

KARL F. DEAN
MAYOR



METROPOLITAN GOVERNMENT OF NASHVILLE AND DAVIDSON COUNTY

July 26, 2013

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, 11th Floor
Nashville, TN 37243

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

Gentlemen:

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 April 1, 2013 through June 30, 2013.

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

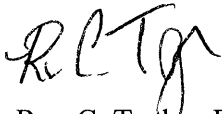
I certify under penalty of law that these documents and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage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

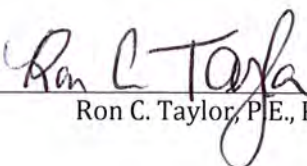
Clean Water Nashville Overflow Abatement Program

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

CONSENT DECREE QUARTERLY PROGRESS REPORT

April 1 through June 30, 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

7/26/13

Date

Table of Contents

Section 1	Introduction	1-1
1.1	Additional Programs	1-1
1.2	Report Organization	1-2
Section 2	<i>Corrective Action Plan/Engineering Report</i>.....	2-1
2.1	Completed CAP/ER Projects.....	2-1
2.2	CAP/ER Projects under Construction.....	2-1
2.3	CAP/ER Projects under Design.....	2-2
2.4	Upcoming CAP/ER Projects	2-4
Section 3	<i>Long Term Control Plan</i>.....	3-1
3.1	Completed LTCP Projects.....	3-1
3.2	LTCP Projects under Construction.....	3-2
3.3	LTCP Projects under Design	3-2
3.4	Upcoming LTCP Projects	3-2
Section 4	Additional Measures to Maintain Consent Decree Compliance	4-1
4.1	Munn Road Pumping Station.....	4-1
4.2	2011 Collection System Structural Defect Repair Project.....	4-1
4.3	2013 Annual Sewer Rehabilitation Project.....	4-1
Section 5	Quarterly SSO and Dry Weather CSO Report.....	5-1

List of Tables

Table 5-1	Quarterly SSO Report	5-2
-----------	----------------------------	-----

Appendix

Appendix A	Schedule for Current and Upcoming Projects
------------	--

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 excluding the Munn Road Pumping Station project, which was completed

during this reporting period. Additional information on the status of this project is discussed in Section 4.

- *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 2nd Quarter of 2013:

- 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. Construction continued throughout the 2nd Quarter of 2013 and is expected to be completed during the 4th Quarter of 2013.

- 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 has continued throughout the reporting period. Construction is anticipated to be substantially complete during the 4th Quarter of 2013.

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 improvements in the Lakewood area is complete; however, the scope of this project was revised to also include improvements to the water and stormwater systems. Design is currently being finalized, and easements and right-of-entry permits are currently being obtained for the project area. Advertisement for a two-step procurement process began during the reporting period, and bidding for construction from the three pre-qualified contractors is anticipated to occur during the upcoming quarter. This project represents the first of two phases of work in the Lakewood area.

- 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. Procurement for landscape architectural services to design improvements to the park as part of the project was completed during the reporting period. When constructed, the additional improvements at the West Park Equalization Facility are expected to add 21 million gallons of storage and expanded pumping capacity.

- Mill Creek / Opryland Equalization Facility – Phase II

Phase II of the Mill Creek / Opryland Equalization Facility includes the construction of approximately 19 million gallon of additional storage. Design of this project began on August 10, 2012, and is complete pending receipt of the required permits and approvals. Advertisement for construction is expected to commence during the 3rd Quarter of 2013.

- 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 is anticipated to include 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 is expected to commence during the 3rd Quarter of 2013.

- **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. Evaluation of approximately 31,400 linear feet of gravity sewer and associated manholes during design resulted in a construction project that is anticipated to include 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 currently due on August 2, 2013.

- **Dodson Chapel Pipe Improvements**

Following the completion of the Rockwood Conveyance Improvements 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, and is anticipated to be complete during the upcoming quarter.

- **Joelton Rehabilitation**

The Joelton Rehabilitation project comprised 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, with bids currently due on July 30, 2013.

- **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 to be evaluated for rehabilitation includes approximately 50,200 linear feet of gravity sewer and 270 manholes. Design of this project began on February 4, 2013, and is anticipated to be complete in 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 June 25, 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 design during the upcoming quarter:

- Brick Church Pike Pipe Improvements

The Brick Church Pike Pipe Improvements project consists of increasing the conveyance capacity of approximately 15,500 linear feet of gravity sewer. Proposals for the design of this project were submitted on January 11, 2013. Discussions with the selected design firm regarding the scope, schedule, and budget were completed during the previous quarter. Design for this project is anticipated to begin in the 3rd Quarter of 2013.

- 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 is anticipated to begin in July 2013.

- 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 is anticipated to begin in the 3rd Quarter of 2013.

- Davidson and Brook Hollow Rehabilitation

The Davidson and Brook Hollow Rehabilitation project, which is 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 smoke testing data, is being collected to support design efforts, which is anticipated to begin late in the 3rd Quarter of 2013.

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. These discussions have been on-going throughout the reporting period.

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

Although no projects listed in the LTCP were completed during the current reporting period, the following projects, discussed in the LTCP, were completed prior to the start of the 2nd Quarter of 2013:

- Broadway Improvements
- Washington CSO Facility Improvements
- Van Buren Improvements

3.2 LTCP Projects under Construction

The following project, discussed in the LTCP, is under construction:

- Driftwood Equalization Basin Expansion

The design of the Driftwood Equalization Basin Expansion was completed during the 2nd Quarter of 2012. Construction of this project commenced on July 10, 2012, and the improvements were operationally complete on June 14, 2013. Final completion of construction activities is anticipated during the upcoming quarter.

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 is anticipated to be completed 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.

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 Munn Road Pumping Station

As part of the *Pump Station Operation Plan for Power Outages*, installation of the permanent generator at the Munn Road Pumping Station was operationally complete on April 11, 2013. A temporary generator, located at the site, continued to receive priority attention prior to that date.

4.2 2011 Collection System Structural Defect Repair Project

The 2011 Collection System Structural Defect Repair Project was developed to address structural defects observed in the Whites Creek Wastewater Treatment Plant service area. For this project, it is anticipated that approximately 24 point repairs will be made, and 7,500 feet of 8- to 18-inch diameter sewer will undergo cured-in-place pipe lining. This project was advertised for bids for construction on October 17, 2012, and construction activities began on February 18, 2013. Construction is anticipated to be substantially complete during the upcoming quarter.

4.3 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 240 pipe segments are being evaluated for repair or rehabilitation. These sewers, which are located in areas outside of CAP/ER rehabilitation areas, were identified as high-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 2nd Quarter of 2013, Metro experienced 113 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 April 1 through June 30, 2013									
Event Start Date	Event End Date	Rainfall (inches)	Duration (hours)	Overflow Volume (MG)	Overflow Cause	Location Manhole ID	Location	Unpermitted Discharge	Building Backup
01-Apr-13	01-Apr-13	0.00	1.50	0.00001	Blockage	14805012	3735 Turley Dr.	No	No
03-Apr-13	03-Apr-13	0.00	1.50	0.001	Blockage	13413029	200 Paragon Mills Rd.	No	No
05-Apr-13	05-Apr-13	0.00	1.50	0.0001	Blockage	09204004CO	1026 Herman St.	No	No
08-Apr-13	08-Apr-13	0.00	1.00	0.001	Blockage	05816022	3810 Kings Ln.	No	No
10-Apr-13	10-Apr-13	0.00	0.10	0.000005	Mechanical	17112103	Banbury Crossing SPS	No	No
11-Apr-13	13-Apr-13	1.89	21.66	0.855	Rainfall	08410007	149 Barker Rd.	Yes	No
11-Apr-13	11-Apr-13	2.10	5.00	0.1	Rainfall	05213002	Madison Heights SPS	Yes	No
11-Apr-13	12-Apr-13	2.12	17.42	0.756	Rainfall	07114041	Cowan St. SPS	Yes	No
11-Apr-13	11-Apr-13	2.10	4.00	0.526	Rainfall	05205001	Gibson Creek SPS	Yes	No
11-Apr-13	11-Apr-13	2.10	2.67	0.097	Rainfall	05116016	Loves Branch SPS	Yes	No
11-Apr-13	12-Apr-13	2.37	7.58	0.047	Rainfall	10210012	Davidson Branch SPS	Yes	No
11-Apr-13	11-Apr-13	2.10	4.00	0.1	Rainfall	05207007	Berwick Trail SPS / Center St.	Yes	No
11-Apr-13	13-Apr-13	2.16	47.25	6.806	Rainfall	06915003	Whites Creek SPS	Yes	No
11-Apr-13	11-Apr-13	2.10	4.50	0.2	Rainfall	05216026	Neelys Bend SPS	Yes	No
11-Apr-13	12-Apr-13	2.74	17.00	0.1	Rainfall	01416001	Joelton SPS	Yes	No
11-Apr-13	11-Apr-13	2.37	3.50	0.1	Rainfall	10203057	Cleeces Ferry SPS	Yes	No
11-Apr-13	11-Apr-13	2.37	1.00	0.0001	Rainfall	11507059	622 Davidson Rd.	No	No
11-Apr-13	11-Apr-13	2.37	30.00	0.01	Rainfall	09015045	Sunliner SPS	Yes	No
11-Apr-13	11-Apr-13	2.37	1.00	0.0001	Rainfall	06007007	718 Lynnwood Blvd.	Yes	No
11-Apr-13	11-Apr-13	2.37	5.00	0.103	Rainfall	09011002	516 Basswood Dr.	Yes	No
11-Apr-13	11-Apr-13	2.18	4.33	0.03	Rainfall	04312004	Vandiver SPS	Yes	No
12-Apr-13	12-Apr-13	1.89	0.75	0.001	Rainfall	09510050	501 Bismark Dr.	Yes	No
12-Apr-13	12-Apr-13	0.00	2.00	0.00001	Blockage	04414025CO	238 Martingale Dr.	No	No
14-Apr-13	14-Apr-13	0.00	2.00	0.00001	Blockage	08309091CO	1214 Calvin Ave.	No	No
15-Apr-13	15-Apr-13	0.00	1.50	0.001	Blockage	06007003	0 Ewing Dr.	No	No
18-Apr-13	18-Apr-13	0.07	1.50	0.001	Blockage	14814009	3963 Keeley Dr.	No	No
19-Apr-13	19-Apr-13	1.12	2.08	0.007	Rainfall	06915003	Whites Creek SPS	Yes	No
20-Apr-13	20-Apr-13	0.00	1.50	0.0001	Blockage	06411083	914 Chase Blvd.	No	No
26-Apr-13	26-Apr-13	0.00	2.50	0.0001	Blockage	03314052	204 Fonnin Dr.	Yes	No
27-Apr-13	28-Apr-13	3.34	20.42	1.535	Rainfall	07114041	Cowan St. SPS	Yes	No
27-Apr-13	28-Apr-13	3.15	2.00	0.001	Rainfall	13007005	4013 Harding Pl.	No	No

Quarterly SSO Report

April 1 through June 30, 2013

Event Start Date	Event End Date	Rainfall (inches)	Duration (hours)	Overflow Volume (MG)	Overflow Cause	Location Manhole ID	Location	Unpermitted Discharge	Building Backup
27-Apr-13	27-Apr-13	3.48	3.00	0.001	Rainfall	11507059	622 Davidson Rd.	No	No
27-Apr-13	27-Apr-13	3.48	3.00	0.001	Rainfall	11507005	615 Georgetown Dr.	No	No
27-Apr-13	28-Apr-13	4.28	2.00	0.001	Rainfall	03413034	1442 Gallatin Rd.	Yes	No
27-Apr-13	27-Apr-13	4.28	1.00	0.0001	Rainfall	04309041	616 N. Dupont/600 Delaware Ave.	No	No
27-Apr-13	28-Apr-13	2.95	32.00	1.918	Rainfall	09608006	McCrocy Creek SPS	Yes	No
27-Apr-13	28-Apr-13	3.71	7.00	0.2	Rainfall	10203057	Cleeces Ferry SPS	Yes	No
27-Apr-13	28-Apr-13	3.34	22.00	0.649	Rainfall	06213035	Williamson Ferry SPS	Yes	No
27-Apr-13	28-Apr-13	4.28	4.50	5.132	Rainfall	03411009	Dry Creek SPS	Yes	No
27-Apr-13	28-Apr-13	4.28	9.16	1.327	Rainfall	05205001	Gibson Creek SPS	Yes	No
27-Apr-13	28-Apr-13	3.48	12.00	0.001	Rainfall	05010029	3438 Briley Park Blvd. N.	Yes	No
27-Apr-13	28-Apr-13	3.57	15.00	0.001	Rainfall	10405016	3704 Murphy Rd.	No	No
27-Apr-13	28-Apr-13	5.21	35.00	0.3	Rainfall	01416001	Joelton SPS	Yes	No
27-Apr-13	27-Apr-13	3.15	2.00	0.001	Rainfall	13007007	718 Lynnwood Blvd.	Yes	No
27-Apr-13	28-Apr-13	4.28	14.00	0.5	Rainfall	05213002	Madison Heights SPS	Yes	No
27-Apr-13	28-Apr-13	3.15	9.00	0.1	Rainfall	16009013	East Lakemont SPS	Yes	No
27-Apr-13	29-Apr-13	4.16	12.00	1	Rainfall	06208003	Hidden Acres SPS	Yes	No
27-Apr-13	28-Apr-13	3.55	1.00	0.05	Rainfall	09015045	Sunliner SPS	Yes	No
27-Apr-13	28-Apr-13	4.28	18.00	0.5	Rainfall	05207007	Berwick Trail SPS / Center St.	Yes	No
27-Apr-13	28-Apr-13	4.28	19.92	1.618	Rainfall	05116016	Loves Branch SPS	Yes	No
27-Apr-13	28-Apr-13	3.71	29.50	1.36	Rainfall	09011002	516 Basswood Rd.	Yes	No
27-Apr-13	28-Apr-13	2.95	34.25	1	Rainfall	08709040	Farmingham Woods SPS	Yes	No
27-Apr-13	28-Apr-13	3.71	2.50	0.05	Rainfall	08011001	Bordeaux Hospital SPS	Yes	No
27-Apr-13	28-Apr-13	4.28	12.50	0.5	Rainfall	05216026	Neelys Bend SPS	Yes	No
27-Apr-13	28-Apr-13	4.04	24.00	1	Rainfall	17609001	Hurricane Creek SPS	Yes	No
27-Apr-13	28-Apr-13	4.54	25.84	2.227	Rainfall	04312004	Vandiver SPS	Yes	No
27-Apr-13	01-May-13	2.95	35.51	11.338	Rainfall	08410007	149 Barker Rd.	Yes	No
27-Apr-13	28-Apr-13	2.96	35.58	3.588	Rainfall	13609002	Smith Springs Sps	Yes	No
27-Apr-13	28-Apr-13	3.71	2.00	0.001	Rainfall	10314008	47 Brookwood Ter.	Yes	No
27-Apr-13	29-Apr-13	3.71	5.42	0.043	Rainfall	10210012	Davidson Branch SPS	Yes	No
27-Apr-13	28-Apr-13	3.15	2.00	0.001	Rainfall	13007002	4303 Harding Pl.	No	No
27-Apr-13	28-Apr-13	3.71	28.59	3.221	Rainfall	06915003	Whites Creek SPS	Yes	No
27-Apr-13	28-Apr-13	3.71	7.16	1.233	Rainfall	09105090	West Park SPS	Yes	No

Quarterly SSO Report

April 1 through June 30, 2013

Event Start Date	Event End Date	Rainfall (inches)	Duration (hours)	Overflow Volume (MG)	Overflow Cause	Location Manhole ID	Location	Unpermitted Discharge	Building Backup
27-Apr-13	28-Apr-13	2.96	21.00	0.01	Rainfall	13607014	3744 Anderson Rd.	Yes	No
27-Apr-13	29-Apr-13	2.95	52.00	10	Rainfall	09510050	501 Bismark Dr.	Yes	No
27-Apr-13	28-Apr-13	3.48	12.00	0.001	Rainfall	05013010	3300 Briley Park Blvd. S	Yes	No
28-Apr-13	28-Apr-13	4.42	0.50	0.01	Rainfall	05409018	Villas of Lakemeade #2 SPS	Yes	No
28-Apr-13	28-Apr-13	3.34	1.00	0.0001	Rainfall	08204034	820 Seymour Ave	No	No
28-Apr-13	28-Apr-13	2.83	1.50	0.04	Rainfall	08514005	Munn Road SPS	Yes	No
28-Apr-13	28-Apr-13	3.72	2.00	0.001	Rainfall	09407003	1400 Pumping Station Rd.	Yes	No
28-Apr-13	29-Apr-13	2.83	32.00	0.3	Rainfall	09506004	Mill Creek SPS	Yes	No
28-Apr-13	28-Apr-13	3.71	3.00	0.001	Rainfall	09012110	6303 Henry Ford Dr.	Yes	No
28-Apr-13	29-Apr-13	3.65	21.00	0.1	Rainfall	10616031	416 Hollydale Dr.	Yes	No
28-Apr-13	28-Apr-13	0.00	5.25	0.001	Force Main	10901010	The Lakes SPS	Yes	No
28-Apr-13	28-Apr-13	3.65	0.50	0.001	Rainfall	11913092	2932 Louise Dr.	Yes	No
28-Apr-13	29-Apr-13	3.65	21.00	0.1	Rainfall	11903088	351 Wimpole Dr.	Yes	No
28-Apr-13	28-Apr-13	2.95	4.00	0.1	Rainfall	08602062	Old Lebanon Dirt Rd.	Yes	No
28-Apr-13	28-Apr-13	2.95	4.00	0.1	Rainfall	08606106	5289 Old Hickory Blvd.	Yes	No
28-Apr-13	29-Apr-13	3.34	24.00	0.001	Rainfall	08204006	889 Granada Ave,	No	No
28-Apr-13	29-Apr-13	3.34	28.50	0.1	Rainfall	07309066	2301 Cooper Ter.	Yes	No
28-Apr-13	28-Apr-13	3.65	0.50	0.00001	Rainfall	11909113	2803 Foster Ave	No	No
28-Apr-13	28-Apr-13	3.71	2.00	0.001	Rainfall	05910048	751 Rowan Dr.	Yes	No
28-Apr-13	29-Apr-13	3.71	30.00	0.5	Rainfall	09004005	6601 Centennial Blvd. (TDOT)	Yes	No
28-Apr-13	28-Apr-13	3.34	14.00	0.001	Rainfall	07204026	1434 Ardee Ave.	Yes	No
28-Apr-13	28-Apr-13	4.42	5.00	0.1	Rainfall	WLS053A020	Langford Farms SPS	Yes	No
28-Apr-13	28-Apr-13	3.48	12.00	0.001	Rainfall	06001011	3258 Brick Church Pk.	Yes	No
28-Apr-13	29-Apr-13	3.72	13.50	0.915	Rainfall	09409003	Browns Creek SPS / Visco Dr.	Yes	No
28-Apr-13	28-Apr-13	2.95	3.50	0.121	Rainfall	08601134	Dodson Chapel SPS	Yes	No
28-Apr-13	28-Apr-13	3.71	3.92	0.189	Rainfall	09104025	28th Ave. SPS / Centennial Blvd.	Yes	No
28-Apr-13	29-Apr-13	3.34	28.50	0.1	Rainfall	07306012	2800 Cooper Ln.	Yes	No
29-Apr-13	29-Apr-13	0.00	0.50	0.0001	Blockage	13413033	220 Paragon Mills Rd.	No	No
04-May-13	04-May-13	1.24	1.00	0.01	Rainfall	01416001	Joelton SPS	Yes	No
04-May-13	05-May-13	1.70	26.75	6.41	Controller	08410007	149 Barker Rd.	Yes	No
04-May-13	04-May-13	1.54	2.67	0.027	Rainfall	10210012	Davidson Branch SPS	Yes	No
05-May-13	05-May-13	1.63	0.58	0.035	Rainfall	05205001	Gibson Creek SPS	Yes	No

Quarterly SSO Report

April 1 through June 30, 2013

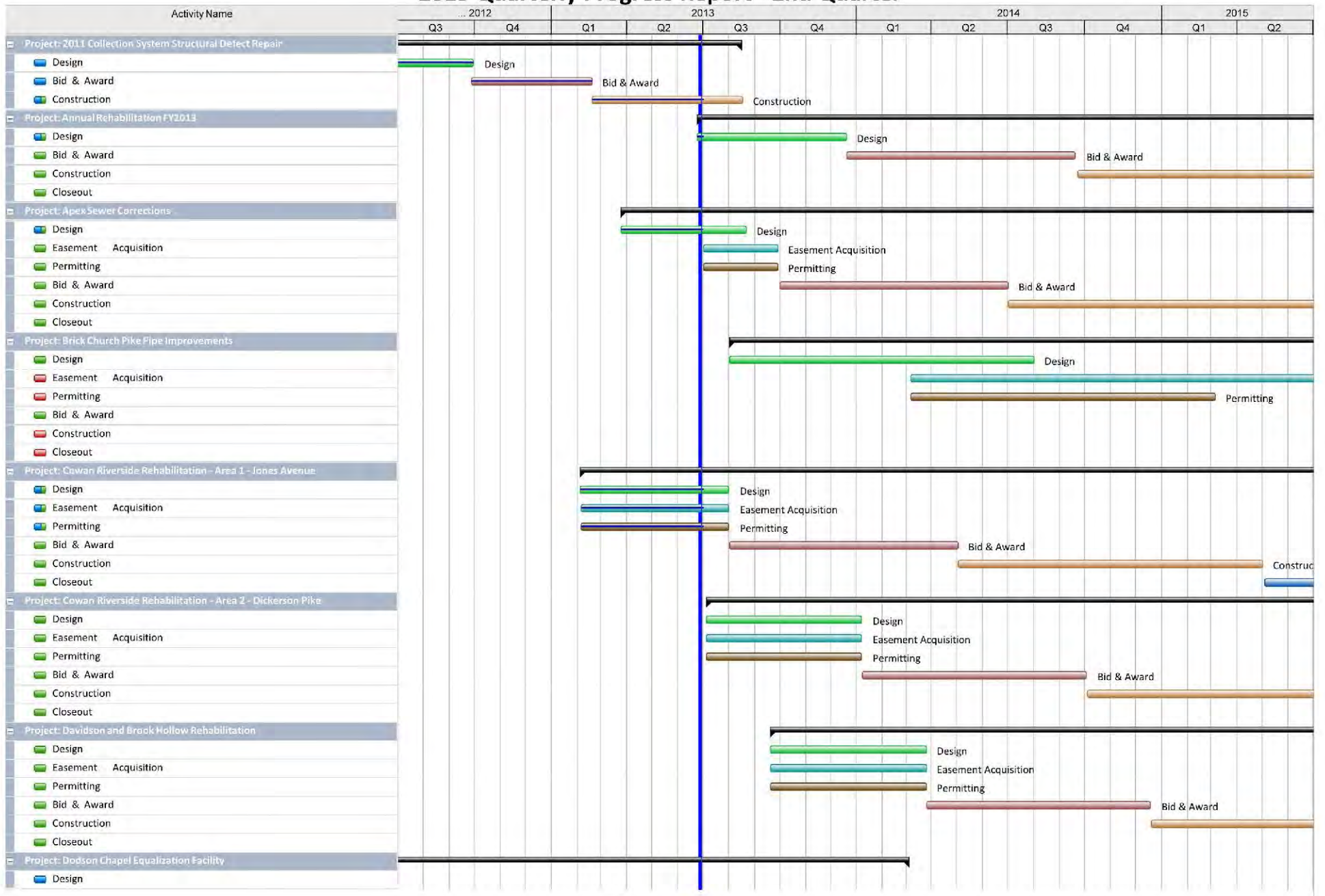
Event Start Date	Event End Date	Rainfall (inches)	Duration (hours)	Overflow Volume (MG)	Overflow Cause	Location Manhole ID	Location	Unpermitted Discharge	Building Backup
05-May-13	05-May-13	0.08	1.50	0.0001	Blockage	12009007	601 McDonald Ct	Yes	No
05-May-13	05-May-13	1.53	12.00	0.471	Rainfall	06915003	Whites Creek SPS	Yes	No
08-May-13	08-May-13	0.05	3.00	0.0001	Blockage	13409048	3521 Paragon Dr.	No	No
08-May-13	09-May-13	0.07	3.75	0.001	Blockage	14712013	4750 Nolensville Pk.	Yes	No
11-May-13	11-May-13	0.02	4.00	0.0001	Blockage	13215002CO	4280 Sidco Dr.	No	No
11-May-13	11-May-13	0.02	2.00	0.0001	Blockage	11902062	84 Peachtree St.	No	No
16-May-13	16-May-13	0.00	1.25	0.0001	Blockage	14803038CO	3326 Ezell Rd.	No	No
21-May-13	21-May-13	0.27	2.50	0.001	Blockage	16307016	O Bell Rd.	No	No
26-May-13	26-May-13	0.00	1.25	0.0001	Blockage	10408139	1211 Medical Center Dr.	Yes	No
27-May-13	27-May-13	0.00	3.50	0.001	Blockage	03113036	4375 Summertime Dr.	No	No
30-May-13	30-May-13	0.00	1.00	0.001	Blockage	07009014	3217 Lincoln Ave.	No	No
31-May-13	31-May-13	0.00	0.50	0.001	Blockage	18105008	6444 Nolensville Pk.	No	No
04-Jun-13	04-Jun-13	0.00	0.50	0.001	Line Break	08601134	Dodson Chapel SPS	No	No
12-Jun-13	13-Jun-13	0.00	6.50	0.001	Blockage	13316007	380 Harding Pl.	Yes	No
17-Jun-13	17-Jun-13	0.01	1.00	0.0001	Blockage	18101136	6412 Nolensville Pk.	No	No
19-Jun-13	19-Jun-13	0.00	6.50	0.0001	Blockage	16116006	613 Cedarhill Ct.	Yes	No
20-Jun-13	20-Jun-13	0.00	3.50	0.0001	Blockage	05006037	3813 Northbrook Dr.	Yes	No
27-Jun-13	27-Jun-13	0.00	1.75	0.0001	Blockage	06101021	575 Joyce Ln.	No	No

Appendix A

Schedule for Current and Upcoming Projects

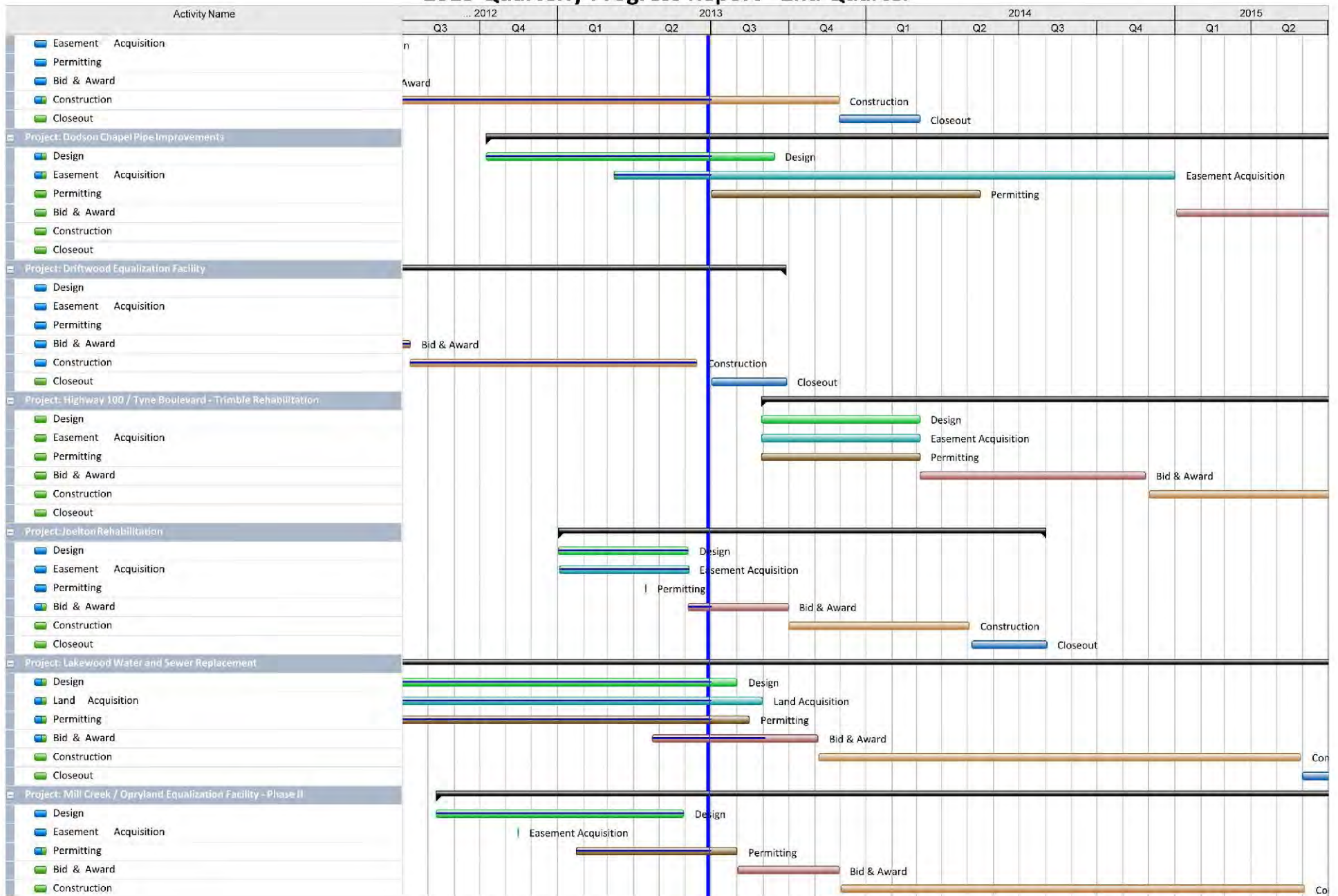
Nashville Overflow Abatement Program 2013 Quarterly Progress Report - 2nd Quarter

7/25/13



Nashville Overflow Abatement Program 2013 Quarterly Progress Report - 2nd Quarter

7/25/13



Nashville Overflow Abatement Program 2013 Quarterly Progress Report - 2nd Quarter

