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MAYOR



METROPOLITAN GOVERNMENT OF NASHVILLE AND DAVIDSON COUNTY

January 28, 2014

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

Gentlemen and Madam:

In accordance with the provisions of the Consent Decree, Section XIX (Reporting Requirements), Subsection B, herewith we are transmitting the 2013 Annual Report, which covers the time period from January 1, 2013 through December 31, 2013.



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

In addition, 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 October 1, 2013 through December 31, 2013.

A copy of each of these reports is concurrently being placed in the Public Document Repository (PDR).

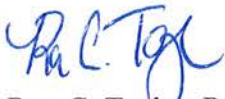
I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage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

October 1 through December 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 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, P.E., Program Director

1/29/14

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 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 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, were completed 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

2.2 CAP/ER Projects under Construction

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

- Whites Creek Wastewater Pumping Station
Construction of the improvements to the Whites Creek Wastewater Pumping Station and its associated force main began in February 2012 and were substantially complete on November 9,

2013. Final construction closeout activities are expected to continue through the upcoming quarter.

- Dodson Chapel Equalization Tank and Wastewater Pumping Station Expansion

Construction of the Dodson Chapel Equalization Tank and Wastewater Pumping Station Expansion began during the 2nd Quarter of 2012, and the project achieved substantial completion on November 25, 2013. Final construction closeout activities, including completion of punch list items, are expected to continue through the upcoming quarter.

- Joelton Rehabilitation

The Joelton Rehabilitation project included the evaluation of approximately 38,700 linear feet of gravity sewer and almost 200 manholes. Condition assessment data obtained in the area indicated that manholes appear to be the primary source of infiltration and inflow, and the resulting design primarily focuses on the repair of manholes within the project area.

Design of this project began on January 2, 2013, and was completed in June 2013. Advertisement for construction began on July 1, 2013. Construction activities began on October 28, 2013, and are expected to continue throughout the upcoming quarter.

- Neely's Bend Rehabilitation

Based on the condition assessment data collected in the area adjacent to the Neely's Bend Rehabilitation project (as presented in the CAP/ER), the area targeted for rehabilitation was extended to include all gravity sewer that directly drains to the Neely's Bend Pump Station. The evaluation of approximately 31,400 linear feet of gravity sewer and associated manholes during design resulted in a scope for construction that includes cured-in-place pipe lining of approximately 22,000 linear feet of sewer, rehabilitation of more than 130 manholes, and approximately 250 service renewals using cured-in-place pipe lining and open-cut techniques.

Design of the sewer rehabilitation improvements in the Neely's Bend project area began on September 27, 2012, and was completed in June 2013. Advertisement for construction began on July 1, 2013, with bids due on August 2, 2013. However, following a protest regarding the bid, the project was re-advertised for bids, and new bids were received on October 14, 2013. Construction activities commenced on December 16, 2013, and are anticipated to continue throughout the upcoming quarter.

- 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 includes cured-in-place pipe lining for 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 for this project began on September 11, 2012, and was completed in June 2013. Advertisement for construction began on August 14, 2013, and the project was awarded in September 2013. Construction activities are expected to commence during 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:

- Lakewood Water and Sewer Replacement

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 are anticipated to begin 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 of this project began on August 10, 2012, and was completed, including obtaining the required permits and approvals, in July 2013. Advertisement for construction began on August 14, 2013, and the project was awarded in September 2013. Construction activities are expected to begin in early 2014.

- 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 includes cured-in-place pipe lining for 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 of this project began on February 4, 2013, and was completed during September 2013. Advertisement for construction began on October 7, 2013, and bids were received on November 8, 2013. Construction is anticipated to begin during the upcoming quarter.

- 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 of this project began in May 2012; however, during preliminary design it was determined that potential flood impacts to adjacent properties require an alternate site for the equalization tank. Following additional investigation, Metro has selected the adjacent park site to accommodate the required storage volume. Design efforts for the equalization tank were restarted during the 1st Quarter of 2013 and are expected to continue 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.

- **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 of this project began on October 8, 2012. In mid-2013, 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 is in the process of being modified. It is anticipated that the design will be completed during the upcoming quarter.

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

This rehabilitation project is the second of multiple projects that will be conducted in the Shelby Park Rehabilitation project area. The area to be evaluated for rehabilitation includes approximately 57,000 linear feet of gravity sewer and 330 manholes. Design for this project began on July 3, 2013, and is anticipated to be complete during the upcoming quarter. Bidding for construction is also anticipated to begin in the 1st Quarter of 2014.

- **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 scope has been revised to include approximately 14,000 linear feet of either increased conveyance capacity or rehabilitation in the project area. Condition assessment activities in the upstream portion of the project area, including the small diameter sewers, will be conducted in anticipation of a future rehabilitation project in this area.

Proposals for the design of the pipe improvements project were submitted on January 11, 2013, and design for this project began on July 25, 2013. Design activities are anticipated 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 to be evaluated for rehabilitation includes approximately 51,400 linear feet of gravity sewer and 290 manholes. Design for this project began on July 3, 2013, and is anticipated to be complete during 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 is being delayed to allow time for the completion of the

Highway 100 / Tyne Boulevard – Trimble Rehabilitation project. The area to be evaluated for rehabilitation includes approximately 63,000 linear feet of gravity sewer and 300 manholes. Design for this project began on September 17, 2013, and is 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 for this project began on December 5, 2013, 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 procurement for design services during the upcoming quarter:

- Davidson and Brook Hollow Rehabilitation

The Davidson and Brook Hollow Rehabilitation project, referred to as 622 Davidson Rehabilitation in the CAP/ER, includes 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 been collected and analyzed. That analysis indicated that a portion of the sewer in this area, approximately 1,900 linear feet of sewer, requires upsizing in order to address the SSO in this area. A revised description of the proposed project, which includes both the upsizing as well as repair of several adjacent pipe segments, has been prepared. Procurement of design services is anticipated to begin during the upcoming quarter.

- 28th Avenue Rehabilitation – Area 1

The 28th Avenue Rehabilitation – Area 1 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. Following a preliminary review of the condition assessment data collected in the project area, several additional locations requiring dye testing and closed-circuit television (CCTV) inspection were identified. Procurement of design services for this project is anticipated to begin in the upcoming quarter following the completion of the additional data collection.

- Davidson Branch Equalization Facility

The Davidson Branch Equalization Facility project includes the construction of a storage tank, a wet weather pumping station, and improvements to the existing duty station. Procurement of design services for this project is anticipated to begin in the upcoming quarter; however property acquisition, which has been ongoing for the previous 19 months, may impact the start of design.

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), which 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 additional modeling data that assessed the impact of CSO discharges on the Cumberland River. Additional modeling analyses, including updated CORMIX modeling, have been conducted for the Washington CSO location. Discussions have been on-going throughout the reporting period and are expected to continue through the upcoming quarter.

As review of the LTCP continues, Metro continues to move forward with the implementation of several projects presented in the LTCP. These 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

3.2 LTCP Projects under Construction

There are currently no LTCP projects under construction.

3.3 LTCP Projects under Design

The following project, discussed in the LTCP, was under design during the reporting period:

- Apex Sewer Corrections

The Apex Sewer Corrections project consists of the replacement or realignment of approximately 1,200 linear feet of gravity sewer in the Washington CSO basin. Design of this project began on March 25, 2013, and was completed in September 2013. Advertisement for construction began on October 31, 2013, and the project was awarded in December 2013. Construction activities are expected to commence during the upcoming quarter.

3.4 Upcoming LTCP Projects

No additional LTCP projects are anticipated to begin design until comments on the LTCP are received from EPA and TDEC.

Work is nearing completion on the Central Wastewater Treatment Plant Optimization Study which will determine the maximum capacity for secondary treatment that can be achieved without constructing additional aeration basins or clarifiers. In order to achieve the maximum capacity, certain enhancements to the facility will be required, such as replacing the aeration system, modifying the disinfection process, and addressing hydraulic deficiencies. It is anticipated that this study will be completed during the upcoming quarter; however, additional analyses regarding the impacts of this study on the proposed improvements in the LTCP are expected to continue through early 2014.

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 Project

Design of the 2013 Annual Sewer Rehabilitation Project commenced on June 23, 2013, and is 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, which are located in areas outside of CAP/ER rehabilitation areas, were identified as high-priority or medium-priority sewers for evaluation based upon their observed condition as well as their potential consequence of failure.

Section 5

Quarterly SSO and Dry Weather CSO Report

During the 4th Quarter of 2013, Metro experienced 81 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									
October 1 through December 31, 2013									
Event Start Date	Event End Date	Rainfall (inches)	Duration (hours)	Overflow Volume (MG)	Overflow Cause	Location Manhole ID	Location	Unpermitted Discharge	Building Backup
08-Oct-13	08-Oct-13	0.00	2.50	0.001	Blockage	14812100	836 Irma Dr.	Yes	No
09-Oct-13	09-Oct-13	0.00	3.00	0.00001	Blockage	05303041CO	1401 Birdsall St.	No	No
10-Oct-13	11-Oct-13	0.00	20.50	0.001	Blockage	04410009	1300 Donelson Ave.	No	No
10-Oct-13	11-Oct-13	0.00	12.00	0.001	Blockage	11813088	3607 Wilbur Pl.	No	No
15-Oct-13	15-Oct-13	0.00	1.15	0.0001	Blockage	02615011	2102 Gallatin Pk.	No	No
20-Oct-13	20-Oct-13	0.00	2.40	0.00001	Blockage	16009009	836 Lakemont Dr.	No	No
21-Oct-13	21-Oct-13	0.00	1.00	0.0001	Blockage	07112033	1501 Lischey Ave.	Yes	No
23-Oct-13	23-Oct-13	0.00	2.00	0.0001	Blockage	09316075	37 Lewis St.	No	No
23-Oct-13	23-Oct-13	0.00	1.00	0.001	Blockage	07210118	2624 Gallatin Pk.	No	No
27-Oct-13	27-Oct-13	0.00	1.50	0.001	Blockage	11706070	2111 Golf Club Ln.	Yes	No
27-Oct-13	27-Oct-13	0.00	2.50	0.00001	Blockage	13316033	4900 Dolphin Dr.	No	No
28-Oct-13	28-Oct-13	0.00	3.50	0.001	Blockage	14905113	4905 Pebble Creek Dr.	No	No
01-Nov-13	01-Nov-13	0.00	1.50	0.0001	Blockage	09310146	300 4th Ave. S.	No	No
06-Nov-13	06-Nov-13	0.00	4.00	0.1	Air Relief	01113032	Old Hickory SPS	No	No
10-Nov-13	10-Nov-13	0.00	1.45	0.0001	Blockage	05010077CO	201 Fawnwood Ct.	Yes	No
11-Nov-13	11-Nov-13	0.00	1.00	0.001	Blockage	13111024	4608 Granny White Pk.	Yes	No
15-Nov-13	15-Nov-13	0.11	2.50	0.0001	Blockage	05915017	3817 Cravath Dr.	No	No
20-Nov-13	20-Nov-13	0.00	4.50	0.001	Blockage	05308033	206 24th St.	No	No
21-Nov-13	21-Nov-13	0.00	6.50	0.001	Blockage	14801064	285 Comroe Rd.	No	No
21-Nov-13	21-Nov-13	0.00	2.00	0.001	Blockage	15005099	1121 Twin Circle Dr.	No	No
21-Nov-13	21-Nov-13	0.00	2.50	0.001	Blockage	05006010	3438 Briley Park Blvd. N.	Yes	No
21-Nov-13	21-Nov-13	0.00	2.00	0.001	Blockage	09206007	945 31st Ave. N.	Yes	No
21-Nov-13	21-Nov-13	0.00	2.50	0.001	Blockage	16202045	148 Bart Dr.	No	No
23-Nov-13	23-Nov-13	0.00	5.50	0.00001	Blockage	10412001	2117 Belcourt Ave.	No	No
03-Dec-13	03-Dec-13	0.00	0.10	0.000001	Blockage	14604023	717 Harding Pl.	No	Yes
03-Dec-13	03-Dec-13	0.00	0.17	0.004	Electrical	03411009	Dry Creek SPS	Yes	No
04-Dec-13	04-Dec-13	0.00	0.75	0.00001	Blockage	08303022	1298 Porter Rd.	No	No
04-Dec-13	04-Dec-13	0.00	5.00	0.001	Blockage	11911099	104 Glenmont Dr.	Yes	No

Quarterly SSO Report

October 1 through December 31, 2013

Event Start Date	Event End Date	Rainfall (inches)	Duration (hours)	Overflow Volume (MG)	Overflow Cause	Location Manhole ID	Location	Unpermitted Discharge	Building Backup
05-Dec-13	07-Dec-14	2.54	3.00	0.1	Rainfall	01416001	Joelton SPS	Yes	No
06-Dec-13	06-Dec-13	3.55	0.10	0.00001	Blockage	11909017	2714 Grandview Ave.	No	Yes
06-Dec-13	07-Dec-13	2.67	4.00	0.001	Rainfall	07309066	2301 Cooper Ter.	No	No
06-Dec-13	07-Dec-13	3.78	37.00	0.1	Rainfall	09510050	501 Bismark Dr.	Yes	No
06-Dec-13	07-Dec-13	2.75	13.00	0.001	Rainfall	05010033	3414 Brick Church Pk.	Yes	No
06-Dec-13	07-Dec-13	4.27	4.75	0.05	Rainfall	15712023	Old Hickory Blvd.	Yes	No
06-Dec-13	07-Dec-13	3.39	27.00	0.001	Rainfall	13007001	803 Lynnwood Blvd.	No	No
06-Dec-13	06-Dec-13	2.75	7.50	0.001	Rainfall	06001013	3258 Brick Church Pk.	No	No
06-Dec-13	06-Dec-13	3.55	8.50	0.0001	Rainfall	11909113	2803 Foster Ave.	No	No
06-Dec-13	07-Dec-13	3.05	12.08	1.073	Rainfall	13609002	Smith Springs SPS	Yes	No
06-Dec-13	06-Dec-13	2.85	6.83	0.097	Rainfall	04312004	Vandiver SPS	Yes	No
06-Dec-13	06-Dec-13	2.51	8.92	2.034	Rainfall	09105090	West Park SPS	Yes	No
06-Dec-13	07-Dec-13	2.53	21.67	5.164	Rainfall	03411009	Dry Creek SPS	Yes	No
06-Dec-13	06-Dec-13	2.53	7.83	0.193	Rainfall	05116016	Loves Branch SPS	Yes	No
06-Dec-13	06-Dec-13	2.53	3.42	0.303	Rainfall	05205001	Gibson Creek SPS	Yes	No
06-Dec-13	07-Dec-13	2.51	4.58	0.051	Rainfall	10210012	Davidson Branch SPS	Yes	No
06-Dec-13	07-Dec-13	2.53	11.00	0.5	Rainfall	05216026	Neely's Bend SPS	Yes	No
06-Dec-13	06-Dec-13	2.53	5.50	0.1	Rainfall	05213002	Madison Heights SPS	Yes	No
06-Dec-13	06-Dec-13	3.49	3.75	0.25	Rainfall	17609035	Hurricane Creek SPS	Yes	No
06-Dec-13	06-Dec-13	2.53	10.00	0.2	Rainfall	05207007	Berwick Trail SPS / Center St.	Yes	No
06-Dec-13	06-Dec-13	3.87	5.00	0.2	Rainfall	08709040	Farmingham Woods SPS	Yes	No
06-Dec-13	06-Dec-13	4.27	1.00	0.06	Rainfall	16002032	South Oak Hill SPS	Yes	No
06-Dec-13	07-Dec-13	2.51	14.08	0.687	Rainfall	09011002	516 Basswood Dr.	Yes	No
06-Dec-13	09-Dec-13	4.37	62.67	15.656	Rainfall	08410007	149 Barker Rd.	Yes	No
06-Dec-13	06-Dec-13	2.67	6.75	0.121	Rainfall	07114041	Cowan St. SPS	Yes	No
06-Dec-13	07-Dec-13	3.39	27.00	0.001	Rainfall	13007007	718 Lynnwood Blvd.	No	No
06-Dec-13	07-Dec-13	2.75	24.00	0.01	Rainfall	05010029	3438 Briley Park Blvd. N.	Yes	No
06-Dec-13	07-Dec-13	2.75	24.00	0.01	Rainfall	05013010	3300 Briley Park Blvd. S.	Yes	No
08-Dec-13	08-Dec-13	2.75	10.00	0.001	Rainfall	06001013	3258 Brick Church Pk.	No	No

Quarterly SSO Report

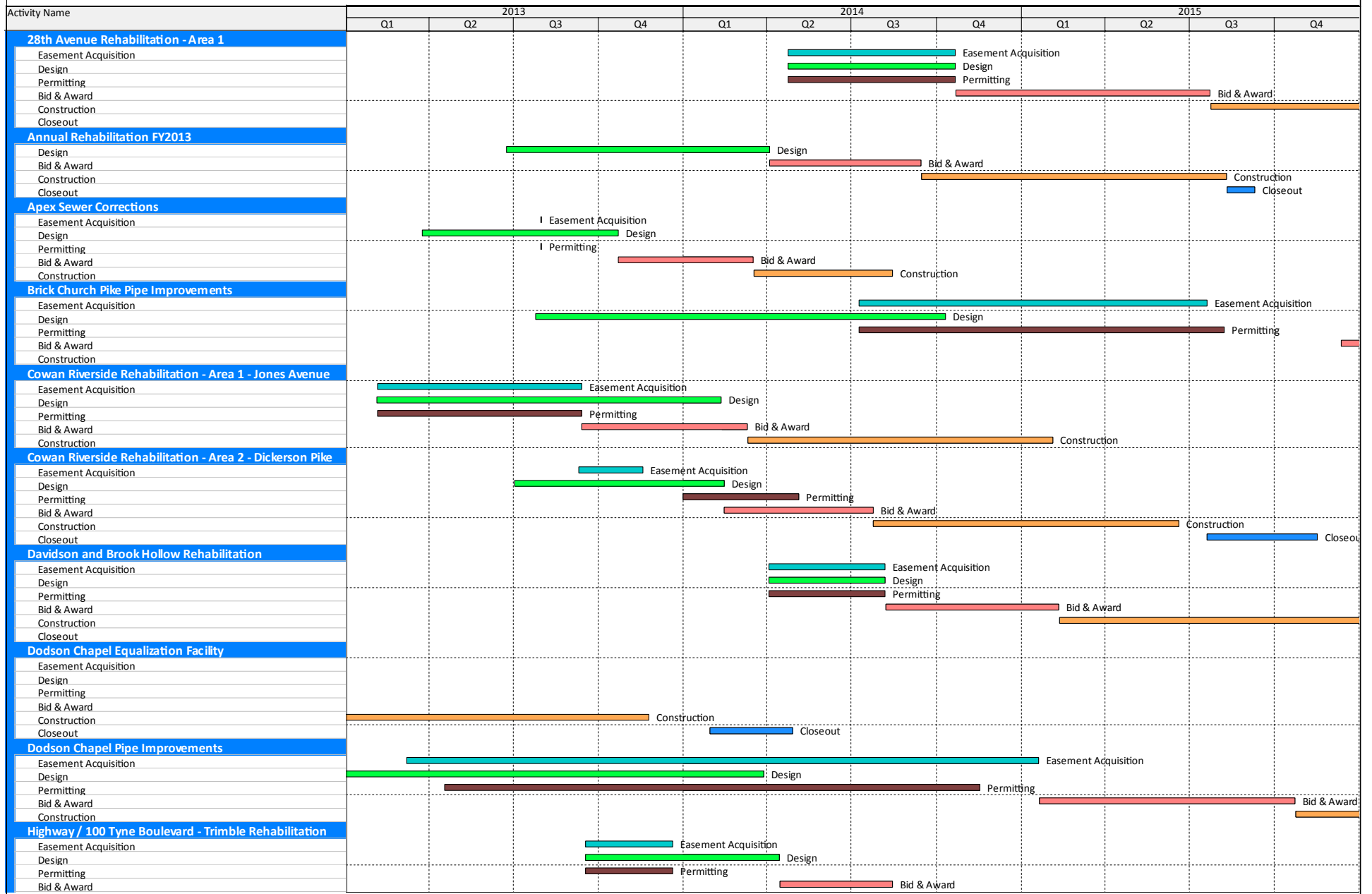
October 1 through December 31, 2013

Event Start Date	Event End Date	Rainfall (inches)	Duration (hours)	Overflow Volume (MG)	Overflow Cause	Location Manhole ID	Location	Unpermitted Discharge	Building Backup
08-Dec-13	08-Dec-13	0.50	1.00	0.001	Blockage	16205069	285 Ocala Dr.	Yes	No
08-Dec-13	08-Dec-13	0.87	0.42	0.01	Rainfall	09105090	West Park SPS	Yes	No
08-Dec-13	09-Dec-13	0.83	18.67	12.764	Rainfall	03411009	Dry Creek SPS	Yes	No
08-Dec-13	08-Dec-13	0.83	7.42	0.091	Rainfall	05116016	Loves Branch SPS	Yes	No
08-Dec-13	08-Dec-13	0.83	1.08	0.039	Rainfall	05205001	Gibson Creek SPS	Yes	No
08-Dec-13	08-Dec-13	0.87	2.67	0.002	Rainfall	10210012	Davidson Branch SPS	Yes	No
08-Dec-13	08-Dec-13	0.83	9.00	0.5	Rainfall	05216026	Neely's Bend SPS	Yes	No
08-Dec-13	08-Dec-13	0.83	2.00	0.05	Rainfall	05207007	Berwick Trail SPS / Center St.	Yes	No
08-Dec-13	08-Dec-13	0.76	16.50	0.05	Rainfall	01416001	Joelton SPS	Yes	No
08-Dec-13	08-Dec-13	0.87	9.67	0.212	Rainfall	09011002	516 Basswood Dr.	Yes	No
08-Dec-13	08-Dec-13	0.97	1.67	0.003	Rainfall	07114041	Cowan St. SPS	Yes	No
12-Dec-13	12-Dec-13	0.00	1.00	0.001	Blockage	16212014	1211 Bell Rd.	No	No
14-Dec-13	14-Dec-13	0.50	0.25	0.00001	Blockage	14816066	308 Carrolton Station Rd.	No	No
14-Dec-13	14-Dec-13	0.50	0.25	0.0001	Blockage	15005043	3004 Anderson Rd.	No	No
20-Dec-13	20-Dec-13	0.00	1.00	0.001	Blockage	16003021	5322 Overton Rd.	Yes	No
21-Dec-13	21-Dec-13	1.40	1.50	0.0001	Blockage	07311033	2256 Cabin Hill Rd.	Yes	No
22-Dec-13	22-Dec-13	1.36	2.75	0.00001	Blockage	05303084CO	1404 Riverside Rd.	No	No
22-Dec-13	22-Dec-13	1.35	1.50	0.00001	Blockage	07104090	2432 Paulawood Dr.	No	No
22-Dec-13	23-Dec-13	1.11	12.33	0.996	Rainfall	13609002	Smith Springs SPS	Yes	No
22-Dec-13	22-Dec-13	1.35	4.50	0.018	Rainfall	10210012	Davidson Branch SPS	Yes	No
22-Dec-13	22-Dec-13	1.37	3.00	0.01	Rainfall	01416001	Joelton SPS	Yes	No
22-Dec-13	23-Dec-13	1.40	7.08	0.241	Rainfall	08410007	149 Barker Rd.	Yes	No
26-Dec-13	27-Dec-13	0.00	1.50	0.001	Blockage	14902023	433 London Ct.	No	No
30-Dec-13	30-Dec-13	0.00	1.50	0.0001	Blockage	08605112	3522 Central Pl.	No	No

Appendix A

Schedule for Current and Upcoming Projects

Nashville Overflow Abatement Program 2013 Quarterly Progress Report - 4th Quarter



Nashville Overflow Abatement Program 2013 Quarterly Progress Report - 4th Quarter

