcoming quarter.

- **Highway 100 / Tyne Boulevard - Trimble Rehabilitation**

The Highway 100 / Tyne Boulevard Pipe Improvements project, as presented in the CAP/ER, consisted of approximately 18,500 linear feet of conveyance improvements to alleviate overflows and surcharging in the existing gravity sewer. A detailed review of the existing sewer route and flows in the area indicated that rehabilitation to reduce wet weather flows in this area may be a viable option to address overflows. Because of this, the Highway 100 / Tyne Boulevard Pipe Improvements project has been delayed to allow time for the completion of the Highway 100 / Tyne Boulevard - Trimble Rehabilitation project. The area evaluated for rehabilitation included approximately 63,000 linear feet of gravity sewer and 300 manholes. The resulting construction project consists of cured-in-place pipe lining of approximately 32,000 linear feet of gravity sewer, rehabilitation of associated manholes, and approximately 170 service renewals using cured-in-place pipe lining or open-cut techniques.

Design began on September 17, 2013, and was completed in March 2014. Advertisement for construction began on April 23, 2014, and the contract was awarded in June 2014. Construction activities began on August 12, 2014, and are anticipated to continue through the upcoming quarter.

- **Dodson Chapel Pipe Improvements**

Following the completion of the Rockwood Conveyance Improvements project and subsequent updates to the hydraulic model in this area, evaluation of the collection system in the Dodson

Chapel Pipe Improvements area indicated that the extents of the proposed project could be reduced while still addressing overflows. The current project consists of increasing the conveyance capacity of approximately 3,400 linear feet of sewer. Design began on October 8, 2012. In mid-2013, an analysis of the 60 percent design and the associated Dodson Chapel Equalization Tank and Wastewater Pumping Station Expansion project indicated that an unacceptable level of surcharging is predicted upstream of the project area. To address this, the existing design was reviewed and modified to replace the proposed inverted siphon with an aerial crossing. Design activities were completed in June 2014. Following completion of permitting and easement / right of entry activities, advertisement for construction began on November 7, 2014, and the contract was awarded in January 2015. Construction activities began on January 26, 2015, and are anticipated to continue through the upcoming quarter.

- Shelby Park Rehabilitation - Area 3 - Greenland Avenue

This rehabilitation project is the third of multiple projects that will be conducted in the Shelby Park Rehabilitation project area. The area to be evaluated for rehabilitation includes approximately 49,000 linear feet of gravity sewer and 260 manholes. Design began on December 5, 2013, and was completed in May 2014. Advertisement for construction began on August 27, 2014, and bids were received on September 25, 2014. However, a protest regarding the bid delayed the award of the contract until January 22, 2015. Construction activities began on February 23, 2015, and are anticipated to continue through the upcoming quarter.

2.3 CAP/ER Projects under Design

The following projects, discussed in the CAP/ER, were under design during the reporting period:

- West Park Equalization Facility Phase II

In order to minimize impacts to the surrounding neighborhood, Phases II and III of the West Park Equalization Facility were combined into a single design and construction project. Design began in May 2012; however, during preliminary design it was determined that potential flood impacts to adjacent properties required an alternate site for the equalization tank. Following additional investigation, Metro selected the adjacent park site to accommodate the required storage volume. Design efforts for the equalization tank were restarted in the 1st Quarter of 2013 and are complete including permitting. Advertisement for construction began on January 5, 2015, and the contract is anticipated to be awarded in the upcoming quarter.

When constructed, the additional improvements at the West Park Equalization Facility are expected to add 21 million gallons of storage and expanded pumping capacity.

- Brick Church Pike Pipe Improvements

The Brick Church Pike Pipe Improvements project, as presented in the CAP/ER, consisted of increasing the conveyance capacity of approximately 15,500 linear feet of gravity sewer. Following the analysis of additional flow monitoring conducted in the spring of 2013, the project's scope was revised to include approximately 10,000 linear feet of pipe replacement to increase the sewer's conveyance capacity and approximately 3,800 linear feet of rehabilitation of the existing sewer. The rehabilitation project was advertised as a separate construction project, the Westchester Drive Rehabilitation project, as described below.

Proposals for design of the Brick Church Pipe Improvements project were submitted on January 11, 2013, and design for this project began on July 25, 2013. Design activities for the Brick Church Pipe Improvements are anticipated to be completed in the upcoming quarter, with permitting and easement activities continuing through the upcoming quarter.

- Westchester Drive Rehabilitation

The Westchester Drive Rehabilitation project was developed as a separate project for the rehabilitation portion of the Brick Church Pike Pipe Improvements project. This project consists of the rehabilitation of approximately 3,800 linear feet of gravity sewer, including the rehabilitation of 37 service laterals. Design activities for the Westchester Drive Rehabilitation project began on July 25, 2013. Advertisement for construction began on March 16, 2015. Contract award and the commencement of construction activities are anticipated in the upcoming quarter.

- Davidson and Brook Hollow Sewer Improvements

The Davidson and Brook Hollow Sewer Improvements project, referred to as the 622 Davidson Rehabilitation in the CAP/ER, included the evaluation of approximately 53,800 linear feet of gravity sewer and 300 manholes for rehabilitation. Additional condition assessment data, including flow monitoring and smoke testing data, has also been collected and analyzed. That analysis indicated that approximately 1,900 linear feet of sewer in this area requires upsizing in order to address the associated overflow. The project description was revised to include both the upsizing as well as repair of several adjacent pipe segments. Design began on April 24, 2014, and was completed in December 2014, excluding permitting and easement activities which are underway. Those activities are anticipated to be completed in the upcoming quarter.

- Shelby Park Rehabilitation – Area 4 - Brush Hill Road

This rehabilitation project is the fourth of multiple projects that will be conducted in the Shelby Park Rehabilitation project area. The area to be evaluated for rehabilitation includes approximately 47,400 linear feet of gravity sewer and 260 manholes. Design began on October 27, 2014. Advertisement for construction is anticipated to begin in the upcoming quarter.

- Cowan / Riverside Rehabilitation – Area 3 – West Trinity Lane

This rehabilitation project is the third of multiple projects that will be conducted in the Cowan / Riverside Rehabilitation project area. The area to be evaluated for rehabilitation includes approximately 48,100 linear feet of gravity sewer and 260 manholes. Design began on November 17, 2014, and is anticipated to continue through the upcoming quarter.

- Cowan / Riverside Rehabilitation – Area 4 – Pages Branch

This rehabilitation project is the fourth of multiple projects that will be conducted in the Cowan / Riverside Rehabilitation project area. The area to be evaluated for rehabilitation includes approximately 54,200 linear feet of gravity sewer and 260 manholes. Design began on January 26, 2015, and is anticipated to continue through the upcoming quarter.

- 28th Avenue Rehabilitation – Area 1 – Clifton Avenue

The 28th Avenue Rehabilitation - Area 1 – Clifton Avenue project is the first of multiple projects that will be conducted in the 28th Avenue Rehabilitation project area. The area to be evaluated for rehabilitation includes approximately 44,000 linear feet of gravity sewer and associated manholes. A preliminary review of the condition assessment data collected in the project area indicated several locations that required dye testing and closed-circuit television (CCTV) inspection. Design began on February 2, 2015, and is anticipated to continue through the upcoming quarter.

- Smith Springs Rehabilitation – Area 1 – Priest Lake Meadows

The Smith Springs Rehabilitation – Area 1 – Priest Lake Meadows project is the first of multiple rehabilitation projects that will be conducted upstream of the Smith Springs Pump Station. Based on additional flow monitoring data, the boundary of the project area, as presented in the CAP/ER, has been adjusted to target areas that are believed to contribute to higher wet weather flows. The area to be evaluated for rehabilitation includes approximately 63,800 linear feet of gravity sewer and associated manholes. Design began on February 2, 2015, and is anticipated to continue through the upcoming quarter.

2.4 Upcoming CAP/ER Projects

The following projects, discussed in the CAP/ER, are anticipated to begin or continue procurement for design services during the upcoming quarter:

- Davidson Branch Pump Station and Equalization Facility

The Davidson Branch Pump Station and Equalization Facility project, referred to as the Davidson Branch Equalization Storage project in the CAP/ER, includes the relocation of an existing duty station and construction of a wastewater storage tank and wet weather pumping station on a property adjacent to the existing Davidson Branch Pump Station. The property where the facility will be located was acquired during the reporting period. Procurement of design services continued during the reporting period. Design is anticipated to begin in the upcoming quarter.

- Gibson Creek Rehabilitation – Area 1 – Dupont Avenue

The Gibson Creek Rehabilitation – Area 1 – Dupont Avenue project is the first of multiple rehabilitation projects that will be conducted upstream of the Gibson Creek Pump Station. The area to be evaluated for rehabilitation includes approximately 57,000 linear feet of gravity sewer and associated manholes. Procurement of design services is anticipated to begin in the upcoming quarter.

- Cowan / Riverside Rehabilitation - Area 5 – Youngs Lane

This rehabilitation project is the fifth of multiple projects that will be conducted in the Cowan / Riverside Rehabilitation project area. The area to be evaluated for rehabilitation includes approximately 57,800 linear feet of gravity sewer and 310 manholes. Procurement of design services was initiated during the reporting period, and design is anticipated to begin in the upcoming quarter.

- Ewing Creek / Brick Church Equalization Facility

The Ewing Creek / Brick Church Equalization Facility project, referred to as the Brick Church Pike Equalization Facility project in the CAP/ER, includes the construction of a 10.6 million gallon wastewater storage tank and associated wet weather pumping station. The property where the facility will be located was acquired during the reporting period. Procurement of design services is anticipated to begin in the upcoming quarter.

In addition to the projects listed above, Metro continues to conduct planning activities for multiple projects including acquiring necessary land to site facilities and collecting sewer condition assessment data.

Section 3

Long Term Control Plan

To reduce the occurrence and impact of combined sewer overflows into the Cumberland River, Metro developed an update to the *Long Term Control Plan* (LTCP), that was submitted to EPA and TDEC on September 11, 2011.

The LTCP followed EPA's *Combined Sewer Overflow Control Policy* in implementing a rigorous process for identifying and evaluating alternatives to reduce combined sewer overflows. Consideration included financial and engineering analyses to develop recommended improvements in conjunction with four key objectives that were established early in the planning process:

- Improve the water quality of the Cumberland River by reducing impacts from combined sewer overflows
- Provide a level of CSO control that results in improvements in water quality that are consistent with the community's use of the Cumberland River
- Align investment in CSO controls to be commensurate with the contribution of CSOs to water quality relative to other sources
- Consider the impact of the overall program cost on the ratepayers in the current economic climate

These goals and objectives were developed based on feedback provided by representatives from MWS, local government, and the community through a public engagement campaign developed to solicit input from affected stakeholders.

Metro continues to work with EPA and TDEC to address preliminary feedback on the LTCP. Metro has provided additional information pertaining to the proposed LTCP's compliance with Tennessee's water quality criteria, including a memorandum summarizing additional data describing the impact of CSO discharges on water quality in the Cumberland River. Discussions are expected to continue through the upcoming quarter.

As review of the LTCP continues, Metro continues to move forward with the implementation of the Central WWTP Capacity Improvements and CSO Reduction project; however, Metro does not intend to move forward with other projects presented in the LTCP until approval is obtained. Active projects are described in the following subsections, and a schedule illustrating current and upcoming work on LTCP projects is presented as Appendix A.

3.1 Completed LTCP Projects

The following projects, discussed in the LTCP, were completed prior to the start of the reporting period:

- Broadway Improvements
- Washington CSO Facility Improvements

- Van Buren Improvements
- Driftwood Equalization Basin Expansion
- Apex Sewer Corrections

3.2 LTCP Projects under Construction

There are currently no LTCP projects under construction.

3.3 LTCP Projects under Design

There are currently no LTCP projects under design.

3.4 Upcoming LTCP Projects

The following project, discussed in the LTCP, is anticipated to continue procurement for design services during the upcoming quarter:

- Central WWTP Capacity Improvements and CSO Reduction

The Central WWTP Capacity Improvements and CSO Reduction project is will reduce the overflow frequency and volume from the Kerrigan CSO by increasing both the wet weather treatment capacity of the Central WWTP and the overall capacity of the Central Pumping Station. The project will also add on-site CSO storage and equalization to assist in managing the dramatic flow rate increases from the combined sewer system during intense rainfall events. This project is the result of the *Central Wastewater Treatment Plant Optimization Study* which was finalized in 2014. The study identified limiting factors in each of the Central WWTP's unit processes and confirmed that peak wet weather secondary treatment capacity could be significantly increased through upgrades to the existing headworks, secondary aeration, and final clarification systems without building new tankage. As such, this project replaces the following projects presented in the LTCP:

- CWWTP Optimization and EQ Conversion
- CWWTP EQ Addition Phase 1
- CWWTP Pumps / EQ Grit Equipment
- CWWTP EQ Addition Phase 2
- CWWTP EQ Addition Phase 3

Advertisement for design services for the Central WWTP Capacity Improvements and CSO Reduction project began in January 2015, with the procurement of design services continuing throughout the reporting period. The design is anticipated to be awarded in the upcoming quarter.

No additional LTCP projects are anticipated to begin design in the upcoming quarter.

Section 4

Additional Measures to Maintain Consent Decree Compliance

In addition to the CAP/ER and LTCP projects described in the previous sections, the measures described in the following subsections are related to Metro's on-going Consent Decree compliance.

4.1 2013 Annual Sewer Rehabilitation

Design of the 2013 Annual Sewer Rehabilitation project commenced on June 23, 2013, and was completed in June 2014. Advertisement for construction began on July 8, 2014, and the contract was awarded in September 2014. Construction activities began on October 15, 2014, and are anticipated to continue through the upcoming quarter. For this project, which extends throughout the Metro service area, approximately 150 pipe segments have been identified for repair or rehabilitation. These sewers are located in areas outside of CAP/ER rehabilitation areas and are classified as high-priority or medium-priority sewers for evaluation based upon their observed condition as well as their potential consequence of failure.

4.2 2014 Annual Rehabilitation – Whites Creek Trunk

The 2014 Annual Rehabilitation – Whites Creek Trunk project consists of the evaluation and rehabilitation of the trunk sewer that follows or is adjacent to Whites Creek. The area to be evaluated for rehabilitation includes approximately 55,800 linear feet of gravity sewer, ranging in diameter from 8 to 60 inches. These sewers are located outside of CAP/ER rehabilitation areas and are classified as high-priority sewers for evaluation due to observations of infiltration. Design began on October 13, 2014, and is anticipated to be completed in the upcoming reporting period.

Section 5

Quarterly SSO and Dry Weather CSO Report

During the 1st Quarter of 2015, Metro experienced 143 SSOs, as listed in **Table 5-1**.

No dry-weather CSOs occurred during the reporting period.

Table 5-1 Quarterly SSO Report

Quarterly SSO Report January 1 through March 31, 2015									
Event Start Date	Event End Date	Rainfall (inches)	Duration (hours)	Overflow Volume (MG)	Overflow Cause	Location Manhole ID	Location	Unpermitted Discharge	Building Backup
06-Jan-15	06-Jan-15	0.00	2.75	0.001	Blockage	04410016	1300 Donelson Ave	No	No
10-Jan-15	11-Jan-15	0.00	27.50	0.0001	Line Break	05415061	108 Cherry Branch Dr	No	No
10-Jan-15	11-Jan-15	0.00	4.75	0.0001	Blockage	09306045	329 Broadway St	No	No
12-Jan-15	12-Jan-15	0.00	2.50	0.0001	Blockage	16206108	225 Old Tusculum Rd	Yes	No
12-Jan-15	12-Jan-15	0.89	6.00	0.001	Blockage	03414023	207 Welworth St	Yes	No
13-Jan-15	13-Jan-15	0.00	1.50	0.001	Blockage	08008004	1705 Hornbuckle Ln	Yes	No
13-Jan-15	13-Jan-15	0.00	3.50	0.001	Blockage	09611008	342 Hickory Pl	No	No
14-Jan-15	14-Jan-15	0.00	2.50	0.001	Blockage	08605110	3528 Central Pk	No	No
15-Jan-15	15-Jan-15	0.00	1.50	0.001	Blockage	14808022	860 Richards Rd	No	No
15-Jan-15	17-Jan-15	0.00	58.00	0.001	Line Break	11002007	3500 Earhart Rd	Yes	No
18-Jan-15	18-Jan-15	0.00	7.50	0.0001	Force Main	11002007	2525 Hessey Pass	No	No
19-Jan-15	19-Jan-15	0.00	1.00	0.00001	Blockage	09112084	626 40th Ave N Alley	Yes	No
20-Jan-15	20-Jan-15	0.00	1.00	0.001	Blockage	10713069	315 Philfre Ct	No	No
20-Jan-15	21-Jan-15	0.00	24.00	0.001	Blockage	WLS052M017	14905 Lebanon Pk	Yes	No
23-Jan-15	23-Jan-15	0.41	1.00	0.0001	Blockage	09601083	2711 Old Lebanon Pk	Yes	No
24-Jan-15	24-Jan-15	0.08	10.50	0.0001	Force Main	11002006	3424 Earhart Rd	Yes	No
24-Jan-15	24-Jan-15	0.14	1.00	0.0001	Blockage	08212033	314 N 9th St	No	No
26-Jan-15	26-Jan-15	0.06	1.50	0.0001	Blockage	16202050	171 Suzanne Dr	No	No
28-Jan-15	28-Jan-15	0.00	3.00	0.001	Blockage	10606003	1009 Foster Ave	Yes	No
03-Feb-15	04-Feb-15	0.00	5.50	0.001	Blockage	10616016CO	145 Philfre Ct	No	No
04-Feb-15	04-Feb-15	0.00	2.00	0.001	Blockage	14812012	143 Waikiki Blvd	Yes	No
06-Feb-15	06-Feb-15	0.00	6.00	0.0001	Blockage	10411062	2405 Barton Ave	No	No
06-Feb-15	06-Feb-15	0.00	1.00	0.00001	Blockage	13312067	616 Kay Ct	No	No
08-Feb-15	08-Feb-15	0.00	1.50	0.0001	Blockage	08212032	314 N 9th St	Yes	No
11-Feb-15	11-Feb-15	0.00	1.00	0.001	Blockage	02201018	7201 Whites Creek Pk	Yes	No
21-Feb-15	22-Feb-15	3.03	24.00	0.001	Rainfall	14405021	4419 Chickering Ln	No	No
21-Feb-15	22-Feb-15	2.72	40.00	0.001	Rainfall	05010029	3438 Brick Church Pk	Yes	No
21-Feb-15	22-Feb-15	2.72	40.00	0.001	Rainfall	05010033	3414 Brick Church Pk	Yes	No

Quarterly SSO Report

January 1 through March 31, 2015

Event Start Date	Event End Date	Rainfall (inches)	Duration (hours)	Overflow Volume (MG)	Overflow Cause	Location Manhole ID	Location	Unpermitted Discharge	Building Backup
21-Feb-15	22-Feb-15	2.72	18.00	0.001	Rainfall	06001013	3258 Brick Church Pk	No	No
21-Feb-15	22-Feb-15	2.72	18.00	0.001	Rainfall	06001011	3258 Brick Church Pk	No	No
21-Feb-15	22-Feb-15	3.11	36.00	0.1	Rainfall	11907051	2640 Old Glenrose Ave	Yes	No
21-Feb-15	21-Feb-15	3.21	2.00	0.001	Rainfall	03413034	1442 Gallatin Pk	Yes	No
21-Feb-15	22-Feb-15	3.03	24.00	0.001	Rainfall	14405017	1318 Chickering Rd	No	No
21-Feb-15	22-Feb-15	2.72	24.00	0.001	Rainfall	05915017	3812 Cravath Dr	No	No
21-Feb-15	22-Feb-15	2.72	24.00	0.001	Rainfall	05911028	709 Rowan Dr	Yes	No
21-Feb-15	22-Feb-15	2.44	24.00	0.001	Rainfall	11507055	615 Georgetown Rd	No	No
21-Feb-15	22-Feb-15	3.11	5.00	0.001	Rainfall	10616031	416 Hollydale Dr	Yes	No
21-Feb-15	22-Feb-15	2.03	14.00	0.0001	Rainfall	04312007CO	140 Vandiver Dr	Yes	No
21-Feb-15	21-Feb-15	2.33	2.00	0.001	Rainfall	13607014	177 Timber Ridge Dr	No	No
21-Feb-15	22-Feb-15	2.72	24.00	0.001	Rainfall	05910048	748 Rowan Dr	Yes	No
21-Feb-15	21-Feb-15	3.03	5.00	0.001	Rainfall	13007002	803 Lynnwood Blvd	No	No
21-Feb-15	21-Feb-15	3.03	5.00	0.001	Rainfall	13007005	4302 Harding Pl	Yes	No
21-Feb-15	22-Feb-15	3.03	24.00	0.001	Rainfall	14405014	4419 Chickering Ln	No	No
21-Feb-15	21-Feb-15	2.44	7.00	0.001	Rainfall	09012057	6303 Henry Ford Dr	Yes	No
21-Feb-15	23-Feb-15	2.93	25.00	0.001	Rainfall	08602062	0 Dodson Chapel Rd	No	No
21-Feb-15	22-Feb-15	2.72	24.00	0.001	Rainfall	05911027	701 Rowan Dr	Yes	No
21-Feb-15	22-Feb-15	3.11	36.00	0.1	Rainfall	11907144	0 Old Glenrose Dr	No	No
21-Feb-15	23-Feb-15	2.93	25.00	0.001	Rainfall	08602058	Old Lebanon Dirt Rd	Yes	No
21-Feb-15	21-Feb-15	3.23	6.00	0.07	Rainfall	08011001	Bordeaux Hospital SPS	Yes	No
21-Feb-15	22-Feb-15	2.33	35.25	4.245	Rainfall	13609002	Smith Springs SPS	Yes	No
21-Feb-15	21-Feb-15	2.03	5.33	0.628	Rainfall	04312004	Vandiver SPS	Yes	No
21-Feb-15	22-Feb-15	2.44	11.58	1.965	Rainfall	09105090	West Park SPS	Yes	No
21-Feb-15	23-Feb-15	3.21	14.24	1.326	Rainfall	03411009	Dry Creek SPS	Yes	No
21-Feb-15	22-Feb-15	2.48	17.17	2.494	Rainfall	05116016	Loves Branch SPS	Yes	No
21-Feb-15	22-Feb-15	2.48	14.83	2.143	Rainfall	05205001	Gibson Creek SPS	Yes	No
21-Feb-15	22-Feb-15	2.44	33.50	2.375	Rainfall	10210012	Davidson Branch SPS	Yes	No
21-Feb-15	21-Feb-15	3.00	12.67	0.812	Rainfall	06213035	Williamson Ferry SPS	Yes	No

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Event Start Date	Event End Date	Rainfall (inches)	Duration (hours)	Overflow Volume (MG)	Overflow Cause	Location Manhole ID	Location	Unpermitted Discharge	Building Backup
21-Feb-15	21-Feb-15	2.44	10.00	0.2	Rainfall	10203057	Cleeces Ferry SPS	Yes	No
21-Feb-15	22-Feb-15	2.48	15.00	0.3	Rainfall	05213002	Madison Heights SPS	Yes	No
21-Feb-15	21-Feb-15	2.48	14.00	0.2	Rainfall	05207007	Berwick Trail SPS / Center St.	Yes	No
21-Feb-15	22-Feb-15	3.23	20.00	0.4	Rainfall	07008061	Riverside SPS	Yes	No
21-Feb-15	21-Feb-15	3.23	3.25	0.019	Rainfall	08101015	River Drive SPS	Yes	No
21-Feb-15	21-Feb-15	2.44	5.00	0.2	Rainfall	09015045	Sunliner SPS	Yes	No
21-Feb-15	21-Feb-15	3.23	9.83	0.937	Rainfall	09104025	28th Avenue SPS / Centennial Blvd	Yes	No
21-Feb-15	21-Feb-15	2.48	14.00	0.05	Rainfall	01416001	Joelton SPS	Yes	No
21-Feb-15	21-Feb-15	2.48	13.00	1	Rainfall	06208003	Hidden Acres SPS	Yes	No
21-Feb-15	21-Feb-15	2.33	0.50	0.02	Rainfall	16410021	Summerfield SPS	Yes	No
21-Feb-15	22-Feb-15	2.33	21.00	0.8	Rainfall	15110038	Longhunter Chase SPS	Yes	No
21-Feb-15	23-Feb-15	3.03	36.75	0.6	Rainfall	16009013	East Lakemont SPS	Yes	No
21-Feb-15	22-Feb-15	2.86	14.00	0.3	Rainfall	07014003	Fairway Center SPS	Yes	No
21-Feb-15	21-Feb-15	3.03	6.00	0.4	Rainfall	16002032	South Oak Hill SPS	Yes	No
21-Feb-15	22-Feb-15	1.70	13.00	0.2	Rainfall	WLS053A020	Langford Farms SPS	Yes	No
21-Feb-15	21-Feb-15	2.33	7.00	0.05	Rainfall	15008009	Towne Village SPS	Yes	No
21-Feb-15	22-Feb-15	2.44	26.17	1.574	Rainfall	09011002	516 Basswood Ave	Yes	No
21-Feb-15	24-Feb-15	2.93	69.58	11.522	Rainfall	08410007	149 Barker Rd	Yes	No
21-Feb-15	22-Feb-15	3.00	39.08	7.683	Rainfall	07114041	Cowan St. SPS	Yes	No
21-Feb-15	21-Feb-15	2.48	3.00	0.001	Rainfall	04309041	303 N Dupont Ave	Yes	No
21-Feb-15	21-Feb-15	2.48	9.00	0.001	Rainfall	05103063	418 Norman Dr	No	No
21-Feb-15	22-Feb-15	2.44	15.00	0.001	Rainfall	09004005	6601 Centennial Blvd	Yes	No
21-Feb-15	21-Feb-15	3.03	5.00	0.001	Rainfall	13007007	718 Lynnwood Blvd	Yes	No
21-Feb-15	22-Feb-15	2.72	40.00	0.001	Rainfall	05013010	3300 Briley Park Blvd S	No	No
21-Feb-15	22-Feb-15	2.44	24.00	0.001	Rainfall	11507059	622 Davidson Rd	No	No
21-Feb-15	23-Feb-15	2.93	30.00	0.1	Rainfall	09510050	501 Bismark Dr	Yes	No
22-Feb-15	22-Feb-15	3.00	1.00	0.00001	Blockage	07108082	502 Norton Ave	No	No
22-Feb-15	22-Feb-15	3.11	5.00	0.001	Rainfall	11904005	321 Wimpole Dr	No	No
22-Feb-15	23-Feb-15	2.72	24.00	0.001	Rainfall	05911036	3818 Cravath Dr	No	No

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Event Start Date	Event End Date	Rainfall (inches)	Duration (hours)	Overflow Volume (MG)	Overflow Cause	Location Manhole ID	Location	Unpermitted Discharge	Building Backup
22-Feb-15	22-Feb-15	3.11	5.00	0.001	Rainfall	11907047	381 Wimpole Dr	Yes	No
22-Feb-15	22-Feb-15	3.11	5.00	0.001	Rainfall	11903088	351 Wimpole Dr	Yes	No
22-Feb-15	22-Feb-15	0.00	2.00	0.001	Blockage	09112118	0 40th Ave N	Yes	No
22-Feb-15	23-Feb-15	2.72	24.00	0.001	Rainfall	05911034	3830 Cravath Dr	No	No
22-Feb-15	24-Feb-15	2.93	41.00	10	Rainfall	08601134	Dodson Chapel SPS	Yes	No
22-Feb-15	22-Feb-15	2.93	11.00	0.1	Rainfall	09506004	Mill Creek SPS	Yes	No
23-Feb-15	23-Feb-15	0.00	1.50	0.001	Blockage	09116013	4310 Nevada Ave	No	No
23-Feb-15	23-Feb-15	0.00	2.00	0.00001	Blockage	10301013	6320 Charlotte Pk	No	No
23-Feb-15	23-Feb-15	0.00	1.50	0.001	Blockage	09203091	915 19th Ave N	No	No
23-Feb-15	23-Feb-15	2.93	20.00	0.001	Rainfall	08606097	0 Dodson Chapel Rd	Yes	No
23-Feb-15	23-Feb-15	2.33	20.00	0.001	Rainfall	09501003	201 Lisa Ln	Yes	No
25-Feb-15	25-Feb-15	0.00	0.25	0.01	Controller	09407018	1140 Visco Dr	No	No
25-Feb-15	25-Feb-15	0.00	1.50	0.0001	Blockage	13405014	3436 Donna Kay Dr	No	No
04-Mar-15	05-Mar-15	2.29	3.00	0.001	Rainfall	10616032	408 Hollydale Dr	Yes	No
04-Mar-15	04-Mar-15	2.43	6.00	0.001	Rainfall	13007005	4302 Harding Pl	Yes	No
04-Mar-15	04-Mar-15	2.43	6.00	0.001	Rainfall	13007024	4302 Harding Pl	Yes	No
04-Mar-15	05-Mar-15	2.29	3.00	0.001	Rainfall	10616031	416 Hollydale Dr	Yes	No
04-Mar-15	04-Mar-15	2.20	6.00	0.02	Rainfall	11507055	615 Georgetown Dr	Yes	No
04-Mar-15	04-Mar-15	2.26	1.00	0.001	Blockage	05101020	449 Neelys Bend Rd	Yes	No
04-Mar-15	04-Mar-15	2.36	16.00	0.05	Rainfall	06001011	3258 Brick Church Pk	No	No
04-Mar-15	04-Mar-15	2.36	16.00	0.15	Rainfall	06001013	3258 Brick Church Pk	No	No
04-Mar-15	04-Mar-15	2.36	16.00	0.001	Rainfall	05010033	3414 Brick Church Pk	Yes	No
04-Mar-15	05-Mar-15	2.29	9.00	0.03	Rainfall	11907146	431 E Thompson Ln	Yes	No
04-Mar-15	05-Mar-15	2.26	20.84	2.04	Rainfall	13609002	Smith Springs SPS	Yes	No
04-Mar-15	05-Mar-15	2.20	4.75	0.411	Rainfall	09105090	West Park SPS	Yes	No
04-Mar-15	05-Mar-15	2.39	8.08	0.671	Rainfall	05116016	Loves Branch SPS	Yes	No
04-Mar-15	05-Mar-15	2.39	7.84	1.104	Rainfall	05205001	Gibson Creek SPS	Yes	No
04-Mar-15	05-Mar-15	2.20	25.92	1.986	Rainfall	10210012	Davidson Branch SPS	Yes	No
04-Mar-15	04-Mar-15	2.36	4.00	0.122	Rainfall	06213035	Williamson Ferry SPS	Yes	No

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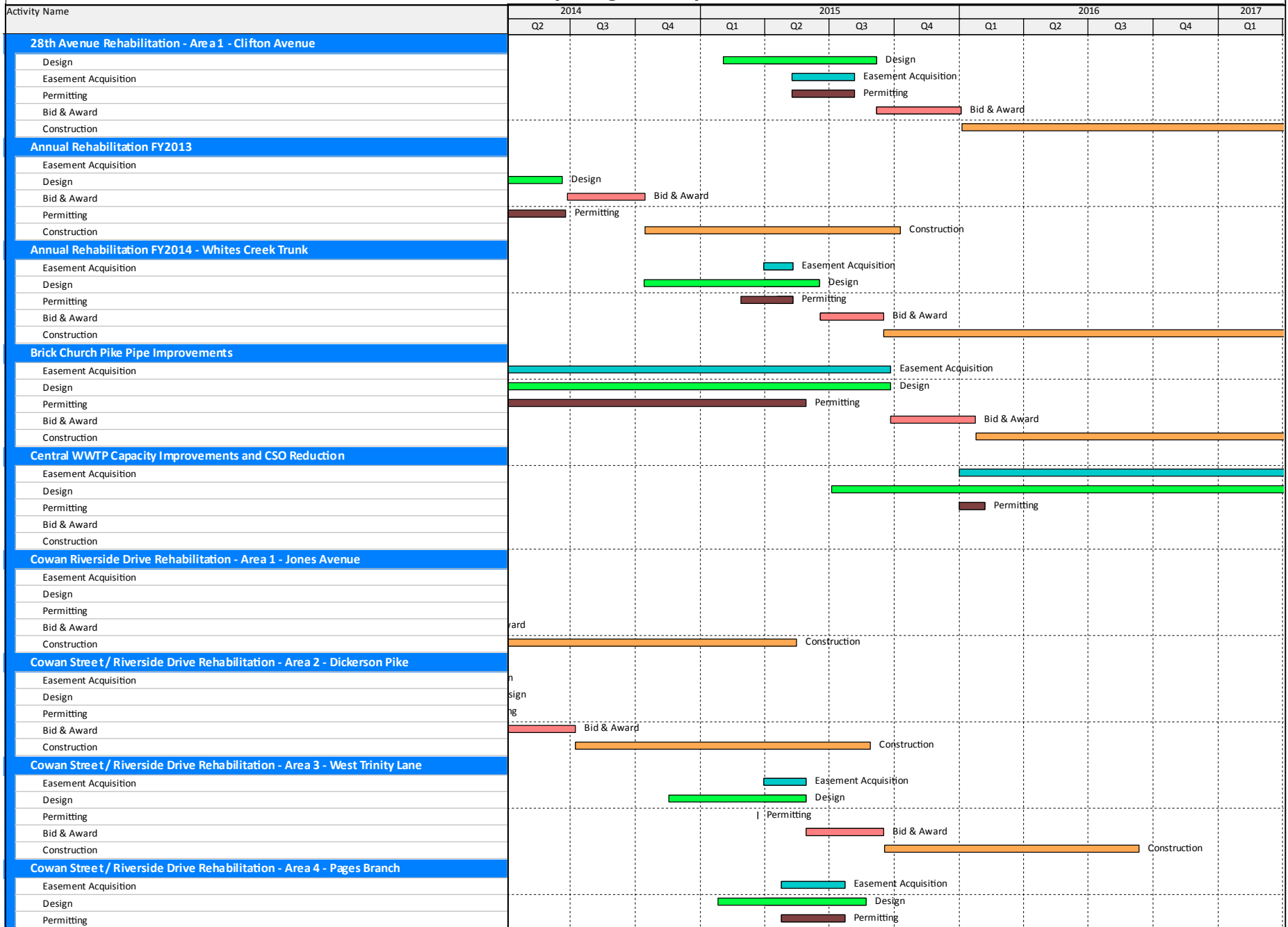
Event Start Date	Event End Date	Rainfall (inches)	Duration (hours)	Overflow Volume (MG)	Overflow Cause	Location Manhole ID	Location	Unpermitted Discharge	Building Backup
04-Mar-15	05-Mar-15	2.39	9.50	0.2	Rainfall	05213002	Madison Heights SPS	Yes	No
04-Mar-15	04-Mar-15	2.17	3.00	0.2	Rainfall	17609035	Hurricane Creek SPS	Yes	No
04-Mar-15	05-Mar-15	2.44	20.00	0.4	Rainfall	07008061	Riverside SPS	Yes	No
04-Mar-15	04-Mar-15	1.83	7.00	0.02	Rainfall	01416001	Joelton SPS	Yes	No
04-Mar-15	04-Mar-15	2.26	2.25	0.2	Rainfall	06208003	Hidden Acres SPS	Yes	No
04-Mar-15	04-Mar-15	2.04	3.25	0.1	Rainfall	08709040	Farmingham Woods SPS	Yes	No
04-Mar-15	05-Mar-15	2.17	23.00	1	Rainfall	15110038	Longhunter Chase SPS	Yes	No
04-Mar-15	06-Mar-15	2.72	44.00	0.7	Rainfall	16009013	East Lakemont SPS	Yes	No
04-Mar-15	04-Mar-15	2.31	6.00	0.01	Rainfall	16002032	South Oak Hill SPS	Yes	No
04-Mar-15	05-Mar-15	2.20	15.58	0.613	Rainfall	09011002	517 Basswood Ave	Yes	No
04-Mar-15	07-Mar-15	2.43	82.41	15.334	Rainfall	08410007	150 Barker Rd	Yes	No
04-Mar-15	05-Mar-15	2.40	13.58	1.012	Rainfall	07114041	Cowan St. SPS	Yes	No
04-Mar-15	04-Mar-15	2.36	16.00	0.001	Rainfall	05010029	3438 Brick Church Pk	Yes	No
04-Mar-15	04-Mar-15	2.36	16.00	0.001	Rainfall	05013010	3300 Briley Park Blvd S	No	No
04-Mar-15	05-Mar-15	2.29	9.00	0.001	Rainfall	11909113	2803 Foster Ave	Yes	No
04-Mar-15	04-Mar-15	2.20	6.00	0.0001	Rainfall	11507059	622 Davidson Rd	Yes	No
04-Mar-15	06-Mar-15	2.43	17.00	0.3	Rainfall	09510050	501 Bismark Dr	Yes	No
05-Mar-15	05-Mar-15	2.29	9.00	0.001	Rainfall	11908046	0 Old Glenrose Ave	No	No
05-Mar-15	05-Mar-15	0.08	1.00	0.0001	Blockage	16106002	400 McMurray Dr	No	No
06-Mar-15	06-Mar-15	0.29	6.00	0.001	Force Main	05415060	37 Harbor Cove Dr	Yes	No
08-Mar-15	08-Mar-15	0.00	0.01	0.00001	Electrical	05207007	Berwick Trail SPS / Center St.	No	No
10-Mar-15	11-Mar-15	0.75	29.00	0.001	Line Break	05303062	505 15th St	Yes	No
13-Mar-15	16-Mar-15	0.81	72.00	0.0001	Rainfall	11516065	6205 Jocelyn Hollow Rd	Yes	No
14-Mar-15	16-Mar-15	0.81	60.00	0.001	Rainfall	11516063	6215 Jocelyn Hollow Rd	No	No
14-Mar-15	16-Mar-15	0.81	60.00	0.001	Rainfall	11516064	6211 Jocelyn Hollow Rd	No	No
18-Mar-15	18-Mar-15	0.00	1.50	0.00001	Line Break	10303123	4601 Murphy Rd	No	No
23-Mar-15	23-Mar-15	0.00	3.00	0.0001	Blockage	14306002	117 Harpeth Trace Ct	No	No
29-Mar-15	29-Mar-15	0.00	1.50	0.0001	Blockage	16107022	5137 Hilson Rd	No	No

Appendix A

Schedule for Current and Upcoming Projects

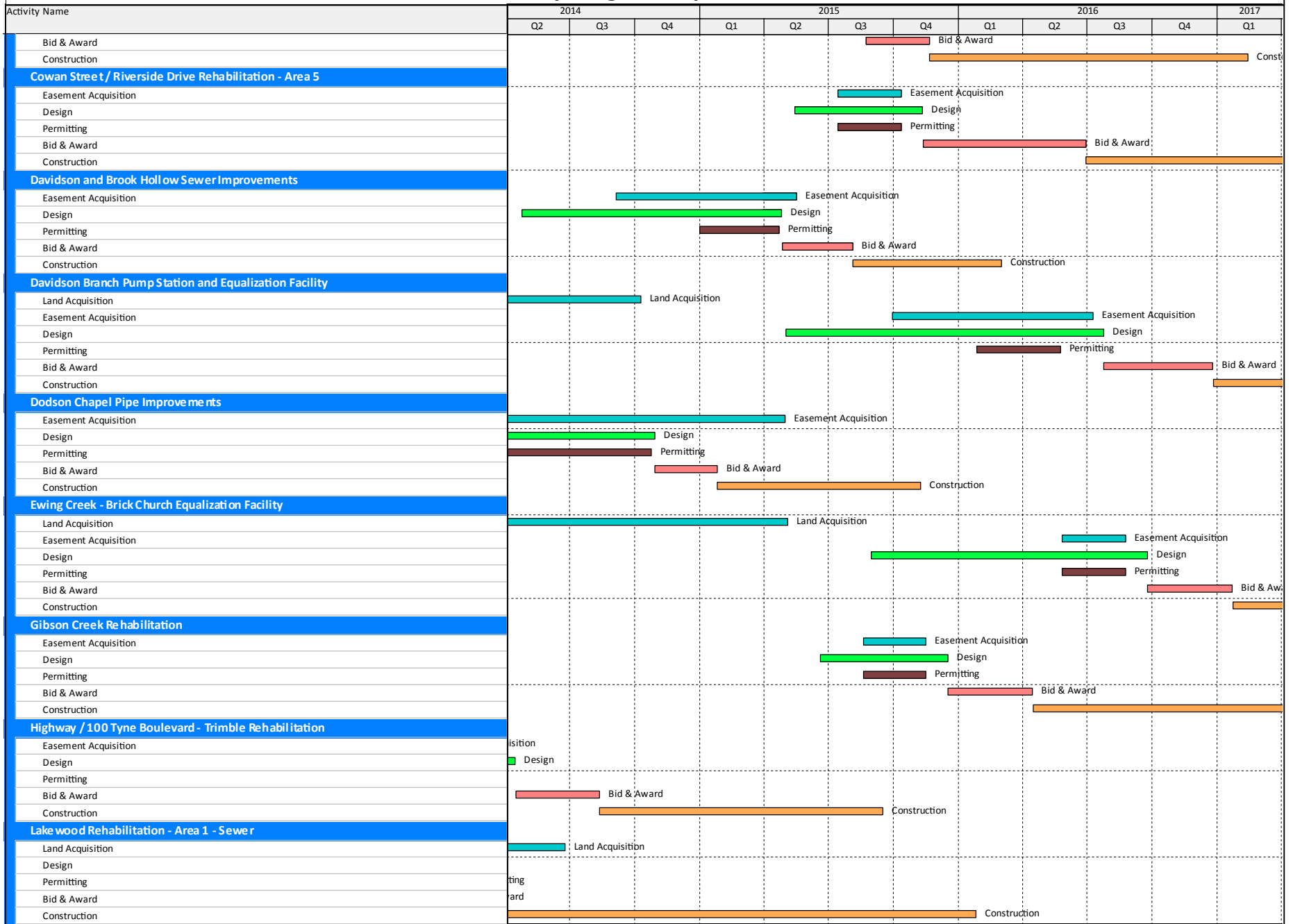
Note: The construction activity shows through substantial completion.

Nashville Overflow Abatement Program 2015 Quarterly Progress Report - 1st Quarter



Note: The construction activity shows through substantial completion.

Nashville Overflow Abatement Program 2015 Quarterly Progress Report - 1st Quarter



Note: The construction activity shows through substantial completion.

Nashville Overflow Abatement Program 2015 Quarterly Progress Report - 1st Quarter

Activity Name	2014			2015				2016				2017
	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1
Mill Creek / Opryland Equalization Facility - Phase II												
Easement Acquisition												
Design												
Permitting												
Bid & Award												
Construction												
Shelby Park Rehabilitation - Area 1 - Virginia Avenue												
Easement Acquisition												
Design												
Permitting												
Bid & Award												
Construction												
Shelby Park Rehabilitation - Area 2 - Norvel Avenue												
Easement Acquisition												
Design												
Permitting												
Bid & Award												
Construction												
Shelby Park Rehabilitation - Area 3 - Greenland Avenue												
Easement Acquisition												
Design												
Permitting												
Bid & Award												
Construction												
Shelby Park Rehabilitation - Area 4 - Brush Hill Road												
Easement Acquisition												
Design												
Permitting												
Bid & Award												
Construction												
Smith Springs Rehabilitation - Area 1 - Priest Lake Meadows												
Easement Acquisition												
Design												
Permitting												
Bid & Award												
Construction												
West Park Equalization Facility - Phase II												
Easement Acquisition												
Design												
Permitting												
Bid & Award												
Construction												
Westchester Drive Rehabilitation												
Easement Acquisition												
Design												
Permitting												
Bid & Award												
Construction												