METROPOLITAN GOVERNMEN

January 28, 2011

LE AND DAVIDSON COUNTY

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

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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 6th Floor, L & C Annex 401 Church Street Nashville, TN 37243

Re: DOJ Case No. 90-5-1-1-09000

Submittal of Quarterly Progress 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 October 1, 2010 through December 31, 2010.





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

Cyrus Q. Toosi, P.E.

Assistant Director / Chief Engineer

Engineering Division

Cc: Mr. David Tucker, Assistant Director, Operations

Mr. Gregory A. Ballard, P.E., Engineer 3

Mr. Thomas G. Cross, Associate Director, Metropolitan Department of Law

Metropolitan Government of Nashville and Davidson County, Tennessee

Department of Water and Sewerage Services

Consent Decree Quarterly Progress Report

October 1, 2010 through December 31, 2010

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.

Cyrus Q. Toosi, P.E., Assistant Director / Chief Engineer

1-28-2011

Date

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 as required by Section XIX.A. of the Consent Decree, Metro has prepared the enclosed Quarterly Progress Report.

As required by the Consent Decree, the report includes the following information:

- 1. A description of the work completed during the reporting period,
- 2. Quarterly Overflow Report,
- 3. The planned work for the upcoming quarter.

Work is defined as all activities Metro is required to perform under the Consent Decree and for the purposes of this Quarterly Progress Report includes the following:

- 1. Remedial measures for Sanitary Sewer Overflows (SSOs)
 - a. Corrective Action Plan/Engineering Report (CAP/ER) for SSOs
- 2. Capacity, Management, Operations and Maintenance (CMOM) programs
 - a. Spill and Overflow Response Plan (SORP)
 - b. Inter-Jurisdictional Agreement Program
 - c. Capacity Assurance Plan
 - d. Pump Station Operation Plan for Power Outages
- 3. Remedial Measures for Combined Sewer Overflows (CSOs)
 - a. Nine Minimum Controls (NMC) Compliance Plan
 - b. Long Term Control Plan (LTCP)
- 4. Supplemental Environmental Project (SEP)

The Quarterly Overflow Report includes the information required by the Consent Decree (date, location, duration, volume, cause of each overflow, indication of permitted overflow, and indication if cause was a building backup). Both SSOs and dry weather CSOs are required for the report.

In addition to the information required by the Consent Decree, the report also includes a status summary of all Design/Construction Projects required by the Consent Decree and continuation projects from the current Overflow Abatement Program (OAP).

This is the seventh Quarterly Progress Report required under the Consent Decree. The report covers the period from October 1, 2010 through December 31, 2010.

The first Quarterly Progress Report covering the period from March 12, 2009, through June 30, 2009, was publicized in the Public Document Repository (PDR) and submitted to EPA and TDEC on July 28, 2009.

The second Quarterly Progress Report covering the period from July 1, 2009, through September 30, 2009, was publicized in the PDR and submitted to EPA and TDEC on October 29, 2009.

The third Quarterly Progress Report covering the period from October 1, 2009, through December 31, 2009, was publicized in the PDR and submitted to EPA and TDEC on January 27, 2010.

The fourth Quarterly Progress Report covering the period from January 1, 2010, through March 31, 2010, was publicized in the PDR and submitted to EPA and TDEC on April 27, 2010.

The fifth Quarterly Progress Report covering the period from April 1, 2010, through June 30, 2010, was publicized in the PDR on July 27, 2010, and submitted to EPA and TDEC on July 28, 2010.

The sixth Quarterly Progress Report covering the period from July 1, 2010, through September 30, 2010, was publicized in the PDR on October 27, 2010, and submitted to EPA and TDEC on October 27, 2010.

<u>Section 1 – Summary of Work Completed During the</u> <u>Reporting Period</u>

Request for Force Majeure

On May 14, 2010, as a result of the flooding event that occurred in the Nashville area on May 1-2, 2010, Metro requested an extension of several Consent Decree deadlines. Following the requested submittal of additional information by Metro, EPA, in consultation with TDEC, granted Metro's requests. This included a six (6) month extension for the submission of the CAP/ER and the LTCP, as well as a twenty-four (24) month extension for completion of the work required in the CAP/ER and the LTCP. Final compliance with all terms in the Consent Decree must now be achieved on or before eleven (11) years after the approval or modification of either the CAP/ER or the LTCP, whichever comes later.

Remedial Measures for SSOs

CAP/ER

Progress this quarter: During the reporting period, Metro has continued to make progress towards completion of the CAP/ER for the separate sewer system (SSS). Workshops to discuss and select modeled alternatives to address capacity-related SSOs in the Whites Creek service area, the Dry Creek service area, and the Central service area were held. Refinements to the hydraulic models to assess alternatives continue. Site investigations to obtain additional information to support the alternatives analysis have been completed.

Consent Decree Completion Date: September 12, 2011

CMOM Programs

Spill and Overflow Response Plan

Progress this quarter: Changes included in the revised SORP that was approved on August 18, 2009, have been implemented. No revisions or modifications to the SORP were requested in 2010.

Consent Decree Completion Date: Prior to June 1 each year if revisions are necessary or modifications are desired to be considered.

Original Submittal Completion Date: May 4, 2007

1st Revision Completion Date: May 27, 2009

1st Revision PDR Publication Date: May 27, 2009

1st Revision Approval Date: August 18, 2009

Inter-Jurisdictional Agreement Program

Progress this quarter: Five of six wholesale agreement contracts have been negotiated. All five have received the required approvals including the approval of the Metropolitan Davidson County Council.

Consent Decree Completion Date: September 12, 2009

TDEC/EPA Submittal Date: September 4, 2009

PDR Publication Date: September 4, 2009

TDEC/EPA Approval Date: August 20, 2010

Capacity Assurance Program

Progress this quarter: The new Capacity Assurance Plan has been implemented since the Consent Decree has been entered and continues to be applied as a tool to track flows from new and existing customers to the SSS.

Pump Station Operation Plan for Power Outages

Progress this quarter: As of December 31, 2010, twenty-three (23) stationary backup generators have been installed. Automatic transfer switches at two sites where dual power feeds will provide backup power capabilities have been acquired, although they have not yet been installed. Planning for the remaining installations has continued.

Consent Decree Completion Date for Plan Submittal: December 12, 2009

TDEC/EPA Submittal Date: December 8, 2009

PDR Publication Date: December 8, 2009

TDEC/EPA Approval Date: August 20, 2010

Remedial Measures for Combined Sewer Overflows

NMC Compliance Plan

Progress this quarter: In accordance with the NMC compliance schedule, bids for construction of the solids and floatables controls at the Benedict & Crutcher and Schrader outfalls were advertised and will be received by Metro on January 7, 2011. Engineering design proposals have been solicited for modifications to the regulator structures at the Van Buren and 1st & Broadway outfalls. These modifications will results in all flows being sent to the wastewater treatment plant, thus eliminating these outfalls.

Consent Decree Completion Date: September 12, 2009

Original TDEC/EPA Submittal Date: September 4, 2009

Original PDR Publication Date: September 4, 2009

TDEC/EPA Approval in Part: April 26, 2010

TDEC/EPA Submittal Date for Revised Plan: May 25, 2010

TDEC/EPA Approval Date for Revised Plan: July 22, 2010

NMC Compliance Date (with exception of Washington CSO): January 6, 2012

NMC Compliance Date for Washington CSO: June 30, 2012

LTCP

Progress this quarter: Computer models simulating Cumberland River water quality and combined sewer system (CSS) hydraulics continue to be used to establish the potential impacts to the Cumberland River's water quality for each potential modification to the CSS. These model simulations are being conducted on both an individual outfall basis and collectively with all remaining permitted CSO locations in order to predict the frequency and extent of CSOs and resulting water quality outcomes for each feasible alternative. Preliminary costs have been identified for the various potential modifications to the CSO outfall locations.

At the December 2, 2010, meeting of the Citizens Advisory Committee, a history of water quality sampling and modeling activities on the Cumberland River and initial data on impacts to water quality for various improvements was presented, along with an update on the CAP/ER development.

In order to assist CAC members in carrying the LTCP program to their respective organizations, reaching an audience beyond the CAC, a video was prepared to educate the public on combined sewer systems. This video, in the form of a PowerPoint presentation with a voiceover from MWS's Overflow Abatement Program manager and our CAC Chairperson, has been aired multiple times on our government cable access channel and is available for viewing through our Consent Decree website.

Consent Decree Completion Date: September 12, 2011

Supplemental Environmental Projects

Progress this quarter: The SEP completion report was submitted to EPA and TDEC on December 7, 2010. A copy was also submitted to the PDR at that time.

Consent Decree Completion Date: December 31, 2010

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<u>Section 2 – SSOs and Dry Weather CSOs</u>

		, 2010
O Report) .) <u></u>	h December 31, 2010
Quarterly SSO		l, 2010 through
		October 1,

Event Start Date	Event End Date	Rainfall	Duration (hours)	Overflow Volume (MG)	Overflow Cause	Location Manhole ID	Location	Unpermitted Discharge	Building Backup
22-Nov-10	22-Nov-10	0.00	0.50	0.0001	Blockage	07507175	509 Dutchman Dr.	Yes	No
22-Nov-10	22-Nov-10	00:0	0.50	0.00001	Blockage	14614022	5111 Franklin Rd.	No	No
23-Nov-10	23-Nov-10	1.31	5.75	0.112	Rainfall	09011002	516 Basswood Ave.	Yes	No
25-Nov-10	27-Nov-10	69.0	2.25	0.05	Rainfall	09011002	516 Basswood Ave.	Yes	No
25-Nov-10	25-Nov-10	09:0	1.83	0.001	Line Break	17304060	Hickory Park Dr.	Yes	No
26-Nov-10	26-Nov-10	0.67	1.20	0.0001	Blockage	13101096	102 Chatsworth Dr.	Yes	No
28-Nov-10	28-Nov-10	00.0	2.00	0.00001	Blockage	14905113	4904 Pebble Creek Dr.	Yes	N _o
28-Nov-10	28-Nov-10	00:00	1.00	0.00001	Blockage	10505006	1405 12th Ave. S.	No	No
28-Nov-10	28-Nov-10	00.0	0.50	0.00001	Blockage	07116039	917 Blue Ridge Dr.	No	No
29-Nov-10	29-Nov-10	0.41	1.00	0.0001	Blockage	09306026co	127 3rd Ave. S.	No	Yes
30-Nov-10	01-Dec-10	1.89	34.34	5.499	Rainfall	06915003	Whites Creek SPS	Yes	No
30-Nov-10	30-Nov-10	2.08	1.00	0.001	Rainfall	05013010	3300 Briley Park Blvd.	No	No
30-Nov-10	30-Nov-10	2.56	9.00	0.01	Rainfall	15110038	Longhunter Chase SPS	Yes	No
30-Nov-10	30-Nov-10	2.36	6.50	0.001	Rainfall	11909113	2803 Foster Ave.	Yes	No
30-Nov-10	30-Nov-10	2.08	10.30	0.001	Rainfall	05010029	3438 Briley Park Blvd.	No	No
30-Nov-10	30-Nov-10	2.10	2.00	0.001	Rainfall	06201001	Holiday Travel Park SPS	Yes	No
30-Nov-10	30-Nov-10	1.98	7.20	0.05	Rainfall	05216026	Neelys Bend SPS	Yes	No
30-Nov-10	30-Nov-10	2.08	11.00	0.001	Rainfall	06001013	3258 Brick Church Pike	No	No
30-Nov-10	30-Nov-10	2.08	1.25	0.00001	Blockage	07108082co	502 Norton Ave.	No	Yes
30-Nov-10	30-Nov-10	1.98	12.25	0.1	Rainfall	05207007	Berwick Trail SPS / Center St.	Yes	No
30-Nov-10	30-Nov-10	2.10	14.50	0.001	Rainfall	09510050	501 Bismark Dr.	No	No
30-Nov-10	30-Nov-10	2.04	14.83	0.563	Rainfall	10210012	Davidson Branch SPS	Yes	No
30-Nov-10	30-Nov-10	1.50	0.75	0.00001	Blockage	03316032co	1105 Nelson Dr.	No	Yes
30-Nov-10	30-Nov-10	2.04	22.67	2.57	Rainfall	09011002	516 Basswood Ave.	Yes	No
30-Nov-10	30-Nov-10	1.98	5.50	1.143	Rainfall	05205001	Gibson Creek SPS	Yes	No
30-Nov-10	30-Nov-10	2.08	13.67	0.405	Rainfall	07114041	Cowan St. SPS	Yes	No
30-Nov-10	30-Nov-10	1.99	10.08	0.206	Rainfall	04312004	Vandiver SPS	Yes	No

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Quarterly SSO Report October 1, 2010 through December 31, 2010

Event Start Date	Event End Date	Rainfall	Duration (hours)	Overflow Volume (MG)	Overflow Cause	Location Manhole ID	Location	Unpermitted Discharge	Building Backup
30-Nov-10	01-Dec-10	2.10	15.67	0.258	Rainfall	08410007	149 Barker Rd.	Yes	No
01-Dec-10	01-Dec-10	00:0	0.50	0.0001	Blockage	09208067	319 15th Ave. N.	No	Yes
01-Dec-10	01-Dec-10	00.0	4.00	0.001	Blockage	18105008	6448 Nolensville Pk.	Yes	No
01-Dec-10	01-Dec-10	2.10	0.83	0.013	Rainfall	08601134	Dodson Chapel SPS	Yes	N _o
02-Dec-10	02-Dec-10	00:0	8.00	0.001	Blockage	08103009	1805 Hughes St.	No	No
02-Dec-10	02-Dec-10	00.0	3.00	0.001	Blockage	14307002	100 Harpeth Trace Dr.	No	N _o
08-Dec-10	08-Dec-10	00:0	2.50	0.0001	Blockage	06003042	3301 Creekwood Dr.	No	2
09-Dec-10	09-Dec-10	0.00	1.00	0.0001	Blockage	08115088	1412 22nd Ave. N.	No	S
11-Dec-10	13-Dec-10	1.21	22.50	1.317	Rainfall	09011002	516 Basswood Ave.	Yes	2
12-Dec-10	12-Dec-10	00:0	0.50	0.00001	Blockage	09206008	3013 Clare Ave.	Yes	§
12-Dec-10	12-Dec-10	1.07	13.00	0.499	Rainfall	06915003	Whites Creek SPS	Yes	2
14-Dec-10	14-Dec-10	0.00	0.92	0.19	Power Related	90080960	McCrory Creek SPS	Yes	No
14-Dec-10	14-Dec-10	00.0	0.45	0.0001	Blockage	09308057	508 Crutcher St.	No	No
16-Dec-10	17-Dec-10	0.34	3.00	0.138	Line Break	09011002	516 Basswood Ave.	Yes	N _o
16-Dec-10	16-Dec-10	0.57	0.50	0.001	Blockage	WLS74M025	203 Cobblestone Landing	Yes	No
17-Dec-10	17-Dec-10	00:0	3.00	0.0001	Blockage	10203126	5628 Meadowcrest Ln.	Yes	No
20-Dec-10	20-Dec-10	0.00	1.50	0.001	Blockage	13312096	3861 Scotwood Ave.	Yes	No
20-Dec-10	20-Dec-10	0.00	2.00	0.00001	Blockage	04901019	723 Willow Trace Dr.	No	S
21-Dec-10	21-Dec-10	00:0	1.00	0.001	Blockage	WLS52N227	511 Pin Oak Dr.	Yes	S S
21-Dec-10	21-Dec-10	0.00	3.00	0.001	Blockage	08601029	1412 Central Ct.	No	No
23-Dec-10	23-Dec-10	00:00	1.00	0.001	Blockage	16211019	1451 Bell Rd.	No	No
23-Dec-10	23-Dec-10	0.00	0.75	0.001	Blockage	13413008	95 Wallace Rd.	Yes	No
24-Dec-10	24-Dec-10	00:0	2.50	0.00001	Blockage	10414041	2607 Natchez Trace	Yes	S
30-Dec-10	30-Dec-10	00:00	3.00	0.00001	Blockage	05413024	100 Fields Dr.	No	No
31-Dec-10	31-Dec-10	0.00	1.50	0.00001	Blockage	07512235	759 Tulip Grove Rd.	No	No

	7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	Location	
Quarterly Dry Weather CSO Report October 1, 2010 through December 31, 2010		Overflow Cause	There are no dry weather overflows to report during this quarter.
ly Dry V 010 thro	Overflow Volume	(MG)	veather ove
Quarter ber 1, 2	Overflow Duration Volume	Rainfall (hours)	are no dry v
Octo		Rainfall	There
	Event End	Date	
	Event	Start Date	

Section 3 - Planned Work For Upcoming Quarter

Remedial Measure for SSOs

CAP/ER

Planned work for upcoming quarter: Evaluation of cost and non-cost factors affecting the selection of proposed improvements will continue, with proposed improvements anticipated to be chosen during this quarter. Prioritization and phasing of proposed improvements will continue, as will the preparation of the CAP/ER document itself.

Additional meetings are anticipated to be scheduled between Metro, EPA, and TDEC for coordination and communication during the upcoming quarter with the next meeting scheduled for February 9, 2011.

CMOM Programs

Spill and Overflow Response Plan

Planned work for upcoming quarter: Continue to operate under the revised SORP.

Inter-Jurisdictional Agreement Program

Planned work for upcoming quarter: Negotiations will continue with one remaining satellite community.

Capacity Assurance Program

Planned work for upcoming quarter: The new Capacity Assurance Plan will continue to be applied as a tracking / approval tool for new development / flow in the SSS.

Pump Station Operation Plan for Power Outages

Planned work for upcoming quarter: Metro will continue to move forward with planned improvements. The automatic transfer switches at two sites where dual power feeds provide backup power capabilities will be installed prior to the Consent Decree deadline of March 12, 2011. One additional generator is planned for installation, and one pump station where power-related SSOs have occurred is planned to be taken out of service by extension of a trunk sewer. However, if private property easement acquisition is not resolved at these two locations, mobile generators will be installed at the site until permanent easements can be obtained and work complete.

Remedial Measures for Combined Sewer Overflows

NMC Compliance Plan

Planned work for upcoming quarter: Construction of solids and floatable controls on the Benedict & Crutcher and Schrader outfalls will begin in accordance with the approved schedule,

following award from bids received on January 7, 2011. Design proposals for elimination of the Van Buren and 1st & Broadway outfalls will be received and design performed in the next quarter.

LTCP

Planned work for upcoming quarter: Use of the hydraulic and water quality models for alternatives analysis will continue. Costs and water quality benefits will be more fully developed for potential modifications. Additionally, assessment of alternatives by the CAC is expected to continue concurrent with additional public outreach. Water quality impacts of various alternatives will be presented and discussed with the CAC on January 27, 2011. Input received during this meeting will be used to develop the proposed LTCP project list.

Additional meetings are anticipated to be scheduled between Metro, EPA, and TDEC for coordination and communication during the upcoming quarter with the next meeting scheduled for February 9, 2011.

Supplemental Environmental Projects

Planned work for upcoming quarter: SEP projects have been completed, and the SEP completion report was submitted to EPA and TDEC on December 7, 2010. Metro anticipates receiving approval during the coming quarter.

Section 4 - Design/Construction Projects

		Projects Required by Consent Decree	nt Decree			
Project Number	Project Name	Project Description	Design Start Date	Design End Date	Construction Construction Start Date End Date	Construction End Date
97-5G-8- 2&3	Dry Creek Facilities Improvements	Improvements to existing WWTP for optimization of wet weather flows, solids handling, and odor mitigation	3/1/2004	11/19/2004	7/5/2005	12/4/2008
03-SC-136A	Barker Road / Omohundro EQ Basin	Construction of a 15 MG EQ Basin and Wastewater Pump Station (WWPS) for the Separate Sanitary Sewer System	2/23/2006	10/2008	2/2/2009	12/21/2009 (operational)

		Continuation Projects from Current OAP Program	t OAP Progr	am		
Project Number	Project Name	Project Description	Design Start Date	Design End Date	Construction Start Date	Construction End Date
94-SG-5F-1	Boscobel CSO – Village Court	Upsized CSS trunk sewer, rehabilitation of sanitary sewer, solids and floatable controls, and appurtenances	10/4/2005	7/1/2007	1/16/2008	10/27/2008
91-SC-36B	28 th Avenue North Sewer Rehabilitation Phases 1 & 2	Rehabilitation of sanitary sewer system	4/6/2006	8/30/2007	3/15/2008	3/12/2009
90-SC-75A	Hurricane Creek WPS Improvements	Replacement of pumps, controllers, and grinders at existing WWPS to improve reliability	12/1/2005	10/23/2006	11/12/2007	9/1/2008
05-SC-33	Basswood / West Park EQ Basin	Construction of a 10 MG EQ Basin and WWPS for the Separate Sanitary Sewer System	6/21/2006	10/2008	2/18/2009	11/17/2010

		Continuation Projects from Current OAP Program	t OAP Progr	am		
Project Number	Project Name	Project Description	Design Start Date	Design End Date	Construction Start Date	Construction End Date
94-SC-5B	Washington CSO Regulator	Construction of new replacement CSO Regulator to incorporate solids & floatables control and in system storage to reduce CSOs	12/18/2006	3/1/2010	12/1/2010	6/30/2012 (estimated)
90-SC-150H	Inglewood Sewer Rehabilitation Phase 4	Rehabilitation of sanitary sewer system	2/7/2006	10/30/2006	7/13/2009	1/8/2010
26-5S-66	Hermitage Area Sewer Rehabilitation	Rehabilitation of sanitary sewer system	8/2/2006	11/10/2006	7/13/2009	2/7/2010
06-SC-188	Whites Creek WWTP Disinfection / Optimization	Improvements to existing WWTP for optimization of wet weather flows and increased capacity of disinfection system	12/12/2008	10/30/2010	5/1/2011 (estimated)	7/1/2012 (estimated)
93-SC-34T	Whites Creek WWPS Design	Improvements to the Whites Creek WWPS, including a new WWPS and Force Main	11/15/2009	1st quarter 2011 (estimated)	2 nd quarter 2011 (estimated)	To be determined
06-SC-185	Mill Creek 36" Trunk Sewer Repair	Repair / Rehabilitation of Separated Sewer System	7/6/2007 Design r	007 10/6/2007 Design revisions	Notice to proceed to be issued January	6/15/2011 (estimated)
			9/1/2009	5/1/2010	2011	