Metropolitan Nashville and Davidson County

MS4 NPDES
Permit No. TNS068047

Annual Report
Permit Cycle 2, Year 8

November 2011

METRO WATER SERVICES STORMWATER

Pure Nashville ... right as rain.

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1.0 Introduction

Metropolitan Nashville Davidson County (Metro) was issued the second iteration of the Municipal Separate Storm Sewer System (MS4) permit in July of 2003. The permit extended for a term of 5 years, thus expiring in July of 2008. Since expiration of the permit, Metro initiated conversations with Tennessee Department of Environment and Conservation (TDEC) personnel to discuss reissuance of the MS4 permit and to determine what specific permit compliance activities should be undertaken during the expiration period. It was decided that Metro would continue to perform all permit items listed as ongoing or annual in the permit compliance schedule. In addition, it was discussed that Metro would at least initiate permit compliance activities such as field screening and industrial inspection, which had specific permit year completion dates.

For reporting purposes, the third year following permit expiration is referred to as Permit Year (PY) 8 in the following report. For purposes of this document, PY8 is the same timeframe as Fiscal Year (FY) 11.

Metro's Permit Compliance Approach

Each year there are numerous individuals and departments that work toward achieving overall MS4 Permit compliance. As a measure to ensure permit compliance within the various facets of Metro Nashville and Davidson County government, the National Pollutant Discharge Elimination System (NPDES) section was created to oversee all permit compliance activities. The NPDES section, within Metro Water Services (MWS) Stormwater Division, is responsible for not only performing specific permit requirements such as illicit discharge investigations, sampling, construction site inspections, etc., but is also responsible for coordinating with various other Metro departments to ensure permit compliance measures are being followed Metro-wide.

The following table is a list of individuals that contributed to specific permit compliance activities/information during PY8. For any questions regarding information represented in this report, all inquiries should be directed to the MWS NPDES Section at 1607 County Hospital Road, Nashville, Tennessee, 37218, Phone: 615-880-2420, Fax: 615-880-2425.

Table 1 - Contact List

Name	Agency	Position/Responsibility
Scott Potter	Metro Water Services	Director
John Kennedy	Metro Water Services	Assistant Director
Tom Palko	Metro Water Services	Assistant Director, Stormwater Division
Sonia Harvat	Metro Water Services	Public Information Officer
Julie Berbiglia	Metro Water Services	Public Education Specialist
Ricky Swift	Metro Water Services	Program Manager, Stormwater Remedial Maintenance Section
Roger Lindsey	Metro Water Services	Program Manager, Stormwater Development Review and Permitting
Angela Foster	Metro Water Services	Engineer, Stormwater Development Review and Permitting
Kimberly Hayes	Metro Water Services	Engineer, Stormwater Codes
Jennifer Hill	Metro Water Services	Administration Service Manager, Stormwater Maintenance Division
Michael Hunt	Metro Water Services	Program Manager, Stormwater NPDES Section
Bonnye Holt	Metro Water Services	Office Support Representative, Stormwater NPDES Section
Dale Binder	Metro Water Services	Construction Inspection Manager , Stormwater NPDES Section
Harold Bryant	Metro Water Services	Construction Site Inspector, Stormwater NPDES Section
Shawn Herman	Metro Water Services	Construction Site Inspector, Stormwater NPDES Section
Katherine O'Hara	Metro Water Services	Construction Site Inspector, Stormwater NPDES Section
Denice Johns	Metro Water Services	Construction Site Inspector, Stormwater NPDES Section
Phil Sadd	Metro Water Services	Construction Site Inspector, Stormwater NPDES Section
Dr. Steve Winesett	Metro Water Services	Watershed Manager, Stormwater NPDES Section
Megan Stallard	Metro Water Services	Water Quality Inspector, Stormwater NPDES Section
Michelle Barbero	Metro Water Services	Water Quality Inspector, Stormwater NPDES Section
Rebecca Dohn	Metro Water Services	Water Quality Inspector, Stormwater NPDES Section
Josh Hayes	Metro Water Services	Water Quality Inspector, Stormwater NPDES Section
Sonya Erickson	Metro Water Services	Water Quality Inspector, Stormwater NPDES Section
Mary Bruce	Metro Water Services	Water Quality Inspector, Stormwater NPDES Section
Mark Macy	Department of Public Works	Assistant Director - Engineering Division
David Himes	Department of Public Works	Assistant Director - Operations Division
Donna Ryman	Department of Public Works	Solid Waste Division
Clayton Hand	Department of Public Works	Engineer, Solid Waste Division
Mike Ryman	Department of Public Works	Technician Specialist Hazardous Materials Spill Response
Wayde Hill	Codes Department	Chief Plans Reviewer
Joey Hargis	Codes Department	Zoning Administrator
Anita McCaig	Metro Planning Department	Planner
Spencer Hissam	Metro Public Health Department	Septic System Oversight
Steve Crosier	Metro Public Health Department	Restaurant Inspection
Greg Ballard	Metro Water Services	Overflow Abatement Program Manager
Jim Paulus	Metro Water Services	System Services Overflow Response Program Manager
Bob Parrish	Metro Parks Department	Parks and Recreation Superintendent
Heidi Mariscal	Mayor's Office of Emergency Management	Spill Response Coordinator
Bill Malcolm	Metro Office of Fleet Management	Fleet Services Manager
Hugh Garrison	Metro Water Services	Laboratory Superintendent
Andy Welch	Metro Water Services	Pre-treatment/FOG program
Anna Kuoppanmaki	Metro Water Services	GIS Analyst, Stormwater NPDES Office

The following list is a description of commonly used acronyms throughout the document:

BMP	Best Management Practice
DRP	Development Review & Permitting
EMC	Event Mean Concentration
EPA	Environmental Protection Agency
EPSC	Erosion Protection and Sediment Control
FOG	Fats, Oils, and Grease
GIS	Geographic Information System software
GP	Grading Permit
HHW	Household Hazardous Waste
LID	Low Impact Development
MEP	Maximum Extent Practicable
MDPW	Metro Department of Public Works
MHD	Metro Health Department
Metro	Metro Nashville, Davidson County
MNPS	Metro Nashville Public Schools
MS4	Municipal Separate Storm Sewer System
MWS	Metro Water Services
NOV	Notice of Violation
NPDES	National Pollutant Discharge Elimination System
OEM	Mayor's Office of Emergency Management
PIO	Public Information Officer
PY	Permit Year
ReM	Stormwater Remedial Maintenance Section
RoM	Stormwater Routine Maintenance Section
SSD	System Services Division
SWAC	Stormwater Advisory Committee
SWMP	Stormwater Management Plan
SWO	Stop Work Order
TDEC	Tennessee Department of Environment and Conservation
TMSP	Tennessee Multi Sector Permit for Industrial Stormwater Discharges
TWRA	Tennessee Wildlife Resource Agency
USACOE	U.S. Army Corps of Engineers
USFWS	United States Fish and Wildlife Service
WMD	Waste Management Division

2.0 Stormwater Management Program Evaluation

2.1 Objective of the Program

The objective of the Stormwater Management Program is to implement specific pollution prevention programs designed to improve the quality of Metro's water resources to the Maximum Extent Practicable (MEP). This leads to an overall goal of achieving water quality improvements in every Metro stream reach included on TDEC's 303(d) list of impaired streams to the point where streams can be de-listed. During the first two MS4 permit cycles, Metro implemented major programs to target the various sources of Stormwater pollution (i.e. construction sites, industrial sites, commercial sites, residential sites, etc.). Overall, the implementation of these control programs has worked to reduce and minimize pollutants from entering streams from the MS4 drainage system.

2.2 Major Findings

Each year there are fewer and fewer major discoveries of pollution to the MS4 drainage, much of which can be contributed to a long term implementation of the core pollution prevention programs described further in this document. Some of the more notable findings impacting water quality of the MS4 and Metro streams during PY8 are described in the following paragraphs:

2.2.1 Cross-Connection of Sewage to Stormwater

While conducting storm drain mapping/delineation in an old section of town surrounding the Combined Sewer System (CSS), NPDES staff observed an unusual sewage-type discharge into a newly mapped storm drain. NPDES performed dye tracing of sanitary sewer lines from the surrounding buildings and found a large, older building with an improper cross-connection of sanitary wastes to the storm sewer system. A Notice of Violation (NOV) was issued to the site that required the facility to properly re-plumb the facility's waste water discharge to the sanitary sewer.

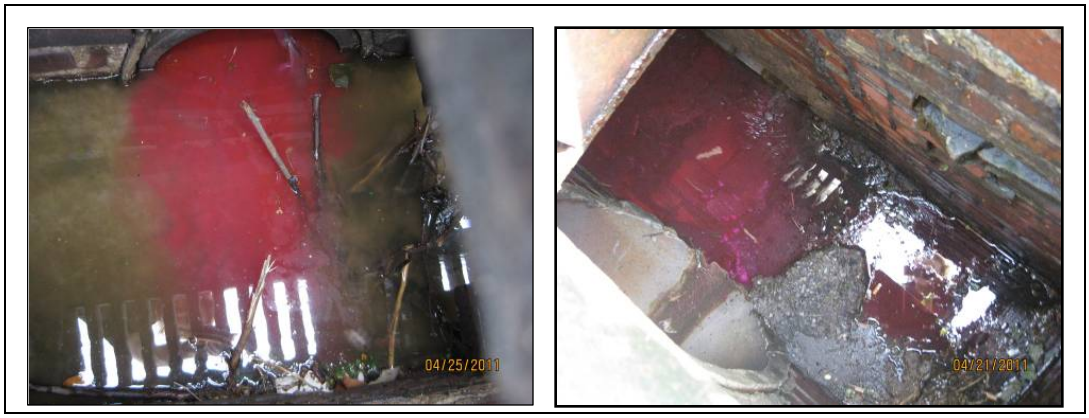

Figure 2.2.1 Dye Tracing Depicting the Cross-connection of Sanitary Sewage to a Storm Drain

2.2.2 Illicit Discharge of Private Sewage into a Small Creek

NPDES was notified by the MWS Pretreatment Program of a private sanitary sewer service line that had ruptured and was losing sewage material into an area creek. NPDES quickly worked to coordinate with the industrial facility to develop a plan to bypass sanitary sewer flows around the leaking structure, while the repairs were performed to the line. The plan implementation resulted in minimal impacts of sewage discharging to the creek.

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Figure 2.2.2 Photo of the Private Sanitary Sewer Lateral Line Rupture

2.2.3 Industrial Illicit Discharge Found During Routine River Sampling Run

MWS Pretreatment personnel were performing their normal river sampling activities, when they observed an extremely black-colored discharge into the river. The discharge was flowing into the river at the same location that an industrial facility normally discharges permitted non-contact cooling water. On this occasion, however, the discharge was unusually black in color and was resulting in a small plume extending down the edge of the Cumberland River. Once notified by the MWS Pretreatment Section, NPDES personnel quickly responded and determined the discharge to be the result of an illicit pumping of water treatment tank sludge to the open ground, which was ultimately draining into the normal process water discharge ditch. The NPDES office notified the facility to cease the discharge. TDEC personnel were also notified of the discharge and the NPDES office pursued enforcement by issuing an NOV with an administrative penalty. As a result of NPDES' investigation, TDEC coordination, and subsequent enforcement, the discharge was halted and all exposed material on the ground was contained until proper remediation activities could be performed.

Water treatment sludge being pumped to the ground.

Sludge discharged to channel that discharged to the river.

Figure 2.2.3 Photos of the Industrial Illicit Discharge Implemented

2.2.4 Construction Illicit Discharge Found During Routine Inspections

During a normal wet weather inspection of a grading permit site, NPDES personnel observed a large illicit discharge of sediment draining into the MS4 system. The construction site was an abandoned subdivision that was taken over by the financing bank. When the site was abandoned, soil was left exposed and sediment controls were left without maintenance. NPDES issued an NOV to the bank and worked with them to perform stabilization of the site in order to prevent future sediment discharges during rain events.

Unfortunately, as the economy slowed down, abandoned development projects have increased. NPDES has been working diligently with area developers and financial institutions to ensure sites that have been abandoned are stabilized until a new owner re-initiates construction.

Figure 2.2.4 Photos of the Illicit Discharge from Grading Permit Site

2.2.5 Spill Response Investigation

NPDES personnel were notified by the Mayor's Office of Emergency Management (OEM) of a petroleum spill from a downtown Nashville business. Upon investigating the spill, it was determined that a 55 gallon drum of used motor oil stored near the loading dock was ruptured by a tractor trailer backing up to offload freight. NPDES worked with the business to initiate immediate containment and clean-up measures. The local business hired an outside environmental clean-up firm that remediated all lost material, including oil lost to surrounding pavement, soil, and storm drains.

Figure 2.2.5 Photos of Petroleum Spill

2.2.6 Major Sanitary Sewer Overflow Response

NPDES was notified by the MWS System Services Section that a major overflow had occurred in a sewer main causing large amounts of sewage material to be lost to a small creek. NPDES coordinated with TDEC and MWS to develop and implement a large-scale remediation effort to remove as much sewage as possible from the creek. MWS installed two large containment berms within the channel and flushed the sludge to the berms, where vacuum trucks collected and transferred the waste to a near by sanitary manhole . MWS had numerous crew members literally sweep the sludge to the containment berms. All remediation activities were coordinated with TDEC.

Figure 2.2.6 Photos of the Sewer Overflow Remediation Work

2.3 Major Stormwater Management Program Accomplishments

MWS has continued to facilitate major accomplishments in development of the overall Stormwater Management Program. Particular accomplishments performed in recent years are listed below:

1. In the previous years, a dedicated funding source in the form of a stormwater user fee was passed by Metro Council, which became effective on July 1, 2009. In PY7 and PY8, MWS Stormwater staff spent an extensive amount of time responding to inquiries from the general public concerning the new stormwater user fee, generating and distributing bills, and working through first-time billing discrepancies. The stormwater user fee is assessed on all residential and non-residential properties within Metro. The user fee revenue is dedicated to funding the operations of the MWS Stormwater Division, which includes certain stormwater maintenance activities, engineering activities, and water quality programs. The first year of performing stormwater user fee billing has been successful in generating a dedicated secure funding source. More information on the stormwater fee can be found at the Clean Water Infrastructure Program Website: http://www.nashville.gov/water/cwip/stormwater_fee.asp

2. During much of PY8, normal program duties for many Stormwater personnel were augmented to include flood response/mitigation activities. On May 1st and 2nd 2010, Nashville and the surrounding Middle Tennessee communities received record rainfall totaling 13.5 inches over two days. Many of the priorities of MWS Stormwater engineers and maintenance personnel shifted toward mitigating flood damage. As a result of the efforts, hundreds of stormwater infrastructure repair/cleaning

projects were generated, many homes were identified for the Federal Emergency Management Agency (FEMA) home buyout program, and thousands of building permit applications for properties wishing to rebuild in the floodplain were reviewed. In PY8, the Stormwater Remedial Maintenance Division worked diligently to determine which projects would qualify for FEMA reimbursement and began designing and applying for permits for numerous flood mitigation projects. Some of the more-emergency driven maintenance projects were completed in PY8.

Also in PY8, MWS Stormwater was very active in identifying homes that were flooded that could potentially qualify for the FEMA home buyout grant program. MWS Stormwater has been participating in the FEMA buyout program for several years prior to the flood, however, after this event, an increased emphasis was placed on the program. Since MWS began participating in the home buyout program, Metro has purchased 148 homes and demolished more than 93 homes. Demolishing homes is a complicated process, as, in many instances, MWS is required to hire an outside contractor to perform asbestos and other hazardous material abatement prior to demolition. Many of the properties that have been bought out are situated in the same floodplain adjacent to each other, therefore, large continuous tracks are being acquired for floodplain improvements/preservation. Once the homes are removed, natural floodplains will be restored and maintained as community open space. Elimination of these homes results in a reduction in the amount of impervious area within each floodplain.

Figure 2.3.1 Examples of Floodplain Buyout Demolition/Stabilization Process

4. In anticipation of more-stringent stormwater infiltration requirements by the EPA on MS4 permits, Metro Nashville. began creating a new volume (Volume V) of the Stormwater Management Manual in PY8. The new Volume V will be dedicated to providing specifications for Low Impact Design (LID) techniques and will also provide incentives for using such techniques. NPDES hired a contractor and devoted an extensive amount of resources developing this volume. NPDES, through help from the consultant, facilitated numerous stakeholder meetings during the manual development. The LID manual is expected to become official during PY9.

2.4 Enforcement Documentation

Enforcement documentation is an important component of the overall Stormwater Management Program. MWS Stormwater has a comprehensive enforcement program that includes the issuance of NOVs, Stop Work Orders (SWOs), and administrative penalties. MWS Stormwater also reserves the right to take noncompliant sites to environmental court if NOVs and SWOs fail to bring a site into compliance or are not appropriate for a particular situation. During PY8, Metro issued 120 NOVs, 28 SWOs, and initiated 11 Environmental Court proceedings.

2.5 Overall Program Strengths

Understanding the program's strengths and weaknesses is necessary in maintaining a successful Stormwater Management Program. When strengths and weaknesses are identified, strong points can be featured as the program foundation and weaknesses can be addressed and improved upon each permit year.

One obvious strength of Metro's NPDES Program is the ongoing commitment from the Mayor and the MWS Director to not only meet the minimum requirements of the MS4 permit, but to also improve Metro waterways for future generations. This is demonstrated by MWS' efforts to make the NPDES program activities known throughout Metro and to deploy whatever resources are necessary to identify and eliminate sources of pollution to the community waters. This continues to result in cross-departmental cooperation for the protection and improvement of stormwater quality. Interdepartmental communication within Metro concerning stormwater issues has increased each year of the NPDES Program's existence.

2.6 Overall Program Weaknesses

MWS consistently prioritizes and examines how to best achieve both our permit objectives and community benefits. The stormwater quality program continues to make necessary changes and improvements to benefit Metro Nashville/Davidson County. However, in the current state of our program, some areas of weakness do exist. The NPDES Office has identified the following items as areas in which improvements can be made:

Currently, as described in the MS4 permit, Metro is required to inspect industrial facilities classified as: municipal landfills, hazardous waste treatment, storage and disposal facilities, industries under SARA Title III, Section 313, and facilities that MWS determines to be substantial loaders to the MS4. These categories only represent a fraction of the more than 150 Tennessee Multi-Sector Permitted (TMSP) industrial sites within Davidson County. NPDES has determined that many of the SARA Title III, Section 313 sites have "no-exposure certification" with virtually no potential for contaminated stormwater runoff, while other sites, not within the above-mentioned categories, actually pose a greater threat to discharging contaminated stormwater. NPDES is currently pursuing other avenues with TDEC for the next permit cycle that will allow NPDES to refine the industrial inspection program to focus more on sites with industrial processes and related pollutants being exposed to stormwater. This in turn would provide NPDES an enhanced ability to require inspected sites to perform compliance measures.

MWS Stormwater's long-term plan is to employ a full time inspector dedicated to inspecting and enforcing best management practices (BMPs) such as detention ponds, underground water quality units, etc. As it currently stands, MWS only has the resources necessary to inspect a percentage of the BMPs installed around the county. BMP inspections have been prioritized to look at the underground water quality structures first, as those have been determined to have the highest amount of maintenance issues. MWS Stormwater is also working to create a better system to map BMPs installed around the county and track their maintenance status. MWS is working to improve the BMP mapping/maintenance database so future pollutant loading estimates can factor in stormwater BMPs.

In addition to the lack of quality BMP data, the NPDES wet weather sampling program data has not proven to be particularly useful in calculating Event Mean Concentrations (EMC) for the pollutant loading estimates. NPDES will be working to change the wet weather sampling program to hopefully yield results that can be statistically analyzed to determine EMC values for future loading estimates based on specific land use types.

2.7 Future Direction Of The Program

The MWS Stormwater NPDES Section continues to define its role in the governmental/regulatory community of Metro Nashville. Communication between governmental agencies has greatly improved and water quality partnerships have been established with other Metro Departments such as Parks/Greenways and Metro Nashville Public Schools (MNPS). Open and direct communication is key to these partnerships and to the improvement of stormwater quality in the future. Metro envisions future oversight and educational programs being implemented that will further enhance the community's awareness (public and private) of Stormwater issues so that long-term behavioral changes will occur that benefit water quality in and around the Nashville community.

In a further effort to evaluate the direction of the MS4 program, Metro Nashville invited representatives from the stormwater agencies for the city of Charlotte and Mecklenburg County, North Carolina to present details of their program to Metro staff. Charlotte/Mecklenburg County implemented the stormwater user fee as a funding source many years prior to Nashville's user fee implementation. As a result, the Charlotte/Mecklenburg County program has achieved great strides in developing specific water quality improvement projects, building up robust staffing levels, and regulating floodplain development. Metro Nashville received valuable information from Charlotte that will be used in any future expansion of the MS4 program.

3.0 Overall Permit Compliance Summary

The following table lists the specific permit requirements, compliance schedule, and Metro's approach to achieving overall permit compliance. Much of the supporting information for each permit requirement can be found in Appendix A or Appendix B.

Table 2 - Overall Permit Compliance Summary Table

Element	Activities	Compliance Schedule	Responsible Department	Responsible Person(s)	Description of Permit Compliance Activities	Permit Year (PY) 8 Data/Activities
1. Structural Storm Water Controls and Collection Systems						
A	**Update storm water inventory Geographic Information System (GIS)**					
	For areas of new development	Ongoing – up to date by end of PY 4 (July 1, 2007)	MWS	Anna Kuoppamaki	MWS Stormwater staff enters MS4 changes/additions performed by development and significant redevelopment projects through the digitization of approved grading plans. MWS Stormwater hired a contractor to assist in performing updates of a backlog of grading permit plans. It is Stormwater's goal to update GIS within 9 months of each project's completion.	In PY8, changes from development were updated into GIS within the 9 month window of when the project is completed and signed off.
	For areas of significant redevelopment		MWS	Anna Kuoppamaki		
	For Metro construction projects		MWS & MDPW	Anna Kuoppamaki	Many large Metro Construction projects obtain grading permits, in which updates to the MS4 will be depicted on the grading plans. For other Metro Projects that alter MS4 infrastructure, NPDES continues to work on processes to ensure updates are properly submitted to the GIS database editor. A system using Cityworks entries is now being used.	
	For newly created MS4 areas per Metro Water Services records on CSS separations		MWS	Anna Kuoppamaki	MWS hired a consultant to perform field collection of the areas surrounding the Combined Sewer System (CSS) for which the boundary has been refined since the MS4/CSS initial inventory was completed in 1997-2000.	In PY8, NPDES office personnel visited areas inventoried by the consultant surrounding the CSS. In doing so, there were several areas surrounding the CSS in which the ultimate drainage destination was unclear. NPDES performed dye trace investigations to determine ultimate drainage destination (i.e. MS4 or CSS). The NPDES contractor was also hired in PY8 to inventory all stormwater infrastructure within the CSS in case future separation projects occur.

Element	Activities	Compliance Schedule	Responsible Department	Responsible Person(s)	Description of Permit Compliance Activities	Permit Year (PY) 8 Data/Activities
B	**Existing System Maintenance**					
	As identified by complaints	Ongoing	MWS	Jennifer Hill	MWS Stormwater Routine Maintenance (RoM) utilizes Cityworks as a service request/work order database to track all routine maintenance projects. All service request/invoice records are available upon request.	**Table 1-B.1** (Routine Maintenance PY8 Projects)
	As identified through NPDES MS4 activities		MWS	Michael Hunt	When MWS NPDES inspectors encounter areas that need critical maintenance, issues are forwarded to RoM.	
	Focused on public infrastructure and private infrastructure that directly and significantly impacts public infrastructure as determined by MWS		MWS	Ricky Swift	MWS Stormwater (Remedial Maintenance (ReM) investigates, prioritizes, and eventually designs and oversees large drainage system rehabilitation projects that sometime involve work on private property.	During PY8, ReM completed several large-scale drainage maintenance/rehabilitation projects. ReM also completed hundreds of flood follow-up drainage complaint investigations. Since the May 2010 flood, ReM's workload dramatically increased to include flood mitigation efforts to restore storm-damaged infrastructure.
C	**Inspections**					
	Dry Creek detention facility	1/quarter	MWS	Jennifer Hill	MWS RoM performs inspections and necessary maintenance. All inspection and maintenance work is documented in the Cityworks database.	**Table 1-C.1** (Dry Creek Inspection/Maintenance)
	Any other identified Metro-operated facilities		MWS	Jennifer Hill	MWS RoM performs inspections/maintenance on the canal system and pump at Metro Center, which primarily functions as a flood control structure, but additionally functions as a wet detention pond.	All inspection and maintenance activities are logged into the Cityworks database and are available upon request.

Element	Activities	Compliance Schedule	Responsible Department	Responsible Person(s)	Description of Permit Compliance Activities	Permit Year (PY) 8 Data/Activities
D	**Training**					
	Key inspection and maintenance staff in MWS and other Metro departments	PY 2 and 4	MWS	Michael Hunt	MWS NPDES has given numerous presentations to key maintenance staff on water quality issues. NPDES purchased a video produced by Excal Visual, titled: "Municipal Storm Water Pollution Prevention". The video is geared toward training municipal employees on maintenance issues and water quality.	In PY8 NPDES showed the stormwater video to Metro Schools maintenance contractor. Metro inspectors and engineers attend various training classes, workshops, conferences, and seminars each year that relate to stormwater issues. For example, in PY8 certain NPDES inspection staff attended the EPA workshop in Jackson, Tennessee on Inspection Documentation.
	Cross-train key inspection and maintenance staff in water quality issues		MWS	Michael Hunt		
	Train inspection / maintenance staff about changes in process and/or procedure		MWS	Michael Hunt		
E	**Maintenance Procedures**					
	Review for changes that will benefit water quality	PY 2 and 4	MWS	Michael Hunt	MWS NPDES works with other Metro departments on a routine basis to avoid/minimize water quality impacts from municipal maintenance activities.	In PY8, NPDES continued to be a resource for other Metro departments such as MWS SSD and the MWS Stormwater RoM crews to ensure maintenance activities do not impact the quality of surface water runoff.
F	**Housekeeping Programs**					
	Solid waste disposal	Ongoing	MDPW	Donna Ryman	Metro Department of Public Works, Waste Management Division (MDPW-WMD) oversees all solid waste disposal activities in the county.	**Table 1-F.1** (Solid Waste Disposal Numbers)
	Litter control		MDPW	Donna Ryman	MDPW-WMD publishes educational materials explaining the impacts of illegal dumping and litter. MDPW-WMD actively inspects and enforces on illegal dump sites.	
	Leaf collection		MDPW	Donna Ryman	MDPW-WMD collects residential leaves/brush at certain times of the year. http://www.nashville.gov/Recycle/brush.asp	
F	Public Information (per PI&E element)		MDPW	Donna Ryman	MDPW-WMD distributes various public information materials regarding proper solid waste disposal. MWS NPDES also distributes public education materials that discuss illegal dumping and disposal.	Public information materials are available upon request. Also, refer to previous annual reports and the Metro Public Works website: http://www.nashville.gov/pw/

Element	Activities	Compliance Schedule	Responsible Department	Responsible Person(s)	Description of Permit Compliance Activities	Permit Year (PY) 8 Data/Activities
G	**Storm water detention / retention facilities**					
	Develop detailed electronic information using existing GIS-based databases	PY 2	MWS	Rebecca Dohn	MWS-NPDES tracks BMP inspections through an internal database and is in the process of reconciling differences with the city-wide KIVA database and mapping all BMP locations via GIS.	**Table 1-G.1** (Summary of BMP Inspection Status)
	Develop system to update database on an ongoing basis given new development, inspections, or other available data		MWS	Rebecca Dohn	MWS-NPDES performs routine updates to the database, based on new development and redevelopment.	
	Evaluate the need and feasibility for long-term, post-construction, private detention/retention facility inspection to help ensure proper maintenance procedures		MWS	Rebecca Dohn	MWS-NPDES has deemed it necessary to continue inspections/enforcement of privately-owned BMPs. Long-term plans include employing a dedicated BMP inspector.	
	Public Information (per PI&E element)		MWS	Rebecca Dohn	MWS-NPDES sent out numerous educational flyers in the past and continues to educate individual sites during inspections and follow-up enforcement/ correspondence.	

Element	Activities	Compliance Schedule	Responsible Department	Responsible Person(s)	Description of Permit Compliance Activities	Permit Year (PY) 8 Data/Activities
2. New Development and Significant Redevelopment						
A	**Ordinances, Regulations and Guidance**					
	Enforce existing ordinances and regulations intended to limit long-term water quality impacts from new construction and significant redevelopment	Ongoing	MWS	Michael Hunt	Metro has comprehensive stormwater management ordinances in place. The MWS NPDES Section enforces on the majority of stormwater code violations.	**Table 2-A.1** (Program Enforcement Summary) **Table 2-A.2** (Monetary Penalty Assessments)
	Evaluate guidance materials to ensure that they are up-to-date with the current state of technology and reflect local plan review and site inspection experiences	PY 2 and 5	MWS	Michael Hunt	MWS Stormwater has performed numerous revisions to the Stormwater Management Manual, which is updated periodically to reflect changing technology and regulations.	Latest stormwater regulations available at the following website: http://www.nashville.gov/stormwater/regs/index.asp
	Public Education (per PI&E element)	Ongoing	MWS	Michael Hunt	MWS NPDES and the Development Review and Permitting have conducted numerous meetings with stakeholder groups on stormwater regulations. MWS stormwater implemented the Stormwater Advisory Council (SWAC), which meets periodically with the development community to discuss stormwater issues.	There were 4 SWAC meetings held in PY8. In an effort to promote Low Impact Development (LID) among the development community, the NPDES office solicited stakeholder input the development of the new Volume V of the Stormwater Management Manual. For more information on LID promotion throughout Metro, visit the following site: http://maps.nashville.gov/LID_Sites/

Element	Activities	Compliance Schedule	Responsible Department	Responsible Person(s)	Description of Permit Compliance Activities	Permit Year (PY) 8 Data/Activities
B	**Best Management Practices (BMPs)**					
	Report any BMP monitoring data collected by/for Metro	Annually	MWS	Rebecca Dohn	MWS-NPDES has not performed any BMP monitoring in recent years. MWS continues to review BMP monitoring data submitted by manufacturers seeking approval for use of their proprietary stormwater quality units in Metro Nashville.	In PY8, the Metro Parks Department renovated the McCabe Community Center. As part of the renovations, a green roof was installed. The NPDES Section has also been working with the Cumberland River Compact to administer the Supplemental Environmental Program with goals of facilitating the planting of 10,000 trees and the installation of 300 rain gardens. NPDES assisted the Cumberland River Compact on several tree planting projects throughout PY8.
	Report regional facility considerations/activity by/for Metro		MWS	Michael Hunt	Metro has not identified any potential regional BMPs deemed feasible to install.	
	Report BMP retrofitting considerations/activity by/for Metro		MWS	Rebecca Dohn	MWS-NPDES promotes retro-fitting BMPs to other departments and has worked with other departments on potential retrofits.	
C	**Master Planning**					
	Water quality issues report to Planning Commission	PY 2	MWS	Michael Hunt	Nashville's Planning Department focuses on sustainable development as described in the Community Character Manual, encouraging sustainable development and preservation in the county's fourteen community plans that guide future land use and infrastructure decisions. A foundation of the Community Character Manual is the commitment to create sustainable communities through sustainable development. Key components of the manual's guiding principles include actions to address site location, avoiding sensitive environmental features, which benefits the community by protecting water quality and reducing the impact of development on surrounding infrastructure and the community through the use of best practices in stormwater and wastewater management. In addition, the Community Character Manual includes objectives of the EPA and Metro Nashville's Stormwater Management Program, such as encouraging green infrastructure, minimizing and/or recovering floodplain loss, and retaining natural stream buffers.	In the recent community plan update for Bellevue, special land use policies have been included to address conservation of sensitive floodplain land and stormwater management, including Low Impact Development techniques and floodplain remediation of previously developed sites. As part of this plan update process, the Planning Department has been working with Metro Stormwater to include additional Low Impact Development techniques for stormwater management and to create a comprehensive open space network that provides recreation, transportation, and stormwater management benefits for the community while providing some protection for tree cover, steep slopes, wetlands and floodplain areas. In PY8, NPDES provided an increased role in reviewing Planning Department re-zoning applications for any stormwater concerns. In some cases, the Planning Department would withhold approvals until an outstanding stormwater issue was resolved.

Element	Activities	Compliance Schedule	Responsible Department	Responsible Person(s)	Description of Permit Compliance Activities	Permit Year (PY) 8 Data/Activities
C	Report water quality evaluations performed as part of new water quantity master planning efforts	PY 2	MWS	Michael Hunt	In 2006, MWS began to initiate watershed specific monitoring programs for the purpose of developing targeted pollution prevention strategies for each watershed. The goal of the program is to improve specific impaired reaches of streams to the point they could be considered for de-listing from the 303(d) list of impaired streams. Watershed-specific monitoring programs include such activities as thermograph investigations, stream walks, the TMDL sampling program, etc. The initial focus of the monitoring programs were on bacterial inputs to the streams. Future monitoring will take into account other impairments such as sediment, nutrients, etc. All data collected in the past couple of years will be analyzed and incorporated in future master planning efforts such as large sanitary sewer rehabilitation projects.	**Table 2-C.1** (Watershed Monitoring Programs)
	Report regional water quality practices, evaluations performed in any master planning activities	PY 2 and 5	MWS	Steve Winesett		
	Report watershed prioritization changes	PY 2	MWS			
	Report water quality master planning performed per prioritized watersheds as fiscal resources allow		MWS			
D	**Training**					
	Educate "Grading Permit" plan reviewers and site inspectors on latest techniques and management practices to address long-term water quality, lessons learned, etc.	Annually	MWS	Michael Hunt/Roger Lindsey	All construction site inspectors and plan review engineers within the stormwater group are required to attend the Level I Erosion Control Workshop sponsored by TDEC. MWS Stormwater plan review engineers also attend the the Level II Stormwater Design Workshop sponsored by TDEC.	Training records are available upon request

Element	Activities	Compliance Schedule	Responsible Department	Responsible Person(s)	Description of Permit Compliance Activities	Permit Year (PY) 8 Data/Activities
3. Roadways						
A	**Catch Basin Cleaning**					
	Develop program to prioritize catch basin cleaning activities	PY 1	MWS	Jennifer Hill	The MWS Stormwater RoM section performs catch basin cleaning prioritized by severity of complaint. RoM also have identified certain catch basins and bridges that frequently clog, which RoM place on the "rain route" list for periodic cleaning prior to rain events.	**Table 1-B.1** (Routine Maintenance Numbers)
	Report and record location/area, number, and amount of material removed	Annually	MWS	Jennifer Hill	The MWS RoM section documents all catch basin cleaning work through the Cityworks work management program.	In mid-year FY08 (PY5), a change was implemented in the reporting mechanism for RoM projects. Reporting is now based on the number of projects performed. For example, one inlet maintenance project may include numerous inlets being cleaned on the same street. RoM is looking into options within the currently utilized Cityworks database to keep track of the number of catch basins cleaned and amount of material removed.
B	**Downtown Street Sweeping**					
	Urban Services District	Ongoing	MDPW/ReM	David Himes/Ricky Swift	All street sweeping services performed prior to July 1, 2009 were managed by the MDPW. As of July 1st, all contracted-out portions of street sweeping services were transferred to be managed by the MWS Stormwater ReM Section, while Public Works will continue to manage all internal street cleaning activities in the downtown loop. All material collected during the street sweeping activities is taken to landfills for proper disposal and quantities of material is tracked.	**Table 3-B.1** (PY8 Street Sweeping)

Element	Activities	Compliance Schedule	Responsible Department	Responsible Person(s)	Description of Permit Compliance Activities	Permit Year (PY) 8 Data/Activities
C	**Deicing Chemicals**					
	Evaluate Metro application and storage practices	PY 1 and 3	MDPW	David Himes	MWS NPDES routinely monitors salt bin storage facilities and reports any stormwater runoff issues to MDPW. MDPW has implemented technology including automated pavement temperature recordings and spreader control systems that minimize the applied amounts of deicing chemicals.	**Table 3-C.1** (Deicing Practices)
	Report any modifications in practices		MDPW	David Himes	Any modifications are reported in the annual report.	No Modifications during PY8
D	**Herbicides, pesticides and fertilizers**					
	Evaluate Metro application and storage practices	PY 1 and 3	MWS	Michael Hunt	MWS-NPDES has coordinated with all pertinent maintenance departments on the proper application and storage of herbicides, pesticides, and fertilizers. NPDES has identified locations where Metro stores such chemicals and has inspected the sites. NPDES will continue to monitor the sites as needed, but is in the process of developing a county-wide Stormwater Management Plan (SWMP) which each maintenance facility would keep on-site with specific instructions on application/storage of such chemicals.	Refer to the Annual Report for PY5 for further explanation of past Metro property inspections.

Element	Activities	Compliance Schedule	Responsible Department	Responsible Person(s)	Description of Permit Compliance Activities	Permit Year (PY) 8 Data/Activities
	Spills					
E	Report Emergency Management Plan modifications	Annually	MWS/OEM/ MDPW	Michael Hunt	The Metro Office of Emergency Management (OEM) oversees all emergency response activities. Any changes in policy will be documented in annual reports.	The Metro-Wide Emergency Management Plan was last updated in 2008, but is expected to be updated by 2012.
E	Report location of spills and any trend analyses		MWS/OEM/ MDPW	Michael Hunt	All roadway spills that involve potential runoff impacts are reported to NPDES by OEM. NPDES documents all spills rising to the level of notification and documents remediation responses and water quality impacts in the Cityworks database. The MDPW Hazmat crews respond to wrecks on local road right-of-way that involve clean-up of fluids or other potentially hazardous material. Spills on TDOT RoW are handled by TDOT through their MS4 permit.	**Table 3-E.1** (Summary of OEM Spill Calls in PY8) **Table 3-E.2** (Summary of Public Works Hazmat Response Spill Calls in PY8) **Table 3-E.3** (Summary of NPDES Spill Calls in PY8)
	Design and Construction					
F	Report modifications to standards and procedures that impact water quality	Each compliance report	MDPW/ MWS	Mark Macy	NPDES has coordinated with MDPW to promote use of Low Impact Design (LID) such as infiltration ditches, bottomless culverts, etc. NPDES will continue this practice and will report any future modifications in annual report submittals.	In PY8, the NPDES Office hired a contractor to develop a new volume (Volume V) of the Stormwater Management Manual. Volume V will be dedicated to providing specifications for Low Impact Development (LID) that promotes water infiltration and harvesting practices. In addition to drafting the new Volume V, the contractor completed a modified version of the EPA Water Quality Scorecard.

Element	Activities	Compliance Schedule	Responsible Department	Responsible Person(s)	Description of Permit Compliance Activities	Permit Year (PY) 8 Data/Activities
4. Landfills and Other Waste Treatment, Storage, or Disposal Facilities						
A	Monitor activities (report on water quality-related issues)	Ongoing	MDPW/MWS	Clayton Hand/Josh Hayes	There are two active landfills within the county, which are classified to receive only construction and demolition (C&D) waste. These two active landfills and other closed landfills are monitored by the MDPW-WMD and any water quality issues are documented in annual reports. NPDES has also worked with MDPW-WMD in the past to require all solid waste haulers to read stormwater informational materials and certify that their activities will not impact the quality of stormwater runoff.	**Table 4-A.1** (Public Works Landfill Monitoring Status) **Table 4-A.2** (Public Works Licensed Waste Haulers)
5. Pesticides, Herbicides, Fertilizers, Oils, and Other Toxic Materials						
A	Operate Household Hazardous Waste Facility	At least Once per quarter	MDPW	Sharon Smith	MDPW-WMD operates the Household Hazardous Waste (HHW) facility located at 941 Richard Adams Road. The HHW facility is open to all residents of Nashville and Davidson County 6 days a week.	**Table 1-F.1** (Solid Waste Disposal Data) Visit the following website for further details: http://www.nashville.gov/Recycle/hhw.asp
B	**Commercial Applicators**					
	Public Information (per PI&E element)	Ongoing	MWS	Sharon Smith	NPDES distributes public education materials through the local public access channel (Metro 3). In addition, MWS has been a contributor to the WaterWorks campaign, which airs television and radio advertisements within Metro's service area. NPDES also partners with the Metro Health Department (MHD) to distribute stormwater educational flyers to various food service establishments. When problem areas are identified, such as the occurrence of frequent illicit discharges, NPDES distributes brochures/door hangers discussing pollutant issues and, when applicable, stencil storm drains as "Drains to River".	Refer to Appendix A for example public education materials.

Element	Activities	Compliance Schedule	Responsible Department	Responsible Person(s)	Description of Permit Compliance Activities	Permit Year (PY) 8 Data/Activities
	Metro Facilities					
C	Evaluate management practices at Metro facilities (fleet operations, vehicle maintenance, etc.)	PY 2	MWS	Rebecca Dohn/Josh Hayes	MWS-NPDES has coordinated with all pertinent maintenance departments on minimizing potential water quality impacts from municipal maintenance activities. In the past, NPDES identified locations where Metro stores chemicals and has inspected the sites. NPDES will continue to monitor the sites as needed, but is in the process of developing a county-wide Stormwater Management Plan (SWMP) that will contain a section that each maintenance facility would keep on-site with specific instructions on application/storage of such chemicals.	Metro's Office of Fleet Management (OFM) has 2 maintenance facilities, both of which have been inspected by NPDES in the past for runoff issues. NPDES has also coordinated with OFM to deploy spill response kits at each of the 7 fueling locations. In PY8, NPDES coordinated with the contracted school maintenance services to explain potential impacts to water quality that could occur from improper maintenance procedures.
6. Illicit Discharges and Improper Disposal						
	Ordinances and Enforcement Measures					
A	Refine/review procedures to enhance enforcement of existing ordinances, regulations, and policies as necessary	PY 1 and 3	MWS	Michael Hunt	NPDES continually reviews enforcement provisions to ensure enforcement activities are accomplishing set goals of the program.	NPDES is currently working with the Metro Legal Department to increase the daily maximum monetary penalty amount that can be assessed per day. NPDES is also in the process of developing a new volume V (LID) Stormwater Management Manual and making minor changes to the existing Volume I of the Stormwater Management Manual.

Element	Activities	Compliance Schedule	Responsible Department	Responsible Person(s)	Description of Permit Compliance Activities	Permit Year (PY) 8 Data/Activities
B	**Dry-weather Field Screening**					
	Update ¼ mile grid for current industrial and high-density commercial land use based on current zonings	PY 5	MWS	Sonya Erickson	NPDES is in the process of setting up the field screening database for the 3rd permit cycle (yet to be issued). NPDES will utilize the transition permit year(s) between the Cycle II and Cycle III permit periods to develop a more beneficial/effective field screening program that also incorporates site specific public education as a component.	NPDES created a new field screening database that can be edited in GIS. In doing so, NPDES obtained the latest land-use coverage from the Planning Department and updated the ¼ mile grids to be screened. The new database allows all data to be recorded electronically directly into GIS, thus eliminating paperwork.
	Prioritize areas of ¼ mile grids by previous field screening results, spills, complaints, etc.		MWS	Sonya Erickson	In developing the 3rd permit cycle field screening database, NPDES will prioritize screening based on various factors such as impaired watersheds, historical information, etc.	With the new field screening database complete, NPDES began screening outfalls within ¼ mile grids in areas where more-frequent calls of illicit discharges have been received.
	Update illicit discharge identification procedures		MWS	Sonya Erickson	NPDES utilizes the latest technology in detecting illicit discharges.	MWS Stormwater RoM continued in PY8 to pursue the purchase of a rover camera that can be used to assist in field screening investigations. NPDES continues to utilize the latest technology such as field test kits/instruments, analytical sampling, thermograph flights, etc. to identify illicit discharges.
	Implement program in ¼ mile grids in priority		MWS	Sonya Erickson	All outfalls within the field screening areas will be performed on a watershed-prioritized basis.	In the last three permit years after the creation of the new database, 229 "¼ mile grids" were screened. Some of the grids did not contain any MS4 outfalls to screen, therefore, no data could be collected. Other grids, however, contained more than one outfall that was reviewed.
	Identify potential discharges to MS4 or "Waters of the State"		MWS	Sonya Erickson	In performing dry weather field screening, NPDES will perform follow-up investigations on any identified un-permitted discharges.	Several illicit discharges were identified through field screening activities. The field screening has also proven beneficial by identifying culverted groundwater spring locations and collecting water quality characterization data on the springs.

Element	Activities	Compliance Schedule	Responsible Department	Responsible Person(s)	Description of Permit Compliance Activities	Permit Year (PY) 8 Data/Activities
C	**Illicit Discharge Investigations**					
	Identify illicit discharge sources	Ongoing	MWS	Josh Hayes/ Sonya Erickson	NPDES utilizes various tools to identify illicit discharges. Illicit discharge investigation techniques include performing citizen complaint follow-ups, dry-weather field screening, industrial inspections, construction inspections, aerial thermograph investigations, stream walk investigations, and routine field reconnaissance by NPDES staff in identified trouble areas.	**Table 6-C.1** (Illicit Discharge Investigations in PY8)
	Educate responsible parties as appropriate		MWS	Josh Hayes/ Sonya Erickson	Once illicit discharges are identified, NPDES educates responsible parties through use of enforcement measures or by distributing public information materials, as/is appropriate.	**Table 6-C.2** (Targeted Public Educational Distribution)
	Implement enforcement measures as appropriate		MWS	Josh Hayes/ Sonya Erickson	NPDES employs various enforcement techniques to achieve the elimination of identified illicit discharges. Enforcement measures include issuing Notices of Violations (NOVs) with or without monetary penalties, issuing Stop Work Orders (SWOs) to construction sites, and, in some cases, citing the responsible parties in environmental court.	**Table 2-A.1** (Documented Enforcement Cases in PY8)
	Report significant illicit discharges and enforcement activities to TDEC		MWS	Josh Hayes/ Sonya Erickson	NPDES copies TDEC staff on all NOVs, SWOs, and monetary administrative penalties issued to sites for violations of Metro's illicit discharge ordinance.	All enforcements were submitted to TDEC via email.

Element	Activities	Compliance Schedule	Responsible Department	Responsible Person(s)	Description of Permit Compliance Activities	Permit Year (PY) 8 Data/Activities
D	**Residential / Commercial Areas**					
	Public information (per PI&E element)	Ongoing	MWS	Michael Hunt/Josh Hayes	NPDES distributes public education materials through the local public access channel (Metro 3). In addition, MWS has contributed to the WaterWorks campaign, which aired television and radio advertisements within Metro's service area. NPDES also partners with the Metro Health Department (MHD) to distribute stormwater educational flyers to various food service establishments. A key component of NPDES educational material includes information on illicit discharges. When problem areas are identified with the occurrence of frequent illicit discharges, NPDES distributes brochures/door hangers to nearby businesses/residences that explain pollutant issues. In addition, when applicable, storm drains are stenciled as "Drains to River".	**Appendix B** (Public Education Materials) MWS performed several mailings in PY8 that were intended to educate specific residents or companies on reoccurring illicit discharges and other illegal dumping activities within the MS4. MWS Education Specialist (Julie Berbiglia) worked with the Stormwater Routine Maintenance Division to send several mail outs to several residential neighborhoods informing them of impacts caused by illegal dumping of leaves brush and other debris in ditches. .
E	**Sanitary Sewer Seepage**					
	Reevaluate protocols for reporting potential sanitary sewer seepage into the MS4 or "Waters of the State"	PY 1 and 3	MWS	Michael Hunt	NPDES works closely with the MWS System Services Division (SSD) as a resource on sanitary sewer overflow response/clean-up, especially on overflows that route to the MS4 or community waters. NPDES also responds to and enforces on any private service sanitary sewer overflows. In addition, NPDES has been working with MHD to identify the water quality impacts of failing septic systems. NPDES will be geo-locating failing septic systems for purposes of analyzing impacts on specific watersheds. The SSD Sewer Overflow Response Plan (SORP) contains specific provisions for the notification of NPDES and the MHD of private sanitary issues.	**Table 6-E.1** (NPDES' Responses to MWS Sanitary Sewer Overflows in PY78 **Table 6-E.2** (Septic System Failures in PY8) **Table 6-E.3** (Overall Sanitary Sewer Overflow Response in PY8) **Table 6-E.4** (Projects Performed to Reduce Overflows in PY8) In addition to controlling bacterial inputs from sanitary sewers and septic systems, the Parks Department has also worked to reduce the amount of bacterial runoff from park properties by providing dog waste bags at certain parks. In PY8 over 288,000 dog waste bags were distributed to various parks. It was estimated that approximately 77,760 pounds (38.88 tons) of dog waste was collected and properly disposed of instead of being left exposed to stormwater runoff.

Element	Activities	Compliance Schedule	Responsible Department	Responsible Person(s)	Description of Permit Compliance Activities	Permit Year (PY) 8 Data/Activities
7. Industrial and High Risk Runoff *(reference Section IV)*						
A	**Data Management**					
	Update industrial site databases (for sites that meet permit criteria)	Annually	MWS	Josh Hayes	Each year, NPDES downloads a list of industrial sites meeting the criteria specified in the permit from the EPA Toxic Release Inventory (TRI) website and any EPA-recognized Treatment, Disposal, and Storage (TSD) facilities.	In PY8, NPDES obtained a lists from the EPA TRI program to provide updates to the industrial inspection database. The database used to track industrial inspections includes all TMSP, TRI, and TSD facilities.
B	**Inspections**					
	Refine procedures/criteria to prioritize sites to be inspected based on SIC code, SARA data, and other information	PY 1, 3, and 5	MWS	Josh Hayes	NPDES will base prioritization of industrial inspections during Cycle III on a combination of SIC code, previous knowledge of the site, and watershed location.	At the end of PY7, NPDES obtained an updated list of TMSP sites from TDEC and sent out two page surveys to 141 separate permitted industrial facilities. Based on the survey feedback, NPDES developed a list of prioritized sites to inspect. (See Appendix B)
	Train inspectors	PY 2 and 4	MWS	Josh Hayes	The main industrial inspector within the NPDES program has been through an industrial inspection workshop and has coordinated with TDEC staff to perform joint inspections, thus refining knowledge of what to look for at different sites.	In PY8, the NPDES inspector performed 3 joint inspections with TDEC on TMSP facilities.
	Inspect facilities that meet criteria	Once by PY 5	MWS	Josh Hayes	NPDES will inspect all qualifying facilities by the end of the 3rd permit cycle.	In PY8, NPDES performed detailed industrial inspections of 15 separate facilities. Some facilities may have been inspected multiple times. In addition to the detailed industrial inspections, NPDES also performed separate illicit discharge investigations at several industrial facilities, which were not counted in the overall industrial inspection numbers. NPDES intends to pursue a more aggressive industrial inspection schedule once the new MS4 permit is issued.
	Coordinate inspection and enforcement activities with TDEC staff as determined to be appropriate	Ongoing	MWS	Josh Hayes	NPDES copies TDEC on all follow-up industrial inspection correspondence. NPDES also coordinates with TDEC staff when Tennessee Multi-Sector Permit (TMSP) compliance issues are found at the site.	NPDES continued to pursue coordination with TDEC in PY8 to better coordinate inspection and enforcement processes.

Element	Activities	Compliance Schedule	Responsible Department	Responsible Person(s)	Description of Permit Compliance Activities	Permit Year (PY) 8 Data/Activities
B	Report inspection locations	Annually	MWS	Josh Hayes	NPDES copies TDEC on all follow-up industrial inspection correspondence. NPDES also coordinates with TDEC staff when Tennessee Multi-Sector Permit (TMSP) compliance issues are found at the site.	TDEC is notified via email for all follow-up inspection letters.
C	**Restaurant Impacts**					
	Report activities aimed at reducing water quality impacts	Annually	MWS	Michael Hunt/ Andy Welch	NPDES works closely with the MWS Fats, Oils, & Grease (FOG) program as they perform inspections of food service establishments and document potential impacts to stormwater from failing grease interceptors, poorly maintained grease bins, etc. In addition, NPDES partners with the MHD to distribute public information brochures to food service establishments during their rigorous inspection program.	The Metro Health Department continued to distribute stormwater brochures to area restaurants durring PY8. **Table 7-C.1** (FOG-related Stormwater Finds)

Element	Activities	Compliance Schedule	Responsible Department	Responsible Person(s)	Description of Permit Compliance Activities	Permit Year (PY) 8 Data/Activities
8. Construction Site Runoff *(reference Section IV)*						
	Ordinances, Regulations and Guidance					
A	Enforce existing ordinances and regulations intended to limit construction-phase water quality impacts from new construction and significant redevelopment	Ongoing	MWS	Dale Binder/ Kimberly Hayes	MWS Stormwater's Grading Permit requires sites disturbing more than 10,000 ft² to submit engineered plans that must be approved by MWS Stormwater engineers for construction phase Erosion, Prevention, and Sediment Control (EPSC) measures. NPDES Inspectors hold pre-construction meetings to discuss EPSC measures and require EPSC measures to be installed prior to issuing the Grading Permit. Once the Grading Permit is issued, NPDES inspects each site periodically to verify proper maintenance of EPSC measures. NPDES performs enforcement actions on those sites not compliant with the Grading Permit. For single family homes requiring grading permits, a Tier II Grading Permit is issued and inspected by the Development Review and Permitting Section. For larger single family homes not requiring Grading Permits, sites are still required to submit a site plan detailing EPSC measures and a signed stormwater checklist.	**Table 8-A.1** (Construction Site related Inspections in PY8) **Table 8-A.2** (Grading Permit Statistics) **Table 8-A-3** (NPDES Construction Complaints in PY8) **Table 8-A.4** (Stormwater Plans Reviewed) **Table 8-A.5** (Stormwater Oversight on Single Family Homes)
	Refine procedures to enhance enforcement of existing ordinances, regulations, and policies	PY 1 and 3	MWS	Dale Binder	MWS Stormwater routinely reviews stormwater ordinances and guidance manuals for necessary improvements.	In PY8, MWS NPDES continued to coordinate with the Metro Legal Department for purposes of increasing the “daily maximum” administrative penalty that can be assessed. .
A	Evaluate the guidance materials to ensure that they are up-to-date with the current state of the technology and reflect local plan review and site inspection experiences	PY 1 and 3	MWS	Dale Binder	MWS Stormwater routinely reviews stormwater ordinances and guidance manuals for necessary improvements, including changes to reflect the latest technology.	NPDES continuously reviews guidance manuals for necessary revisions. In PY8, MWS NPDES hired a consultant to develop a new volume (Volume V) of the SWMM that is dedicated to providing guidance on implementation of LID development techniques and incentives for using LID. The new manual is expected to be completed and in effect in PY9.

Element	Activities	Compliance Schedule	Responsible Department	Responsible Person(s)	Description of Permit Compliance Activities	Permit Year (PY) 8 Data/Activities
A	Public Education (per PI&E element)	Ongoing	MWS	Michael Hunt	NPDES distributes public education materials through the local public access channel (Metro 3), which explains grading permit requirements. In addition, MWS has been a contributor to the WaterWorks campaign which aired television and radio advertisements within Metro's service area. MWS Stormwater also facilitates periodic SWAC meetings with the local development community.	There were 4 SWAC Meetings held in PY8
	Require applicants for grading permits, for projects of one acre or more, to give proof of coverage under the state's construction general permit – this requirement becomes void if the state implements procedures that recognize an operator's compliance with Metro's construction site runoff control program to be compliance with the state program	Ongoing	MWS	Dale Binder	The MWS Stormwater Development Review and Permitting Section will not approve any grading plans for any site requiring coverage under TDEC's construction stormwater general permit, if they can't produce the proper TDEC Notice of Coverage.	Performed on every grading project over 1 acre in size.
B	**Training**					
	Educate "Grading Permit" plan reviewers and construction site inspectors on latest techniques and management practices to address construction-phase water quality, lessons learned, etc.	Annually	MWS	Roger Lindsey	MWS Stormwater staff attends various training classes, seminars, and conferences throughout the year, that include the latest technology in stormwater management.	Training records are available upon request. MWS Stormwater staff maintained certification through the EPSC workshops.

Element	Activities	Compliance Schedule	Responsible Department	Responsible Person(s)	Description of Permit Compliance Activities	Permit Year (PY) 8 Data/Activities
C	**Records Management**					
	Maintain database for erosion prevention and sediment control (EP&SC) inspections and enforcement activities	Ongoing	MWS	Dale Binder	NPDES tracks all grading permit plan approvals and construction phase inspections through the city-wide permitting database called KIVA.	Metro used the KIVA database for all inspection documentation in PY8.
D	**Plan Review and Inspection Resources**					
	Provide resources for plan review such that they have adequate time to effectively review plans for pre and post-construction water quality considerations	Ongoing	MWS	Tom Palko	Stormwater Development Review & Permitting Section (DRP) maintains a staffing level of generally 5 engineers devoted to development review. In the past when DRP was overwhelmed with plan submittals, they have contracted out some plan review responsibility to ensure proper plan review takes place.	During PY 8, MWS Stormwater employed an average of 5 engineers devoted to Stormwater Development and Review.
	Provide resources for construction site inspection staff such that they have adequate time to effectively inspect sites and enforce water quality related ordinances, regulations and policies		MWS	Michael Hunt	NPDES maintains a staffing level of generally 7 construction site inspectors, mostly dedicated to inspection of grading permitted sites or sites found to be grading without a permit.	Toward the end of PY6, NPDES lost two inspectors that were dedicated to inspecting construction sites. Due to budget constraints, only one of the lost inspector positions was replaced in PY7. The open position remained vacant in PY8.
E	**Metro Activities**					
	Evaluate construction practices implemented by Metro Departments to limit erosion and sedimentation impacts (Metro projects, work on sanitary sewers, utility lines, etc.)	PY 2	MWS	Michael Hunt	NPDES educates various Metro departments on implementation of appropriate EPSC measures during soil disturbing activities. Most Metro departments actually apply for grading permits for their larger projects and NPDES gives the same level of scrutiny to those sites as they would for privately-developed sites.	NPDES will be working to complete a SWMP once the new MS4 permit is issued, which will give specific guidance to Metro departments or contractors for ground disturbance activities that don't rise to the level of requiring a grading permit. During PY8, NPDES coordinated with MWS on several water and sewer projects on providing technical assistance for EPSC issues.

Element	Activities	Compliance Schedule	Responsible Department	Responsible Person(s)	Description of Permit Compliance Activities	Permit Year (PY) 8 Data/Activities
9. Habitat Improvement						
A	Report habitat improvement activities/projects	Annually	MWS	Josh Hayes	Any projects performed by Metro that improve aquatic habitat and riparian habitat are noted in the annual report.	The Metro Parks Department performs a variety of projects that provide recreational opportunity, while at the same time provide improved habitat. The following bulleted items describe some such projects over the last few years: • A countywide open space plan was completed. • Shelby Park Master Plan was completed that incorporates numerous water quality related recommendations, including pervious paving, naturalization of waterway, vegetation filtration, wetlands creation, stream bank buffer re-vegetation. • Centennial Park Master completed in 2010. • A grant was received to construct a boardwalk to span the wetland at Shelby Bottoms, reducing wetland habitat damage by trail users. • A new rain garden is being planned at Shelby Bottoms Nature Center by the Cumberland River Compact. • Multiple tree planting projects undertaken by volunteers at various parks. • Completion of the LEED Silver McCabe Park Community Center, including green roof and rain gardens. • 1-acre rain garden in St. Bernard Park. • Ground was broken on the Play Park at the Riverfront that provides LID design and riverfront access. In Addition to the Parks Department, MWS Stormwater has also worked to improve habitat by purchasing and removing homes in the floodplain and allowing them to return to riparian-buffered floodplain.

Element	Activities	Compliance Schedule	Responsible Department	Responsible Person(s)	Description of Permit Compliance Activities	Permit Year (PY) 8 Data/Activities
10. Public Information and Education (PI&E)						
A	(1A) Inform the public on the impacts on water quality from general housekeeping maintenance/activities	Ongoing – at least one activity per year	MWS	Michael Hunt/Sonia Harvat	NPDES distributes public education materials through the local public access channel (Metro 3), which details grading permit requirements, illicit discharges, pollution from poor housekeeping, etc.. In addition, MWS has been a contributor to the WaterWorks campaign which airs television and radio advertisements within Metro's service area. NPDES and the MWS PIO officer also performs various Public Education Events throughout the year. Also within Metro, the Parks Department and the Public Works Solid Waste Management perform various public education events that promote good housekeeping activities.	In PY8, NPDES sent out a mass mailing to all properties within a small watershed in which a chronic illicit discharge of diesel fuel was occurring. After numerous attempts to determine the cause of the oily sheen, no source could be found. NPDES sent out a mailing to the area in hopes of educating the community on the impacts of illicit discharges and the opportunity/need to report such discharges. **Appendix B** (Public Education Materials) **Table 10-A.1** (Presentations given by the NPDES in PY8) **Table 10-A.2** (Presentations given by the MWS PIO in PY8)
	(1G) Inform home owner associations and other operators of detention/retention ponds of the importance of maintenance activities		MWS	Rebecca Dohn	NPDES performed mail-out educational campaigns in the past only to yield few responses. NPDES has since adopted an approach that involves educating sites individually through inspection and necessary enforcement/follow-up procedures.	**Table 1-G.1** (BMP Inspection/Owner Notification Program)
	(2A/D) Educate the local engineering and development community about the ordinances, regulations and guidance materials related to long-term water quality impacts		MWS	Michael Hunt	MWS Stormwater facilitates coordination with the local development community during any proposed changes to stormwater ordinances through holding stakeholder meetings, SWAC meetings, posting information on the website, etc.	During PY8, Metro Stormwater facilitated 4 SWAC meetings.
	(5B) Inform the public, sellers, distributors, application services, and selected users about proper pesticides, herbicides, and fertilizers use, storage, and disposal techniques		MWS	Michael Hunt	NPDES performs these activities through the above-mentioned Metro 3 broadcasts, website postings, WaterWorks program, and individual distribution of public information materials (flyers, brochures, door hangers, etc.)	**Appendix B** (Public Education Materials)

Element	Activities	Compliance Schedule	Responsible Department	Responsible Person(s)	Description of Permit Compliance Activities	Permit Year (PY) 8 Data/Activities
A	(5B) Inform the public, sellers, distributors, and selected users about proper oil and other automotive-related fluids use, storage, and disposal techniques	Ongoing – at least one activity per year	MWS	Michael Hunt	NPDES performs these activities through the above-mentioned Metro 3 broadcasts, website postings, WaterWorks program, and individual distribution of public information materials (flyers, brochures, door hangers, etc.)	**Appendix B** (Public Education Materials) Refer to: http://www.nashville.gov/stormwater/educational_documents.asp
	(6A) Inform the public about identifying and reporting procedures for illicit connections/discharges, sanitary sewer seepage, spills, etc.		MWS	Michael Hunt		
	(8A) Educate the local engineering, development, and construction community about the ordinances, regulations and guidance materials related to construction phase water quality impacts		MWS	Michael Hunt	MWS Stormwater facilitates coordination with the local development community during any proposed changes to stormwater ordinances through holding stakeholder meetings, SWAC meetings, posting information on the website, etc.	Also in the last few years, a new "Change Management Process" was implemented. The "Change Management Process" is intended to ensure that public notification is a major component of any major regulation/process change proposed by Metro. During PY8, Metro Stormwater facilitated 4 SWAC meetings.
	Other not yet identified opportunities.		NA	NA	MWS Public Information Officer initiated an "Adopt A Stream" program	Refer to: http://www.nashville.gov/water/adoptastream/index.asp
B	**World Wide Web site**					
	Enhance Metro Public Works NPDES World Wide Web (Internet) site to include updated information about the NPDES MS4 program activities, inform the public about their impacts to water quality, educate the public on how they can limit water quality impacts, etc.	Ongoing	MWS	Michael Hunt, Anna Kuoppamaki/ Metro Web team	MWS Stormwater manages its own website in which a substantial amount of public information material is available.	**Appendix B** (Public Education Materials) Refer to the following website: http://www.nashville.gov/stormwater/

Element	Activities	Compliance Schedule	Responsible Department	Responsible Person(s)	Description of Permit Compliance Activities	Permit Year (PY) 8 Data/Activities
B	Provide mechanism that the public can use to report potential illicit discharges, spills, etc. via the internet	Ongoing	MWS	Michael Hunt/ Anna Kuoppamaki, Metro Web team	MWS' Stormwater website allows general public to submit complaint emails over the web or provides web users with a number to call to report illicit discharges.	In PY7, NPDES completed a mechanism for which the general public can enter information into a website and automatic emails will be generated and sent to NPDES for dissemination to inspectors.
	Set up an area dedicated to promoting/recognizing those in the community that are found to have implemented exceptionally successful/resourceful/ innovative pollution prevention strategies	PY 4	MWS	Michael Hunt/Anna Kuoppamaki	MWS' main web page promotes the "Adopt a Stream" program, which details the type of stewardship work various companies have been performing in their respective adopted stream segments.	Refer to: http://www.nashville.gov/water/adoptastream/index.asp
11. Reporting						
A	**Compliance Report**					
	Summary of program element activities and revisions	End of each PY (+ 6 months)	MWS	Josh Hayes	NPDES has submitted annual reports within 6 months from the end of each permit year. NPDES will continue to submit the annual reports even during the transition period between the Cycle II and Cycle III permits. NPDES is migrating toward a much more concise annual report that contains all of the necessary data. NPDES is also working to develop a more-official county-wide Stormwater Management Plan in which each applicable Metro department will have a copy on-site and will be responsible for following their respective sections.	Annual Report Submitted
	Quantitative and qualitative controls assessment (as appropriate)		MWS	Steve Winesett	NPDES will continue to look for ways to improve program assessment measures. NPDES performs loading calculations at the end of each permit cycle. NPDES is looking for ways to improve the loading calculations to make them much more representative of local data and conditions.	**Table 11-A.1** (SWMP Quantitative Stats) **Table 11-A.2** (PY8 Budget Projections)

Element	Activities	Compliance Schedule	Responsible Department	Responsible Person(s)	Description of Permit Compliance Activities	Permit Year (PY) 8 Data/Activities
B	Propose Third Permit Cycle Activities	End of PY 4 (+ 6 months)	NA	NPDES Office	NPDES submitted proposed 3rd cycle activities in the Cycle 2, Permit Year 4 Annual Report and is eagerly awaiting TDEC's response and coordination for developing the 3rd cycle of the permit.	Submitted in PY4's Annual Report. In PY 7 and PY8, MWS representatives met with TDEC permit writing staff several times to discuss the permit reissuance.
Monitoring Requirements						
Element	**Requirement**	**Schedule (1)**				
A	**Ambient**					
	Sample at eight or more in-stream locations	Bi-monthly	MWS	Steve Winesett	NPDES performs the bi-monthly sampling at 8 locations during ambient conditions.	**Table A-1** (Ambient Sampling Results in PY8)
	Sample at least six times per site to reflect seasonal trends	Annually	MWS	Steve Winesett	NPDES performs the ambient sampling at each site 6 times annually. All sampling results are documented in each annual report. NPDES wishes to change future ambient monitoring to a more watershed-impairment specific approach in the next permit cycle.	
B	**Wet-Weather**					
	Sample at three or more in-stream locations	Annually	MWS	Steve Winesett	Midway through the Cycle II permit, NPDES coordinated with TDEC to change two of the wet weather sampling locations to be located at MS4 major outfall points. The existing sampling locations include two MS4 outfalls points and one in-stream location. NPDES plans to submit an additional request to TDEC to further alter the wet weather sampling program. NPDES intends to alter wet weather sampling to better represent major land use categories, so the wet weather values can be used in the calculation of EMCs.	**Table B-1** (Wet Weather Sampling Results in PY8)
	Sample at least twice at each location to reflect seasonal trends		MWS	Steve Winesett	NPDES is performing seasonal wet weather sampling twice at each site.	

Element	Activities	Compliance Schedule	Responsible Department	Responsible Person(s)	Description of Permit Compliance Activities	Permit Year (PY) 8 Data/Activities
C	**Industrial**					
	Based on need as determined during inspections, etc.	Ongoing	MWS	Josh Hayes	In the past, the NPDES section has sampled unpermitted processed water from various industrial sites found during inspections. NPDES intends to perform future wet weather monitoring of specific industrial category sites in which runoff issues appear problematic.	No formal industrial monitoring performed in PY8. However, several industrial facilities were sampled for illicit discharge investigation purposes.
	Report data	Annually	MWS	Josh Hayes	Any monitoring data is reported in annual reports.	
D	**Bioassessment**					
	Perform RBP III at the two designated bioassessment sites	Annually	MWS	Steve Winesett	NPDES performs the required Biological Assessments at designated sites twice a year to reflect seasonal changes.	**Table D-1** (Bioassessment Scoring Results)
	Perform RBP III at one or more reference sites	Annually	MWS	Steve Winesett	NPDES performs the required Biological Assessments at the Reference site twice a year to reflect seasonal changes.	
	Refine procedures for performing a "quick assessment" that can be performed in association with other program activities	PY 1	MWS	Steve Winesett	NPDES utilizes RBP III protocol for all bioassessments, therefore, did not refine procedures to develop a less detailed assessment.	
	Perform "quick assessments" as deemed necessary	Annually	MWS	Steve Winesett	In the past, additional quick assessments were not performed. In the future, NPDES plans to perform quick assessments (RBP II) on certain 303(d) listed streams.	

Element	Activities	Compliance Schedule	Responsible Department	Responsible Person(s)	Description of Permit Compliance Activities	Permit Year (PY) 8 Data/Activities
E	**Loadings Estimates**					
	Report changes in estimated Event Mean Concentrations (EMCs)	PY 5	MWS	Josh Hayes	In the 5th year of the 2nd permit cycle, NPDES had to utilize EMCs from a national average and from values calculated in the first permit cycle. Since wet weather sampling sites were changed mid-way through the cycle, there were not enough sampling results present to run statistical analysis. NPDES will be developing a more detailed wet weather monitoring plan for the upcoming 3rd permit cycle that will focus sampling activities on specific land uses. NPDES believes that in the next permit cycle EMC values will be able to be derived from the revised 3rd cycle wet weather monitoring plan.	**Table E-1** (EMC Values for Loading Estimates)
	Report changes in estimated annual volume and loadings for the MS4		MWS	Josh Hayes	NPDES was unable to locate the original loading estimates performed in the 1st permit cycle. Additionally, NPDES used a different method to calculate the loading estimates in the 2nd permit cycle, which was based on the simple method. NPDES plans on improving the loading calculation by more accurately mapping/delineating all BMPs, altering wet weather sampling to better represent land use categories for EMC calculation, and improve the MS4 GIS database so potential modeling can be performed.	**Table E-2** (Impervious Areas per Watershed) **Table E-3** (Land Use Areas per Watershed) **Table E-4** (Annual Runoff Calculation) **Table E-5** (Pollutant Loading Calculations) **Table E-6** (BMP Loading Reduction Percentages) **Table E-7** (Summary of Pollutant Loading Estimates) Note: In this year's calculation, the only variables that changed were rainfall and the annual runoff volume. This year also contains an estimate of potential post-construction BMP pollutant reduction, as the available data for impervious areas and land-use did not change enough from previous years to warrant a recalculation. The calculations presented in tables E-2 through E-7 should not be taken as an exact calculation for stormwater loadings, as they are more of an estimate. In estimating the potential pollutant runoff reduction affects of the more than 1,000 post-construction BMPs installed around the county, some assumptions, as noted in the footnote of Table E-6, were made. NPDES is still working on improving mechanisms for calculating pollutant loadings.

Appendix A - Supporting Program Data

Table 1-B.1 Routine Maintenance Numbers

		Total	FY2002	FY2003	FY2004	FY2005	FY2006	FY2007	FY2008	FY2009	FY2010	FY2011
Ditch Maint.	Routine	739	137	352	84	66	14	3	83	0	0	0
	Complaint	3337	0	203	557	374	403	445	474	396	485	466
	Class C	58	0	0	1	39	18	0	0	0	0	0
subtotal		***4,134***	***137***	***555***	***642***	***479***	***435***	***448***	***557***	***396***	***485***	***466***
Walls & HW	Routine	140	22	75	17	11	1	0	14	0	0	0
	Complaint	908	0	45	211	161	183	187	55	32	34	31
	Class C	1	0	0	0	0	1	0	0	0	0	0
subtotal		***1,049***	***22***	***120***	***228***	***172***	***185***	***187***	***69***	***32***	***34***	***31***
DW Pipes	Routine	1286	151	115	106	48	5	816	45	0	0	0
	Complaint	1438	0	139	249	279	286	165	94	89	137	163
	Class C	0	0	0	0	0	0	0	0	0	0	0
subtotal		***2,724***	***151***	***254***	***355***	***327***	***291***	***981***	***139***	***89***	***137***	***163***
Cross Drains	Routine	613	85	118	74	78	66	0	192	0	0	0
	Complaint	849	0	80	135	114	171	148	61	62	78	97
	Class C	18	0	0	0	10	8	0	0	0	0	0
subtotal		***1,480***	***85***	***198***	***209***	***202***	***245***	***148***	***253***	***62***	***78***	***97***
Flooding	Routine	77	14	45	4	10	4	0	0	0	0	0
	Complaint	289	0	2	14	15	1	0	19	58	180	42
	Class C	4	0	0	0	2	2	0	0	0	0	0
subtotal		***370***	***14***	***47***	***18***	***27***	***7***	***0***	***19***	***58***	***180***	***42***
	Routine	233	39	59	26	26	23	0	60	0	0	9
Debris Removal	Complaint	523	0	44	29	28	41	1	80	186	114	167
	Class C	2	0	0	1	1	0	0	0	0	0	0
subtotal		***758***	***39***	***103***	***56***	***55***	***64***	***1***	***140***	***186***	***114***	***176***
Erosion	Routine	6	0	1	2	1	1	0	1	0	0	0
	Complaint	62	0	0	7	6	1	0	10	20	18	49
	Class C	1	0	0	0	1	0	0	0	0	0	0
subtotal		***69***	***0***	***1***	***9***	***8***	***2***	***0***	***11***	***20***	***18***	***49***
Mud Removal	Routine	76	4	3	8	7	51	3	0	0	0	0
	Complaint	227	0	0	3	8	71	144	0	1	0	0
	Class C	0	0	0	0	0	0	0	0	0	0	0
subtotal		***303***	***4***	***3***	***11***	***15***	***122***	***147***	***0***	***1***	***0***	***0***
Misc	Routine	2744	35	420	590	396	219	1,013	71	0	0	2
	Complaint	1473	0	94	95	75	86	1,035	15	39	34	27
	Class C	4	0	0	0	3	1	0	0	0	0	0
subtotal		***4,221***	***35***	***514***	***685***	***474***	***306***	***2048***	***86***	***39***	***34***	***29***
Inlet Maint.	Routine	138750	177	7,278	33,495	37,296	35,258	20,125	4,841	140	140	108
	Complaint	6903	0	260	416	353	263	3,088	243	1,880	400	561
	Class C	5	0	0	0	5	0	0	0	0	0	0
subtotal		***145,658***	***177***	***7,538***	***33,911***	***37,654***	***35,521***	***23,213***	***5,084***	***2,020***	***540***	***669***
Sinkhole	Routine	0	0	0	0	0	0	0	0	0	0	0
	Complaint	5	0	0	0	0	2	3	0	0	0	0
	Class C	0	0	0	0	0	0	0	0	0	0	0
subtotal		***5***	***0***	***0***	***0***	***0***	***2***	***3***	***0***	***0***	***0***	***0***
		Total	**FY2002**	**FY2003**	**FY2004**	**FY2005**	**FY2006**	**FY2007**	**FY2008**	**FY2009**	**FY2010**	**FY2011**
	Routine	144,664	664	8,466	34,406	37,939	35,642	21,960	5,307	140	140	119
	Complaint	16,014	0	867	1,716	1,413	1,508	5,216	1,051	2,763	1,480	1,603
	Class C	93	0	0	2	61	30	0	0	0	0	0
TOTAL		***160,771***	**664**	**9,333**	**36,124**	**39,413**	**37,180**	**27,176**	**6,358**	**2,903**	**1,620**	**1,722**

*Note- Inlet Maintenance numbers reflect a July 2008 change in the way work units are reported. Inlet reporting is now done at the work order level and not the work unit level. This does not reflect any change in the level of effort for this category of work.

Labor Hours per Type

Fiscal Year	Total	Preventive Maintenance	Rain Routes	Reactive
FY2011 (PY8)	53,273	7,615	5,050	40,608
Total to date	53,273	7,615	5,050	40,608

* All labor hours completed by Routine Maintenance.

Table 1-C.1 Summary of Maintenance Performed at the Dry Creek Regional Detention Basin

DATE	TASK NAME
07/09/10	Checked and cleaned facility
07/22/10	Checked Opening of detention wall and worked on road going down to facility. Filled large washed area with choker rock.
07/22/10	Finished road repair. Covered choker rock with crush-n-run.
08/09/10	Cleaned up debris from around facility. Repaired large washed out places in road going to facility. Used on load of rock.
08/23/10	Cleaned up debris in front of cross drain.
08/31/10	Cleaned up limbs
09/16/10	Cleaned up debris around the mouth of cross drain and up to the road at dry creek.
09/20/10	Cut brush and limbs from around structure, repaired road, complete.
02/02/11	Checked detention facility for debris. It is open and clear.
02/08/11	Checked the facility and it is open and clear of debris.
02/09/11	Removed debris from inlet end of culvert.
02/25/11	Checked the detention facility and found it open and clear
03/07/11	Checked dry creek and it was open and clear
03/11/11	Removed debris from facility
03/22/11	Cleaned debris from facility
04/07/11	Cleaned debris out of ditch
04/12/11	Checked and found that it is open and clear
04/26/11	Checked facility for debris.
04/28/11	Checked facility for debris.
05/03/11	Checked the detention facility and found it open and clear
05/17/11	Cleaned up debris
06/03/11	Checked Dry Creek and everything was fine
06/10/11	Removed logs and debris from inlet and outlet end of the pipes and around the concrete wall that goes over the creek by hand.
06/16/11	Cleaned up debris.

Table 1-F.1 Summary of Public Works Solid Waste Collection Numbers in PY8 (tons)

	July	August	September	October	November	December	January	February	March	April	May	June	Total
Recycling													
Curbside Recycling/Inhouse Recycling/Recycling Dumpsters													
Mixed Recyclables	1,104.65	1,124.54	994.53	1,049.72	1,041.83	1,180.26	1,172.01	934.75	1,073.90	1,282.59	1,156.31	1,082.59	13,197.68
Monthly Totals	**1,104.65**	**1,124.54**	**994.53**	**1,049.72**	**1,041.83**	**1,180.26**	**1,172.01**	**934.75**	**1,073.90**	**1,282.59**	**1,156.31**	**1,082.59**	**13,197.68**
Household Hazardous Waste Facility													
Oil	3.34	3.34	4.1	2.5	3.1	2	2.1	2.64	4.42	3.18	1.4	3.2	35.32
Anti-Freeze	0	0	0	0	0	0	0	0	0	0	0	0	-
Electronics	14.78	14.29	19.77	29.64	18.56	10.67	8.64	18.25	23.17	18.65	36.83	14.61	227.86
Batteries	0	0	0	0	0	0	0	0	0	0	0	0	-
Tanks	0	0	0	0	0	0	0	0	0	0	0	0	-
Clean Harbors	0.92	0	7.44	0.73	0	7.18	0	0	6.26	0.93	0	0	23.46
Monthly Totals	**19.04**	**17.63**	**31.31**	**32.87**	**21.66**	**19.85**	**10.74**	**20.89**	**33.85**	**22.76**	**38.23**	**17.81**	**286.64**
Drop Off Recycling Centers & Convenience Centers													
Carpet/Carpet Pad	23.36	14.60	26.28	26.28	23.36	23.36	16.06	26.28	27.74	32.12	20.44	26.28	286.16
Mixed Recyclables	12.14	11.22	13.12	8.42	10.20	10.69	9.57	9.51	9.94	7.65	10.65	11.40	124.51
Aluminum & Tin	-	-	-	9.33	-	0.78	-	0.78	-	-	-	-	10.89
Glass	199.87	173.71	178.00	173.63	173.91	162.97	207.89	169.29	190.98	185.73	185.19	206.12	2,207.29
Mixed Paper	257.14	271.60	260.52	243.38	293.09	272.03	268.90	219.21	249.03	223.59	238.22	238.15	3,034.86
OCC	169.83	151.35	161.75	150.54	134.01	158.72	164.37	131.44	143.91	136.24	154.15	147.76	1,804.07
Plastic	46.60	47.27	43.52	45.76	45.61	39.75	52.54	40.19	39.71	44.79	50.02	51.45	547.21
Plastic Bottles & Metal Cans	38.57	36.16	35.10	35.98	33.10	32.18	36.32	35.44	37.38	29.03	29.73	28.46	407.45
Scrap Metal	62.31	50.95	55.56	49.58	38.64	19.22	24.66	28.04	43.06	50.27	46.84	41.67	510.80
Tires	0.00	95.08	1,561.79	544.36	332.96	729.25	349.39	332.28	525.11	381.10	289.62	1,156.00	6,296.94
Monthly Totals	**809.82**	**851.94**	**2,335.64**	**1,287.26**	**1,084.88**	**1,448.95**	**1,129.70**	**992.46**	**1,266.86**	**1,090.52**	**1,024.86**	**1,907.29**	**15,230.18**
Waste Collection													
Total Metro Public Works Trash Collection	4,392.17	4,194.35	4,047.86	3,738.60	4,036.34	4,127.70	3,423.27	3,532.57	4,600.09	4,323.09	4,206.06	4,398.78	49,020.88
Total Convenience Center Trash	1,413.59	1,292.75	1,182.03	1,114.14	1,005.84	810.58	761.28	909.30	1,364.15	1,362.52	1,212.04	1,237.73	13,665.95
Contracted Residential	8,126.58	7,506.63	7,383.66	6,831.17	7,207.21	7,633.15	6,155.65	6,096.80	8,107.91	8,014.68	7,793.61	7,957.29	88,814.34
Monthly Totals	**13,932.34**	**12,993.73**	**12,613.55**	**11,683.91**	**12,249.39**	**12,571.43**	**10,340.20**	**10,538.67**	**14,072.15**	**13,700.29**	**13,211.71**	**13,593.80**	**151,501.17**
Brush Collection													
Unground -- Grapple Hook	639.88	853.79	561.4	49.35	420.28	539	299.74	279.55	1209.96	881.77	560.48	105.87	6,401.07
Unground -- Dropped Off	1072.55	1208.69	1682.06	2462.99	3981.7	1323.54	1004.56	1513	2710.94	2874.58	4865.53	5665.76	30,365.90
Unground -- Contractor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-
Ground -- Dropped Off	51.82	44.43	53.21	44.12	27.13	18.86	67.53	46.65	111.79	189.43	109.29	45.69	809.95
Leaves -- Metro	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-
Leaves -- Dropped Off	0.00	0.54	1.44	81.47	299.96	265.91	113.13	98.25	130.53	42.28	18.57	5.89	1,057.97
Monthly Totals	**1,764.25**	**2,107.45**	**2,298.11**	**2,637.93**	**4,729.07**	**2,147.31**	**1,484.96**	**1,937.45**	**4,163.22**	**3,988.06**	**5,553.87**	**5,823.21**	**38,634.89**

Table 1-G.1 Summary of BMP Inspection Status

BMP Type	Number of BMPs as of June 30, 2011
Detention Ponds	1662
Water Quality Units	519
Underground Detention	75
Swales	70
Bioretention	68
Sand Filter/Infiltration	20
Catch Basin Insert	88
Other	51

Note: Table represents the number of BMPs, not the number of sites with BMPs. Some sites have more than one BMP. A total of 98 sites were inspected in PY8, which includes inspections performed by outside vendors to keep sites in compliance with Metro's post construction inspection and maintenance requirements. A total of 60 NOVs were issued to BMPs owners in PY8. Most of the NOVs were for a failure to submit the inspection and maintenance reports required under Metro's regulations.

Table 2-A.1 Summary of NPDES Enforcement Cases

	Notice of Violation (NOV)	Stop Work Order (SWO)	Env. Court Cases
Total FY02	11	1	0
Total FY03	47	23	0
Total FY04	132	96	0
Total FY05	151	46	5
Total FY06	219	64	9
Total FY07	140	50	1
Total FY08	284	58	12
Total FY09	150	38	9
Total FY10	90	33	3
Total FY11	120	28	11
Total	**1344**	**437**	**50**

Table 2-A.1 Summary of NPDES Monetary Penalty Assessments

Year	NOV	SWO	Yearly Total
Total FY04	$19,850	$17,950	$37,800
Total FY05	$68,550	$50,600	$119,150
Total FY06	$39,250	$12,000	$51,250
Total FY07	$27,000	$9,400	$36,400
Total FY08	$36,150	$10,000	$46,150
Total FY09	$24,120	$11,351	$35,471
Total FY10	$12,152	$8,150	$20,302
Total FY11	$7,750	$7,800	$15,550
Total	**$234,822**	**$127,251**	**$362,073**

Note: The penalty assessment estimates were retrieved from the Results Matters Yearly Summary spreadsheet.

Table 2-C.1 Summary of Watershed Monitoring Programs in PY8

Stream Name	HUC-8	HUC-11	Number of Samples Taken	E. coli (geo) Summer '10 Jul-Aug	TSS avg Summer '10 Jul-Aug	Number of Samples Taken	E. coli (geo) Fall '10 Sept-Nov	TSS avg Fall '10 Sept-Nov	Number of Samples Taken	E. coli (geo) Winter '11 Dec-Feb	TSS avg Winter '10 Dec-Feb	Number of Samples Taken	E. coli (geo) Spring '11 Mar-May	TSS avg Spring '11 Mar-May	Number of Samples Taken	(geo) Summer '11 Jun	TSS avg Summer '11 Jun
MILL CREEK 5	TN05130202	007-5000	5	510.48	27.64	3*	80.74	16.20									
HOLT CREEK	TN05130202	007-1100	5	350.99	1.60	3*	99.26	1.40									
INDIAN CREEK	TN05130202	007-0800	5	304.87	5.55	3*	NA	2.40									
TURKEY CREEK	TN05130202	007-0700	5	1447.87	1.80	3*	Dry	Dry	2*	NA	1.30						
COLLINS CREEK	TN05130202	007-0600	5	112.63	1.24	3*	22.48	3.40	2*	104.85	0.50						
WHITTEMORE BRANCH	TN05130202	007-1200	5	1003.04	1.28	3*	131.48	1.07	2*	43.07	0.80						
MILL CREEK 3	TN05130202	007-3000	June	NA	NA	3*	32.36	1.20	2*	27.48	1.30						
SORGHUM BRANCH	TN05130202	007-1300	5	424.72	3.76	3*	227.39	2.80	2*	263.88	0.80						
CATHY JO BRANCH	TN05130202	007-1490	5	173.74	1.12	3*	655.85	0.53	2*	91.87	0.20						
SHASTA BRANCH	TN05130202	007-1410	5	1057.35	1.32	3*	741.69	1.40	2*	121.23	0.90						
SEVENMILE CREEK 2	TN05130202	007-1450	5	459.89	1.00	3*	344.25	0.60	2*	64.19	6.00						
SEVENMILE CREEK 1	TN05130202	007-1400	5	391.13	1.88	3*	175.08	1.53	2*	50.39	1.80						
FINLEY BRANCH	TN05130202	007-0300	June	NA	NA	3*	NA	5.93	2*	12.60	LTD						
MILL CREEK 2	TN05130202	007-2000	June	NA	NA	3*	205.16	2.33	2*	36.13	0.60						
PAVILLION BRANCH	TN05130202	007-1500	June	NA	NA	3*	482.01	10.20	2*	109.85	1.60						
SIMS BRANCH 2	TN05130202	007-0150	June	NA	NA	3*	122.44	1.87	2*	84.50	3.90						
SIMS BRANCH 1	TN05130202	007-0100	June	NA	NA	3*	440.99	0.40	2*	143.71	1.10						
MILL CREEK 1	TN05130202	007-1000	June	NA	NA	3*	105.65	19.43	2*	43.12	9.60						
WEST FORK BROWNS CREEK	TN05130202	023-0300										5	313.86	1.28			
MIDDLE FORK BROWNS CREEK	TN05130202	023-0200										5	172.41	1.80			
EAST FORK BROWNS CREEK	TN05130202	023-0100										5	146.16	10.46			
BROWN'S CREEK 2	TN05130202	023-2000										5	192.18	1.64			
BROWN'S CREEK 1	TN05130202	023-1000										5	303.17	5.72			
RICHLAND CREEK 3	TN05130202	314-3000										5	165.32	0.84			
VAUGHNS GAP BRANCH 2	TN05130202	314-0750										5	459.10	1.84			
VAUGHNS GAP BRANCH 1	TN05130202	314-0700										5	424.58	0.32			
JOCELYN HOLLOW BRANCH	TN05130202	314-0800										5	593.43	1.92			
RICHLAND CREEK 2	TN05130202	314-2000										5	152.29	1.92			
SUGARTREE CREEK	TN05130202	314-0400										5	234.99	LTD			
BOSLEY SPRINGS BRANCH	TN05130202	314-0300										5	1360.59	1.60			
MURPHY ROAD BRANCH	TN05130202	314-0200										5	22.44	3.00			
RICHLAND CREEK 1	TN05130202	314-1000										5	102.56	0.80			
Davidson Branch	TN05130202	001T-0700										5	139.48	2.32			
* Refers to one sample per month																	
Geo mean less than 126 CFU																	

Table 2-C.2 Summary of Watershed-Specific Assessment Programs in PY8

Thermographs					
Watersheds Flown	**Anomalies Found**	**Anomalies Inspected**	**Anomalies of Concern**	**Anomalies Resolved**	**Anomalies Ongoing**
4	22	22	2	2	0
Stream Walks					
Stream Name	**Number of segments**		**Total Miles**		
Finley	13		1.2		
Harpeth	100		9.5		
McCrory	17		1.6		
Pavillion	14		1.3		
Shasta	19		1.8		
Sims	29		2.8		
Stones	24		2.3		
Stoners	50		4.8		
Total	**266**		**25.1**		

Table 3-B.1 Summary of Stormwater Remedial Maintenance Contracted Street Sweeping Numbers in PY8

	July-10	August-10	September-10	October-10	November-10	December-10	January-11	February-11	March-11	April-11	May-11	June-11	Total
Debris Collected *(tons)*	315.3	258.7	272.5	318.5	461.9	424.7	294.6	438.6	402.0	454.2	428.8	416.2	4486.0
Miles of Street Swept	1707.4	1707.4	1707.4	1701.4	1625.9	1657.8	1764.7	1763.6	1656.0	1783.3	1658.5	1783.8	20517.2

Note: In previous years the street sweeping program was contracted out by the Metro Department of Public Works. During Permit Year 7, the street sweeping contract was transferred to MWS Remedial Maintenance Division.

Table 3-C.1 Summary of Metro Department of Public Works Deicing Application in PY8

	July-10	August-10	September-10	October-10	November-10	December-10	January-11	February-11	March-11	April-11	May-11	June-11	Total
Amount of salt/brine applied to Roadways (tons)	-	-	-	-	2,229.47	2,958.12	1,264.09	-	-	-	-	-	6,451.68
Number of Brine Trucks	-	-	-	-	20	20	20	-	-	-	-	-	
Number of Employees	-	-	-	-	34	34	34	-	-	-	-	-	

Table 3-E.1 Summary of Office of Emergency Management Spill Calls in PY8

Event Number	Address	Incident Type Id	Create Time Incident	Primary Unit Id
LOE100701017148	1155 BELL RD	HM1	07/01/2010 11:41:16	GAS
LOE100702017216	3025 PENN MEADE WY	HM1	07/02/2010 11:12:16	OIC
LOE100702017231	3410 WEST END AV	HM1	07/02/2010 14:56:13	OIC
LOE100702017257	318 TAMPA DR	HM1	07/02/2010 18:20:56	GAS
LOE100702017273	563 SUMMER PL	HM1	07/02/2010 22:49:50	OIC
LOE100705017421	EDMONDSON PKE&MCMURRAY DR	HM1	07/05/2010 18:45:28	OIC
LOE100706017448	650 OLD HICKORY BLVD	HM1	07/06/2010 09:07:46	GAS
LOE100706017460	520 HIGH ST	HM1	07/06/2010 12:41:19	GAS
LOE100706017475	2231 26TH AV N	HM1	07/06/2010 15:59:03	OIC
LOE100707017506	3301 CREEKWOOD DR	HM1	07/07/2010 02:17:35	GAS
LOE100707017529	239 HEARTHSTONE MANOR LA	HM1	07/07/2010 10:32:50	OIC
LOE100707017560	MM 90 6 I65 N	HM1	07/07/2010 16:14:32	OIC
LOE100707017579	1803 HEIMAN ST	HM1	07/07/2010 21:24:46	OIC
LOE100707017581	1605 KNOWLES ST	HM1	07/07/2010 21:31:34	OIC
LOE100708017649	570 METROPLEX DR	HM1	07/08/2010 18:53:20	OIC
LOE100708017656	RIVER DR&HYDES FERRY RD	HM1	07/08/2010 20:25:55	GAS
LOE100709017665	I40 E&STEWARTS FERRY PKE	HM1	07/09/2010 00:16:25	OIC
LOE100709017673	1717 HEIL QUAKER BLVD	HM1	07/09/2010 06:38:36	OIC
LOE100709017702	521 TIMMONS ST	PWHAZ	07/09/2010 13:07:19	PW144
LOE100709017718	7400 HARNESS DR	HM1	07/09/2010 17:09:41	OIC
LOE100710017765	5621 FRANKLIN PKE	HM1	07/10/2010 21:00:55	OIC
LOE100711017774	MCGAVOCK PKE&RIVERSIDE DR	HM1	07/11/2010 02:29:34	PWRD
LOE100711017776	1307 BROOKS MILL CIR	HM1	07/11/2010 02:38:29	OIC
LOE100712017951	I440 W&NOLENSVILLE PKE	HM1	07/12/2010 22:34:36	OIC
LOE100713018050	TROUSDALE DR&HARDING PL	HM1	07/13/2010 21:58:57	OIC
LOE100714018092	3515 CENTRAL PKE	HM1	07/14/2010 13:53:01	GAS
LOE100715018187	BUENA VISTA PKE&CURTIS ST	HM1	07/15/2010 17:24:02	GAS
LOE100715018188	2400 BUENA VISTA PKE	HM1	07/15/2010 17:22:10	GAS
LOE100715018189	6TH AV S&BROADWAY	HM1	07/15/2010 17:25:31	OIC
LOE100715018195	7TH AV N&BROADWAY	HM1	07/15/2010 17:57:16	OIC
LOE100715018197	7TH AV N&BROADWAY	HM1	07/15/2010 18:03:26	PWE
LOE100715018198	7TH AV N&BROADWAY	HM1	07/15/2010 18:11:51	PWE
LOE100715018213	917 OVERTON LEA RD	HM1	07/15/2010 20:22:46	GAS
LOE100716018221	2400 BUENA VISTA PKE	HM1	07/16/2010 01:55:36	GAS
LOE100716018269	3815 ROLLAND RD	HM1	07/16/2010 17:16:48	OIC
LOE100716018305	121 4TH AV S	PWHAZ	07/16/2010 23:22:52	PWHAZ
LOE100718018383	3458 DICKERSON PKE	HM1	07/18/2010 11:32:36	GAS
LOE100718018410	2ND AV N&COMMERCE ST	HM1	07/18/2010 23:09:39	PWE
LOE100719018428	4116 NOLENSVILLE PKE	HM1	07/19/2010 09:55:53	GAS
LOE100719018447	14TH AV N&GRUNDY ST	HM1	07/19/2010 13:50:49	PW149
LOE100719018448	14TH AV N&GRUNDY ST	HM2	07/19/2010 13:52:02	WATER
LOE100719018450	14TH AV N&GRUNDY ST	HM2	07/19/2010 13:57:42	
LOE100719018467	4419 JUDY CREEK RD	HM1	07/19/2010 17:17:14	GAS
LOE100720018484	1217 HILLSIDE AV	HM1	07/20/2010 00:35:58	PWW
LOE100720018534	HARDING PKE&PAGE RD	HM1	07/20/2010 18:00:06	OIC
LOE100721018614	EDENWOLD RD&N GALLATIN PKE	HM1	07/21/2010 22:08:12	GAS
LOE100722018647	1402 HERMITAGE PARK DR	HM1	07/22/2010 13:08:55	OIC
LOE100723018704	429 HUMPHREYS ST	HM1	07/23/2010 05:20:34	GAS
LOE100723018764	906 CLEVES ST	HM1	07/23/2010 18:06:15	OIC

Table 3-E.1 Summary of OEM Spill Calls in PY8 (Continued)

Event Number	Address	Incident Type Id	Create Time Incident	Primary Unit Id
LOE100723018771	145 HARRINGTON AV	HM1	07/23/2010 22:52:08	GAS
LOE100724018801	813 WESTCHESTER DR	HM1	07/24/2010 17:56:11	OIC
LOE100725018812	4403 HARDING PL	HM1	07/25/2010 01:17:31	GAS
LOE100725018826	1742 22ND AV N	HM1	07/25/2010 08:27:38	GAS
LOE100726018876	MM 216 I40 E	HM1	07/26/2010 10:47:08	GAS
LOE100728019057	713 MCMURRAY DR	HM1	07/28/2010 08:54:27	OIC
LOE100728019089	200 ATHENS WY	HM1	07/28/2010 12:19:09	OIC
LOE100728019108	216 GENTRY AV	HM1	07/28/2010 16:10:47	OIC
LOE100728019123	2013 LYNMEADE DR	HM2	07/28/2010 19:12:57	OIC
LOE100729019134	1020 16TH AV S	HM1	07/29/2010 00:49:11	GAS
LOE100729019148	400 GLENGARRY DR	HM1	07/29/2010 08:43:25	OIC
LOE100729019154	400 GLENGARRY DR	HM1	07/29/2010 10:17:07	WATER
LOE100730019210	969 BLANK ST	HM1	07/30/2010 07:21:48	GAS
LOE100730019237	743 HARDING PL	HM1	07/30/2010 12:40:00	OIC
LOE100730019240	5510 COUNTRY DR	HM1	07/30/2010 12:51:33	OIC
LOE100730019244	5510 COUNTRY DR	HM1	07/30/2010 13:26:51	OIC
LOE100730019272	1148 SAFETY HARBOR COVE	HM1	07/30/2010 19:23:01	GAS
LOE100731019296	2270 MURFREESBORO PKE	HM1	07/31/2010 09:22:48	GAS
LOE100731019337	3780 NOLENSVILLE PKE	HM1	07/31/2010 17:09:28	GAS
LOE100731019339	LAVRGN COUCHVLLE PKE&PIN HOOK	HM1	07/31/2010 17:12:32	WATER
LOE100731019346	2125 ACKLEN AV	HM1	07/31/2010 20:11:37	GAS
LOE100802019453	5705 CHARLOTTE PKE	HM1	08/02/2010 09:35:02	OIC
LOE100802019457	445 DAWN DR	HM1	08/02/2010 11:00:53	OIC
LOE100803019520	NESBITT LA&N GALLATIN PKE	HM1	08/03/2010 08:59:57	OIC
LOE100805019698	EXIT 7 BRILEY S	HM1	08/05/2010 00:11:28	PWE
LOE100805019860	21ST AV S&PIERCE AV	HM1	08/05/2010 17:20:18	GAS
LOE100806019908	VERITAS ST&TROUSDALE DR	HM1	08/06/2010 01:18:14	RAIL
LOE100806019933	491 OLD HICKORY BLVD	HM1	08/06/2010 09:30:54	OIC
LOE100806019958	1264 TUCKAHOE DR	HM1	08/06/2010 13:08:48	GAS
LOE100806019966	MM 52 I24 E	HM1	08/06/2010 14:44:24	OIC
LOE100807020059	6767 BROOKMONT TER	HM1	08/07/2010 19:08:34	GAS
LOE100807020070	326 WILBURN ST	HM1	08/07/2010 23:05:30	GAS
LOE100808020092	7981 WHITES CREEK PKE	HM1	08/08/2010 12:27:54	GAS
LOE100808020117	5010 OLD HICKORY BLVD	HM1	08/08/2010 20:34:22	OIC
LOE100808020118	4401 BEACON DR	HM1	08/08/2010 20:41:20	OIC
LOE100811020301	722 S 8TH ST	PWHAZ	08/11/2010 08:13:02	PW143
LOE100811020315	MM 207 I40 W	HM1	08/11/2010 11:20:33	STATE
LOE100811020316	MM 207 I40 W	HM1	08/11/2010 11:21:33	STATE
LOE100811020355	2207 RIVERCHASE BLVD	HM1	08/11/2010 17:47:19	GAS
LOE100811020368	4800 FOLEY DR	HM1	08/11/2010 20:51:07	OIC
LOE100812020436	MM 97 0 I65 N	HM1	08/12/2010 16:01:26	OIC
LOE100812020504	406 WILSON BLVD N	HM1	08/12/2010 17:59:02	NES
LOE100813020576	PAGE RD&BROOKFIELD AV	HM2	08/13/2010 09:12:26	PW149
LOE100813020583	PAGE RD&BROOKFIELD AV	HM2	08/13/2010 09:42:25	PW149
LOE100813020640	400 BELL RD	HM1	08/13/2010 18:43:26	PWRD
LOE100813020647	418 E CAMPBELL RD	HM1	08/13/2010 19:03:35	PWRD
LOE100815020752	1908 NATCHEZ TRACE	HM1	08/15/2010 02:52:42	GAS
LOE100815020788	GALLATIN PKE&BRILEY PKWY	HM1	08/15/2010 21:18:29	OIC
LOE100815020790	7206 MARK DR	HM1	08/15/2010 21:38:01	OIC

Table 3-E.1 Summary of OEM Spill Calls in PY8 (Continued)

Event Number	Address	Incident Type Id	Create Time Incident	Primary Unit Id
LOE100816020861	2ND AV N&COMMERCE ST	HM1	08/16/2010 22:06:32	PW149
LOE100817020875	8TH AV S&CLARK PL	HM1	08/17/2010 08:55:55	OIC
LOE100817020878	4601 GALLATIN PKE	HM1	08/17/2010 09:59:18	OIC
LOE100817020912	BAPTIST WORLD CTR DR&VASHTI ST	HM2	08/17/2010 16:58:03	PW149
LOE100818020973	HACKWORTH ST&POLK AV	HM1	08/18/2010 08:36:42	GAS
LOE100818020975	PAGE RD&BROOKFIELD AV	HM1	08/18/2010 08:43:46	PW143
LOE100818021033	5824 NOLENSVILLE PKE	HM1	08/18/2010 16:16:11	GAS
LOE100819021151	COUNTY HOSPITAL RD&BRILEY PKWY	HM2	08/19/2010 08:57:43	OIC
LOE100821021301	930 INDUSTRIAL DR	HM1	08/21/2010 10:05:37	OIC
LOE100821021305	5252 HICKORY HOLLOW PKWY	HM1	08/21/2010 10:32:57	OIC
LOE100823021494	I440 E&I65 S	HM1	08/23/2010 17:21:44	OIC
LOE100824021529	OLD HICKORY BLVD&I24 E ENT RMP	HM1	08/24/2010 09:00:55	PW143
LOE100824021546	1100 BERWICK TRL	HM1	08/24/2010 13:00:30	OIC
LOE100825021588	I40 W&STEWARTS FERRY PKE	HM1	08/25/2010 04:37:11	GAS
LOE100825021657	1921 GREENWOOD AV	HM1	08/25/2010 19:39:05	GAS
LOE100826021690	LEBANON PKE&TULIP GROVE RD	HM1	08/26/2010 10:05:24	GAS
LOE100826021692	LEBANON PKE&TULIP GROVE RD	HM1	08/26/2010 10:18:06	GAS
LOE100826021731	3200 CLARKSVILLE PKE	HM1	08/26/2010 20:27:48	OIC
LOE100827021759	NOLENSVILLE PKE&EDMONDSON PKE	HM1	08/27/2010 09:25:44	EOC
LOE100827021761	NOLENSVILLE PKE&EDMONDSON PKE	HM1	08/27/2010 09:36:50	PWRD
LOE100827021768	SPRING ST&JEFFERSON ST	HM1	08/27/2010 11:45:17	WATER
LOE100828021826	GEORGETOWN DR&BROOK HOLLOW RD	HM1	08/28/2010 08:37:34	PWRD
LOE100828021837	HARDING PL&LINBAR DR	HM1	08/28/2010 13:05:14	PWRD
LOE100828021841	20TH AV S&TERRACE PL	HM1	08/28/2010 13:37:23	PWRD
LOE100829021893	171 KENNER AV	HM1	08/29/2010 17:26:27	GAS
LOE100829021900	1501 LEBANON PKE	HM1	08/29/2010 19:29:36	OIC
LOE100830021955	1345 BELL RD	HM1	08/30/2010 17:01:10	GAS
LOE100830021959	5357 MT VIEW RD	HM1	08/30/2010 17:15:08	GAS
LOE100830021960	5357 MT VIEW RD	HM1	08/30/2010 17:52:57	GAS
LOE100831022009	WILSON BLVD S&BRIGHTON RD	HM1	08/31/2010 12:20:59	GAS
LOE100901022055	63RD AV N&PENNSYLVANIA AV	HM1	09/01/2010 07:27:19	PW144
LOE100902022159	1412 FRANKLIN AV	HM1	09/02/2010 10:32:48	GAS
LOE100902022184	1708 LONG AV	HM1	09/02/2010 16:39:17	GAS
LOE100903022221	WOODBERRY DR&MCGAVOCK PKE	HM1	09/03/2010 07:06:59	PW144
LOE100903022229	618 CHURCH ST	HM1	09/03/2010 08:30:45	GAS
LOE100903022231	5504 STANFORD DR	HM1	09/03/2010 09:03:33	GAS
LOE100904022322	MM 95 I65 N	HM1	09/04/2010 12:11:57	OIC
LOE100904022327	1010 STOCKELL ST	PWHAZ	09/04/2010 12:56:51	PWHAZ
LOE100905022356	8456 HWY 100	HM1	09/05/2010 11:58:14	OIC
LOE100906022415	HARDING PL&HUMBER DR	HM1	09/06/2010 15:07:50	PW149
LOE100906022437	5816 TRU LONG CT	HM1	09/06/2010 23:50:38	OIC
LOE100907022449	1008 STOCKELL ST	HM1	09/07/2010 07:57:03	PW144
LOE100907022469	3854 DICKERSON PKE	HM1	09/07/2010 11:50:16	PW144
LOE100907022475	2101 FREEMAN LA	HM1	09/07/2010 13:11:38	OIC
LOE100907022486	MCGAVOCK PKE&GLENMEADE DR	HM1	09/07/2010 16:07:04	PWHAZ
LOE100908022531	OLD DUE WEST AV&DICKERSON PKE	PWHAZ	09/08/2010 09:26:43	PW144
LOE100909022599	3116 DICKERSON PKE	HM1	09/09/2010 11:45:05	GAS
LOE100909022614	15TH AV N&GRUNDY ST	HM1	09/09/2010 15:08:51	PW149
LOE100909022620	4116 MEADOW HILL DR	HM1	09/09/2010 15:52:35	PW149

Table 3-E.1 Summary of OEM Spill Calls in PY8 (Continued)

Event Number	Address	Incident Type Id	Create Time Incident	Primary Unit Id
LOE100910022649	SPENCE LA&I40 W EXT RMP	HM1	09/10/2010 07:55:50	PW143
LOE100910022650	SPENCE LA&I40 W EXT RMP	HM1	09/10/2010 07:58:01	PW143
LOE100910022664	1110 STONEWALL DR	HM1	09/10/2010 10:28:53	OIC
LOE100910022742	OLD HICKORY BLVD W&N GALLATIN	PWHAZ	09/10/2010 22:21:01	PWHAZ
LOE100910022743	4508 TENNESSEE AV	HM1	09/10/2010 22:23:58	GAS
LOE100910022744	505 BROADMOOR DR	HM1	09/10/2010 22:41:58	GAS
LOE100911022766	1041 31ST AV N	HM1	09/11/2010 10:44:44	GAS
LOE100911022775	2620 UNA ANTIOCH PKE	HM1	09/11/2010 12:50:36	OIC
LOE100911022815	MYATT DR&STATE HWY 45	HM1	09/11/2010 17:33:26	PW144
LOE100912022841	5828 SEVEN POINTS TRACE	HM1	09/12/2010 11:16:35	PWRD
LOE100914022940	4644 OLD HICKORY BLVD	HM1	09/14/2010 01:05:32	OIC
LOE100914022970	VIETNAM VET BLVD N&CONFERENCE	HM1	09/14/2010 10:54:35	THELP
LOE100914022992	BRILEY PKWY&CENTENNIAL BLVD	HM1	09/14/2010 15:52:06	PW149
LOE100915023045	3RD AV S&MOLLOY ST	PWHAZ	09/15/2010 11:03:55	PW149
LOE100915023078	2607 LAKEVILLA DR	HM1	09/15/2010 17:19:56	OIC
LOE100915023091	2605 FRANKLIN PKE	HM1	09/15/2010 19:36:50	GAS
LOE100917023170	MM 205 I40 W	HM1	09/17/2010 00:57:21	OIC
LOE100918023246	HWY 100&NATCHEZ TRACE PKWY	HM1	09/18/2010 17:58:12	GAS
OE-00023713	15TH AV N / HAYES ST	HM1	09/22/2010 07:40:46	PWW
OE-00023725	1719 RIVER DR	HM1	09/22/2010 09:50:51	GAS
OE-00023732	PORTLAND AV / 21ST AV S	HM1	09/22/2010 11:06:21	CAR02
OE-00023775	FESSLERS LN / I40 E	HM1	09/22/2010 17:51:55	PW149
OE-00023777	HERMITAGE AV / EDGAR ST	HM1	09/22/2010 18:15:53	PW149
OE-00023811	544 HAMILTON AV	HM1	09/23/2010 08:12:38	GAS
OE-00023814	ASHLAND CITY HWY / HYDES FERRY RD	HM1	09/23/2010 08:38:32	PW149
OE-00023830	16TH AV N / CHARLOTTE AV	HM1	09/23/2010 12:59:56	GAS
OE-00023839	4781 ANDREW JACKSON PKWY	HM1	09/23/2010 14:25:26	GAS
OE-00023934	1913 NOLENSVILLE PKE	HM1	09/24/2010 12:00:17	PW149
OE-00024096	WOODLAND ST BRIDGE	HM1	09/26/2010 14:58:47	GAS
OE-00024136	KINGS LN / CLARKSVILLE PKE	HM2	09/27/2010 09:15:53	OIC
OE-00024416	4601 MURPHY RD	HM1	09/30/2010 10:21:48	NES
OE-00024440	21ST AV S / BLAIR BLVD	HM2	09/30/2010 13:57:05	GAS
OE-00024526	KINGS LN / CLARKSVILLE PKE	HM1	10/01/2010 09:30:13	OIC
OE-00024547	DEMONBREUN ST / 10TH AV S	PWHAZ	10/01/2010 11:41:42	PW149
OE-00024548	DEMONBREUN ST / 10TH AV S	PWHAZ	10/01/2010 11:41:47	PWRD
OE-00024680	820 17TH AV N	HM1	10/03/2010 09:35:26	OIC
OE-00024682	820 17TH AV N	HM1	10/03/2010 09:44:44	OIC
OE-00024685	3136 LARKSPUR DR	HM1	10/03/2010 10:59:30	GAS
OE-00024691	246 BUCK RUN DR	HM1	10/03/2010 11:59:51	GAS
OE-00024844	HIGHWAY 70 S / OLD HICKORY BLVD	HM1	10/05/2010 09:24:39	PWRD
OE-00024863	SHELBY PARK	HM1	10/05/2010 13:59:35	PW144
OE-00024865	HOBSON PKE / HAMILTON CHURCH RD	HM1	10/05/2010 15:15:38	PW149
OE-00024913	2500 DICKERSON PKE	HM1	10/06/2010 10:37:32	PW149
OE-00024921	2101 GREEN HILLS VILLAGE DR	HM1	10/06/2010 14:09:27	OIC
OE-00024990	2060 15TH AV S	HM1	10/07/2010 11:54:15	RAIL
OE-00025025	HARDING PL / SIDCO DR	HM1	10/07/2010 23:17:56	OIC
OE-00025121	THOMPSON LN / NOLENSVILLE PKE	HM1	10/09/2010 09:13:37	PWRD
OE-00025154	2306 BRICK CHURCH PKE	HM1	10/09/2010 20:41:28	OIC
OE-00025156	2306 BRICK CHURCH PKE	HM1	10/09/2010 21:26:02	PW144

Table 3-E.1 Summary of OEM Spill Calls in PY8 (Continued)

Event Number	Address	Incident Type Id	Create Time Incident	Primary Unit Id
OE-00025161	1515 ROBINSON RD	HM1	10/10/2010 02:57:16	GAS
OE-00025177	OLD HICKORY BLVD / CHARLOTTE PKE	HM1	10/10/2010 11:53:41	GAS
OE-00025178	CHARLOTTE PKE / OLD HICKORY BLVD	HM1	10/10/2010 12:13:23	GAS
OE-00025325	I440 E / I24 E	HM1	10/12/2010 16:57:55	OIC
OE-00025354	OLD HICKORY BLVD / NOLENSVILLE PKE	HM1	10/13/2010 06:56:40	STATE
OE-00025395	3602 BATAVIA ST	HM1	10/13/2010 14:35:45	GAS
OE-00025575	358 VILLAGE GREEN DR	PWHAZ	10/15/2010 18:44:08	AC
OE-00025620	WILD OAKS CT / EAGLE VIEW BLVD	HM1	10/16/2010 16:39:47	OIC
OE-00025653	OLD LEBANON DIRT RD / ANDREW JACKSON PKWY	HM1	10/17/2010 09:35:37	OIC
OE-00025875	9042 CHURCH ST E	HM1	10/20/2010 13:37:47	OIC
OE-00025894	3800 DICKERSON PKE	HM1	10/20/2010 16:52:17	OIC
OE-00025895	3800 DICKERSON PKE	HM1	10/20/2010 17:01:10	OIC
OE-00025898	BELL FORGE LN E / BELL RD	HM1	10/20/2010 17:25:14	GAS
OE-00026213	5600 COUNTRY DR	HM1	10/25/2010 09:32:21	GAS
OE-00026287	MM 90 I65 N	HM1	10/26/2010 05:08:10	OIC
OE-00026375	4TH AV S / KOREAN VETERANS BLVD	HM1	10/26/2010 13:17:22	GAS
OE-00026376	4TH AV S / KOREAN VETERANS BLVD	HM1	10/26/2010 13:19:21	GAS
OE-00026386	740 MASSMAN DR	HM1	10/26/2010 14:26:19	OIC
OE-00026423	2ND AV N / BROADWAY	PWHAZ	10/27/2010 03:13:20	PW144
OE-00026491	2440 RAVINE DR	HM1	10/27/2010 20:40:02	GAS
OE-00026521	COMMERCE ST / 3RD AV N	HM1	10/28/2010 10:09:33	PW144
OE-00026578	848 ARGLE AV	HM1	10/28/2010 20:11:54	GAS
OE-00026618	130 W TRINITY LN	HM1	10/29/2010 14:00:25	OIC
OE-00026628	1600 OLD HICKORY BLVD	HM1	10/29/2010 16:31:23	AC
OE-00026687	228 CROSS TIMBERS DR	HM1	10/30/2010 14:18:34	OIC
OE-00026718	4TH AV N / COMMERCE ST	HM1	10/31/2010 04:59:27	PW147
OE-00026976	1420 OLD HICKORY BLVD	HM1	11/03/2010 15:25:09	OIC
OE-00026989	UNA ANTIOCH PKE / APOLLO DR	PWHAZ	11/03/2010 20:41:14	PWW
OE-00027123	5328 SWINDLE RD	HM1	11/05/2010 21:36:23	OIC
OE-00027127	5328 SWINDLE RD	HM1	11/05/2010 23:54:50	OIC
OE-00027141	304 OLD LEBANON DIRT RD	HM1	11/06/2010 08:01:12	GAS
OE-00027355	NOLENSVILLE PKE / OLD HICKORY BLVD	HM1	11/09/2010 12:08:58	PWRD
OE-00027401	216 FAIRFAX AV	HM1	11/10/2010 09:29:23	GAS
OE-00027527	3041 DICKERSON PKE	HM1	11/11/2010 19:58:24	GAS
OE-00027659	NASHBORO BLVD / MURFREESBORO PKE	HM1	11/13/2010 18:26:17	GAS
OE-00027691	3700 SEABOARD DR	HM1	11/14/2010 08:46:11	OIC
OE-00027904	4TH AV S / KOREAN VETERANS BLVD	HM1	11/17/2010 15:41:32	CAR02
OE-00027964	EXIT 96 I65 N	HM1	11/18/2010 14:08:26	STATE
OE-00027965	ELLINGTON PKWY / BRILEY PKWY E	HM1	11/18/2010 14:16:00	GAS
OE-00027986	BELL RD / MT VIEW RD	HM1	11/18/2010 19:44:43	OIC
OE-00028180	MM 194 I40 E	HM2	11/22/2010 10:19:52	OIC
OE-00028328	3513 CALAIS CIR	HM1	11/24/2010 11:56:21	OIC
OE-00028345	OLD CHARLOTTE PKE / GOURLEY RD	HM1	11/24/2010 15:53:15	PWRD
OE-00028445	ANDREW JACKSON PKWY / SAUNDERSVILLE RD	HM1	11/26/2010 13:29:10	GAS
OE-00028512	2322 ANTIOCH PKE	HM1	11/27/2010 17:42:43	GAS
OE-00028525	HARDING PL / METROPLEX DR	HM1	11/27/2010 22:07:10	GAS
OE-00028528	SAUNDERSVILLE RD / SHUTE LN	HM1	11/28/2010 04:54:21	GAS
OE-00028546	W TRINITY LN / HAMPTON ST	HM1	11/28/2010 11:37:31	OIC
OE-00028641	815 5TH AV S	HM1	11/29/2010 21:09:39	OIC

Table 3-E.1 Summary of OEM Spill Calls in PY8 (Continued)

Event Number	Address	Incident Type Id	Create Time Incident	Primary Unit Id
OE-00028642	815 5TH AV S	HM1	11/29/2010 21:10:35	OIC
OE-00028763	I40 W EXIT RAMP / BRILEY PKWY S EXT RAMP	HM1	12/01/2010 11:47:41	OIC
OE-00028764	I40 W / BRILEY PKWY S EXT RAMP	HM1	12/01/2010 11:49:01	OIC
OE-00028864	CENTRAL PKE / FRIST BLVD	HM1	12/02/2010 15:00:55	OIC
OE-00028875	1011 LENORE ST	HM1	12/02/2010 18:52:18	GAS
OE-00028974	BELL RD / MT VIEW RD	HM1	12/04/2010 09:54:27	GAS
OE-00029087	I65 S / I24 E	HM1	12/06/2010 08:19:18	GAS
OE-00029153	CSX ENT A	HM1	12/07/2010 07:05:44	TEMA
OE-00029179	7263 WHITES CREEK PKE	HM1	12/07/2010 13:34:36	OIC
OE-00029180	CHRISTOPHER ST / WEST END AV	HM1	12/07/2010 13:39:22	OIC
OE-00029265	EDMONDSON PKE / OLD HICKORY BLVD	HM1	12/08/2010 15:29:43	GAS
OE-00029288	EDMONDSON PKE / OLD HICKORY BLVD	HM1	12/08/2010 18:04:00	GAS
OE-00029303	EDMONDSON PKE / OLD HICKORY BLVD	HM1	12/08/2010 22:18:19	GAS
OE-00029343	314 N GALLATIN PKE	HM1	12/09/2010 10:57:28	WATER
OE-00029345	314 N GALLATIN PKE	HM1	12/09/2010 11:14:14	WATER
OE-00029362	2129 LAKESHORE DR	HM1	12/09/2010 15:09:04	GAS
OE-00029395	HAMILTON CHURCH RD / MURFREESBORO PKE	HM1	12/10/2010 01:48:44	PW149
OE-00029542	3043 NOLENSVILLE PKE	HM2	12/11/2010 19:38:09	OIC
OE-00029554	DOUGLAS AV / CLINE AV	PWHAZ	12/12/2010 02:10:56	PWE
OE-00029720	BELL RD / MT VIEW RD	HM1	12/12/2010 20:07:54	OIC
OE-00029737	4004 LEBANON PKE	HM1	12/12/2010 21:11:47	OIC
OE-00029836	I40 W / STEWARTS FERRY PKE	HM1	12/13/2010 08:03:09	GAS
OE-00029986	N GALLATIN PKE / EDENWOLD RD	HM1	12/14/2010 06:42:00	GAS
OE-00030128	811 N GALLATIN PKE	HM1	12/15/2010 06:23:05	GAS
OE-00030206	811 HAMILTON CROSSINGS	HM1	12/16/2010 00:10:01	OIC
OE-00030307	1130 POLK AV	HM1	12/16/2010 14:53:02	OIC
OE-00030333	BAKER STATION RD / SPRINGFIELD HWY	HM1	12/17/2010 05:30:33	OIC
OE-00030448	4112 HILLSBORO CIR	HM1	12/18/2010 14:46:45	OIC
OE-00030452	I40 E / 46TH AV N	HM1	12/18/2010 17:02:28	GAS
OE-00030457	4601 MURPHY RD	HM1	12/18/2010 17:48:10	GAS
OE-00030592	140 N 1ST ST	HM1	12/20/2010 23:53:37	GAS
OE-00030643	6TH AV N / CHURCH ST	HM1	12/21/2010 21:00:53	GAS
OE-00030690	819 S GALLATIN PKE	HM1	12/22/2010 16:41:06	OIC
OE-00030828	3900 WEST END AV	HM1	12/25/2010 16:39:37	GAS
OE-00030911	I65 N / W TRINITY LN	HM1	12/25/2010 22:45:54	GAS
OE-00031060	HAMILTON CHURCH RD / MURFREESBORO PKE	HM1	12/28/2010 08:23:52	GAS
OE-00031062	819 HAMILTON CROSSINGS	HM1	12/28/2010 08:56:16	GAS
OE-00031259	OLD HICKORY BLVD / DALEMERE DR	HM1	12/30/2010 18:15:56	GAS
OE-00031262	1511 EASTLAND AV	HM1	12/30/2010 19:21:20	GAS
OE-00000157	OLD HARDING PKE / MORTON MILL RD	HM1	01/03/2011 02:24:43	GAS
OE-00000223	NASHBORO BLVD / MURFREESBORO PKE	HM1	01/03/2011 19:20:18	OIC
OE-00000332	2115 N GALLATIN PKE	HM1	01/05/2011 16:28:14	GAS
OE-00000366	MM 20 4 BRILEY W	HM1	01/06/2011 08:52:00	GAS
OE-00000509	608 MONTE CARLO DR	HM1	01/08/2011 10:59:33	GAS
OE-00000514	714 STEWARTS FERRY PKE	HM1	01/08/2011 12:26:06	STATE
OE-00000540	5300 HICKORY HOLLOW LN	HM1	01/08/2011 20:34:35	GAS
OE-00000608	NOLENSVILLE PKE / OLD HICKORY BLVD	HM1	01/09/2011 23:23:05	GAS
OE-00000647	I24 E / HAYWOOD LN	HM1	01/10/2011 07:02:33	OIC
OE-00000773	HILLSBORO PKE / I440 E	HM1	01/11/2011 08:25:10	GAS

Table 3-E.1 Summary of OEM Spill Calls in PY8 (Continued)

Event Number	Address	Incident Type Id	Create Time Incident	Primary Unit Id
OE-00000777	29 MUSIC SQ E	HM1	01/11/2011 09:17:14	GAS
OE-00000974	2ND AV S / I40 E	HM1	01/12/2011 21:51:37	GAS
OE-00001019	EDMONDSON PKE / OLD HICKORY BLVD	HM1	01/13/2011 13:48:32	GAS
OE-00001082	509 AUGUSTA DR	HM1	01/14/2011 10:05:04	OIC
OE-00001133	MURFREESBORO PKE / HAMILTON CHURCH RD	HM1	01/14/2011 18:23:56	OIC
OE-00001172	NOLENSVILLE PKE / BURKITT RD	HM1	01/15/2011 13:58:21	PW149
OE-00001173	LEBANON PKE / OLD HICKORY BLVD	HM1	01/15/2011 14:02:05	OIC
OE-00001198	970 MURFREESBORO PKE	PWHAZ	01/16/2011 00:12:41	PW144
OE-00001216	1000 17TH AV N	HM1	01/16/2011 12:36:49	GAS
OE-00001362	314 GARNER AV	HM1	01/18/2011 10:28:53	GAS
OE-00001414	108 BONNABROOK DR	HM1	01/18/2011 21:21:58	OIC
OE-00001546	I65 N / HARDING PL	HM1	01/20/2011 18:04:24	GAS
OE-00001626	MM 93 I65 N	HM1	01/20/2011 23:05:08	OIC
OE-00001882	DICKERSON PKE / DUE WEST AV N	HM1	01/22/2011 19:37:55	PW144
OE-00002000	5826 ROBERTSON AV	HM1	01/24/2011 17:31:35	GAS
OE-00002181	3548 ROUNDWOOD FOREST DR	HM1	01/26/2011 17:03:14	GAS
OE-00002264	964 CENTURY OAK DR	HM1	01/27/2011 16:46:43	OIC
OE-00002305	655 HOGAN RD	HM1	01/28/2011 10:35:44	OIC
OE-00002315	LEBANON PKE / ANDREW JACKSON PKWY	HM1	01/28/2011 13:05:00	GAS
OE-00002320	706 N CHESTNUT CT	HM1	01/28/2011 13:43:02	OIC
OE-00002326	2948 SIDCO DR	HM1	01/28/2011 15:30:22	GAS
OE-00002370	SAUNDERSVILLE RD / ANDREW JACKSON PKWY	HM1	01/29/2011 14:18:32	GAS
OE-00002439	HIGHWAY 70 S / OLD HARDING PKE	HM1	01/30/2011 17:00:37	OIC
OE-00002442	6204 OLD HARDING PKE	HM1	01/30/2011 17:29:45	OIC
OE-00002554	MM 42 I24 E	HM1	02/01/2011 15:04:41	OIC
OE-00002834	7005 RED APPLE RD	HM1	02/04/2011 22:13:02	GAS
OE-00002858	SAUNDERSVILLE RD / ANDREW JACKSON PKWY	HM1	02/05/2011 13:03:59	GAS
OE-00002909	101 GUILL CT	HM1	02/06/2011 13:45:10	GAS
OE-00003025	546 HAMILTON AV	HM1	02/08/2011 08:26:09	GAS
OE-00003044	LEBANON PKE / SHUTE LN	HM1	02/08/2011 12:45:56	GAS
OE-00003081	657 LEMONT DR	HM1	02/09/2011 09:23:41	GAS
OE-00003082	657 LEMONT DR	HM1	02/09/2011 09:24:33	GAS
OE-00003087	5787 NOLENSVILLE PKE	HM1	02/09/2011 10:59:20	GAS
OE-00003384	1105 HALCYON AV	HM2	02/10/2011 16:22:22	OIC
OE-00003625	MM 193 I40 E	HM1	02/14/2011 09:49:15	OIC
OE-00003679	ROBINSON RD / MERRITT ST	HM1	02/15/2011 06:17:19	GAS
OE-00003704	CENTENNIAL BLVD / BRILEY PKWY N	HM1	02/15/2011 14:31:56	PW149
OE-00003734	705 BELLE MEADE BLVD	HM1	02/16/2011 07:59:01	GAS
OE-00003795	WHITE BRIDGE PKE / HARDING PKE	HM1	02/16/2011 23:58:01	GAS
OE-00003823	550 DONELSON PKE	HM1	02/17/2011 15:49:52	OIC
OE-00003896	1160 OTTER CREEK RD	HM1	02/18/2011 14:55:44	OIC
OE-00003953	I24 E / BRILEY PKWY W	HM1	02/19/2011 02:58:21	OIC
OE-00003992	SHUTE LN / SAUNDERSVILLE RD	HM1	02/19/2011 14:40:32	GAS
OE-00004031	HIGHWAY 70 S / CLUB PKWY	HM1	02/20/2011 09:29:32	GAS
OE-00004036	I40 E / FESSLERS LN	HM1	02/20/2011 10:12:32	OIC
OE-00004228	4331 SAUNDERSVILLE RD	HM1	02/23/2011 16:58:54	OIC
OE-00004285	I24 E / OLD HICKORY BLVD	HM2	02/24/2011 14:56:26	STATE
OE-00004286	MURFREESBORO PKE / OLD HICKORY BLVD	HM2	02/24/2011 14:57:21	PWW
OE-00004288	5853 MT VIEW RD	HM1	02/24/2011 15:06:33	PWW

Table 3-E.1 Summary of OEM Spill Calls in PY8 (Continued)

Event Number	Address	Incident Type Id	Create Time Incident	Primary Unit Id
OE-00004293	MT VIEW PKWY / HICKORY HOLLOW PKWY	HM2	02/24/2011 15:44:31	OIC
OE-00004296	6033 DANA WAY	HM2	02/24/2011 16:19:10	OIC
OE-00004342	822 ANDERSON LN	HM1	02/24/2011 22:03:29	GAS
OE-00004379	333 N GALLATIN PKE	HM1	02/24/2011 22:20:38	GAS
OE-00004405	102 CLIFTON CT	HM1	02/24/2011 22:29:58	GAS
OE-00004506	ALLENTOWN RD / ELLIS CT	HM1	02/24/2011 23:08:55	GAS
OE-00004790	617 S 8TH ST	HM1	02/25/2011 11:39:36	OIC
OE-00004802	617 S 8TH ST	HM1	02/25/2011 12:22:41	PW143
OE-00004804	101 POLK AV	HM1	02/25/2011 12:37:33	PW143
OE-00004876	428 EZELL PKE	HM1	02/25/2011 20:24:46	OIC
OE-00004877	428 EZELL PKE	HM1	02/25/2011 20:26:14	OIC
OE-00005043	EXIT 92 I65 S	HM2	02/27/2011 15:42:10	OIC
OE-00005044	MM 92 2 I65 S	HM1	02/27/2011 15:42:44	OIC
OE-00005048	EXIT 92 I65 S	HM1	02/27/2011 16:08:47	OIC
OE-00005111	1032 28TH AV N	HM1	02/28/2011 08:56:18	OIC
OE-00005181	25 WHITE BRIDGE PKE	HM1	02/28/2011 16:44:57	GAS
OE-00005192	2400 BUENA VISTA PKE	HM1	02/28/2011 21:26:30	GAS
OE-00005206	1227 8TH ST	HM1	03/01/2011 08:19:17	GAS
OE-00005296	3711 NOLENSVILLE PKE	HM1	03/02/2011 11:30:06	OIC
OE-00005437	7200 CENTENNIAL BLVD	HM1	03/04/2011 10:42:08	WATER
OE-00005684	908 14TH AV S	HM1	03/08/2011 07:13:42	GAS
OE-00005779	CHARLOTTE AV / 22ND AV N	PWHAZ	03/09/2011 10:24:29	PW144
OE-00005796	POLK AV / FESSLERS LN	HM1	03/09/2011 12:49:50	GAS
OE-00005816	I40 E / BROADWAY	HM1	03/09/2011 16:35:00	GAS
OE-00005842	2500 WEST END AV	HM1	03/09/2011 19:16:43	OIC
OE-00005865	10TH AV S / CARUTHERS AV	HM1	03/10/2011 08:41:22	GAS
OE-00005893	606 N DUPONT AV	HM1	03/10/2011 15:06:39	OIC
OE-00005904	2060 15TH AV S	HM1	03/10/2011 18:00:57	OIC
OE-00005926	931 MAIN ST	HM1	03/11/2011 09:00:31	GAS
OE-00005957	DODSON CHAPEL RD / BELL RD	HM1	03/11/2011 16:45:14	GAS
OE-00005963	1039 1ST AV S	HM1	03/11/2011 17:51:17	GAS
OE-00006018	SAWYER BROWN RD / GEN GEORGE PATTON RD	HM1	03/12/2011 19:47:09	GAS
OE-00006077	SMITH SPRINGS RD / BELL RD	HM1	03/13/2011 21:21:21	GAS
OE-00006269	2305 ELLISTON PL	HM1	03/17/2011 08:25:53	GAS
OE-00006276	13011 OLD HICKORY BLVD	HM1	03/17/2011 10:17:49	OIC
OE-00006341	VAUGHNS GAP RD / JOCELYN HOLLOW RD	HM1	03/18/2011 09:02:52	GAS
OE-00006345	10TH AV N / PHILLIPS ST	HM1	03/18/2011 10:25:12	GAS
OE-00006593	DICKERSON PKE / DELLWAY DR	HM1	03/22/2011 01:40:23	GAS
OE-00006681	1520 PORTER RD	PWHAZ	03/23/2011 10:45:01	OIC
OE-00006682	1520 PORTER RD	PWHAZ	03/23/2011 10:47:37	OIC
OE-00006698	HARRIS ST / MADISON ST	PWHAZ	03/23/2011 16:25:59	PW149
OE-00006934	I24 W / HAYWOOD LN	HM1	03/27/2011 09:01:53	OIC
OE-00006941	51ST AV N / CHARLOTTE AV	HM1	03/27/2011 12:59:46	OIC
OE-00007059	SUMMERCREST BLVD / MURFREESBORO PKE	HM1	03/29/2011 07:19:30	PWRD
OE-00007084	NOLENSVILLE PKE / NORTHCREST DR	HM1	03/29/2011 14:16:58	GAS
OE-00007134	ALMOND ST / KOREAN VETERANS BLVD	HM1	03/30/2011 06:48:56	OIC
OE-00007135	ALMOND ST / KOREAN VETERANS BLVD	HM1	03/30/2011 07:10:32	WATER
OE-00007283	VIETNAM VETERANS BLVD ENT RAMP / CONFERENCE DR	HM1	03/31/2011 22:49:17	PWE
OE-00007375	WHITES CREEK PKE / BRILEY PKWY E	HM1	04/01/2011 18:20:51	PW149

Table 3-E.1 Summary of OEM Spill Calls in PY8 (Continued)

Event Number	Address	Incident Type Id	Create Time Incident	Primary Unit Id
OE-00007430	7TH AV S / DEMONBREUN ST	HM1	04/02/2011 16:57:16	WATER
OE-00007484	3007 OLD HICKORY BLVD	HM1	04/03/2011 14:50:33	GAS
OE-00007663	3508 CALAIS CIR	HM1	04/04/2011 14:31:36	GAS
OE-00007665	2250 LEBANON PKE	HM1	04/04/2011 14:31:51	GAS
OE-00007675	905 WYNTREE S	HM1	04/04/2011 14:33:50	GAS
OE-00007702	412 ENGLISH IVY DR	HM1	04/04/2011 14:38:44	GAS
OE-00007839	437 WAUFORD DR	HM1	04/04/2011 15:05:32	GAS
OE-00007929	I40 W / STEWARTS FERRY PKE	HM1	04/04/2011 15:51:00	GAS
OE-00007968	UNION ST / 3RD AV N	HM1	04/04/2011 16:15:38	GAS
OE-00008133	MURFREESBORO PKE / DOVER GLEN DR	HM1	04/04/2011 18:42:22	GAS
OE-00008422	EXIT 87 I65 S	HM2	04/05/2011 10:23:54	OIC
OE-00008866	PACKARD DR / CEDAR HILL RD	HM2	04/08/2011 20:14:29	OIC
OE-00008868	1516 N GALLATIN PKE	HM2	04/08/2011 20:55:34	OIC
OE-00009176	CLEVELAND ST	HM2	04/12/2011 20:51:08	OIC
OE-00009278	1500 MEDICAL CENTER DR	HM1	04/13/2011 20:46:21	GAS
OE-00009294	OLD HICKORY BLVD / HILLSBORO PKE	HM1	04/14/2011 07:40:19	GAS
OE-00009886	820 17TH AV N	HM1	04/17/2011 10:08:14	OIC
OE-00009889	820 17TH AV N	HM1	04/17/2011 10:19:45	OIC
OE-00009916	CHEROKEE RD / ABERDEEN RD	HM1	04/17/2011 15:51:12	OIC
OE-00009972	I40 W / STEWARTS FERRY PKE	HM1	04/18/2011 10:02:38	GAS
OE-00010355	18 EAST THOMPSON LN	HM2	04/20/2011 13:43:15	OIC
OE-00010551	891 OLD HICKORY BLVD	HM1	04/22/2011 17:05:50	PWRD
OE-00010597	WHITE BRIDGE PKE / CHARLOTTE PKE	HM1	04/23/2011 09:27:56	GAS
OE-00010638	I40 W / BRILEY PKWY	HM1	04/24/2011 09:56:39	NES
OE-00010676	12TH AV S / HORTON AV	PWHAZ	04/24/2011 22:09:57	PW
OE-00011123	10TH AV N / PHILLIPS ST	HM1	04/28/2011 10:14:35	GAS
OE-00011155	4120 GOURLEY RD	HM1	04/28/2011 15:53:36	OIC
OE-00011245	1 SHARONWOOD DR	HM1	04/29/2011 15:55:44	GAS
OE-00011282	237 MADISON BLVD	HM1	04/30/2011 08:07:43	GAS
OE-00011289	MM 49 I24 W	HM1	04/30/2011 10:16:19	OIC
OE-00011318	HIGHWAY 100 / HARPETH TRACE DR	HM1	04/30/2011 21:43:45	GAS
OE-00011321	439 WESTFIELD DR	PWHAZ	04/30/2011 22:44:01	PW149
OE-00011419	100 AIRPARK CENTER E	HM1	05/02/2011 12:50:50	OIC
OE-00011652	1200 E OLD HICKORY BLVD	PWHAZ	05/04/2011 23:35:11	PWE
OE-00011770	1126 SUNNYMEADE DR	HM2	05/06/2011 14:48:45	OIC
OE-00011982	JOCELYN HOLLOW RD / ROBIN HILL RD	HM1	05/10/2011 07:28:15	GAS
OE-00012035	DEADERICK ST / 4TH AV N	PWHAZ	05/11/2011 00:43:04	PW144
OE-00012042	E CEDAR ST / CARTWRIGHT ST	HM2	05/11/2011 02:46:49	OIC
OE-00012053	DICKERSON PKE / HUNTERS LN	HM1	05/11/2011 07:27:18	PW143
OE-00012299	5169 HICKORY HOLLOW PKWY	HM1	05/13/2011 10:59:35	PW143
OE-00012368	1110 BELL RD	PWHAZ	05/14/2011 01:35:05	PW144
OE-00012415	11TH AV N / CHURCH ST	PWHAZ	05/14/2011 19:28:07	OIC
OE-00012424	2209 MURFREESBORO PKE	HM2	05/14/2011 23:00:46	OIC
OE-00012476	MM 199 I40 W	HM2	05/15/2011 19:54:44	OIC
OE-00012651	MONROE ST / ROSA L PARKS BLVD	HM1	05/18/2011 12:28:17	PW144
OE-00012742	CHESTNUT ST / 4TH AV S	HM2	05/19/2011 20:10:13	OIC
OE-00012743	HILLSBORO CIR / ABBOTT MARTIN RD	PWHAZ	05/19/2011 20:15:27	PW144
OE-00012778	11TH AV N / CHARLOTTE AV	HM1	05/20/2011 11:53:33	OIC
OE-00012788	452 MOSS TR	HM1	05/20/2011 14:48:24	OIC

Table 3-E.1 Summary of OEM Spill Calls in PY8 (Continued)

Event Number	Address	Incident Type Id	Create Time Incident	Primary Unit Id
OE-00012819	1717 CHARLOTTE AV	HM1	05/20/2011 18:45:20	PW149
OE-00012835	117 2ND AV N	PWHAZ	05/21/2011 05:28:51	PW144
OE-00012857	1341 DICKERSON PKE S	HM1	05/21/2011 15:26:17	PWE
OE-00013021	109 DULUTH AV	HM1	05/23/2011 08:35:03	GAS
OE-00013099	W TRINITY LN / BUENA VISTA PKE	HM1	05/23/2011 20:26:50	GAS
OE-00013824	1500 DICKERSON PKE	HM1	05/25/2011 17:16:35	GAS
OE-00014407	I65 N / W TRINITY LN	HM1	05/28/2011 11:27:52	GAS
OE-00014526	521 GALESBURG CT	HM1	05/29/2011 20:31:05	OIC
OE-00014553	WOODVALE DR / GRANNY WHITE PKE	HM1	05/30/2011 12:13:11	PWW
OE-00014613	626 CHARLES E DAVIS BLVD	HM1	05/31/2011 00:50:56	PWHAZ
OE-00014760	6023 ROBERTSON AV	HM1	06/01/2011 13:24:09	PW149
OE-00015065	WEST END AV / NATCHEZ TRC	HM1	06/05/2011 11:22:31	OIC
OE-00015196	GALLATIN AV / CALVIN AV	HM2	06/06/2011 14:03:21	OIC
OE-00015222	814 HILLVIEW HTS	HM1	06/06/2011 18:47:36	OIC
OE-00015259	2806 27TH AV S	HM2	06/07/2011 11:28:29	GAS
OE-00015415	628 CHERRY GLEN CIR	HM1	06/08/2011 23:06:01	OIC
OE-00015440	1830 LINDER INDUSTRIAL DR	HM1	06/09/2011 09:39:55	WATER
OE-00015445	600 CHARLOTTE AV	HM1	06/09/2011 10:08:07	OIC
OE-00015452	300 N 1ST ST	HM1	06/09/2011 10:58:49	PWRD
OE-00015484	1901 OLD HICKORY BLVD	HM1	06/09/2011 15:15:22	OIC
OE-00015565	6730 CHARLOTTE PKE	HM1	06/10/2011 12:37:22	PW149
OE-00015677	6418 CENTENNIAL BLVD	HM1	06/11/2011 21:15:03	OIC
OE-00015828	18TH AV N / DR D B TODD JR BLVD	PWHAZ	06/14/2011 05:36:08	PW144
OE-00015957	1308 OAKHURST DR	HM1	06/15/2011 12:36:39	GAS
OE-00016126	223 MORTON AV	HM1	06/16/2011 11:07:51	GAS
OE-00016220	509 CALL HILL PL	HM1	06/17/2011 15:10:31	PW149
OE-00016263	3205 WHITES CREEK PKE	HM1	06/18/2011 02:59:07	PW147
OE-00016268	911 14TH AV N	PWHAZ	06/18/2011 05:19:22	PW147
OE-00016322	WOODLAND ST BRIDGE	PWHAZ	06/18/2011 21:23:25	PW147
OE-00016355	3410 GALLATIN PKE	HM1	06/19/2011 11:45:20	PW143
OE-00016443	3200 WEST END AV	HM2	06/20/2011 13:13:10	PW149
OE-00016468	8634 MCCRORY LN	HM1	06/20/2011 20:14:13	OIC
OE-00016573	206 GALLATIN AV	HM1	06/22/2011 12:06:05	PW144
OE-00016710	NOLENSVILLE PKE / THOMPSON LN	HM1	06/24/2011 14:03:33	PWRD
OE-00016711	114 HICKORY ST	HM2	06/24/2011 14:04:43	OIC
OE-00016892	PEARL ST / FISK ST	HM2	06/27/2011 09:00:29	PW143
OE-00016952	721 DUE WEST AV N	HM1	06/27/2011 21:30:23	OIC
OE-00016955	WALLACE RD / NOLENSVILLE PKE	HM1	06/27/2011 21:44:27	OIC
OE-00017127	1809 RUSSELL ST	HM1	06/28/2011 16:19:05	GAS
OE-00017177	11TH AV N / DEMONBREUN ST	HM1	06/29/2011 10:06:14	GAS
OE-00017242	1800 DICKERSON PKE	PWHAZ	06/30/2011 03:17:39	PWRD
OE-00017342	MM 201 I40 E	HM1	06/30/2011 22:10:13	GAS
			Total Calls	**492**

Note: Table represents the total spill calls handled through the Metro OEM office for the reporting period. In some instances, multiple calls are generated by one incident.

Table 3-E.2 Summary of Public Works Hazmat Response Spill Calls in PY8

Date	Location	Situation	Actions	Agencies
06/29/2011	4208 sweden dr	45 gallons oil on road	covered with 400 lbs spill gone / contain spill and NES CLEANED UP	PD/PW/FD
06/28/2011	1118 12TH AV SOUTH	275 GALS OF PAINT	COVERED WITH SPILL GONE, COMPANY CLEANED UP	PW/PD/WATER
06/27/2011	PEARL ST @ FISK ST	15-20 GALLONS OF GASOLINE LEAKED OUT OF CAR	NONE……. FD COVERED AND CONTAINED SPILL	FD'PW'PD
06/19/2011	GALLATIN RD NEAR HART LN	10 GAL GASOLINE SPILLED	FD COVERED WITH SPILL GONE, I CLEANED UP	PW/FD
06/15/2011	BURNETT RD @ SWINGING BRIDGE RD	5 GAL HYDRAULIC OIL ON ROAD	PUT 50 LBS SPILL GONE ON ROAD	PW
06/08/2011	316 Wilson Blvd	hydrulic oil spill	covered with 700 lbs spill gone	pw
06/06/2011	CALVIN AVE @ GALLATIN	HYDRAULIC OIL LEAK	PUT DOWN 600 LBS OF ABSORBENT	PW, PD,OEM, WS
05/21/2011	BROADWAY @ 8TH AVE	FLUID LEAK, 5 GAL OF FUEL AND 5 QUARTS OF OIL	COVERED WITH 50 LBS SPILL GONE AND BROOMED	FD/PD/PW
05/19/2011	HILLSBORO PK @ ABBOTT MARTIN RD	ONE GALLON OIL ON ROAD FROM A CRASH	PUT 50 LBS ABSORBENT ON ROAD	PD/PW
05/18/2011	HOBBS RD @ SNEED RD	30 GAL HYDRAULIC OIL ON ROAD	PUT 1250 LBS ABSORBENT ON ROAD WITH SPREADER TRUCK	PW
05/14/2011	MURFREESBORO @ BOROWOOD DR	FUEL LEAK/UNLEADED	PUT DOWN 50LBS OF ABSORBENT AND BROOMED	PW/FD/PD
05/13/2011	5169 HICKORY HOLLOW PKWY	OIL OR ROAD	PUT 4000 LBS SPILL GONE ON ROAD WITH SPREADER TRUCK	PD,PW,FD
05/11/2011	DEADRICK ST @ 4 TH AV	40 GAL HYDRAULIC OIL ON ROAD	PUT 1300 LBS ABSORBENT ON ROAD	PW
05/10/2011	EASTDALE AVE @ KENWOOD DR	40 GAL HYDRAULIC OILON ROAD	PUT 300 LBS SPILL GONE ON ROAD	PW
04/12/2011	CLEVELAND ST @ ELLINGTON PKWY	DIESEL LEAK	PUT DOWN ABSORBENT TO CONTAIN SMS . DID CLEAN UP	PW / PD / FD / OEM
03/30/2011	ALMOND ST @ KOREANS VET BLVD	OIL SPILL 50-75 GAL OF MOTOR OIL	COMPANY TOOK CARE OF SPILL (I ADVISED ONLY)	PW/FD/WS
03/23/2011	CLAYTON AVE @ LEALAND LN	HYDRAULIC OIL ON ROAD	PUT DOWN 125 LBS SPILL GONE	PW
03/03/2011	EASTLAND AV @ PORTER RD	SLICK SUBSTANCE ON RD (UNKNOWN)	COVERED WITH 300 LBS SPILL GONE	PW/PD
01/22/2011	DICKERSON PK @ DUE WEST	46 WITH OIL ALL OVER ROADWAY	PUT DOWN 100 LBS SPILL GONE AND SCRUBBED	FD/PD/PW
12/28/2010	LAREDO DR @ RIES RD	HYDRAULIC OIL SPILL	PUT DOWN 200 LBS SPILL GONE	PW
11/28/2010	GALLATIN PK @ LITTON AVE	MOTOR OIL AND ANTIFREEZE ON ROADWAY	PUT DOWN 100 LBS SPILL GONE	PW/PD/FD
11/10/2010	I-40 W @ FESSLERS LN	DIESEL SPILL	NO ACTION. WEST NASHVILLE HAZMAT TEAM TOOK CARE OF IT	FD/PW/PD/T-DOT/WEST NASHVILLE WRECKER
11/03/2010	GREAT CIRCLE RD @ ATHENS WAY	46-OIL SPILL	PUT BOOMS DOWN TO CONTAIN SPILL	PW/PD/FD/WATER
11/03/2010	32ND AVE @ ORLEANS DR	UNKNOWN SLICK SUBSTANCE ON ROAD WAY	COVERED ROAD WITH 1500 LBS SPILL GONE	PW/PD

Table 3-E.2 Summary of Public Works Hazmat Response Spill Calls in PY8 (Continued)

Date	Location	Situation	Actions	Agencies
10/31/2010	COMMERCE ST @ 4TH AVE N.	50 GALLONS HYDRAULIC OIL ON ROAD	COVERED WITH 750 LBS SPILL GONE	PW
10/27/2010	2ND AVE N @ BROADWAY ST	HYDRAULIC OIL SPILL	PUT DOWN 1600 LBS SPILL GONE	PD/PW
10/10/2010	CHURCH ST @ 3RD AVE N	4 GALLONS HYDRAULIC OIL ON RD	PUT 100 LBS SPILL GONE ON PRODUCT AND CLEANED UP	PW
10/09/2010	2336 BRICK CHURCH PK	DEISEL FUEL LEAK APPROX 15 GAL	TRANSPORTED TO SPECIAL OPS (3-5 GAL BUCKETS)	PD/FD/PW
10/08/2010	587 JOYCE LN	HYDRAULIC OIL ON SIDEWALK AND RD	COVERED WITH 150 LBS SPILL GONE AND CLEANED UP	PW
10/06/2010	OAKLAND AV @ ASHWOOD AVE IN ALLEY	40 GAL OF HYDRAULIC OIL IN ALLEY	COVERED WITH 200 LBS SPILL GONE	PW
09/27/2010	HWY 70 S @ OHB	SLICK PRODUCT ON RD (UNKNOWN)	COVERED WITH APPROX 200 LBS SPILL GONE	PW
09/24/2010	1913 NOLENSVILLE PK @ CRAIGHEAD ST	15 GAL OLD OIL ON RD	PUT DOWN 150 LBS SPILL GONE ON ROAD AND CLEANED UP	PD/PW
09/22/2010	FESSLERS LN @ LEBANON PK	200 GAL OF WHITE GLUE ON SIDE OF ROAD	ADVISED AND OVER SEE CLEAN UP	FD/PD/PW
09/21/2010	1208 RICHMOND DR	15 GAL HYDRAULIC OIL ON ROAD	COVERED PRODUCT WITH 250 LBS SPILL GONE	PW
09/18/2010	GALLATIN PK @ CUDE LN	ICE CREAM SPILLED ON ROAD APPROX 25 GALLONS ON ROADWAY	ONLY ADVISED AND WORKED TRAFFIC	PW /PD/ GFD
09/17/2010	GRAPELEAF WAY @ SEASONS DR	50 GAL. HYDRAULIC OIL ON ROAD	COVERED WITH 700 LBS SPILL GONE	PW
09/16/2010	SMITH SPRINGS @ ANDERSON RD	COOKING OIL SPILLED IN RD, APPROX 25-30 GAL	COVERED WITH 2400 LBS SPILL GONE/CONTACTED STORM WATER	PW/STORM WATER
09/11/2010	ST RT 45 @ MYATT DR	OIL SPILL	PUT DOWN 150 LBS SPILL GONE	PD / PW
09/10/2010	OHB @ GALLATIN PK	BLOOD ON ROAD	PUT BLEACH ON ROAD FOR CLEAN UP	PD/PW
09/03/2010	2937 FERNBROOK LN	15 GAL HYDRAULIC OIL ON ROAD	COVERED WITH 50 LBS SPILL GONE	PW
09/03/2010	WOODBERRY @ MCGAVOCK PK	OIL SPILL 5 GAL OF DRIVE WAY SEALER	PUT DOWN 50 LBS SPILL GONE AND REMOVED BUCKET	PD/PW
09/01/2010	63RD AVE @ PENNSYLVANIA AVE	SULPHOXIDE ACID SPILL	WORKED WITH FIRST RESPONSE AND TRUCKING CO. (TRAFFIC CONTROL ONLY)	PW/FD/PD/FIRST RESPONSE/TENNA TRUCKING
07/30/2010	CONVENIENCE CENTER ON FREIGHTLINER DR	40 GAL HYDRAULIC OIL ON LOT	PUT 500 LBS SPILL GONE ON LOT	PW
07/19/2010	CHURCH ST @ I-40	DIESEL FUEL ON ROAD FOR SEVERAL BLOCKS	PUT DOWN 500 LBS SPILL GONE	FD/PD/PW/OEM
07/19/2010	1401 GRUNDY ST	DIESEL SPILL (APPROX 100 GAL)	PUT DOWN 1500 LBS SPILL GONE	PW/FD/PD/WD/OEM
07/11/2010	RIVERSIDE DR @ MCGAVOCK PK	GAS LEAK (GASOLINE)	PUT DOWN 100 LBS SPILL GONE	PW / PD / FD
07/02/2010	3025 PENN MEADE WAY	APPROX 35 GALS OIL ON ROAD SEVERAL BLOCKS LONG	300 LBS SPILL GONE	PD,FD,PW
07/02/2010	BRILEY PKWY @ I-65	TRACTOR TRAILER ROLL OVER, APPROX 10 GAL DIESEL ON GROUND	PUT WOODEN DOWL IN FUEL TANK AND ADVISED T-DOT ON MANIFEST	PW/T-DOT/PD/FD

Note: This table was extracted from a spreadsheet submitted by Public Works field personnel.

Table 3-E.3 Summary of NPDES Office Response to Spill Calls in PY8

ID	Date Time Initiated	Description	Dispatched To	Problem Address
245166	7/8/2010 14:54	Spill Response	ERICKSON, SONYA	730 N 9TH ST
245579	7/13/2010 7:03	Spill Response	BINDER, DALE	2245 KLINE AVE
246534	7/20/2010 7:08	Spill Response	BINDER, DALE	1401 CHURCH
248521	7/31/2010 17:20	Spill Response	BINDER, DALE	3895 PIN HOOK
249304	8/9/2010 12:41	Spill Response	BINDER, DALE	898 VISCO
249898	8/12/2010 14:33	Spill Response	ERICKSON, SONYA	348 HARDING PL
250370	8/17/2010 7:33	Spill Response	BINDER, DALE	1111 CLAYTON AV
252257	8/30/2010 9:41	Spill Response	BINDER, DALE	1501 LEBANON RD
253729	9/9/2010 11:54	Spill Response	ERICKSON, SONYA	2621 EUGENIA AVE
255288	9/22/2010 16:15	Spill Response	ERICKSON, SONYA	3608 ANDERSON RD.
256061	9/29/2010 13:06	Spill Response	OHARA, KATHERINE	2201 WHITES CREEK PIKE
257799	10/15/2010 10:21	Spill Response	OHARA, KATHERINE	2408 LLOYD AVE
258088	10/19/2010 9:05	Spill Response	ERICKSON, SONYA	7238 NOLENSVILLE PK
258423	10/21/2010 7:09	Spill Response	BINDER, DALE	3801 DICKERSON PK
260124	11/4/2010 12:42	Spill Response	BARBERO, MICHELLE	GREAT CIRCLE RD & ATHENS WAY
260313	11/5/2010 15:03	Spill Response	OHARA, KATHERINE	1 SYMPHONY PLACE
260827	11/11/2010 6:34	Spill Response	BINDER, DALE	503 FESSLERS LANE
262560	11/30/2010 16:30	Spill Response	ERICKSON, SONYA	360 MURFREESBORO RD
264453	12/17/2010 15:50	Spill Response	SITZLAR, MEGAN	1163 POLK AVE
268894	1/28/2011 7:19	Spill Response		5612 LENNOX
272767	2/28/2011 7:16	Spill Response	BINDER, DALE	249 GREEN ACRES DR
274757	3/8/2011 16:48	Spill Response	ERICKSON, SONYA	4816 CHARLOTTE PK
275110	3/10/2011 10:18	Spill Response	ERICKSON, SONYA	529 GEN GEORGE PATTON RD
275243	3/10/2011 19:42	Spill Response	ERICKSON, SONYA	606 N DUPONT
278612	3/30/2011 10:40	Spill Response	HAYES, JOSH	300 PEOBODY STREET
281392	4/13/2011 7:29	Spill Response	ERICKSON, SONYA	730 N 9TH ST
282230	4/18/2011 7:22	Spill Response	OHARA, KATHERINE	2914 DICKERSON PIKE
282239	4/18/2011 8:02	Spill Response	JOHNS, DENICE D	820 17TH AVE N
291625	6/6/2011 6:49	Spill Response	BINDER, DALE	3249 MASONWOOD
291961	6/7/2011 6:48	Spill Response	BINDER, DALE	519 GALLATIN AVE
295818	6/28/2011 11:39	Spill Response	OHARA, KATHERINE	1118 12TH AVE S

Table 4-A.1 Summary of Public Works Landfill Monitoring Program

List of Active Landfills within Davidson County			
Landfill Name	**Landfill Type**	**Address**	**Notes:**
MS-COT Services	Construction/Demolition	3530 Central Pike, Suite 105	N/A
Southern Services Landfill	Construction/Demolition	4651 Amy Lynn Drive	N/A
List of Closed Landfills within Davidson County			
Landfill Name	**Landfill Type**	**Address**	**Notes:**
Bordeaux Landfill	Municipal Solid Waste	1400 County Hospital Road	N/A
Thermal Ash Monofill	Municipal Combustor Ash Monofill	1915 Cement Plant Road	N/A
Due West Landfill	Municipal Solid Waste	Old Due West Avenue	N/A
Lebanon Road Landfill	Municipal Solid Waste	1450 Lebanon Pike	N/A
River Hills Monofill	Municipal Combustor Ash Monofill	1821 River Hills Drive	N/A
List of Permitted Waste Transfer Stations in Davidson County			
Transfer Facility Name	**Address**	**Notes**	
Waste Management/Antioch Pike Transfer Station	1428 Antioch Pike	N/A	
Republic/Allied Waste/BFI	Freightliner Drive	N/A	
MTEC-Waste Management (formerly Tennessee Waste)	3211 Franklin-Limestone Rd.	N/A	

Note: All landfills operated my Metro have been closed and no longer have Tennessee Multi-Sector Permits, therefore, no surface runoff monitoring is required. Some of the landfills are monitored for subsurface parameters.

Table 4-A.2 Public Works Licensed Solid Waste Haulers

Company Name	Address
A Dayz Ease Lawncare, llc	216 Hollywood Dr
Alex Manuel Siguenza	7224 Legacy Dr.
Kevin Weiser	1515 Union Hill Rd
Abacu Juarez Venegas	Nashville, TN 37211
Abc Professional Tree Service, Inc.	1006 Clay Place
Abco Roofing Of Tennessee, Inc.	3730 Dickerson Pike, Suite 105
Accent Landscaping	3500 Shakertown Rd
Adam David Smidt	Nashville, TN 37211
Adk Demolition & Waste Management	3941 Stewarts Lane
Alamar	1139 Mcalpine Ave
Alford Roofing & Construction, llc	1515 Elm Hill Pike, Suite 406
All American Tree Service	Po Box 41815
All Around Waste	2921 Hydes Ferry Rd
All Season Landscaping	8080 Old Charlotte Pike
Allen Landscape	200 Merry Log
Allied/Republic Services, Inc.	700 Murfreesboro Road
Alternative Energy, llc	Po Box 146
Am Roofing	741 Winding River Lane
Ambassador Construction, Inc.	12049-C Lebanon Road
Anderson Tree Specialists	2711 Greystone Rd
Arbor Art Tree Care, Inc.	808 Heathcote Ave
Arbor Springs Lawn Care & Landscaping	1200 Porter Rd
Arborjacks Tree Service	131 Oldham Dr
Armondo Martinez	Murfreesboro, TN 37130
Armor Roofing	4238 Lebanon Pike
Asplundh Tree Experts	825 Gale Lane
B & K Roofing, Llc	Po Box 1794
B nd B Tree Service (Fresh Cuts Lawn Ser	Po Box 140555
Bau Construction	1869 Reynolds Road
Bean & Prince Contractors, Inc.	1996 Danielson Place
Beech Construction Services, Inc.	541 B. Huntley Industrial Dr
Bees Lawn Care	1305 Gannett Peak Lane
Biles Cleaning Co	1527 23rd Ave North
Bka General Contractors	182 Thompson Lane
Bone Dry Roofing	1415 Robinsons Road
Bowan Mowing & Maintenance	Po Box 2250
Brickman Group	2921 Elizabeth St
Buchi Plumbing, Heating & Air Conditionin	363 Woodycrest Ave
Bull Dog Tree Service	209 Stirton Rd
Burnice Winfrey Disposal	Nashville, TN 37218
C&D Construction, Inc.	Po Box 111413
Casey Barnes	Nashville, TN 37205
Charter Construction, Inc.	Po Box 90970

Table 4-A.2 Public Works Licensed Solid Waste Haulers (Continued)

Company Name	Address
Clarksville Disposal (Waste Connections O	50 N. Reynolds Street
Clinard Company, Inc.	1900 Southerland Dr
Coburn Lawn & Landscape	5004 Timberhill Dr.
Coleman Roofing	Mt. Juliet, TN 37122
Collier Roofing Company, Inc.	1523 Jones Ave
Community Tree, llc	369 Dade Dr
Complete Tree & Lawn Care	521 Airport Road
Compos Roofing	247 Ocala Dr
Conrad Construction Co., Inc.	2610 Winford Ave
Construction Roofing	540 Spring Creek Rd
Construction Unlimited, Inc.	6602 Highway 100
Cordell Johnson Disposal Service	1221 London Bridge Rd.
Cornerstone Landscape Management	6606 Wilhugh Place
County Disposal	9982 Mcminnville Hwy
Crenshaw Landscaping, llc	661 Hill Road
Crick Disposal Service, Inc.	2635 Hart Street
Dalibor Komsic	Nashville, TN 37221
Darren Bishop Landscape & Design, llc	196 Kenner Avenue
Davet Roofing, Inc.	705 Jarod Ct
Davey Tree Expert Company	1500 N. Mantua Street
Dean Lawncare, Inc.	Po Box 50144
Deck Designs Of Brentwood	563 Elysan Fields Rd
Demonbreun Roofing, Inc.	2633 Williams Dr., Suite 101
Diamond Disposal Usa, Inc.	2000 Mallory Lane, Suite 130
Distinctive Landscapes, Inc.	426 E. Iris Dr.
Dixie Disposal	Po Box 1347
Dixie Earth Movers, Inc.	Po Box 40
Donelson Roofing Company, Inc.	Po Box 225
Down To Earth Landscape And Design	696 Lone Coak Dr.
Drew's Lawn & Landscape	4719 W. Longdale Dr
Dukes Tree Service	6915 Bethel Road
Dumpsters Unlimited	5235 Sledge Rd
E. Luke Greene Company, Inc.	4807 Douglas Dam Rd
Eagle Disposal	Po Box 1862
Earth First C&D Recycling/Demo Plus	2417 Eugenia Ave
Earthsavers, llc	Po Box 60945
Earthworks Landscaping	517 Michele Dr.
East Lake Contractors	Po Box 616
Easy Mowin Lawn Services	103 Edgewater Court
Efren Bautista	Springfield, TN 37172
Ellis Tree Care, Inc	7259 Centennial Blvd
Estate Landscape	Po Box 58503
Estes Roofing, Inc.	201 Northern Rd
Fernando Vicente	Nashville, TN 37211

Table 4-A.2 Public Works Licensed Solid Waste Haulers (Continued)

Company Name	Address
Fine Landscape Services	372 Willard Dr.
Firmly Planted	4301 Dale Avenue
First Response Environmental Group	1411 S. Dickerson Rd
Fishers Lawncare & Landscaping	4928 Darlington Dr
Five Star Service	5917 Nolensville Pike
Flores Construction	721 N. Due West Ave, Apt 108
Forest Tree & Lawn Care, llc	1113 Bradley Dr.
Fransisco Arriaga	Hermitage, Tn 37076
Full Circle Disposal, llc	633 Shute Lane
Full Circle Tree & Shrub	402 Lakehurst Dr
Gabino Gonzalez	Nashville, Tn 37211
Gaytan Roofing	2714 Murfreesboro Rd, Lot # 54
General Constructors, Inc.	373 Quarry Loop Road
Gil Laguna	Nashville, Tn 37214
Gist Tree Service	3123 W. Stondville Rd
Goodlettesville Public Works	215 Cartwright Street
Grassy Roots Landscapes	4022-A Woodlawn Dr.
Gray's Disposal Company	Po Box 40491
Green Monster Recycling	2253 Monthemer Cv
Green Pastures Landscape Company, llc	Po Box 41791
Griffin Waste Services	106 Mission Court, Suite 105
Hartley's Tree & Stump Removal, Inc.	309 Rising Sun Ln
Hearthstone Group, llc	4925 Veterans Parkway
Hee Haul Waste System	801 Memorial Blvd
Holland Lawn Service	7217 Hold Run Dr
Holt Brothers, Inc.	1003 Gallatin Ave
Horticulture Solutions	2512 Eugenia Ave
Hp Roofing	1120 Benton Mason Dr.
Hudgins Disposal, Inc	2510 Hart Street
Hunter Industrial Services, Llc	Po Box 728
Hutchison Bros Enterprises, Llc	13825 Old Hickory Blvd
Innovative Building Specialties, Inc.	Po Box 50665
Inside Out Construction Co, Inc	Po Box 2095
Installation Group, Llc	101 Spence Ln
J&A Construction, Llc	937 Laurie Ln
J&J Services, Inc.	405 Autumn Springs Ct., Suite C-18
J&K Roofing	313 Verbena Dr.
J&S Construction Company	1843 Foreman Dr
J&V Construction, Inc.	510 Catalina Dr.
Jaime's Roofing	260 Eisenhower Dr
Jason Johnson Lawn & Landscaping	3404 Hardway Ln
Javier Sanchez	Antioch, Tn 37013
Jc Disposal	Po Box 346
Je Mcmurtry Disposal	Po Box 160617

Table 4-A.2 Public Works Licensed Solid Waste Haulers (Continued)

Company Name	Address
Jesus Perez Rojas	Nashville, Tn 37209
Jewel General Contracting & Roofing, Llc	821 Hillside Drive
Jmz Servicess	810 Edwards Dr.
Joel White Landscape Maintenance, Llc	4856 Manassas Dr.
John Bouchard & Sons	1024 Harrison St.
Jones Tree Care	932 Fatherland Street
Jordan's Tree Service	1110 Baptist World Ctr Dr #6
Jorge Venancio	Nashville, Tn 37115
Jose Aguilar	Smyrna, Tn 37167
Jose Costillo	Hermitage, Tn 37076
Joseph Mitchell Landscape Artist	3203 Louise Dr.
Jpc Construction, Inc.	4029 Elizabeth Dr.
Juan Carlos Alarcon-Tamariz	Springfield, Tn 37172
Juan Carlos Santos	Murfreesboro, Tn 37127
Juan Leonardo Garcia	Columbia, Tn 38401
Juan Martinez	Nashville, Tn 37211
Junk Genious	340 Dandridge Dr
King Roofing Co., Llc	2217 Double Log Cabin Road
Kleen-Way Disposal	5756 Dividing Ridge Road
L&H Disposal, Llc	Po Box 80
Landeros Construction	1504 Rutherford Point Circle
Landscape Detail, Llc	Po Box 40622
Landscape Services, Inc	204 Riverhills Drive
Lawn's Best Friend	1111 Montpier Dr.
Lawn Torres Landscape	210 Brittany Park Cir
Lee's Tire Shop	5339 Old Higdon Rd
Lee Rolfes Landscaping	738 Cathey Hollow Road
Leeper Enterprises, Inc. - Tim Leeper Roo	14919 Lebanon Road, Suite G
Leo's Tree & Maintenance	1026 Burnham Cir
Lester J. Dill Tree Service	3209 Old Hickory Blvd, Lot 119
Liberty Homes, Inc.	5225 Anchorage Dr
Lopez Roofing	3200 Hamilton Church Dr.
Lorena Areas	Mt. Juliet, Tn 37122
Lorenzo's Landscaping	2016 Castleman Dr.
Loudino Landscape	1013 Settlers Crossing
Lucas Tree Care	225 Waterview Dr.
Luis Ruiz Diaz	Nashville, Tn 37211
Maas Tree Service	250 Donelson Pike
Magdiel Martinez	Nashville, Tn 37211
Marcelino Noyola Lopez	Nashville, Tn 37211
Marcor Construction	922 Harpeth Valley Road
Maria Ruiz	Smyrna, Tn 37167
Marks Remodeling	2916 Starboard Dr.
Marty Sullivan Disposal	2932 Louise Drive

Table 4-A.2 Public Works Licensed Solid Waste Haulers (Continued)

Company Name	Address
Mattison Land & Lawn	811 Neartop Dr.
Mayra Marquez	La Vergne, Tn 37086
Mcintosh-Murphy Co., Inc.	3016 Ambrose Ave
Mclemore's Tree Service	1232 S. Dickerson Road
Metro Environmental Services, Llc	3940 Bear Hollow Rd
Mga, Inc.	318 Rutland Dr.
Michael Douglas Goodwin	Mt. Juliet, Tn 37122
Mid-South Group, Inc.	107 Quinn Circle
Middle Tennessee Roofing Company, Inc.	2310 12th Ave S.
Middle Tennessee State University	Box 323 Facilities Services, 1301 E. Mai
Middle Tennessee State University/Tenness	304 B. West Thompson Lane
Mlh Maintenance Services, Llc	103 Karen Way Dr.
Mlt Disposal/Meccie Threalkill	4571 Clarksville Hwy.
Modern Day Wrecking	2620 Walker Ln
Mountain Man Construction, Llc	706 Stacey Ct.
Mr. Bults, Inc (Mbi)	2627 E. 139th Street
Ms-Cot Services, Llc	Po Box 145
Music City Thrift	1150 Gallatin Pike S.
Music City Waste, Llc	1740 Rriver Hills Dr, Suite 2a
Nashville Sunshine Landscaping & Painting	6628 Cabot Dr.
Nashville Wilbert Burial Vault Company (B	Po Box 100267
Nature's Gallary, Llc	Po Box 1786
New Systems Of Nashville	218 Colt Drive
Old South Landscaping	4009 Copeland Dr
Omni Resource Recovery, Inc.	P.O Box 2428
P&M Disposal	102 Rachel's Ct
Pallet Warehouse, Inc.	1500 2nd Avenue S.
Parke Company Inc.,	7110 Cockrill Bend Blvd
Parrish Brothers Construction	Po Box 69
Pat Reade Disposal	383 Jefferson Pike
Pdq Disposal, Inc.	625 Hamilton Avenue
Pedro Martinez Angeles	Nashville, Tn 37211
Perfect World Landscapes, Llc	2724 Sharondale Court
Phipps Construction Company, Inc.	5711 Old Harding Rd
Porfirio Cruz-Melchor	4997 Karen Ray Dr, Unit B
Precision Field Services, Llc	1771 Hwy 70, Suite 101
Premier Roofing Of Middle Tennessee, Llc	308 Harwich Court
Premium Restoration Services, Inc.	1106 Lipscomb Dr
Presley Austin Land Grading	4642 Ashland City Highway
Presley Austin, Jr.	1309 Dry Creek Road
Preston Group	722 Davidson Rd
Pride Home Repair And Remodel	4853 Everest Dr.
Printnet Usa, Inc.	7005 Westbelt Dr
Pugh's Lawn & Landscaping/Pugh's Earthwor	2435 Whitten Rd

Table 4-A.2 Public Works Licensed Solid Waste Haulers (Continued)

Company Name	Address
Queens Tree Surgery, Inc.	625 Hamilton Avenue
R&A Roofing	204 A Humble Dr.
R.D. Herbert & Sons Company	1407 3rd Ave N
Ramsey-Daugherty Construction, Inc.	5123 Harding Pike
Raul's Tree Service	469 Cathy Jo Circle
Raul Sepulveda	La Vergne, Tn 37086
Ready Fix Maintenance	1738 Old Lebanon Dirt Road
Red River Service Corp	120 Ewing Drive
Reliable Roofing Construction & Repair Se	399 Haywood Ln
Republic Services, Inc	850 E. Jefferson Pike
Resource Management Co., Inc.	Po Box 859
Richard Downing	Nashville, Tn 37209
Phoenix Landscapes	Po Box 210646
Roberto Del Angel	Nashville, Tn 37210
Roy S. Jones Construction Co., Inc.	3651 Trousdale Dr
Royal Construction, Inc.	4528 Sawmill Place
Rss Roofing Services & Solutions, Llc	7119 Cockrill Bend Blvd
Ruben Construction	232 Barnett St.
Scott Cooper Roofing	109 Gallaher St.
Serbando Gomez	Madison, Tn 37115
Shane Trucking & Excavating, Inc	895 Elm Hill Pike
Signature Lawn Care	310 Rosehill Dr.
Signature Scapes, Inc.	4484 Shasta Dr
Smith Tree Service	3019 Frontier Lane
Sms Lawn & Landscape, Llc	509 Inwood Dr.
Southeastern Recycling	15 Fairfield Ave
Southern Roofing Company, Inc.	411 39th Ave North
Spurlock Disposal - M. Spurlock Disposal	906 Gwynn Dr.
Star Construction, Llc	700 Fessey Park Rd
Steve's Home Improvements	6969 Park Lane
Sumner Roofing Company, Inc.	115 Powel Dr
Sunrise Of Nashville	2707 Larmon Drive
Sweeping Corporation Of America, Inc.	713 Melpark Dr
T&J Lawn Care	Po Box 280341
T.H.E. Construction	7962 Friendship Road
Tanksley Tree Service	1601 56th Ave North
Tenant Building Group, Llc	2414 Cruzen St
Tenn-Star Home Improvements, Llc	408 Rembrandt Dr.
The Alliance Group, Inc.	Po Box 90955
The Cutting Crew	68 Music Square E
The Mulch Company, Llc	665 Vernon Ave
The Pallet Factory, Inc.	1200 Bryan Street
The Porch Company, Inc.	618 Vernon Ave

Table 4-A.2 Public Works Licensed Solid Waste Haulers (Continued)

Company Name	Address
The Roof Tech	2085 Martha Leeville Road
The Tree Man	300 Greer Dr.
The Wills Company, Inc.	6606 Charlotte Pike, Suite 201
Tom's Tree Service	2961 Ned Shelton Rd
Top Notch Tree Service	1524 Gasser Dr.
Townsend Corporation - Townsend Tree Serv	Po Box 128
Tree Maintenance By Cleveland Williams	5901 Marrow Rd
Trees, Inc.	3866 Dickerson Rd
Tri-Star Waste Systems	Po Box 90168
Tru Cut Lawncare & Landscaping	901 Post Oak Dr.
True-Line Coring & Cutting, Nashville, Ll	274 Hermitage Avenue
Tule's Landscaping	535 Juniper Dr
Turf Managers, Llc	2418 Felts Avenue
Ubaldo Aburto	Nashville, Tn 37207
Urban Forestry Tree Surgeons	213 Mcgavock Pike
Vanderbilt Landscaping, Llc	1084 Courier Place, Suite 702 Box 9
Vargas Construction	620 Harding Place
Vicente Rayo Perez	Nashville, Tn 37211
Victorino Gonzalez	Madison, Tn 37115
Villas Construction, Inc.	12339 Old Hickory Blvd
Vincent C. Williamson	Nashville, Tn 37218
Waste Industries, Llc	7320 Centennial Blvd
Waste Management, Inc.	1428 Antioch Pike
Welsh Disposal Services	508 Clover Leaf Lane
Wheeler Inc.	3868 Dickerson Pike, Suite 200
Wholesale Home Services	3213 Cain Dr.
Wilcher's Landscaping	Po Box 1273
Wilkes Tree Service	1019 Pack Rd
Wirehouse Llc	7250 Centennial Place
Wolf Tree, Inc.	4717 Centennial Blvd
Wolk's Tree & Landscaping	5962 N. Hwy 51
Woodstock Vintage Lumber, Inc.	1225 4th Avenue S
Workman Lawn Service	5104 Trousdale Dr.

Note: This is a list of all the haulers for waste, construction and demolition waste and wood waste that are permitted to transport material in Davidson County.

Table 6-C.1 Summary of NPDES Water Quality Complaint Investigations Initiated in PY8

ID	Date Time Initiated	Description	Dispatched To	Problem Address
244436	7/2/2010 8:39	Water Quality Complaint	HAYES, JOSH	4041 HILLSBORO
244720	7/6/2010 13:40	Water Quality Complaint		2500 SHERIDAN DRIVE
245319	7/9/2010 13:21	Water Quality Complaint	DOHN, REBECCA	1737 MERRITT
245755	7/14/2010 7:05	Water Quality Complaint	HAYES, JOSH	120 CHEEKWOOD TER
246658	7/20/2010 13:47	Water Quality Complaint	ERICKSON, SONYA	104 RIVERS EDGE CT
246676	7/20/2010 14:17	Water Quality Complaint	HAYES, JOSH	113 HICKORY PARK LN
246975	7/22/2010 8:38	Water Quality Complaint	GARMON, MARY	347 WILHAGAN
246976	7/22/2010 8:38	Water Quality Complaint	garmon, mary	347 WILHAGAN
247240	7/23/2010 14:19	Water Quality Complaint	HAYES, JOSH	12761 Old Hickory Blvd
247418	7/26/2010 13:36	Water Quality Complaint	HAYES, JOSH	84 VAUGHNS GAP ROAD
247956	7/29/2010 15:19	Water Quality Complaint	ERICKSON, SONYA	400 GLENGARRY DR
248575	8/3/2010 16:24	Water Quality Complaint	ERICKSON, SONYA	2401 WEST END AV
248776	8/4/2010 16:36	Water Quality Complaint	SAAD, PHIL	4001 WEST END AVENUE
248789	8/5/2010 7:18	Water Quality Complaint	HAYES, JOSH	214 West Marthona
248892	8/5/2010 11:48	Water Quality Complaint	QUEENS,	421 OWENDALE DR
249608	8/10/2010 16:25	Water Quality Complaint	ERICKSON, SONYA	74 TRIMBLE ST
249612	8/10/2010 17:04	Water Quality Complaint	ERICKSON, SONYA	611 S 2ND ST
249619	8/11/2010 7:16	Water Quality Complaint	ERICKSON, SONYA	3127 LONG BLVD
249957	8/13/2010 8:16	Water Quality Complaint	ERICKSON, SONYA	245 GREAT CIRCLE RD
250100	8/13/2010 14:25	Water Quality Complaint	HAYES, JOSH	3801 ROLLAND
250777	8/18/2010 16:10	Water Quality Complaint	ERICKSON, SONYA	3900 HILLSBORO PK
251454	8/24/2010 9:55	Water Quality Complaint	OHARA, KATHERINE	MCGAVOCK PIKE & STRATFORD AVE
252358	8/30/2010 13:23	Water Quality Complaint	DOHN, REBECCA	100 RIVERCHASE
252957	9/2/2010 12:35	Water Quality Complaint	ERICKSON, SONYA	327 CRUTCHER ST
252958	9/2/2010 12:35	Water Quality Complaint	HAYES, JOSH	327 CRUTCHER ST
253212	9/7/2010 9:36	Water Quality Complaint	ERICKSON, SONYA	5333 HICKORY HOLLOW PKWY
253691	9/9/2010 10:16	Water Quality Complaint	ERICKSON, SONYA	2216 ABBOTT MARTIN RD
253698	9/9/2010 10:30	Water Quality Complaint	ERICKSON, SONYA	2131 ABBOTT MARTIN DR
253702	9/9/2010 10:36	Water Quality Complaint	ERICKSON, SONYA	2211 BANDYWOOD DR
253725	9/9/2010 11:39	Water Quality Complaint	ERICKSON, SONYA	112 GLENROSE AVE
255091	9/21/2010 14:47	Water Quality Complaint	ERICKSON, SONYA	498 RURAL HILL RD
255292	9/22/2010 16:29	Water Quality Complaint	ERICKSON, SONYA	652 THOMPSON LN
255601	9/27/2010 7:04	Water Quality Complaint	HAYES, JOSH	4719 NOLENSVILLE
255955	9/29/2010 7:34	Water Quality Complaint	ERICKSON, SONYA	109 BOSLEY SPRINGS RD.
256115	9/29/2010 16:07	Water Quality Complaint	ERICKSON, SONYA	5253 LICKTON PK
256283	10/1/2010 9:28	Water Quality Complaint	ERICKSON, SONYA	2126 ABBOTT MATIN RD
256512	10/4/2010 12:34	Water Quality Complaint	DOHN, REBECCA	8101 HIGHWAY 100
256574	10/4/2010 15:43	Water Quality Complaint	ERICKSON, SONYA	3831 BEDFORD AVE
256887	10/6/2010 15:14	Water Quality Complaint	ERICKSON, SONYA	491 OLD HICKORY BLVD.
256904	10/6/2010 16:46	Water Quality Complaint	ERICKSON, SONYA	401 MCCLELLAN AVE
256905	10/6/2010 16:52	Water Quality Complaint	ERICKSON, SONYA	4601 MURPHY RD
257055	10/7/2010 16:36	Water Quality Complaint	ERICKSON, SONYA	112 MAXWELL CROSSING
257228	10/11/2010 9:04	Water Quality Complaint	ERICKSON, SONYA	2842 IVEY POINT ROAD
257251	10/11/2010 9:53	Water Quality Complaint	QUEENS,	3909 CREEKSIDE DR
258576	10/21/2010 16:40	Water Quality Complaint	ERICKSON, SONYA	90 PARRIS AVE
258788	10/25/2010 10:13	Water Quality Complaint		9600000500
259097	10/26/2010 16:47	Water Quality Complaint	ERICKSON, SONYA	1114 1ST AVE N/JEFFERSON BRIDGE
260143	11/4/2010 13:21	Water Quality Complaint	ERICKSON, SONYA	1114 1ST AVE N/METRO READY MIX

Table 6-C.1 Summary of NPDES Water Quality Complaint Investigations Initiated in PY8 (continued)

ID	Date Time Initiated	Description	Dispatched To	Problem Address
260246	11/5/2010 10:51	Water Quality Complaint	ERICKSON, SONYA	1611 SPRINGFIELD HIGHWAY
260519	11/9/2010 8:03	Water Quality Complaint	ERICKSON, SONYA	208 E OLD HICKORY BLVD.
260888	11/11/2010 9:48	Water Quality Complaint	ERICKSON, SONYA	105 COLONY POINT EAST
261654	11/19/2010 8:05	Water Quality Complaint	HAYES, JOSH	215 5TH AVE
262762	12/2/2010 14:16	Water Quality Complaint	ERICKSON, SONYA	47 BROOKWOOD TR
262805	12/3/2010 7:15	Water Quality Complaint	ERICKSON, SONYA	418 MCCLELLEN AVE
263550	12/9/2010 15:25	Water Quality Complaint	HAYES, JOSH	314 GALLATIN
263749	12/13/2010 10:29	Water Quality Complaint	ERICKSON, SONYA	520 COWAN ST
264227	12/16/2010 11:53	Water Quality Complaint		833 MURFREESBORO PK
265714	1/4/2011 15:29	Water Quality Complaint	ERICKSON, SONYA	413 MYATT DR
265721	1/4/2011 15:56	Water Quality Complaint	ERICKSON, SONYA	722 HUNTINGTON PKY
265724	1/4/2011 16:01	Water Quality Complaint	ERICKSON, SONYA	7127 COCKRILL BEND BLVD
265914	1/6/2011 8:23	Water Quality Complaint	HAYES, JOSH	201 E. WEBSTER
265925	1/6/2011 8:57	Water Quality Complaint		722 HUNTINGTON PARKWAY
266225	1/10/2011 7:45	Water Quality Complaint	HAYES, JOSH	3019 PENN MEADE
267249	1/14/2011 14:31	Water Quality Complaint	HOLT, BONNYE	535 SPRING VALLEY LANE
267396	1/18/2011 11:21	Water Quality Complaint	HAYES, JOSH	3250 DICKERSON PIKE
268737	1/27/2011 7:22	Water Quality Complaint	ERICKSON, SONYA	723 MYATT DR
268873	1/27/2011 15:51	Water Quality Complaint	ERICKSON, SONYA	2215 BANDYWOOD DR
269017	1/28/2011 13:39	Water Quality Complaint	HAYES, JOSH	4403 HARDING ROAD
269503	2/1/2011 16:26	Water Quality Complaint	ERICKSON, SONYA	2624 MUSIC VALLEY DR
269507	2/1/2011 17:26	Water Quality Complaint	ERICKSON, SONYA	5133 HARDING PK
269821	2/3/2011 14:11	Water Quality Complaint	DOHN, REBECCA	3710 ANNEX
269877	2/4/2011 7:24	Water Quality Complaint	HAYES, JOSH	130 N 1ST ST
270012	2/4/2011 13:56	Water Quality Complaint	ERICKSON, SONYA	5316 MOUNT VIEW RD
270191	2/7/2011 12:42	Water Quality Complaint	HAYES, JOSH	3670 BELL ROAD
270393	2/8/2011 12:50	Water Quality Complaint	ERICKSON, SONYA	613 TWIN OAKS CT
270473	2/9/2011 7:01	Water Quality Complaint	ERICKSON, SONYA	4907 PARK AVE
271362	2/16/2011 7:41	Water Quality Complaint	ERICKSON, SONYA	2126 ABBOTT MARTIN RD
271386	2/16/2011 8:33	Water Quality Complaint	ERICKSON, SONYA	3312 NOLENSVILLE PK
271537	2/17/2011 7:11	Water Quality Complaint	ERICKSON, SONYA	5620 LENOX AV
272430	2/24/2011 9:49	Water Quality Complaint	BARBERO, MICHELLE	3906 WALLACE LN
272437	2/24/2011 9:56	Water Quality Complaint	HAYES, JOSH	302 MURFREESBORO PK
273325	3/1/2011 14:29	Water Quality Complaint	ERICKSON, SONYA	5582 OLD HICKORY BLVD
274187	3/7/2011 8:02	Water Quality Complaint	HAYES, JOSH	7200 CENTENNIAL
274336	3/7/2011 12:37	Water Quality Complaint	ERICKSON, SONYA	1024 W KIRKLAND AVE
274740	3/8/2011 15:45	Water Quality Complaint	ERICKSON, SONYA	3102 RIVER DR
274752	3/8/2011 16:22	Water Quality Complaint	ERICKSON, SONYA	3115 CLARKSVILLE PK
275134	3/10/2011 11:06	Water Quality Complaint	ERICKSON, SONYA	3405 GALLATIN PK
275473	3/11/2011 14:46	Water Quality Complaint	ERICKSON, SONYA	201 4TH AVE S
276094	3/16/2011 11:17	Water Quality Complaint	ERICKSON, SONYA	311 54TH AVE N
276125	3/16/2011 12:10	Water Quality Complaint		1217 MARTIN ST
277263	3/22/2011 16:30	Water Quality Complaint	ERICKSON, SONYA	2126 ABBOTT MARTIN RD
277282	3/23/2011 7:57	Water Quality Complaint	ERICKSON, SONYA	5301 CHARLOTTE PK
277283	3/23/2011 8:01	Water Quality Complaint	ERICKSON, SONYA	1 CLUB DR
277300	3/23/2011 8:49	Water Quality Complaint	SITZLAR, MEGAN	2858 SUGARTREE RD
277587	3/24/2011 7:26	Water Quality Complaint	HAYES, JOSH	1500 2ND AVE S
277811	3/24/2011 16:01	Water Quality Complaint	ERICKSON, SONYA	5301CHARLOTTE PK
277942	3/25/2011 10:59	Water Quality Complaint	ERICKSON, SONYA	1404 NAVAHO CT
278585	3/30/2011 9:43	Water Quality Complaint	ERICKSON, SONYA	4537 NOLENSVILLE PIKE

Table 6-C.1 Summary of NPDES Water Quality Complaint Investigations Initiated in PY8 (continued)

ID	Date Time Initiated	Description	Dispatched To	Problem Address
278630	3/30/2011 11:42	Water Quality Complaint	ERICKSON, SONYA	1818 ALBION ST
278680	3/30/2011 13:41	Water Quality Complaint	HAYES, JOSH	6503 MORROW ROAD
278722	3/30/2011 14:47	Water Quality Complaint	ERICKSON, SONYA	104 TOMARAND COURT
278723	3/30/2011 14:49	Water Quality Complaint	ERICKSON, SONYA	2042 GRACELAND DRIVE
279806	4/5/2011 14:40	Water Quality Complaint	ERICKSON, SONYA	5319 MT VIEW RD
280528	4/8/2011 9:41	Water Quality Complaint	BARBERO, MICHELLE	231 ORLANDO AVE
282015	4/15/2011 8:59	Water Quality Complaint	ERICKSON, SONYA	85 WHITE BRIDGE RD
282083	4/15/2011 11:19	Water Quality Complaint	ERICKSON, SONYA	2914 DICKERSON PK
283032	4/20/2011 9:02	Water Quality Complaint	HAYES, JOSH	130 NESTOR STREET
283609	4/22/2011 8:02	Water Quality Complaint	ERICKSON, SONYA	1016 DR D B TODD JR BLVD
283642	4/22/2011 9:21	Water Quality Complaint	ERICKSON, SONYA	2640 SOLON DR
283652	4/22/2011 9:44	Water Quality Complaint	BARBERO, MICHELLE	6690 NOLENSVILLE PIKE
283747	4/22/2011 14:37	Water Quality Complaint	ERICKSON, SONYA	411 51ST AVE N
284086	4/26/2011 10:35	Water Quality Complaint	DOHN, REBECCA	2428 Pleasant Springs Lane
284187	4/26/2011 14:31	Water Quality Complaint	ERICKSON, SONYA	500 ROSA L PARKS BLVD
285196	5/2/2011 15:51	Water Quality Complaint	ERICKSON, SONYA	318 MURFREESBORO PIKE
285306	5/3/2011 11:25	Water Quality Complaint	ERICKSON, SONYA	8542 SAWYER BROWN RD
285391	5/3/2011 14:24	Water Quality Complaint	ERICKSON, SONYA	3500 GALLATIN PK
285404	5/3/2011 15:02	Water Quality Complaint	ERICKSON, SONYA	1104 CALVIN AVE
286083	5/6/2011 14:47	Water Quality Complaint	ERICKSON, SONYA	2960 ARMORY DR
286353	5/9/2011 13:37	Water Quality Complaint		2929KINROSS AVE
286600	5/10/2011 11:08	Water Quality Complaint	ERICKSON, SONYA	2701 CRUZEN ST
286605	5/10/2011 11:14	Water Quality Complaint	ERICKSON, SONYA	2700 EUGENIA AVE.
286726	5/10/2011 14:44	Water Quality Complaint	BINDER, DALE	109 2ND AVE N
286822	5/11/2011 8:39	Water Quality Complaint	ERICKSON, SONYA	2500 WEST END AVE
288763	5/23/2011 8:11	Water Quality Complaint	HAYES, JOSH	416 7TH AVE S
288971	5/23/2011 14:38	Water Quality Complaint	ERICKSON, SONYA	678 BATTLE RD
289281	5/24/2011 13:32	Water Quality Complaint	ERICKSON, SONYA	132 QUINN CIR
289980	5/26/2011 13:27	Water Quality Complaint	ERICKSON, SONYA	105 GALLATIN PK
291041	6/2/2011 7:15	Water Quality Complaint	ERICKSON, SONYA	2142 ANTIOCH PK
291517	6/3/2011 13:28	Water Quality Complaint	ERICKSON, SONYA	626 PLANTATION CT
292614	6/9/2011 13:50	Water Quality Complaint	ERICKSON, SONYA	1830 LINDER INDUSTRIAL DR
293293	6/14/2011 8:26	Water Quality Complaint	HAYES, JOSH	10 VAN BUREN STREET
293503	6/14/2011 15:55	Water Quality Complaint	ERICKSON, SONYA	3901 GRANNY WHITE PK
293586	6/15/2011 9:38	Water Quality Complaint	ERICKSON, SONYA	5709 MAUDINA AVE
294520	6/20/2011 14:08	Water Quality Complaint	ERICKSON, SONYA	501 WILLIAMSBURG DR
294530	6/20/2011 14:24	Water Quality Complaint	ERICKSON, SONYA	2632 NOLENSVILLE PIKE
294904	6/22/2011 10:08	Water Quality Complaint	ERICKSON, SONYA	1412 8TH STREET
295742	6/28/2011 7:38	Water Quality Complaint	ERICKSON, SONYA	326 POLK AV
296399	6/30/2011 14:23	Water Quality Complaint	ERICKSON, SONYA	1077 HITT LN

Note: This list only refers to potential illicit discharges that rose to the level of initiating a detailed investigation. Many other reports of potential illicit discharges never rise to the level of full blown investigation and are, therefore, not documented in the database.

Table 6-C.2 Summary of Targeted Public Education Handouts for Specific Illicit Discharge Responses in PY8

Address	Date	Inspector	Vehicle Repair	Pressure Wash	Lawn & Garden	Door Hanger	Custom Mailing	Storm Drain Painting
4041 Hillsboro Cr	7/6/2010	JH				15	10	
Outfall to Brown's Crk	8/11/2010	SRE						7
348 Harding PL	8/12/2010	SRE		1				
McCabe Golf couse outfall	8/16/2010	SRE						10
McCabe Golf couse outfall	8/16/2010	SRE						12
McCabe Golf couse outfall	8/17/2010	SRE						15
Murphy Branch tribs	9/2/2010	SRE						35
Armory Branch	9/27/2010	SRE						30
Nolensville Rd.	10/5/2010	SRE						20
Central Treatment plant	10/6/2010	SRE						10
6009 Cargile Rd	11/3/2010	MB			1			
Fesslers lane area	11/1/2010	SRE						100
Fesslers lane area	12/22/2010	SRE					107	
9133 Twelve Corners Rd. Lascassas, TN 37085	2/16/2011	SRE					10	
P.J.'s Automotive 3405 Gallatin Pk	3/11/2011	SRE	1					2
3017 Chelsea Way	7/5/2011	SRE	2	2		2		1
Lipscomb	6/30/2011	SRE						50

Table 6-E.1 Summary of NPDES Response to MWS Sewer Overflows in PY8

ID	DateTimeInit	Description	Dispatched To	ProbAddress
246680	7/20/2010 14:31	Metro Sewer Overflow Response Plan	ERICKSON, SONYA	15 SYCAMORE CT
247371	7/26/2010 11:02	Metro Sewer Overflow Response Plan	ERICKSON, SONYA	991 THOMPSON PL
256390	10/1/2010 16:13	Metro Sewer Overflow Response Plan	ERICKSON, SONYA	4002 HARDING RD
262557	11/30/2010 16:04	Metro Sewer Overflow Response Plan	HAYES, JOSH	7609 MINT LEAF DRIVE
262779	12/2/2010 15:37	Metro Sewer Overflow Response Plan	ERICKSON, SONYA	6444 NOLENSVILLE PK
262787	12/2/2010 16:06	Metro Sewer Overflow Response Plan	ERICKSON, SONYA	4904 PEBBLE CREEK DR
262789	12/2/2010 16:12	Metro Sewer Overflow Response Plan	ERICKSON, SONYA	CHARLOTTE PK
264839	12/23/2010 12:44	Metro Sewer Overflow Response Plan	ERICKSON, SONYA	112 THISTLE LN
265896	1/5/2011 16:07	Metro Sewer Overflow Response Plan	ERICKSON, SONYA	201 GRIZZARD AVE
266059	1/6/2011 18:42	Metro Sewer Overflow Response Plan	ERICKSON, SONYA	516 BASSWOOD
267583	1/19/2011 9:36	Metro Sewer Overflow Response Plan	ERICKSON, SONYA	2520 FLAMINGO DR
268558	1/25/2011 15:39	Metro Sewer Overflow Response Plan	ERICKSON, SONYA	825 NETHERLANDS DR.
270239	2/7/2011 14:21	Metro Sewer Overflow Response Plan	HAYES, JOSH	483 HUNTINGTON RIDGE DR
270899	2/11/2011 16:12	Metro Sewer Overflow Response Plan	ERICKSON, SONYA	585 STEWARTS FERRY PK
271363	2/16/2011 7:51	Metro Sewer Overflow Response Plan	ERICKSON, SONYA	2141 OLD MATTHEWS RD
280170	4/6/2011 16:17	Metro Sewer Overflow Response Plan	ERICKSON, SONYA	2719 JEFFERSON ST
282078	4/15/2011 11:03	Metro Sewer Overflow Response Plan	ERICKSON, SONYA	6430 CHAROLTTE PK
284967	5/2/2011 7:22	Metro Sewer Overflow Response Plan	HAYES, JOSH	61 EDENWOLD
291548	6/3/2011 14:22	Metro Sewer Overflow Response Plan	ERICKSON, SONYA	SAUNDERSVILLE RD & GENERAL KERSHAW DR
293279	6/14/2011 7:07	Metro Sewer Overflow Response Plan	ERICKSON, SONYA	1818 APPLE VALLEY CIR

Note: The NPDES Section only responds to Sewer Overflows when requested by the System Services Division to provide containment and cleanup guidance or when NPDES wishes to verify no impact to MS4 has occurred.

Table 6-E.2 Summary of Failing Septic Systems in PY8

Map & Parcel	Date Received	Street Name	Last Name	Job Description	Environmentalist	Sewage on Ground	Notice Issued	Citation	Abatement	Comments
014-00-0 018.00	2/5/2010	Clarksville Pk	Davis	Failure	Fellwock	2/11/2010	2/12/2010	3/19/2010	11/29/2010	
017-00-0 057.00	4/20/2010	Lickton Pk	Spurlock	Failure	Fellwock	4/23/2010	4/28/2010		7/27/2010	
111-00-0 033.00	6/23/2010	Stewarts Ferry Pk	Smith	Failure	Fellwock	6/23/2010	6/28/2010		7/27/2010	
048-00-0 159.00	7/1/2010	Clarksville Pk	Templett	Recheck	Fellwock	7/7/2010	7/12/2010		8/16/2010	
022-00-0 082.00	8/16/2010	Bear Hollow Rd	Gupton	Complaint	Fellwock	8/23/2010	8/24/2010		9/17/2010	
088-00-0 086.00	8/31/2010	7801 Whites Creek Pk	Hunley	Failure	Fellwock	9/2/2010	9/2/2010		9/13/2010	
075-00-0 074.00	8/30/2010	834 Tulip Grove Road	Ruff	Failure	Fellwock	9/3/2010	9/13/2010		10/15/2010	
007-00-0 162.00	12/3/2010	1611 Springfield Hwy	Sawyers	Complaint	Fellwock	12/3/2010	12/13/2010		2/9/2011	
031-00-0 164.00	2/1/2011	4773 Lickton Pike	Ervin	Addition	Fellwock	2/8/2011	2/17/2011		3/8/2011	
062-00-0 153.00	3/21/2011	2525 Pennington Bend Road	Wittey	Failure	Fellwock	3/23/2011	3/31/2011		6/7/2011	
046-00-0 011.00	1/31/2011	4552 Bull Run Road	Nickens	Rebuild	Fellwock	3/2/2011	4/1/2011		6/1/2011	
074-00-0 041.00	4/11/2011	Neeley's Bend Road	Hernandez	Complaint	Fellwock	4/22/2011	4/26/2011			30 Day Notice
121-00-0 210.00	4/28/2011	2610 Couchville Pk	Derryberry	Failure	Fellwock	5/10/2011	5/11/2011		6/10/2011	30 Day Notice
021-00-0 171.00	5/9/2011	6015 Eatons Creek Road	Drake	Complaint	Fellwock	5/11/2011	5/12/2011		6/7/2011	30 Day Notice
009-00-0 010.00	5/3/2011	8131 Jackman Road	Parks	Failure	Fellwock	5/25/2011	5/26/2011			30 Day Notice
030-00-0 056.00	5/4/2011	6425 Old Hickory Blvd	Proctor	Failure	Fellwock	5/5/2011	6/2/2011			30 Day Notice
181-00-0 231.00	1/14/2010	Pettus Road	Buckner	Complaint	Lough	1/26/2010	1/28/2010		8/11/2010	
096-10-0 176.00	3/16/2010	Emery Dr.	Ulrich	Complaint	Lough	3/19/2010	3/30/2010	6/21/2010	7/20/2010	
135-00-0 140.00	4/16/2010	Reynolds Road	Crowder	Failure	Lough	4/21/2010	5/4/2010	6/21/2010	7/20/2010	
126-00-0 077.00	8/5/2010	Old Charlotte Pk	Atwater	Complaint	Lough	8/9/2010	8/12/2010		6/8/2011	
135-00-0 131.00	7/26/2010	Murfreesboro Rd	Barrett	Complaint	Lough	8/25/2010	8/25/2010		9/30/2010	
164-00-0 083.00	8/24/2010	Pin Hook Road	Wong	Failure	Lough	8/25/2010	8/27/2010		9/9/2010	
172-00-0 070.00	12/8/2010	Mt. Pisgah	Owens	Complaint	Lough	12/10/2010	12/14/2010		1/10/2011	
164-00-0 083.00	1/5/2011	3534 Pin Hook Road	Wong	Complaint	Lough	1/19/2011	2/4/2011	4/29/2011	7/12/2011	

Table 6-E.3 Summary of MWS System Services Sewer Overflow Responses in PY8

	July	August	September	October	November	December	January	February	March	April	May	June	Total
Wet Weather Overflows - CSO Permitted	28	20	10	13	25	6	6	28	28	31	32	27	**254**
Flood	2	1											**3**
Wet Weather Overflows - sewer (non pumps)	0	10	0	0	9	1	2	38	5	20	22	1	**108**
Wet Weather Overflows - Pump Stations	1	17	0	0	9	2	0	47	9	36	21	2	**144**
Wet Weather Overflows - TOTAL	31	48	10	13	43	9	8	113	42	87	75	30	**509**
Dry Weather Overflows - sewer (non-pumps)	7	7	7	15	19	20	20	14	14	13	6	7	**149**
Dry Weather Overflows - Pump Stations	1	2	1	1	0	1	0	0	2	5	1	4	**18**
Dry Weather Overflows - TOTAL	8	9	8	16	19	21	20	14	16	18	7	11	**167**
# of Overflows that Required Remediation	0	0	0	0	0	0	0	0	0	0	0	0	**0**
# of Overflows that Reached Creeks - Sewer	5	15	5	10	13	10	11	21	8	25	23	4	**150**
# of Overflows that Reached Creeks - Pump Stations(All)	3	19	1	1	9	3	0	47	11	41	22	5	**162**
# of Overflow Response Staff / per sewer event	2	2	2	2	2	2	2	2	2	2	2	2	**2**
# of Sewer Vac Trucks / per sewer event	1	1	1	1	1	1	1	1	1	1	1	1	**1**

Note: Numbers are estimates provided by the MWS System Services Section.

Table 6-E.4 Overflow Reduction Work in PY8

Type of Projects	Project Costs	Watersheds Where Work was Performed
Washington CSO Regulator - Constuction of a new combined sewer regulator at the terminus of the Washington CSS began during this FY & will be completed in FY 2012. This project will dramatically reduce the frequency, duration, and volumes of combined sewer overflows to the Cumberland River, at a project cost of $16,968,500.	$16,968,500	Cumberland River
Benedict & Crutcher CSO and Schrader CSO Solids and Floatables Control - Construction of a solids and floatables control structure at each of these combined sewer outfalls have eliminated the discharge of solid & floatable materials into the Cumberland River during CSO discharges. Optimization of the existing regulators to slightly reduce the CSO frequency, durations, and volumes were also included in this project, at an overall cost of $1,020,000.	$1,020,000	Cumberland River
2009 Manhole Rehabilitation - 03-SG-224(3) - Rehabilitation of sewer mainholes & pumping station wet wells to reduce infiltration, at a cost of $225,000.	$225,000.00	Various locations system - wide

Note: The following additional measures have also been implemented that contribute to a minimization of overflows

- Installation of new signs at Combined Sewer Outfalls to better indicate potential of periodic sewage overflows after rain events and provides phone numbers to report overflows.
- Reviewing the SORP (Spill and Overflow Response Plan) and determined no updates were needed this year.
- Continuing to review all customer calls about sewer problems to assure proper corrective actions are taken.
- Reviewing information from Closed Circuit Television (CCTV) Sewer inspections reports that indicate sewer problems with grease or roots. If appropriate, sent letters to notify customers of roots or grease in their service lines or main lines and recommend corrective actions to prevent sewer overflows.
- Continued to update lists for periodic cleaning of sewer lines that have repeat problems with grease or roots.
- Reviewed information from Closed Circuit Television (CCTV) Sewer inspections reports to decide on corrective actions for structural problems to prevent potential future overflows.
- Worked with Engineering firms to develop Corrective Action Plan and Engineer Report to reduce sanitary sewer overflows, and Long Term Control Plan and Nine Minimum Controls for Combined Sewers System, as part of Consent Decree to reduce overflows.
- Continued to improve our MWM (Mobile Workforce Management) system to improve planning, scheduling and follow up of sewer maintenance activities.

Table 7-C.1 Stormwater Issues Found During Inspections of Grease Control Equipment

Permit Year	Stormwater Noncompliance Issues
Permit Year 2	51
Permit Year 3	61
Permit Year 4	74
Permit Year 5	43
Permit Year 6	32
Permit Year 7	34
Permit Year 8	32
Total	**327**

These numbers reflect non-compliance conditions found at Food Service Establishments (FSE) such as fats, oils, and grease observed on the ground. Data was extracted from the MWS FOG Enforcement NCN Summary.

Table 8-A.1 Summary of Construction Related Inspections

Inspection Type	Initial EPSC	Bond Reduction	Bond Release	Temp U&O	Final U&O	Routine General Permit	Initial Complaint	Follow-up Complaint	Total
Year Previous to Cycle II PY1	198	61	28	46	113	2,235	0	0	2,681
PY1	270	80	44	53	122	4,139	0	0	4,708
PY2	271	23	59	56	177	4,923	0	0	5,509
PY3	273	100	85	85	244	4,799	69	66	5,721
PY4	257	112	143	90	157	5,349	190	254	6,552
PY5	176	132	141	107	174	4,581	382	634	6,327
PY6	124	195	224	104	172	4,480	230	631	6,160
PY7	189	147	127	151	160	3,910	163	232	5,079
PY8	188	149	87	115	161	4,242	136	379	5,457
Total	**1,946**	**999**	**938**	**807**	**1,480**	**38,658**	**1,170**	**2,196**	**48,194**

Note: The shaded columns represent the inspections performed on non-permitted construction sites. For years previous to PY3, inspections of non-permitted sites were counted in the routine Grading Permit column. Inspection numbers obtained from the NPDES Office "Results Matter" spreadsheet.

Table 8-A.2 Summary of Grading Permits Processed

Year	Preconstruction Meetings	Grading Permits Issued	Permits Completed
Total FY03	257	198	102
Total FY04	305	270	159
Total FY05	284	271	220
Total FY06	296	252	196
Total FY07	251	239	188
Total FY08	222	165	205
Total FY09	148	109	238
Total FY10	146	121	117
Total FY11	130	135	131
Total	**2,039**	**1,760**	**1,556**

Table 8-A.3 Summary of Construction Complaint Investigations Initiated in PY8

ID	Date/Time Initiated	DispatchTo	Problem Address
244537	7/2/2010 15:01	OHARA, KATHERINE	5314 OLD HICKORY BV
246235	7/16/2010 14:18		1023 HITT LANE
247692	7/26/2010 10:13	JOHNS, DENICE D	191 LITTLE GREEN ST
247964	7/29/2010 15:42	SAAD, PHIL	595 HICKS RD
248759	8/4/2010 15:30	ERICKSON, SONYA	4001 HARDING RD
249623	8/11/2010 8:01	OHARA, KATHERINE	5489 CLARKSVILLE PIKE
250594	8/18/2010 7:54	HAYES, KIMBERLY	2662 UNION HILL RD
250636	8/18/2010 9:54	BRYANT, HAROLD	2349 BENAY ROAD
250924	8/19/2010 12:28	BINDER, DALE	6748 BOUNDARY RUN
253913	9/10/2010 12:33	OHARA, KATHERINE	1213 DICKERSON PIKE
254464	9/16/2010 7:22	SAAD, PHIL	4717 CENTENIAL BLVD
254593	9/16/2010 14:46	OHARA, KATHERINE	1324 BAPTIST WORLD CENTER DR
255962	9/29/2010 8:03	BRYANT, HAROLD	3145 BRANDAU ROAD
256374	10/1/2010 15:24	OHARA, KATHERINE	107 TWIN HILLS DR
256378	10/1/2010 15:32	OHARA, KATHERINE	4608 ASHLAND CITY HWY
257076	10/8/2010 7:33	HERMAN, SHAWN	5062 MT VIEW RD
257077	10/8/2010 7:38	HERMAN, SHAWN	5088 MT VIEW RD
257440	10/12/2010 13:32	OHARA, KATHERINE	0 BEAR HOLLOW RD
258383	10/20/2010 14:50	OHARA, KATHERINE	7274 BIDWELL RD
258657	10/22/2010 12:28	OHARA, KATHERINE	2730 WHITES CREEK PIKE
258906	10/25/2010 15:55	SAAD, PHIL	7228 CENTENNIAL BLVD
260133	11/4/2010 13:05	OHARA, KATHERINE	4474 BRICK CHURCH PIKE
261614	11/18/2010 13:24	HERMAN, SHAWN	5410 NOLENSVILLE PIKE
262179	11/29/2010 7:37	SAAD, PHIL	4487 POST PL
262935	12/6/2010 8:47	OHARA, KATHERINE	3908 DICKERSON PIKE
263229	12/8/2010 7:50	BRYANT, HAROLD	4062 LAVERGNE COUCHVILLE PIKE
265495	1/3/2011 15:05	HAYES, KIMBERLY	4505 CATO ROAD
266863	1/12/2011 14:20	JOHNS, DENICE D	709 5TH AVE S
267746	1/20/2011 6:34	SAAD, PHIL	9200 SOUTH HARPETH RD
268072	1/21/2011 13:14	SAAD, PHIL	8459 OLD CHARLOTTE PIKE
269346	2/1/2011 7:12	HERMAN, SHAWN	4801 PAYNE
269351	2/1/2011 8:06	BINDER, DALE	2920 HAMILTON CHURCH ROAD
269652	2/2/2011 14:10	OHARA, KATHERINE	908 MYATT INDUSTRIAL DR
270041	2/4/2011 15:21	OHARA, KATHERINE	6832 OLD HICKORY BLVD
273183	3/1/2011 10:04	OHARA, KATHERINE	1001 LISCHEY AVE
273428	3/2/2011 9:17	OHARA, KATHERINE	592 OLD HICKORY BLVD
274485	3/8/2011 7:02	SAAD, PHIL	0 CENTENNIAL BLVD
275669	3/14/2011 12:44	OHARA, KATHERINE	705 E TRINITY LN

Table 8-A.3 Summary of Construction Complaint Investigations Initiated in PY8 (Continued)

ID	Date/Time Initiated	DispatchTo	Problem Address
275720	3/14/2011 14:04	OHARA, KATHERINE	5027 ASHLAND CITY
275945	3/15/2011 14:31	OHARA, KATHERINE	2615 WHITES CREEK PIKE
278270	3/28/2011 15:09	SAAD, PHIL	121 DAVIDSON RD
278791	3/31/2011 8:53	BRYANT, HAROLD	2610 COUCHVILLE PIKE
281114	4/12/2011 6:56	SAAD, PHIL	6570 JOCELYN HOLLOW RD
282231	4/18/2011 7:26	OHARA, KATHERINE	750 WORK DRIVE
282234	4/18/2011 7:36	OHARA, KATHERINE	2405 PLUM ST
282245	4/18/2011 8:14	OHARA, KATHERINE	2604 DICKERSON PIKE
283774	4/25/2011 7:27	SAAD, PHIL	HICKS RD
286441	5/10/2011 7:26	SAAD, PHIL	8340 HIGHWAY 70
287811	5/17/2011 9:04	OHARA, KATHERINE	1150 HUNTERS LN
287812	5/17/2011 9:06	OHARA, KATHERINE	3200 KINGS LN
287814	5/17/2011 9:08	OHARA, KATHERINE	3500 JOHN MALLETTE DR
287815	5/17/2011 9:09	OHARA, KATHERINE	2417 MAPLECREST DR
288059	5/18/2011 9:13	OHARA, KATHERINE	249 GREEN ACRES DR
291626	6/6/2011 7:06	BRYANT, HAROLD	3030 NED SHELTON RD

Table 8-A.4 Summary of Stormwater Engineering Plan Review Numbers in PY8

	July	August	September	October	November	December	January	February	March	April	May	June	Total
Number of Plan Submittals	104	114	111	98	111	82	96	132	113	112	131	115	**1319**
Number of Plan Approvals	53	45	42	31	43	32	45	52	51	45	64	56	**559**

Note: * Plan Submittal Numbers Include: Access database tracked preliminaries that are reviewed for the Planning Department, Excel spreadsheet tracked "Site Plan Reviews" that are reviewed for Codes permits and KIVA tracked Grading Plans & As-Builts. It is all initial submittals, resubmittals and additional information submitted. The Access query is called 'Results Matter_In_All Submitted'. The excel spreadsheet is called "SWEngr". The KIVA report is called SWREVSUM02 described as "SWGR DECISIONS BY ACT / EMPL". The numbers exclude SWUF reviews because they are not plan reviews.

* Plan Approvals numbers include review results of Approved, Conditionally Aproved (Approved Except as Noted) and No Permit Required. Plans Approved numbers exclude review results of Returned for Corrections, Withdrawn, Hold or Denied. The numbers exclude SWUF reviews because they are not plan reviews. They also exclude SWEngr's site plan reviews because the review result is not currently tracked seperately. The KIVA report is called SWREVSUM03 described as "SWGR SUMMARY BY ACTIVITY". For the Planning Preliminary plans, the query is "Results Matter_Out_All Approved".

Table 8-A.5 Summary Tier II Grading Permits and Single Family Home Grading Checklists in PY8

Oversight Activity on Smaller Grading Sites	Number of Activities in PY8
Submitted Checklists for Building Permit Signoffs	176
Checklists Distributed During Demolition Permit Sign-offs (with intent to possibly build/re-build)	65
Single Family Residential Requiring Tier II Grading Permit	20
Building Permit Sign-off for New Single Family Construction	553
Site Inspections for Single Family Residential Construction	88

Table 10-A.1 Presentations Given by NPDES in PY8

Date	Forum/Outreach Group	Title/Description of Outreach	Presenter	Estimated Audience Size
5/24/2011	TDEC Level One Erosion Control Workshop	Grading Permit Process and Erosion Control in Davidson County	Dale Binder	135
4/14/2011	AWRA	Recovery of Streams in the Mill Creek Watershed from the May 2010 Flood Using E. coli as Indic	Mary Garmon	150
4/13/2011	AWRA	Nashville's MS4 Program: Before and After the Flood	Josh Hayes	150
12/8/2010	TDEC Level One Erosion Control Workshop	Grading Permit Process and Erosion Control in Davidson County	Dale Binder	140
12/2/2010	Nashville Chamber Sustainability Shared Interest Group	LID & Water Quality	Rebecca Dohn	20
11/18/2010	Lipscomb Univ Undergrad Env Law class	Overview of Metro MS4 Program focusing on legal aspects	Michael Hunt	8
10/26/2010	TSWA	LID in Nashville	Rebecca Dohn	30
8/10/2010	GCA Services School Maintenance Contractor	Showed Don Clark with GCA Services the stormwater training video	Josh Hayes	1
7/14/2010	REOstone/Richland Ck Relocation Public Mtg	NPDES staff was present at booth to answer specific and general questions	Mchael Hunt	200

Note: Some of the presentations given by MWS NPDES personnel are also documented in the MWS PIO table (10-A.2) of presentations.

Table 10-A.2 Presentations Documented by the MWS PIO in PY8

Metro Water Services Programs & Activities

Report Dates: From 7/1/10 to 6/30/11

445 Programs/Activities **7843 Students** **713 Adults**

ActivityType: Classroom Activity **144 Programs/Activities**

TOTAL Teacher Led Activity **144 Programs/Activities** **2919 Students** **Adults**

The Journey of Your Water Video **144 Programs/Activities** **2919 Students** **Adults**

8/27/2010	Glencliff Elementary	4	91	4th grade
8/30/2010	Cole Elementary	1	23	4th grade
9/3/2010	Cole Elementary	1	23	4th grade
9/8/2010	Westmeade Elem.	4	92	4th grade
9/9/2010	Crieve Hall Elementary	2	53	4th grade
9/10/2010	Cole Elementary	1	21	4th grade
9/14/2010	Cumberland Elementary	3	78	4th grade
9/15/2010	Binkley, Norman Elementary	3	80	4th grade
9/16/2010	Cole Elementary	1	23	4th grade
9/17/2010	Cole Elementary	1	20	4th grade
9/23/2010	Shayne Elem.	5	125	4th grade
9/27/2010	Dodson Elementary	3	60	4th grade
9/28/2010	Dodson Elementary	2	40	4th grade
9/29/2010	Harpeth Valley Elementary	3	75	4th grade
9/30/2010	Harpeth Valley Elementary	3	75	4th grade
10/1/2010	Jones Elem. Paideia Magnet	2	20	4th grade
10/4/2010	Fall-Hamilton Elementary Enhanced Option	3	46	4th grade
10/5/2010	Hickman Elementary	4	100	4th grade
10/8/2010	Glenn Elementary Enhanced Option	3	48	4th grade
10/11/2010	Gateway Elementary	2	32	4th grade
10/13/2010	Shwab Elem.	3	48	4th grade
10/29/2010	Our Savior Lutheran Academy	1	10	4th grade
11/3/2010	Montgomery Bell Academy	1	12	12th grade APES class
11/10/2010	Buena Vista Elementary Enhanced Option	3	63	4th grade
11/11/2010	Ross Elem.	2	41	4th grade
11/18/2010	Ruby Major Elem.	2	42	4th grade
11/19/2010	Ruby Major Elem.	3	66	4th grade

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Table 10-A.2 Presentations Documented by the MWS PIO in PY8 (Continued)

11/22/2010	Goodlettsville Elementary	4	90	4th grade
12/6/2010	Una Elem.	4	80	4th grade
12/7/2010	Una Elem.	4	71	4th grade
12/8/2010	Cockrill Elementary	4	71	5th grade
12/15/2010	Lockeland Elem. Design Center	3	62	4th grade
1/4/2011	Stanford Elem. Montessori Design Ctr.	1	19	4th grade
1/5/2011	Stanford Elem. Montessori Design Ctr.	1	19	4th grade
1/6/2011	Stanford Elem. Montessori Design Ctr.	1	19	4th garde
1/18/2011	Gower Elementary	3	57	4th grade
1/19/2011	Gower Elementary	3	57	4th grade
1/27/2011	Napier Elem. Enhanced Option	4	60	4th grade
2/1/2011	Caldwell Elementary Enhanced Option	2	41	4th grade
2/18/2011	Tom Joy Elem.	4	90	4th grade
2/24/2011	Sylvan Park Elem. Paideia Design Ctr.	4	80	4th grade
3/1/2011	Stratton Elem.	3	70	4th grade
3/2/2011	Stratton Elem.	2	45	4th grade
3/8/2011	Green, Alex Elementary	3	63	4th grade
3/9/2011	Kelley, A.Z. Elementary	3	75	4th grade
3/11/2011	Kelley, A.Z. Elementary	3	66	4th grade
3/24/2011	Maxwell Elementary School	7	98	4th grade
3/25/2011	Inglewood Elementary	3	60	4th grade
3/30/2011	Joelton Elementary	3	45	4th grade
3/31/2011	Joelton Elementary	3	51	3rd grade
5/5/2011	Green, Julia Elementary	5	100	3rd grade
5/23/2011	Cole Elementary	1	23	4th grade
ActivityType:	**Classroom Program**		**208**	**Programs/Activities**
TOTAL	Classroom Program	208 Programs/Activities	4627 Students	324 Adults
Career Fair		**1 Programs/Activities**	**Students**	**Adults**
11/5/2010	MNPS ALL SCHOOLS Stormwater Engineers staffed booth	1		
Careers in Water		**4 Programs/Activities**	**120 Students**	**Adults**
5/25/2011	Meigs Middle Magnet How math is used in water/wastewater treatment	4	120	7th & 8th grade
Enviroscape		**16 Programs/Activities**	**375 Students**	**16 Adults**

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Table 10-A.2 Presentations Documented by the MWS PIO in PY8 (Continued)

7/16/2010	Nashville Zoo Summer Camp Handout: Only You can Protect the Stormdrain	2	50	1st - 4th grade	8
7/30/2010	Nashville Zoo Summer Camp Handout: Only You can Protect The Stormdrain	2	50	1st - 4th grade	8
5/10/2011	Environmental Awareness Day	7	200	4th grade	
6/22/2011	Special Group Read to Achieve Summer Camp	5	75	K-8th grade	
The Journey of Your Water & Enviroscape	**1 Programs/Activities**		**30 Students**		**10 Adults**
2/14/2011	Oak Hill School	1	30	4th grade	10
The Journey of Your Water Program & Video	**3 Programs/Activities**		**135 Students**		**Adults**
9/7/2010	Percy Priest Elem.	1	90	4th grade	
5/26/2011	Dupont Hadley Middle	2	45	5th grade	
The Water Cycle & Me	**143 Programs/Activities**		**3081 Students**		**Adults**
8/27/2010	Glencliff Elementary	4	91	4th grade	
8/30/2010	Cole Elementary	1	23	4th grade	
9/3/2010	Cole Elementary	1	23	4th grade	
9/8/2010	Westmeade Elem.	4	92	4th grade	
9/9/2010	Crieve Hall Elementary	2	55	4th grade	
9/10/2010	Cole Elementary	1	21	4th grade	
9/14/2010	Cumberland Elementary	3	78	4th grade	
9/15/2010	Binkley, Norman Elementary	3	80	4th grade	
9/16/2010	Cole Elementary	1	23	4th grade	
9/17/2010	Cole Elementary	1	20	4th grade	
9/23/2010	Shayne Elem.	4	125	4th grade	
9/27/2010	Dodson Elementary	3	60	4th grade	
9/28/2010	Dodson Elementary	2	40	4th grade	
9/29/2010	Harpeth Valley Elementary	3	75	4th grade	
9/30/2010	Harpeth Valley Elementary	3	75	4th grade	
10/1/2010	Jones Elem. Paideia Magnet	2	40	4th grade	
10/4/2010	Fall-Hamilton Elementary Enhanced Option	2	46	4th grade	
10/5/2010	Hickman Elementary	4	100	4th grade	
10/8/2010	Glenn Elementary Enhanced Option	3	48	4th grade	
10/11/2010	Gateway Elementary	2	32	4th grade	

Table 10-A.2 Presentations Documented By the MWS PIO in PY8 (Continued)

10/13/2010	Shwab Elem.	3	48	4th grade
10/29/2010	Our Savior Lutheran Academy	1	10	4th grade
11/10/2010	Buena Vista Elementary Enhanced Option	3	63	4th grade
11/11/2010	Ross Elem.	2	41	4th grade
11/18/2010	Ruby Major Elem.	2	42	4th grade
11/19/2010	Ruby Major Elem.	3	66	4th grade
11/22/2010	Goodlettsville Elementary	4	90	4th grade
12/6/2010	Una Elem.	4	80	4th grade
12/7/2010	Una Elem.	4	80	4th grade
12/8/2010	Cockrill Elementary	4	71	5th grade
12/15/2010	Lockeland Elem. Design Center	3	63	4th grade
1/4/2011	Stanford Elem. Montessori Design Ctr.	1	19	4th grade
1/5/2011	Stanford Elem. Montessori Design Ctr.	1	19	4th grade
1/6/2011	Stanford Elem. Montessori Design Ctr.	1	19	4th grade
1/18/2011	Gower Elementary	3	57	4th grade
1/19/2011	Gower Elementary	3	57	4th grade
1/27/2011	Napier Elem. Enhanced Option	4	60	4th grade
2/1/2011	Caldwell Elementary Enhanced Option	2	41	4th grade
2/2/2011	Akiva School	1	22	5th & 6th grade
2/18/2011	Tom Joy Elem.	4	90	4th grade
2/24/2011	Sylvan Park Elem. Paideia Design Ctr.	4	86	4th grade
3/1/2011	Stratton Elem.	3	70	4th grade
3/2/2011	Stratton Elem.	2	45	4th grade
3/8/2011	Green, Alex Elementary	3	63	4th grade
3/9/2011	Kelley, A.Z. Elementary	3	75	4th grade
3/11/2011	Kelley, A.Z. Elementary	3	66	4th grade
3/24/2011	Maxwell Elementary School	4	98	4th grade
3/25/2011	Inglewood Elementary	3	60	4th grade
3/30/2011	Joelton Elementary	2	45	4th grade
3/31/2011	Joelton Elementary	3	51	3rd grade
5/5/2011	Green, Julia Elementary	4	100	3rd grade
5/16/2011	Harding Academy	3	57	4th grade
5/17/2011	Franklin Road Academy	3	57	4th grade

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Table 10-A.2 Presentations Documented By the MWS PIO in PY8 (Continued)

5/23/2011	Cole Elementary	1	23	4th grade	
Water Fun & Games		**4 Programs/Activities**		**200 Students**	**122 Adults**
7/1/2010	Library: Main	1	75	preschool - 3rd grade	60
7/7/2010	Library: Madison	1	50	preschool - 3rd grade	40
6/28/2011	Library: Hadley Park Rain Barrels and art project	1	40	preschool - 1st grade	8
6/30/2011	Library: Southeast Water use around the world, story and game	1	35	4-8 years old	14
Water Quality & You (Enviroscape)		**32 Programs/Activities**		**686 Students**	**Adults**
9/21/2010	Hume Fogg High Magnet	2	52	9th grade, Biology	
9/22/2010	Hume Fogg High Magnet	2	52	9th grade, Biology	
10/14/2010	Overton High Part of Radnor Lake Field Trip Activities	4	120	10th - 12th grades	
1/20/2011	Harpeth Hall	3	48	8th grade	
1/24/2011	Harpeth Hall	3	48	8th grade	
1/25/2011	W.A. Bass Middle	3	54	6th grade	
1/28/2011	Hume Fogg High Magnet	5	105	9th, 11th, 12th grades	
2/22/2011	West End Middle	5	98	5th grade	
3/22/2011	Antioch Middle	5	109	7th grade	
Water Treatment		**3 Programs/Activities**		**Students**	**121 Adults**
8/3/2010	National Business College Environmental Science Class - waster & wastewater treatment overview	1			21
4/11/2011	National Business College	1		Environmental Science Class	50
4/18/2011	National Business College	1		Environmental Sciences Class	50
Water Wise Gardening		**1 Programs/Activities**		**Students**	**55 Adults**
4/7/2011	Master Gardeners	1			55
ActivityType: Community Meeting				**5 Programs/Activities**	
TOTAL Community Meeting		5 Programs/Activities		Students	67 Adults
Citizen Advisory Committee -LTCP		**1 Programs/Activities**		**Students**	**Adults**
12/2/2010	Lentz Public Health	1			
Flood Recovery		**4 Programs/Activities**		**Students**	**67 Adults**
7/1/2010	Community Hazard Mitigation Buyout Plan - Apollo Middle School	1			
8/26/2010	Community Brentwood Women's New Neighbors group, Glenn Mizell presented	1			67

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Table 10-A.2 Presentations Documented By the MWS PIO in PY8 (Continued)

10/15/2010	Conference AMWA-Raleigh, NC	1		
11/18/2010	Conference TN Gas Assn: Transportation Safety Conference - "Flood Threatens Nashville Water Supply	1		
ActivityType:	**Community Outreach Event**	**29 Programs/Activities**		
TOTAL Booth		**4 Programs/Activities**	**Students**	**Adults**
Booth/Table		**4 Programs/Activities**	**Students**	**Adults**
7/14/2010	Special Event Shanna Curley, 2010 Annual Business Symposium	1		
3/4/2011	Nashville Lawn and Garden Show Rain barrels and backflow prevention	1		
4/7/2011	Hillsboro Village Art Walk	1		
4/22/2011	Special Event Living Well Event - Rain Barrel Display	1		
TOTAL Misting Tent		**1 Programs/Activities**	**Students**	**Adults**
Misting Tent		**1 Programs/Activities**	**Students**	**Adults**
7/4/2010	Fourth of July Celebration	1		
TOTAL Provide Water		**24 Programs/Activities**	**Students**	**Adults**
Water Station		**6 Programs/Activities**	**Students**	**Adults**
9/9/2010	Live on the Green Concerts	1		
9/16/2010	Live on the Green Concerts	1		
9/23/2010	Live on the Green Concerts	1		
9/30/2010	Live on the Green Concerts	1		
10/7/2010	Live on the Green Concerts	1		
10/14/2010	Live on the Green Concerts	1		
Water Tower		**1 Programs/Activities**	**Students**	**Adults**
7/4/2010	Hot Chicken Festival	1		
Water Tower & Misting Tent		**2 Programs/Activities**	**Students**	**Adults**
7/31/2010	Music City Brewers' Festival	1		
8/8/2010	Mayor's First Day	1		
Water Truck		**3 Programs/Activities**	**Students**	**Adults**
9/14/2010	Flat Rock Heritage Foundation	1		
9/18/2010	Dog Day Festival - Centennial Park	1		
6/3/2011	Taste of Music City Preview part	1		
Water Wagon		**11 Programs/Activities**	**Students**	**Adults**

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Table 10-A.2 Presentations Documented By the MWS PIO in PY8 (Continued)

9/10/2010	State Fair 10 day event	1			
9/25/2010	Wine on the River	1			
4/9/2011	East Nashville Beer Fest	1			
4/23/2011	Earth Day Festival	1			
5/14/2011	Mayor's 100 Mile Walk Peeler Park	1			
5/21/2011	Tour de Nash	1			
5/24/2011	Special Event 28th Avenue Connector Ground Breaking	1			
5/28/2011	Mayor's 100 Mile Walk Bells Bend	1			
6/4/2011	Taste of Music City Deaderick Street	1			
6/6/2011	Special Event Art Dedication - Public Square	1			
6/11/2011	Catfish Rodeo	1			
Water Wagon and Misting Tent		**1 Programs/Activities**		**Students**	**Adults**
8/11/2010	Dragon Boat & River Festival	1			
ActivityType:	**Community Presentation**			**15 Programs/Activities**	
TOTAL Presentation		**15 Programs/Activities**		**18 Students**	**105 Adults**
Rain Barrels		**7 Programs/Activities**		**18 Students**	**60 Adults**
8/26/2010	Neighborhood Assocation: Lockland Springs Rain Barrels, backflow prevention	1			25
4/5/2011	Library: Inglewood	1			4
4/14/2011	Library: Edmondson Pike	1	12	elementary	5
4/16/2011	Library: Hermitage	1			4
4/20/2011	Library: Thompson Lane	1	6	preschool, school age	4
4/21/2011	Library: Madison	1			10
6/7/2011	Library: Edmondson Pike	1			8
Special Presentation		**6 Programs/Activities**		**Students**	**15 Adults**
8/20/2010	Special Event Citizen Advisory Council/LTCP, at Water Professionals Conference	1			
9/20/2010	Conference Tennessee Watershed Conference	1			
10/15/2010	Conference AMWA-Nashville's approach to Water Quality (Watershed Management)-Raleigh, NC	1			

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Table 10-A.2 Presentations Documented By the MWS PIO in PY8 (Continued)

10/24/2010	Conference AMWA - Sustainability Panel, Nevada	1			
11/1/2010	University: Nashville State Community College Stormwater Pollution Prevention	1			15
11/4/2010	Conference Contingency Planning Seminar	1			
SW Community Meeting		**1 Programs/Activities**		**Students**	**Adults**
3/22/2011	Community Bordeaux Hills Residental Association - SW infrastructure discussion	1			
Water Treatment & Quality		**1 Programs/Activities**		**Students**	**30 Adults**
3/7/2011	Special Group American Legion	1			30
ActivityType: Media				**13 Programs/Activities**	
TOTAL Television Segment		**13 Programs/Activities**		**Students**	**Adults**
Volunteer Gardener (Channel 8, WNPT)		**13 Programs/Activities**		**Students**	**Adults**
2/15/2011	Volunteer Gardener Seed Starting (Gardens of Babylon)	1			
3/4/2011	Volunteer Gardener Aquaculture, Davidson Co Master Gardeners Booth at Lawn & Garden Show	2			
4/19/2011	Volunteer Gardener Metro Codes & HOA restrictions	1			
5/20/2011	Volunteer Gardener Tips segments with Gardens of Babylon	7			
6/27/2011	Volunteer Gardener Community & School Gardens (Old Hickory, Westmeade ES)	2			
ActivityType: Tour				**29 Programs/Activities**	
TOTAL Tour: Biosolids		**3 Programs/Activities**		**25 Students**	**2 Adults**
Biosolids Facility Tour: Students		**3 Programs/Activities**		**25 Students**	**2 Adults**
2/22/2011	Hume Fogg High Magnet	1		11th & 12th, APES class	
3/3/2011	Martin Luther King Magnet	1	6	11th & 12th APES	
4/25/2011	Vanderbilt School of Science & Math (High Schoo	1	19	High School	2
TOTAL Tour: MWS Facilities		**3 Programs/Activities**		**Students**	**51 Adults**
Facilities Tour		**2 Programs/Activities**		**Students**	**6 Adults**
7/28/2010	Special Group Accounting requested this tour for the auditors	1			2
8/4/2010	Special Group Mayor's Office Interns Tour	1			4
MWS Operations & Techology		**1 Programs/Activities**		**Students**	**45 Adults**

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Table 10-A.2 Presentations Documented By the MWS PIO in PY8 (Continued)

7/27/2010	Special Group Military Officers of Amerca Association, Middle TN Chapter	1			45
TOTAL Tour: WTP	**5 Programs/Activities**		**72 Students**		**24 Adults**
K.R. Harrington Tour: Adults	**2 Programs/Activities**		**Students**		**15 Adults**
10/25/2010	Special Group	1	3rd Year Plumbing Class		
3/21/2011	University: TSU	1	Environmental Health Class, Masters Level		15
K.R. Harrington Tour: Students	**3 Programs/Activities**		**72 Students**		**9 Adults**
2/15/2011	Hume Fogg High Magnet	1	17	11th & 12th, APES	1
4/25/2011	Vanderbilt School of Science & Math (High Schoo	1	19	high school	2
6/17/2011	University: TSU Pre-college STEM program	1	36	Rising Freshman	6
TOTAL Tour: WWTP	**18 Programs/Activities**		**182 Students**		**112 Adults**
White's Creek Tour: Adults	**6 Programs/Activities**		**Students**		**69 Adults**
10/19/2010	University: Tennessee Technical University	1	ASCE		6
10/27/2010	University: Vanderbilt	1	American Studies Class		14
11/1/2010	University: Nashville State Community College Environmental Science Class	1			15
12/9/2010	Special Group	1	LP Corporation Group		6
3/28/2011	University: Nashville State Community College	1	Environmental Science Class		13
4/18/2011	University: TSU	1	Environmental Health Class, Masters Level Students		15
Whites Creek Tour: Students	**12 Programs/Activities**		**182 Students**		**43 Adults**
8/24/2010	Stratford High	1	27	9th grade, honors science	5
8/25/2010	Stratford High	1	18	Honors Science Class	4
9/24/2010	Hermitage Hall	1	6	5th - 11th grade	2
11/16/2010	Ensworth School Aquatic Biology Classes	2	29	11th & 12th Grade	
11/18/2010	David Lipscomb Univsersity Environmental Science Class	1		College	23
11/23/2010	Ensworth School	1	11	11th/12th grade Environmental Science Class	
3/9/2011	Martin Luther King Magnet	1	24	11th & 12th APES	
3/11/2011	Home School Group	1	11	5th - 11th grade	5
3/23/2011	Hume Fogg High Magnet	1	21	11th & 12th APES	

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Table 10-A.2 Presentations Documented By the MWS PIO in PY8 (Continued)

5/5/2011	Harpeth Hall	1	18	9th/10th grade	2
5/6/2011	Harpeth Hall	1	17	11th & 12th grade	2
ActivityType:	**Workshop**			**2 Programs/Activities**	
TOTAL Workshop		2 Programs/Activities		Students	28 Adults
Tennessee Yards & Neighborhoods		**2 Programs/Activities**		**Students**	**28 Adults**
3/19/2011	Community	1			14
3/26/2011	Community	1			14

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Note: Some the presentations documented by the MWS PIO are also documented in the NPDES presentation table (10-A.1) when NPDES personnel were involved in the presentations.

Table 11-A.1 Summary of Quantifiable Stats from Stormwater Management Program

Categories	Permit Year 1	Permit Year 2	Permit Year 3	Permit Year 4	Permit Year 5	Permit Year 6	Permit Year 7	Permit Year 8
Recycled Oil (tons)	16	9.1	17.82	20.27	26.88	35.38	36.4	35.32
Recycled Plastic (tons)	266	300.42	1233.28	[1]244.86	[1]374.04	[1]391.93	[1]500.94	[1]547.21
Recycled Paper (tons)	4,477	2,573.84	2,954.69	3,333.47	[2]4,083.74	[2]3,789.07	[2]3,318.88	[2]3034.86
Recycled Glass (tons)	1,798	1,052.70	1,107.05	1,116.52	1,607.48	2,110.05	1,866.14	2,207.29
Total Brush Collection (tons)	25,613.10	31,702.78	30,498.85	30,269.40	27,785.25	30,972.21	29,456.10	38,634.89
Total Waste Collected (tons)	159,595.04	157,622.99	150,972.54	152,430.24	153,266.01	149,474.79	151,425.06	151,501.17
# of Water Quality Complaints (non-construction) Investigations Initiated in Database	161	213	287	156	135	133	139	138
# of Construction Stormwater Related Inspections	4,708	5,509	5,721	6,552	6,327	6,160	5,079	5,457
# of Grading Permits Issued	270	271	252	239	165	109	121	135
Submitted to Stormwater Development and	868	1,562	1,427	1,505	1,970	1,600	1,367	1,319
Approved or Declared No Permit Needed by Stormwater Development and Review	387	449	507	619	871	687	506	559
# of Stormwater Enforcements (NOVs and SWOs)	228	197	283	190	342	188	123	148

[1]The recycled plastic total does not include plastic bottles collected with metal cans.
[2]The recycled paper number does not include paper material collected in mixed recyclables from the curbside pick-up.

Table 11-A.2 Summary of Stormwater FY2012 Budget Expenditure Projections

Stormwater Division		Annual Expenditure "Projected" FY2012
Normal Operating Budget	Administration	$2,111,500
	Development Review and Permitting	$1,236,900
	NPDES Water Quality	$1,381,200
	Pumping Stations	$52,500
	Remedial Maint.	$1,136,700
	Routine Maint.	$4,256,700
	Master Planning	$256,500
	Street Sweeping Contracted Services	$750,000
	Class C Remedial Maintenance Projects/Capital Expenditures	$1,853,500
	Stormwater Fleet Additions	$250,000
Total		**$13,285,500**

Note: These numbers represent the projected expenditures. The actual expenditures are subject to change if revenue sources change.

Table A-1 Ambient Sampling Results for PY8

Watershed Units	Date	Time	Temp ˚C	pH	TKN mg/L	BOD5 mg/L	COD mg/L	Lead mg/L	Nickel mg/L	Copper mg/L	Zinc mg/L	TSS mg/L	Nitrate+Nitrite mg/L	Fecal Coliform colony/100 ml	Fecal Strep colony/100 ml	Tot Ammonia Nitrogen mg/L	TDS mg/L	Tot Phos. mg/L	Diss. Phos. mg/L	Chrom. mg/L	Total N mg/L	Fl mg/L	Entero. colony/100 ml	E. *coli* colony/100 ml
Trip Blank	8/4/10	7:50			<0.1	<2	<10	<.001	<.001	<.001	<.001	<1	<.2	<1	<10	<.1	15	0.07	0.07	<.001	---	<.2	<10	<1
Trip Blank	10/6/10	7:00			<0.1	<2	<10	<.001	<.001	<.001	<.001	<1	<.2	1	<10	<.1	4	0.01	0.01	<.001	---	<.2	<10	1
Trip Blank	12/1/10	7:00			<0.1	<2	<10	<.001	<.001	<.001	<.001	<1	<0.2	<1	<1	<.1	5	0.04	0.04	<.001	---	<.2	<1	<1
Trip Blank	2/2/11	0:00			<0.1	<2	15	<.001	<.001	<.001	<.001	<1	<.2	<1	<1	<.1	23	<.002	<.002	<.001	---	<.02	<1	<1
Trip Blank	4/6/11	0:00			<0.1	<2	<10*	<.001	<.001	<.001	<.001	<1	<.2	<1	<10	<.1	2	0.009	0.009	<.001	---	<.2	<10	<1
Trip Blank	6/1/11	0:00			0.38	<2	<10	<0.001	<0.001	<0.001	<0.001	<1	<0.2	<1	<1	<0.1	7	0.2	0.2	<0.001	<0.58	<0.2	<1	<1
Field Blank	8/4/10	8:50			<0.1	<2	<10	<.001	<.001	<.001	<.001	<1	<.2	<1	<10	<.1	12	0.10	0.10	<.001	---	<.2	<10	<1
Field Blank	10/13/10	8:40			<0.1	<2	<10	<.001	<.001	<.001	<.001	<1	<.2	<1	9	<.1	<1	0.14	0.14	<.001	---	<.2	<10	<1
Field Blank	12/1/10	8:25			0.11	<2	<10	<.001	<.001	<.001	<.001	<1	0.1	<1	<1	<.1	35	0.03	0.03	<.001	0.2	<.2	<1	<1
Field Blank	2/2/11	0:00			<0.1	<2	<10	<.001	<.001	<.001	<.001	<1	<.2	<1	<1	<.1	30	<.002	<.002	<.001	---	<.02	<1	<1
Field Blank	4/6/11	0:00			<0.1	<2	<10*	<.001	<.001	<.001	0.001	1	<.2	<1	<10	<.1	<1	0.027	0.027	<.001	---	<.2	<10	<1
Field Blank	6/1/11	0:00			0.45	<2	<10	<0.001	<0.001	<0.001	<0.001	<1	<0.2	<1	<1	<0.1	9	0.2	0.2	<0.001	<0.65	<0.3	<1	<1
Ewing	8/11/10	8:05	26.3	7.78	0.19	<2	15	0.0020	<.001	0.001	0.0120	1	0.3	740	1400	<.1	500	0.80	0.80	<.001	0.5	0.39	350	290
Ewing	10/13/10	8:45	16.5	7.13	0.24	<2	<10	<.001	<.001	<.001	<.001	4	<.2	1500	2500	<.1	372	0.50	0.50	<.001	<0.44	0.35	2200	1500
Ewing	12/8/10	9:30	2.9	7.59	0.16	<2	<10	<.001	<.001	<.001	0.001	2	1.3	1400	120	<.1	475	0.68	0.68	<.001	1.4	0.29	370	1200
Ewing	2/9/11	0:00	3.8	8.2	0.15	<2	<10	<.001	<.001	<.001	0.002	8	1.175	260	9	<.1	441	0.496	0.496	<.001	1.3	0.28	200	200
Ewing	4/13/11	0:00	12.2	7.33	<0.1	<2	<10*	0.001	<.001	<.001	0.002	4	<.2	1200	540	<.1	397	0.617	0.617	<.001	---	0.33	470	1100
Ewing	6/8/11	0:00	23.1	7.93	0.86	5	<10	0.002	<0.001	0.0010	0.004	1	0.7	440	550	<0.1	399	0.8	0.8	<0.001	1.6	0.32	1500	270
Ewing, North	8/11/10	8:30	25.8	8.01	0.28	<2	12	0.0010	0.001	0.001	0.0030	2	0.3	220	1100	<.1	480	0.95	0.95	<.001	0.6	0.35	170	170
Ewing, North	10/13/10	9:00	17.1	7.72	0.21	<2	<10	<.001	<.001	0.001	0.001	6	<.2	360	360	<.1	440	0.84	0.84	<.001	<0.41	0.30	330	340
Ewing, North	12/8/10	9:40	3	8.01	0.22	<2	<10	<.001	<.001	0.002	0.001	2	1.4	380	130	<.1	460	0.72	0.72	<.001	1.6	0.30	330	380
Ewing, North	2/9/11	0:00	3.3	8.19	<0.1	<2	<10	<.001	<.001	<.001	0.002	5	1.302	550	120	<.1	457	0.515	0.515	<.001	<1.402	0.3	200	470
Ewing, North	4/13/11	0:00	12.3	7.95	<0.1	<2	<10*	0.001	<.001	<.001	0.001	4	<.2	700	820	<.1	369	1.485	1.485	<.001	---	0.33	420	500
Ewing, North	6/8/11	0:00	23.6	8.11	0.54	<2	<10	<0.001	0.001	0.001	0.001	<1	0.8	320	910	<0.1	390	0.8	0.8	<0.001	1.3	0.32	820	290
Ewing, South	8/11/10	8:35	25.4	7.99	0.17	<2	<10	0.0010	0.001	0.001	0.0090	1	0.4	410	2700	<.1	493	0.35	0.35	<.001	0.6	0.44	270	260
Ewing, South	10/13/10	9:05	16.7	7.94	0.66	<2	<10	<.001	<.001	0.001	0.002	3	<.2	3700	6000	<.1	541	0.84	0.84	<.001	<0.86	0.30	8000	3400
Ewing, South	12/8/10	9:45	4.7	806.00	0.23	<2	15	<.001	<.001	0.001	0.004	1	1.2	210	210	<.1	494	0.89	0.89	<.001	1.4	0.32	640	150
Ewing, South	2/9/11	0:00	4.7	8.48	0.12	<2	<10	<.001	<.001	<.001	0.002	7	0.934	70	81	<.1	503	0.428	0.428	<.001	1.1	0.3	190	60
Ewing, South	4/13/11	0:00	12.8	8.06	<0.1	<2	16*	0.001	<.001	<.001	0.001	3	<.2	660	560	<.1	519	0.601	0.601	<.001	---	0.4	520	450
Ewing, South	6/8/11	0:00	22.7	8.02	0.61	<2	<10	<0.001	0.001	0.003	0.120	<1	0.8	540	1500	<0.1	486	0.8	0.8	<0.001	1.5	0.23	3700	270
Sevenmile	8/18/10	10:15	24.5	7.65	0.82	3	37	0.0020	0.003	0.002	0.0160	112	0.5	58600	57000	<.1	105	0.43	0.43	0.003	1.3	0.30	38000	14000
Sevenmile	10/20/10	9:40	15.2	7.82	0.21	<2	28	<.001	<.001	0.001	<.001	3	<.2	140	310	<.1	331	0.99	0.99	<.001	<0.41	0.42	230	140
Sevenmile	12/15/10	9:45	6.2	8.10	0.15	<2	12	<.001	<.001	<.001	<.001	7	2.5	330	180	<.1	407	0.78	0.78	<.001	2.6	0.42	440	310
Sevenmile	2/16/11	0:00	9.4	8.28	0.2	<2	<10	<.001	<.001	<.001	0.001	4	1.276	140	36	<.1	394	0.548	0.548	<.001	1.5	0.37	140	130
Sevenmile	4/20/11	0:00	17.1	8.81	<0.1	<2	11*	0.001	<.001	0.001	0.002	8	1.2	720	2000	<.1	272	1.082	1.082	<.001	<1.3	0.32	3700	640
Sevenmile	6/15/11	0:00	20.8	7.7	0.55	<2	15	<0.001	<0.001	0.0010	0.003	<1	1.2	736	1300	<0.1	317	1.0	1.0	<0.001	1.7	0.40	2200	360
Sevenmile, East	8/18/10	9:45	24.2	7.66	0.49	3	21	0.0010	<.001	0.001	0.0090	68	0.6	48000	52000	<.1	128	0.48	0.48	0.003	1.1	0.26	58000	14000
Sevenmile, East	10/20/10	9:00	13.9	7.42	0.18	<2	<10	<.001	<.001	<.001	<.001	3	<.2	140	290	<.1	419	1.17	1.17	<.001	<0.38	0.37	320	130
Sevenmile, East	12/15/10	9:20	6.7	7.96	0.25	<2	<10	<.001	<.001	<.001	<.001	7	2.5	60	54	<.1	427	0.78	0.78	<.001	2.8	0.34	200	40
Sevenmile, East	2/16/11	0:00	9	8.2	<0.1	<2	<10	<.001	<.001	<.001	0.001	5	2.441	100	18	<.1	442	0.536	0.536	<.001	<2.541	0.32	130	100
Sevenmile, East	4/20/11	0:00	16.9	7.76	<0.1	<2	<10*	<.001	<.001	<.001	0.001	6	1.2	510	2000	<.1	297	0.949	0.949	<.001	<1.3	0.3	1800	360
Sevenmile, East	6/15/11	0:00	20.5	7.77	0.73	<2	<10	<0.001	<0.000	<0.001	0.005	57	0.7	310	1500	<0.1	370	1.7	1.7	<0.001	1.4	0.36	1500	280
Sevenmile, West	8/18/10	9:45	25.6	7.83	0.67	3	18	0.0010	<.001	0.001	0.0080	31	0.3	54000	33000	<.1	209	0.43	0.43	0.001	1.0	0.48	50000	10000
Sevenmile, West	10/20/10	9:05	12.9	7.21	0.5	3	34	<.001	<.001	0.001	<.001	2	<.2	100	350	<.1	465	2.11	2.11	<.001	<0.7	0.42	1000	73
Sevenmile, West	12/15/10	9:20	4.7	7.99	0.2	<2	<10	<.001	<.001	<.001	<.001	6	2.2	150	99	<.1	436	0.09	0.09	<.001	2.4	0.44	270	130
Sevenmile, West	2/16/11	0:00	8.6	8.01	0.12	<2	<10	<.001	<.001	<.001	0.001	6	<.2	10	9	<.1	531	0.456	0.456	<.001	<0.32	0.41	140	10
Sevenmile, West	4/20/11	0:00	17.2	7.83	<0.1	<2	<10*	<.001	<.001	<.001	0.001	<1	1.1	1400	4000	<.1	355	0.902	0.902	<.001	<1.2	0.39	2400	1200
Sevenmile, West	6/15/11	0:00	20.6	7.66	0.64	<2	14	<0.001	0.001	<0.001	<0.001	<1	0.6	300	2300	<0.1	410	1.1	1.1	<0.001	1.2	0.50	5000	300

Table A-1 Ambient Sampling Results for PY8 (Continued)

Watershed	Date	Time	Temp	pH	TKN	BOD5	COD	Lead	Nickel	Copper	Zinc	TSS	Nitrate+Nitrite	Fecal Coliform	Fecal Strep	Tot Ammonia Nitrogen	TDS	Tot Phos.	Diss. Phos.	Chrom.	Total N	Fl	Entero.	E *coli*
Units			˚C		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	colony/100 ml	colony/100 ml	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	colony/100 ml	colony/100 ml
Sugartree	8/4/10	9:00	23.9	7.21	0.4	<2	<10	<.001	0.001	0.001	0.0020	3	1.0	2100	3100	<.1	373	1.06	1.06	<.001	1.4	0.36	4500	640
Sugartree	10/6/2010	9:15	13.8	6.91	0.38	<2	<10	0.001	<.001	<.001	0.008	4	1.1	2100	820	<.1	417	1.04	1.04	<.001	1.5	0.34	640	2100
Sugartree	12/1/2010	8:25	10.6	7.73	0.2	<2	<10	<.001	<.001	<.001	0.007	1	4.2	630	560	<.1	366	0.78	0.78	<.001	4.4	0.38	1800	510
Sugartree	2/2/2011	0:00	6.9	7.89	0.15	<2	<10	<.001	0.006	0.002	0.006	<1	3.092	2700	4600	<.1	391	0.028	0.028	<.001	3.2	0.33	140	1400
Sugartree	4/6/2011	0:00	12.2	7.71	<0.1	<2	<10*	<.001	<.001	0.002	0.001	3	1	210	210	<.1	338	0.67	0.67	<.001	<1.1	0.38	210	210
Sugartree	6/1/2011	0:00	18.4	7.29	0.39	<2	<10	<0.001	<0.001	<0.001	0.002	3	1.6	360	2500	<0.1	361	1.1	1.1	<0.001	2.0	0.36	9000	210
Sugartree, South	8/4/10	9:20	25.6	7.85	0.29	<2	<10	<.001	0.002	0.002	0.0020	<1	0.3	3500	3800	<.1	472	0.66	0.66	<.001	0.6	0.48	4100	1200
Sugartree, South	10/6/2010	9:30	14.0	7.9	0.18	<2	<10	<.001	<.001	<.001	0.008	27	<.2	1200	440	<.1	359	0.49	0.49	<.001	<0.38	0.49	480	1000
Sugartree, South	12/1/2010	8:50	11.1	8.0	0.41	<2	<10	<.001	<.001	<.001	0.004	3	3.3	560	520	<.1	351	0.21	0.21	<.001	3.8	0.39	2500	500
Sugartree, South	2/2/2011	0:00	7.6	7.78	0.62	<2	<10	<.001	0.008	0.003	0.008	8	2.436	910	4600	<.1	417	0.763	0.763	0.001	3.1	0.32	180	820
Sugartree, South	4/6/2011	0:00	11.9	8.22	<0.1	<2	<10*	0.001	<.001	0.006	0.002	1	0.9	160	280	<.1	373	0.704	0.704	<.001	<1.0	0.35	470	140
Sugartree, South	6/1/2011	0:00	21.7	7.92	0.43	<2	<10	0.001	<0.001	0.004	0.001	1	0.7	600	2700	<0.1	407	0.9	0.9	<0.001	1.1	0.40	3200	300
Sugartree-dup	8/4/10	9:00	24	7.11	0.16	<2	<10	<.001	0.001	0.001	0.0030	4	1.0	2500	1500	<.1	472	0.94	0.94	<.001	1.2	0.36	2100	1500
Sugartree-dup	10/6/2010	9:15	13.7	6.9	0.77	<2	17	0.0010	<.001	0.001	0.005	8	1.1	1700	730	<.1	422	1.08	1.08	<.001	1.9	0.34	450	1500
Sugartree-dup	12/1/2010	8:25	10.6	7.7	0.27	<2	<10	<.001	<.001	<.001	0.010	1	4.3	590	550	<.1	358	0.66	0.66	<.001	4.5	0.39	3000	480
Sugartree-dup	2/2/2011	0:00	6.8	7.92	0.24	<2	12	<.001	0.007	0.002	0.007	<1	3.261	1300	5700	<.1	404	0.028	0.028	<.001	3.5	0.34	180	540
Sugartree-dup	4/6/2011	0:00	12	8.44	0.28	<2	<10*	<.001	<.001	0.001	0.002	<1	1.2	240	260	<.1	358	0.682	0.682	<.001	1.5	0.37	340	240
Sugartree-dup	6/1/2011	0:00	18.5	7.29	0.46	<2	19	<0.001	<0.001	<0.001	0.003	14	1.602	420	3000	<0.1	361	1.1	1.1	<0.001	2.06	0.38	7000	200

Table B-1 Wet Weather Sampling Data Collected in PY8

Site	Date	BOD		COD		Cyanide		NH3-N		NO3-NO2		TKN		Total P		Diss P		TDS		TSS		Chromium		Copper		Lead		Nickel		Zinc		E. *coli*	
C2PY08		Result	Unit	Result	Unit	Result	Unit	Result	Unit	Result	Unit	Result	Unit	Result	Unit	Result	Unit	Result	Unit	Result	Unit	Result	Unit	Result	Unit	Result	Unit	Result	Unit	Result	Unit	Result	Unit
Sugartree FF	6/15/2011	**12.50**	mg/L	**82.0**	mg/L	0.0050	mg/L	**0.287**	mg/L	**0.976**	mg/L	**2.280**	mg/L	**1.290**	mg/L	**0.162**	mg/L	**180.0**	mg/L	**314.0**	mg/L	**12.70**	ug/L	**63.1**	ug/L	**29.1**	ug/L	**11.40**	ug/L	**248**	ug/L	**72700**	colonies/100mL
Sugartree FF dup	6/15/2011	**13.20**	mg/L	**72.0**	mg/L	0.0050	mg/L	**0.352**	mg/L	**0.966**	mg/L	**3.000**	mg/L	**1.190**	mg/L	**0.230**	mg/L	**174.0**	mg/L	**285.0**	mg/L	**8.45**	ug/L	**41.9**	ug/L	**18.9**	ug/L	**7.81**	ug/L	**162**	ug/L	N/A	colonies/100mL
Sugartree Comp	6/15/2011	**8.17**	mg/L	**52.1**	mg/L	0.0050	mg/L	**0.270**	mg/L	**0.702**	mg/L	**1.760**	mg/L	**0.719**	mg/L	**0.101**	mg/L	**122.0**	mg/L	**72.8**	mg/L	**4.17**	ug/L	**20.3**	ug/L	**4.5**	ug/L	5.00	ug/L	**70.2**	ug/L	**24890**	colonies/100mL
Harpeth FF	6/15/2011	**12.80**	mg/L	**184.0**	mg/L	0.0050	mg/L	**0.343**	mg/L	**1.210**	mg/L	**5.610**	mg/L	**1.190**	mg/L	**0.143**	mg/L	**156.0**	mg/L	**592.0**	mg/L	**5.57**	ug/L	**30.4**	ug/L	**14.8**	ug/L	**7.34**	ug/L	**422**	ug/L	**142.1**	colonies/100mL
Harpeth Comp	6/15/2011	**7.03**	mg/L	**42.2**	mg/L	0.0050	mg/L	**0.585**	mg/L	**0.571**	mg/L	**1.300**	mg/L	**0.306**	mg/L	0.020	mg/L	**79.0**	mg/L	**57.6**	mg/L	2.00	ug/L	**9.15**	ug/L	**3.51**	ug/L	5.00	ug/L	**103**	ug/L	**1119.9**	colonies/100mL
Stoners FF	6/15/2011	**7.79**	mg/L	**47.1**	mg/L	0.0050	mg/L	**0.435**	mg/L	**0.471**	mg/L	**1.220**	mg/L	**0.522**	mg/L	**0.033**	mg/L	**71.0**	mg/L	**97.6**	mg/L	**8.07**	ug/L	**26.6**	ug/L	**15.7**	ug/L	**6.88**	ug/L	**224**	ug/L	**920.8**	colonies/100mL
Stoners Comp	6/15/2011	**7.39**	mg/L	**42.2**	mg/L	0.0050	mg/L	**0.418**	mg/L	**0.586**	mg/L	**0.859**	mg/L	**0.427**	mg/L	**0.048**	mg/L	**81.0**	mg/L	**21.6**	mg/L	2.00	ug/L	**4.47**	ug/L	**2.82**	ug/L	5.00	ug/L	**92.6**	ug/L	**1580**	colonies/100mL
Field Blank	6/15/2011	2.00	mg/L	20.0	mg/L	0.0050	mg/L	0.05	mg/L	0.250	mg/L	**2.570**	mg/L	0.020	mg/L	0.020	mg/L	**21.0**	mg/L	4.0	mg/L	2.00	ug/L	4.00	ug/L	1.50	ug/L	5.00	ug/L	5.00	ug/L	**3.1**	colonies/100mL
Trip Blank	6/15/2011	2.00	mg/L	20.0	mg/L	0.0050	mg/L	0.05	mg/L	0.250	mg/L	0.500	mg/L	0.020	mg/L	0.020	mg/L	32.0	mg/L	4.0	mg/L	2.00	ug/L	4.00	ug/L	1.50	ug/L	5.00	ug/L	5.00	ug/L	<1	colonies/100mL
Sugartree FF	2/1/2011	**4.47**	mg/L	20.0	mg/L	0.0050	mg/L	**0.0939**	mg/L	**0.864**	mg/L	**2.800**	mg/L	**0.455**	mg/L	**0.277**	mg/L	**469.0**	mg/L	**28.7**	mg/L	2.00	ug/L	**8.53**	ug/L	1.50	ug/L	5.00	ug/L	**18.6**	ug/L	**1299.7**	colonies/100mL
Sugartree Comp	2/1/2011	**4.73**	mg/L	**65.8**	mg/L	0.0050	mg/L	**0.0918**	mg/L	**0.544**	mg/L	**5.650**	mg/L	**0.615**	mg/L	**0.397**	mg/L	**217.0**	mg/L	**55.3**	mg/L	**3.39**	ug/L	**13.1**	ug/L	**3.18**	ug/L	5.00	ug/L	**56.1**	ug/L	**1986.3**	colonies/100mL
Harpeth FF	2/1/2011	**7.62**	mg/L	**478.0**	mg/L	0.0050	mg/L	**0.189**	mg/L	**1.320**	mg/L	**7.330**	mg/L	**1.400**	mg/L	**0.151**	mg/L	**349.0**	mg/L	**776.0**	mg/L	**14.70**	ug/L	**37.5**	ug/L	**27.1**	ug/L	**14.1**	ug/L	**440**	ug/L	**387.3**	colonies/100mL
Harpeth Comp	2/1/2011	**2.39**	mg/L	**88.4**	mg/L	0.0050	mg/L	**0.159**	mg/L	**0.350**	mg/L	**2.380**	mg/L	**0.465**	mg/L	**0.151**	mg/L	**88.0**	mg/L	**91.3**	mg/L	**3.39**	ug/L	**9.07**	ug/L	**4.54**	ug/L	5.00	ug/L	**95.9**	ug/L	**2590**	colonies/100mL
Stoners FF	12/11/2011	**53.50**	mg/L	**244.0**	mg/L	0.0050	mg/L	**1.57**	mg/L	**2.60**	mg/L	**7.860**	mg/L	**0.663**	mg/L	**0.168**	mg/L	**182.0**	mg/L	**109.0**	mg/L	**5.75**	ug/L	**4.7**	ug/L	**14.1**	ug/L	**6.94**	ug/L	**357**	ug/L	**2130**	colonies/100mL
Stoners Comp	12/11/2011	**7.50**	mg/L	**38.2**	mg/L	0.0050	mg/L	**0.412**	mg/L	**0.359**	mg/L	0.500	mg/L	**0.247**	mg/L	**0.049**	mg/L	**39.0**	mg/L	**41.6**	mg/L	**2.04**	ug/L	**11**	ug/L	**3.67**	ug/L	3.00	ug/L	**101**	ug/L	**5210**	colonies/100mL

Notes:
Values in bold text are results that exceeded the method detection limit (mdl), while non-bold values are values that did not exceed mdl.

Table D-1 Biological Assessment Scoring Results

Date	Test Stream	Reference Stream	Biological Score %
Sevenmile Creek			
5/3/2000	Sevenmile	Whites 5/4/00	52
11/20/2000	Sevenmile	"too dry, not done"	---
5/7/2001	Sevenmile	Whites 5/11/01	90
10/9/2001	Sevenmile	Whites 10/10/01	57
5/3/2002	Sevenmile	Whites 6/4/02	52
10/21/2002	Sevenmile	Whites 10/21/02	52
5/13/2003	Sevenmile	Whites 5/13/03	57
10/21/2003	Sevenmile	Whites 10/22/03	52
5/11/2004	Sevenmile	Whites 5/11/04	67
10/14/2004	Sevenmile	Whites 10/15/04	86
5/10/2005	Sevenmile	Whites 5/11/05	62
10/17/2005	Sevenmile	Whites 10/18/05	76
5/15/2006	Sevenmile	Whites 5/16/06	76
10/17/2006	Sevenmile	Whites 10/18/06	78
5/9/2007	Sevenmile	Whites 5/8/07	62
10/15/2007	Sevenmile	Season Too Dry - Assessment Not done	
5/19/2008	Sevenmile	Whites 5/19/08	81
10/14/2008	Not sampled due to need of ESA permit (while being processed by USFWS)		
5/19/2009	Not sampled due to need of ESA permit (while being processed by USFWS)		
10/30/2009	Sevenmile	Whites 9/22/09	57
6/18/2010	Sevenmile	Whites 6/8/10	52
10/30/2010	Sevenmile	Overflow no sample collected	
6/2/2011	Sevenmile	Whites 5/19/11	57
Browns Creek			
5/29/2001	Browns	Whites 5/11/01	52
10/9/2001	Browns	Whites 10/10/01	38
5/30/2002	Browns	Whites 6/4/02	48
10/23/2002	Browns	Whites 10/21/02	33
5/13/2003	Browns	Whites 5/13/03	29
10/23/2003	Browns	Whites 10/22/03	38
5/10/2004	Browns	Whites 5/11/04	24
10/13/2004	Browns	Whites 10/15/04	62
5/11/2005	Browns	Whites 5/11/05	33
10/17/2005	Browns	Not done-severe illicit discharge made conditions hazardous to health	
5/15/2006	Browns	Whites 5/16/06	43
10/17/2006	Browns	Whites 10/18/06	67
5/9/2007	Browns	Whites 5/8/07	52
10/15/2007	Browns	Season too dry - assessment not done	
5/19/2008	Browns	Whites 5/19/08	43
10/14/2008	Browns	Whites10/14/08	43
5/20/2009	Browns	Whites5/19/09	38
11/5/2009	Browns	Whites 9/22/09	29
6/18/2010	Browns	Whites 6/8/10	24
11/11/2010	Browns	Whites 11/11/10	33
5/31/2011	Browns	Whites 5/19/11	57

Note: These values represent the score of the two assessed streams as compared to the reference reach of Whites Creek.

Table E-1 Summary of Event Mean Concentrations Used In Seasonal Loading Calculation

Land Use	Fecal coliform	TSS	TDS	Total Phosphorus	Dissolved Phosphorus	NO2/NO3 Nitrogen	COD	BOD(5)	Zinc	Lead	Cadmium	Copper	TKN
Industrial	2400[1]	90[1]	84[1]	.27[1]	0.17[2]	0.75[1]	61[1]	9[1]	.220[1]	.0237[1]	.0019[1]	.0218[1]	.0014[1]
Commercial	3000[1]	48[1]	74[1]	.23[1]	0.17[2]	0.62[1]	60[1]	12[1]	.150[1]	.017[1]	.0009[1]	.015[1]	.0016[1]
Residential	7750[1]	50[1]	69[1]	.31[1]	0.29[2]	0.58[1]	55.5[1]	9.05[1]	.073[1]	.012[1]	.0005[1]	.0111[1]	.00142[1]
Open Area/Vacant Land/Misc.	5000[1]	72.3[2]	134[2]	.33[2]	0.14[2]	0.85[2]	71.6[2]	25.4[2]	.033[2]	.020[2]	.001[2]	.007[2]	.0010[2]
Transportation	1700[1]	99[1]	77.5[1]	0.25[1]	1.93[2]	0.28[1]	100[1]	8[1]	.200[1]	.0275[1]	.001[1]	.035[1]	.002[1]

Note: The Event Mean Concentrations for each land use were obtained from two sources as identified by the superscript: (1) The median values from a study conducted by the University of Alabama and the Center of Watershed Protection, which was titled "Evaluation of NPDES Phase I Municipal Stormwater Monitoring Data. (2) The Event Mean Concentrations used for the calculations for the end of the 1st permit cycle which were derived from the Nashville MS4 Wet Weather sampling program. The Fecal coliform number for Open Area/Vacant land is medium value of all land uses from source 1. The same parameters used in the EMC calculation in the 1st permit cycle were used for this permit cycle.

Table E-2 Impervious Areas per Watershed

Watershed	Building Footprint (Acres)	Paved Parking Lot (Acres)	Unpaved Parking Lot (Acres)	Paved Roadway (Acres)	Unpaved Roadway (Acres)	Unpaved Roadways Considered to be Impervious (50% of total area) (Acres)	Sidewalk (Acres)	Greenway (Acres)	Surface Water (Acres)	Total Impervious Area (Acres)	Total Watershed Area (Acres)	Total Watershed Land Area (Acres)	Percent Impervious Per Watershed
Back Creek	3.55	0	0	14.88	0	0	0	0	24.64	18.43	1,620.26	1,595.62	**1.16%**
Browns Creek	826.67	971.03	137.11	668.97	18.3	9.15	24.58	6.79	42.67	2,644.30	8,847.37	8,804.70	**30.03%**
Bull Run Creek	9.21	0	0	32.86	5.62	2.81	0	0	39.05	44.88	2,952.05	2,913.00	**1.54%**
Cooper Creek	233.12	73.12	8.33	173.41	0.29	0.145	8.62	7.65	17.74	504.4	2,373.63	2,355.89	**21.41%**
Cub Creek	4.76	0.52	0	16.88	0	0	0	0	23.87	22.16	1,605.16	1,581.29	**1.40%**
Cumberland River	2,353.56	2,109.86	386.66	2,172.48	188.73	94.37	209.48	19.84	4,905.00	7,346.25	51,093.76	46,188.76	**15.90%**
Davidson Branch	114.25	58.36	0.51	125.92	0.85	0.425	0.93	9.08	15.56	309.48	2,391.79	2,376.23	**13.02%**
Dry Creek	283.3	210.43	42.36	267.22	16.96	8.48	3.81	6.75	39.58	822.35	5,635.37	5,595.79	**14.70%**
Ewing Creek	373.61	287.46	37.43	521.34	14.43	7.215	10.2	23.18	110.01	1,260.44	9,003.38	8,893.37	**14.17%**
Gibson Creek	265.27	255.27	16.18	213.19	0.6	0.3	11.57	5.29	12.89	767.07	2,749.19	2,736.30	**28.03%**
Gizzard Branch	138.65	246.68	0.3	101.41	1.89	0.945	2.54	3.91	18.93	494.44	1,466.61	1,447.68	**34.15%**
Harpeth River	622.06	307.02	4.34	676.39	27.49	13.75	23.67	8.17	369.88	1,655.40	18,170.91	17,801.03	**9.30%**
Indian Creek	10.25	0.83	0	30.92	2.96	1.48	0	0	80.17	43.48	3,929.99	3,849.82	**1.13%**
Island Creek	0.61	0	0	9.77	0	0	0	2.89	6.36	13.27	516.92	510.56	**2.60%**
Little Harpeth River	189.23	74.09	1.37	278.78	56.79	28.4	3.71	4.41	139.94	579.98	8,889.23	8,749.29	**6.63%**
Loves Branch	95.9	64.16	0.75	131.38	14.7	7.35	1.82	5.29	16.8	306.65	1,457.59	1,440.79	**21.28%**
Marrowbone Creek	67.06	16.13	4.72	171.24	10.68	5.34	0	0	253.98	264.49	12,182.46	11,928.48	**2.22%**
Mansker Creek	300.76	290.7	8.79	422.47	16.37	8.185	6.93	32.36	191.78	1,070.20	13,075.79	12,884.01	**8.31%**
Mill Creek Lower	1734	1969.56	112.7	1399.78	49.72	24.86	37.04	22.58	256.28	5,300.52	13,376.47	13,120.19	**40.40%**
Mill Creek Upper	489.66	337.17	9.79	533.42	11.94	5.97	26.03	25.6	198.68	1,427.64	14,479.56	14,280.88	**10.00%**
Overall Creek	87.76	65.93	6.73	168.2	10.68	5.34	1.92	7.86	59.62	343.74	4,950.36	4,890.74	**7.03%**
Pages Branch	142.8	122.44	92.95	156.61	15.1	7.55	7.54	2.52	14.2	532.41	2,068.73	2,054.53	**25.91%**
Percy Priest Lake, Lower	352.62	356.66	41.93	310.52	11.09	5.545	9.97	18.26	2,319.63	1,095.51	13,376.47	11,056.84	**9.91%**
Percy Priest Lake, Upper	531.95	238.71	9.62	501.26	37.85	18.925	15.35	2.09	7,122.69	1,317.91	19,575.01	12,452.32	**10.58%**
Pond Creek	3.27	0	0.41	9.25	2.88	1.44	0	0	19.17	14.37	1,688.32	1,669.15	**0.86%**
Richland Creek	1109.39	595.24	67.22	984.18	52.6	26.3	39.85	7.05	111.1	2,829.23	14,680.11	14,569.01	**19.42%**
Sevenmile Creek	959.38	643.34	25.04	793.74	8.1	4.05	28.08	3.51	97.3	2,457.14	10,962.35	10,865.05	**22.62%**
South Harpeth River, Lower	33.07	2.04	2.35	122.63	33.91	16.955	0	0	180.1	177.05	9,256.78	9,076.68	**1.95%**
Stoner Creek	494.48	351.59	38.02	501.52	6.81	3.405	17.17	9.74	85.12	1,415.93	7,543.58	7,458.46	**18.98%**
Stones River	370.52	463.4	43	435.98	19.79	9.895	12.22	20.1	262.27	1,355.12	9,258.64	8,996.37	**15.06%**
Sugartree Creek	315.25	171.34	0	203.72	2.62	1.31	6.88	0	16.09	698.5	3,030.72	3,014.63	**23.17%**
Sulpher Creek	19.92	3.81	0	79.59	4.5	2.25	0	0.43	58.08	106	3,839.61	3,781.53	**2.80%**
Sycamore Creek	98.91	37.56	1.77	279.05	17.34	8.67	0.1	13.16	224.81	439.22	13,066.82	12,842.01	**3.42%**
Whites Creek	478.75	194.27	68.69	809.71	37.3	18.65	6.01	38.7	489.76	1,614.78	31,738.54	31,248.78	**5.17%**
Overall County	**14,524.74**	**11,594**	**1,297.87**	**14,389.09**	**795.1**	**397.55**	**764.01**	**389.41**	**18,012**	**43,356.76**	**329,224.00**	**311,212.00**	**13.93%**

Note: This calculation was performed by extracting GIS coverages of known impervious areas (roads, buildings, sidewalks, etc.). Impervious areas not captured in GIS would not be covered in this calculation. For calculation purposes, approximately 50% of the unpaved roads (gravel) were considered to be impervious. Impervious calculations were not performed on the Combined Sewer System drainage areas. The impervious areas were not recalculated for the PY8 annual report as many of the GIS coverages used to run the calculation have not changed significantly since the PY5 calculation.

Table E-3 Land Use Per Watershed

Watershed	Percent Commercial	Percent Industrial	Percent Residential	Percent Open Space/Natural/ Misc.	Percent Transportation	Total Watershed Land Area (Acres)	Estimated Commercial Land Area (Acres)	Estimated Industrial Land Area (Acres)	Estimated Residential Land Area (Acres)	Estimated Open Space/Natural Land Area (Acres)	Estimated Transportation Land Area (Acres)
Back Creek	0.00%	0.00%	89.22%	9.87%	0.92%	1,595.62	0	0	1,423.61	157.49	14.68
Browns Creek	9.75%	8.94%	49.08%	24.20%	8.03%	8,804.70	858.46	787.14	4,321.35	2,130.74	707.02
Bull Run Creek	0.02%	0.00%	44.04%	54.64%	1.30%	2,913.00	0.58	0	1,282.89	1,591.66	37.87
Cooper Creek	8.38%	1.27%	65.22%	17.81%	7.32%	2,355.89	197.42	29.92	1,536.51	419.58	172.45
Cub Creek	0.61%	0.00%	74.83%	23.51%	1.05%	1,581.29	9.65	0	1,183.28	371.76	16.6
Cumberland River (Overall)	13.31%	5.17%	38.39%	37.19%	5.93%	46,188.76	6,147.72	2,387.96	17,731.86	17,177.60	2,738.99
Davidson Branch	5.58%	0.92%	72.87%	15.33%	5.30%	2,376.23	132.59	21.86	1,731.56	364.28	125.94
Dry Creek	5.54%	4.91%	52.88%	31.58%	5.09%	5,595.79	310.01	274.75	2,959.05	1,767.15	284.83
Ewing Creek	7.41%	4.97%	44.22%	37.45%	5.95%	8,893.37	659	442	3,932.65	3,330.57	529.16
Gibson Creek	14.78%	1.07%	60.37%	16.00%	7.78%	2,736.30	404.43	29.28	1,651.90	437.81	212.88
Gizzard Branch	31.23%	1.69%	35.53%	24.52%	7.04%	1,447.68	452.11	24.47	514.36	354.97	101.92
Harpeth River	3.33%	0.05%	45.58%	47.16%	3.87%	17,801.03	592.77	8.9	8,113.71	8,394.97	688.9
Indian Creek	1.01%	0.00%	56.95%	41.18%	0.86%	3,849.82	38.88	0	2,192.47	1,585.36	33.11
Island Creek	0.00%	0.00%	29.22%	68.89%	1.89%	510.56	0	0	149.19	351.72	9.65
Little Harpeth	5.77%	0.07%	45.37%	45.01%	3.78%	8,749.29	504.83	6.12	3,969.55	3,938.06	330.72
Loves Branch	6.97%	0.49%	49.22%	33.30%	10.02%	1,440.79	100.42	7.06	709.16	479.78	144.37
Marrowbone Creek	0.69%	0.14%	45.74%	51.93%	1.49%	11,928.48	82.31	16.7	5,456.09	6,194.46	177.73
Mansker Creek	3.26%	1.76%	59.22%	32.41%	3.36%	12,884.01	420.02	226.76	7,629.91	4,175.71	432.9
Mill Creek Lower	19.81%	9.29%	40.70%	23.00%	7.21%	13,120.19	2,599.11	1,218.87	5,339.92	3,017.64	945.97
Mill Creek Upper	5.70%	1.10%	47.81%	41.62%	3.77%	14,280.88	814.01	157.09	6,827.69	5,943.70	538.39
Overall Creek	5.48%	4.76%	52.33%	33.79%	3.64%	4,890.74	268.01	232.8	2,559.32	1,652.58	178.02
Pages Branch	17.58%	6.64%	34.17%	33.31%	8.30%	2,054.53	361.19	136.42	702.03	684.36	170.53
Percy Priest Lake Lower	2.90%	6.14%	24.48%	64.07%	2.40%	11,056.84	320.65	678.89	2,706.71	7,084.12	265.36
Percy Priest Lake Upper	1.92%	0.12%	22.81%	72.39%	2.75%	12,452.32	239.08	14.94	2,840.37	9,014.23	342.44
Pond Creek	0.09%	0.00%	62.81%	36.38%	0.72%	1,669.15	1.5	0	1,048.39	607.24	12.02
Richland Creek	10.89%	2.89%	56.41%	22.60%	7.22%	14,569.01	1,586.57	421.04	8,218.38	3,292.60	1,051.88
Sevenmile Creek	10.19%	1.47%	60.35%	20.67%	7.31%	10,865.05	1,107.15	159.72	6,557.06	2,245.81	794.24
South Harpeth River Lower	0.59%	0.00%	46.34%	51.38%	1.69%	9,076.68	53.55	0	4,206.13	4,663.60	153.4
Stoners Creek	10.34%	3.17%	54.24%	25.52%	6.74%	7,458.46	771.2	236.43	4,045.47	1,903.40	502.7
Stones River	32.81%	1.23%	30.94%	30.09%	4.92%	8,996.37	2,951.71	110.66	2,783.48	2,707.01	442.62
Sugartree Creek	8.97%	0.03%	65.58%	18.61%	6.81%	3,014.63	270.41	0.9	1,976.99	561.02	205.3
Sulpher Creek	0.50%	0.11%	56.96%	40.24%	2.19%	3,781.53	18.91	4.16	2,153.96	1,521.69	82.82
Sycamore Creek	0.75%	0.01%	59.08%	37.89%	2.27%	12,842.01	96.32	1.28	7,587.06	4,865.84	291.51
Whites Creek	3.07%	0.56%	19.97%	73.72%	2.67%	31,248.78	959.34	174.99	6,240.38	23,036.60	834.34

Note: There are a variety of land uses within Davidson County. In order to determine the major categories, NPDES used GIS to lump a majority of the diverse land uses into one of the five major categories. The percentages were estimated based on total watershed area. Using the estimated percentages, the land use acres were calculated from the total watershed land area. The Open Space/Natural/Misc. includes park land, rural residential, agriculture, undeveloped land, etc. Due to the lack of major change to the GIS land use coverage from the previous years, the calculation for PY8 was based on the PY5 numbers.

Table E-4 Annual Runoff Calculation for PY8

Watershed	(P) Rainfall Total (in.)	(Pj) Fraction of Rain Events Producing Runoff	(Ia) Percent Impervious per Watershed	(Rv) Runoff Coefficient (Rv= 0.05+0.9Ia)	Annual Runoff (in.) R=P*Pj*Rv	Annual Runoff (ft)	Total Watershed Land Area (acres)	Total Watershed Land Area (ft^2)	Estimated Total Runoff Volume (ft^3)
Back Creek	53.16	0.9	1.16	0.06	2.89	0.24	1,595.62	69,505,207.20	16,748,967.26
Browns Creek	53.16	0.9	30.03	0.32	15.32	1.28	8,804.70	383,532,732	489,739,269.95
Bull Run Creek	53.16	0.9	1.54	0.06	3.06	0.25	2,913.00	126,890,280	32,307,511.35
Cooper Creek	53.16	0.9	21.41	0.24	11.61	0.97	2,355.89	102,622,568.40	99,298,113.38
Cub Creek	53.16	0.9	1.4	0.06	3.00	0.25	1,581.29	68,880,992.40	17,191,745.15
Cumberland River	53.16	0.9	15.9	0.19	9.24	0.77	46,188.76	2,011,982,385.60	1,549,004,515.25
Davidson Branch	53.16	0.9	13.02	0.17	8.00	0.67	2,376.23	103,508,578.80	68,993,297.48
Dry Creek	53.16	0.9	14.7	0.18	8.72	0.73	5,595.79	243,752,612.40	177,166,735.65
Ewing Creek	53.16	0.9	14.17	0.18	8.49	0.71	8,893.37	387,395,197.20	274,203,011.93
Gibson Creek	53.16	0.9	28.03	0.30	14.46	1.21	2,736.30	119,193,228	143,645,777.13
Gizzard Branch	53.16	0.9	34.15	0.36	17.10	1.42	1,447.68	63,060,940.80	89,846,356.03
Harpeth River	53.16	0.9	9.3	0.13	6.40	0.53	17,801.03	775,412,866.80	413,343,056.06
Indian Creek	53.16	0.9	1.13	0.06	2.88	0.24	3,849.82	167,698,159.20	40,230,417.78
Island Creek	53.16	0.9	2.6	0.07	3.51	0.29	510.56	22,239,993.60	6,508,440.72
Little Harpeth River	53.16	0.9	6.63	0.11	5.25	0.44	8,749.29	381,119,072.40	166,645,949.41
Loves Branch	53.16	0.9	21.28	0.24	11.56	0.96	1,440.79	62,760,812.40	60,434,911.76
Marrowbone Creek	53.16	0.9	2.22	0.07	3.35	0.28	11,928.48	519,604,588.80	144,975,011.42
Mansker Creek	53.16	0.9	8.31	0.12	5.97	0.50	12,884.01	561,227,475.60	279,231,844.22
Mill Creek Lower	53.16	0.9	40.4	0.41	19.79	1.65	13,120.19	571,515,476.40	942,442,279.74
Mill Creek Upper	53.16	0.9	10	0.14	6.70	0.56	14,280.88	622,075,132.80	347,229,897.63
Overall Creek	53.16	0.9	7.03	0.11	5.42	0.45	4,890.74	213,040,634.40	96,210,746.17
Pages Branch	53.16	0.9	25.91	0.28	13.55	1.13	2,054.53	89,495,326.80	101,047,252.03
Percy Priest Lake, Lower	53.16	0.9	9.91	0.14	6.66	0.55	11,056.84	481,635,950.40	267,284,125.94
Percy Priest Lake, Upper	53.16	0.9	10.58	0.15	6.95	0.58	12,452.32	542,423,059.20	314,058,687.83
Pond Creek	53.16	0.9	0.86	0.06	2.76	0.23	1,669.15	72,708,174	16,738,103.66
Richland Creek	53.16	0.9	19.42	0.22	10.75	0.90	14,569.01	634,626,075.60	568,750,530.85
Sevenmile Creek	53.16	0.9	22.62	0.25	12.13	1.01	10,865.05	473,281,578	478,498,778.54
South Harpeth River, Lower	53.16	0.9	1.95	0.07	3.23	0.27	9,076.68	395,380,180.80	106,484,521.75
Stoner Creek	53.16	0.9	18.98	0.22	10.56	0.88	7,458.46	324,890,517.60	286,036,646.17
Stones River	53.16	0.9	15.06	0.19	8.88	0.74	8,996.37	391,881,877.20	289,893,827.06
Sugartree Creek	53.16	0.9	23.17	0.26	12.37	1.03	3,014.63	131,317,282.80	135,356,485.55
Sulpher Creek	53.16	0.9	2.8	0.08	3.60	0.30	3,781.53	164,723,446.80	49,387,779.16
Sycamore Creek	53.16	0.9	3.42	0.08	3.86	0.32	12,842.01	559,397,955.60	180,165,221.24
Whites Creek	53.16	0.9	5.17	0.10	4.62	0.38	31,248.78	1,361,196,856.80	523,877,178.02
Overall County	**53.16**	**0.9**	**13.93**	**0.18**	**8.39**	**0.70**	**311,212.00**	**13,556,394,720**	**9,478,633,763.94**

Note: The average rainfall for Davidson County was calculated from downloaded NOAA monthly climate reports for the PY8 reporting period. The simple method was used to calculate the runoff volume: $R = P * P_j * R_v$, Where: P = Annual rainfall (inches); P_j = Fraction of annual rainfall events producing runoff (assumed to be 0.9); and R_v= Runoff coefficient.

Table E-5 PY8 Pollutant Loading Estimates

Watershed	Annual Runoff (inches)	Fecal coliform (mpn/100ml)	TSS (mg/l)	TDS (mg/l)	Total P (mg/l)	DP (mg/l)	NO2/NO3 (mg/l)	COD (mg/l)	BOD(5) (mg/l)	Zn (mg/l)	Pb (mg/l)	Cd (mg/l)	Cu (mg/l)	TKN (mg/l)	Total Watershed Land Area Per Land Use	Fecal coliform (billion colonies)	TSS (pounds)	TDS (pounds)	Total P (pounds)	DP (pounds)	NO2/NO3 (pounds)	COD (pounds)	BOD(5) (pounds)	Zn (pounds)	Pb (pounds)	Cd (pounds)	Cu (pounds)	TKN (pounds)
Back Creek																												
Industrial	2.89	2400	90	84	0.27	0.17	0.75	61	9	0.22	0.0237	0.0019	0.0218	0.0014	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Commercial	2.89	3000	48	74	0.23	0.17	0.62	60	12	0.15	0.017	0.0009	0.015	0.0016	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Residential	2.89	7750	50	69	0.31	0.29	0.58	55.5	9.05	0.073	0.012	0.0005	0.0111	0.00142	1,423.61	32,861.08	46,518.04	64,194.90	288.41	269.80	539.61	51,635.02	8,419.77	67.92	11.16	0.47	10.33	1.32
Open/Vacant Land	2.89	5000	72.3	134	0.33	0.14	0.85	71.6	25.4	0.033	0.02	0.001	0.007	0.001	157.49	2,345.37	7,441.35	13,791.71	33.96	14.41	87.48	7,369.30	2,614.25	3.40	2.06	0.10	0.72	0.10
Transportation	2.89	1700	99	77.5	0.25	1.93	0.28	100	8	0.2	0.0275	0.001	0.035	0.002	14.68	74.33	949.78	743.512	2.40	18.52	2.69	959.37	76.75	1.92	0.26	0.01	0.34	0.02
Total																**35,280.79**	**54,909.17**	**78,730.12**	**324.77**	**302.73**	**629.78**	**59,963.70**	**11,110.76**	**73.23**	**13.49**	**0.58**	**11.38**	**1.44**
Browns Creek																												
Industrial	15.32	2400	90	84	0.27	0.17	0.75	61	9	0.22	0.0237	0.0019	0.0218	0.0014	787.14	29,815.64	245,327.75	228,972.56	735.98	463.40	2,044.40	166,277.70	24,532.77	599.69	64.60	5.18	59.42	3.82
Commercial	15.32	3000	48	74	0.23	0.17	0.62	60	12	0.15	0.017	0.0009	0.015	0.0016	858.46	40,646.42	142,696.55	219,990.52	683.75	505.38	1,843.16	178,370.69	35,674.14	445.93	50.54	2.68	44.59	4.76
Residential	15.32	7750	50	69	0.31	0.29	0.58	55.5	9.05	0.073	0.012	0.0005	0.0111	0.00142	4,321.35	528,569.51	748,241.22	1,032,572.88	4,639.10	4,339.80	8,679.60	830,547.75	135,431.66	1,092.43	179.58	7.48	166.11	21.25
Open/Vacant Land	15.32	5000	72.3	134	0.33	0.14	0.85	71.6	25.4	0.033	0.02	0.001	0.007	0.001	2,130.74	168,144.02	533,483.43	988,752.14	2,434.99	1,033.02	6,271.94	528,318.31	187,420.18	243.50	147.57	7.38	51.65	7.38
Transportation	15.32	1700	99	77.5	0.25	1.93	0.28	100	8	0.2	0.0275	0.001	0.035	0.002	707.02	18,969.75	242,392.44	189,751.66	612.10	4,725.43	685.55	244,840.85	19,587.27	489.68	67.33	2.45	85.69	4.90
Total																**786,145.35**	**1,912,141.39**	**2,660,039.77**	**9,105.92**	**11,067.03**	**19,524.65**	**1,948,355.30**	**402,646.02**	**2,871.23**	**509.63**	**25.16**	**407.47**	**42.10**
Bull Run Creek																												
Industrial	3.06	2400	90	84	0.27	0.17	0.75	61	9	0.22	0.0237	0.0019	0.0218	0.0014	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Commercial	3.06	3000	48	74	0.23	0.17	0.62	60	12	0.15	0.017	0.0009	0.015	0.0016	0.58	5.48	19.22	29.64	0.09	0.07	0.25	24.03	4.81	0.06	0.01	0.00	0.01	0.00
Residential	3.06	7750	50	69	0.31	0.29	0.58	55.5	9.05	0.073	0.012	0.0005	0.0111	0.00142	1,282.89	31,288.50	44,291.89	61,122.81	274.61	256.89	513.79	49,164.00	8,016.83	64.67	10.63	0.44	9.83	1.26
Open/Vacant Land	3.06	5000	72.3	134	0.33	0.14	0.85	71.6	25.4	0.033	0.02	0.001	0.007	0.001	1,591.66	25,044.59	79,460.89	147,271.92	362.68	153.87	934.19	78,691.56	27,915.72	36.27	21.98	1.10	7.69	1.10
Transportation	3.06	1700	99	77.5	0.25	1.93	0.28	100	8	0.2	0.0275	0.001	0.035	0.002	37.87	202.60	2,588.78	2,026.57	6.54	50.47	7.32	2,614.93	209.19	5.23	0.72	0.03	0.92	0.05
Total																**56,541.17**	**126,360.79**	**210,450.94**	**643.92**	**461.30**	**1,455.54**	**130,494.52**	**36,146.55**	**106.22**	**33.34**	**1.57**	**18.45**	**2.41**
Cooper Creek																												
Industrial	11.61	2400	90	84	0.27	0.17	0.75	61	9	0.22	0.0237	0.0019	0.0218	0.0014	29.92	858.79	7,066.30	6,595.21	21.20	13.35	58.89	4,789.38	706.63	17.27	1.86	0.15	1.71	0.11
Commercial	11.61	3000	48	74	0.23	0.17	0.62	60	12	0.15	0.017	0.0009	0.015	0.0016	197.42	7,083.19	24,866.82	38,336.34	119.15	88.07	321.20	31,083.52	6,216.70	77.71	8.81	0.47	7.77	0.83
Residential	11.61	7750	50	69	0.31	0.29	0.58	55.5	9.05	0.073	0.012	0.0005	0.0111	0.00142	1,536.51	142,414.33	201,601.24	278,209.71	1,249.93	1,169.29	2,338.57	223,777.38	36,489.82	294.34	48.38	2.02	44.76	5.73
Open/Vacant Land	11.61	5000	72.3	134	0.33	0.14	0.85	71.6	25.4	0.033	0.02	0.001	0.007	0.001	419.58	25,090.04	79,605.10	147,539.18	363.34	154.15	935.88	78,834.37	27,966.38	36.33	22.02	1.10	7.71	1.10
Transportation	11.61	1700	99	77.5	0.25	1.93	0.28	100	8	0.2	0.0275	0.001	0.035	0.002	172.45	3,506.14	44,800.84	35,071.37	113.13	873.39	126.71	45,253.38	3,620.27	90.51	12.44	0.45	15.84	0.91
Total																**178,952.49**	**357,940.29**	**505,751.82**	**1,866.76**	**2,298.24**	**3,781.25**	**383,738.02**	**74,999.81**	**516.16**	**93.52**	**4.19**	**77.78**	**8.67**
Cub Creek																												
Industrial	3.00	2400	90	84	0.27	0.17	0.75	61	9	0.22	0.0237	0.0019	0.0218	0.0014	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Commercial	3.00	3000	48	74	0.23	0.17	0.62	60	12	0.15	0.017	0.0009	0.015	0.0016	9.65	89.31	313.53	483.36	1.50	1.11	4.05	391.91	78.38	0.98	0.11	0.01	0.10	0.01
Residential	3.00	7750	50	69	0.31	0.29	0.58	55.5	9.05	0.073	0.012	0.0005	0.0111	0.00142	1,183.28	28,289.70	40,046.80	55,264.58	248.29	232.27	464.54	44,451.94	7,248.47	58.47	9.61	0.40	8.89	1.14
Open/Vacant Land	3.00	5000	72.3	134	0.33	0.14	0.85	71.6	25.4	0.033	0.02	0.001	0.007	0.001	371.76	5,734.19	18,193.29	33,719.23	83.04	35.23	213.89	18,017.14	6,391.56	8.30	5.03	0.25	1.76	0.25
Transportation	3.00	1700	99	77.5	0.25	1.93	0.28	100	8	0.2	0.0275	0.001	0.035	0.002	16.60	87.06	1,112.38	870.80	2.81	21.69	3.15	1,123.62	89.89	2.25	0.31	0.01	0.39	0.02
Total																**34,200.24**	**59,666.00**	**90,337.98**	**335.64**	**290.30**	**685.63**	**63,984.62**	**13,808.30**	**70.00**	**15.06**	**0.67**	**11.14**	**1.42**
Cumberland River																												
Industrial	9.24	2400	90	84	0.27	0.17	0.75	61	9	0.22	0.0237	0.0019	0.0218	0.0014	2,387.96	54,536.25	448,732.73	418,817.22	1,346.20	847.61	3,739.44	304,141.08	44,873.27	1,096.90	118.17	9.47	108.69	6.98
Commercial	9.24	3000	48	74	0.23	0.17	0.62	60	12	0.15	0.017	0.0009	0.015	0.0016	6,147.72	175,502.10	616,131.64	949,869.61	2,952.30	2,182.13	7,958.37	770,164.55	154,032.91	1,925.41	218.21	11.55	192.54	20.54
Residential	9.24	7750	50	69	0.31	0.29	0.58	55.5	9.05	0.073	0.012	0.0005	0.0111	0.00142	17,731.86	1,307,684.50	1,851,153.76	2,554,592.18	11,477.15	10,736.69	21,473.38	2,054,780.67	335,058.83	2,702.68	444.28	18.51	410.96	52.57
Open/Vacant Land	9.24	5000	72.3	134	0.33	0.14	0.85	71.6	25.4	0.033	0.02	0.001	0.007	0.001	17,177.60	817,296.18	2,593,098.28	4,806,018.95	11,835.72	5,021.21	30,485.94	2,567,992.21	910,991.65	1,183.57	717.32	35.87	251.06	35.87
Transportation	9.24	1700	99	77.5	0.25	1.93	0.28	100	8	0.2	0.0275	0.001	0.035	0.002	2,738.99	44,308.43	566,166.07	443,210.81	1,429.71	11,037.38	1,601.28	571,884.92	45,750.79	1,143.77	157.27	5.72	200.16	11.44
Total																**2,399,327.46**	**6,075,282.48**	**9,172,508.77**	**29,041.08**	**29,825.02**	**65,258.41**	**6,268,963.42**	**1,490,707.46**	**8,052.34**	**1,655.24**	**81.12**	**1,163.41**	**127.39**
Davidson Branch																												
Industrial	8.00	2400	90	84	0.27	0.17	0.75	61	9	0.22	0.0237	0.0019	0.0218	0.0014	21.86	432.23	3,556.42	3,319.32	10.67	6.72	29.64	2,410.46	355.64	8.69	0.94	0.08	0.86	0.06
Commercial	8.00	3000	48	74	0.23	0.17	0.62	60	12	0.15	0.017	0.0009	0.015	0.0016	132.59	3,277.03	11,504.62	17,736.29	55.13	40.75	148.60	14,380.77	2,876.15	35.95	4.07	0.22	3.60	0.38
Residential	8.00	7750	50	69	0.31	0.29	0.58	55.5	9.05	0.073	0.012	0.0005	0.0111	0.00142	1,731.56	110,557.52	156,504.85	215,976.69	970.33	907.73	1,815.46	173,720.38	28,327.38	228.50	37.56	1.57	34.74	4.44
Open/Vacant Land	8.00	5000	72.3	134	0.33	0.14	0.85	71.6	25.4	0.033	0.02	0.001	0.007	0.001	364.28	15,005.63	47,609.53	88,238.96	217.30	92.19	559.72	47,148.58	16,725.89	21.73	13.17	0.66	4.61	0.66
Transportation	8.00	1700	99	77.5	0.25	1.93	0.28	100	8	0.2	0.0275	0.001	0.035	0.002	125.94	1,763.85	22,538.19	17,643.54	56.91	439.38	63.74	22,765.85	1,821.27	45.53	6.26	0.23	7.97	0.46
Total																**131,036.26**	**241,713.61**	**342,914.79**	**1,310.35**	**1,486.76**	**2,617.16**	**260,426.05**	**50,106.33**	**340.40**	**62.00**	**2.74**	**51.78**	**6.00**
Dry Creek																												
Industrial	8.72	2400	90	84	0.27	0.17	0.75	61	9	0.22	0.0237	0.0019	0.0218	0.0014	274.75	5,923.80	48,741.94	45,492.48	146.23	92.07	406.18	33,036.20	4,874.19	119.15	12.84	1.03	11.81	0.76
Commercial	8.72	3000	48	74	0.23	0.17	0.62	60	12	0.15	0.017	0.0009	0.015	0.0016	310.01	8,355.04	29,331.86	45,219.94	140.55	103.88	378.87	36,664.82	7,332.96	91.66	10.39	0.55	9.17	0.98
Residential	8.72	7750	50	69	0.31	0.29	0.58	55.5	9.05	0.073	0.012	0.0005	0.0111	0.00142	2,959.05	206,018.10	291,638.53	402,461.17	1,808.16	1,691.50	3,383.01	323,718.77	52,786.57	425.79	69.99	2.92	64.74	8.28
Open/Vacant Land	8.72	5000	72.3	134	0.33	0.14	0.85	71.6	25.4	0.033	0.02	0.001	0.007	0.001	1,767.15	79,377.02	251,845.56	466,767.71	1,149.50	487.67	2,960.84	249,407.22	88,476.86	114.95	69.67	3.48	24.38	3.48
Transportation	8.72	1700	99	77.5	0.25	1.93	0.28	100	8	0.2	0.0275	0.001	0.035	0.002	284.83	4,349.97	55,583.20	43,512.10	140.36	1,083.59	157.20	56,144.64	4,491.57	112.29	15.44	0.56	19.65	1.12
Total																**304,023.93**	**677,141.08**	**1,003,453.39**	**3,384.80**	**3,458.71**	**7,286.10**	**698,971.65**	**157,962.17**	**863.84**	**178.32**	**8.54**	**129.75**	**14.62**
Ewing Creek																												
Industrial	8.49	2400	90	84	0.27	0.17	0.75	61	9	0.22	0.0237	0.0019	0.0218	0.0014	442.00	9,280.47	76,361.15	71,270.41	229.08	144.24	636.34	51,755.89	7,636.11	186.66	20.11	1.61	18.50	1.19
Commercial	8.49	3000	48	74	0.23	0.17	0.62	60	12	0.15	0.017	0.0009	0.015	0.0016	659.00	17,295.90	60,720.36	93,610.55	290.95	215.05	784.30	75,900.45	15,180.09	189.75	21.51	1.14	18.98	2.02
Residential	8.49	7750	50	69	0.31	0.29	0.58	55.5	9.05	0.073	0.012	0.0005	0.0111	0.00142	3,932.65	266,638.87	377,453.08	520,885.25	2,340.21	2,189.23	4,378.46	418,972.92	68,319.01	551.08	90.59	3.77	83.79	10.72
Open/Vacant Land	8.49	5000	72.3	134	0.33	0.14	0.85	71.6	25.4	0.033	0.02	0.001	0.007	0.001	3,330.57	145,688.42	462,236.82	856,704.48	2,109.79	895.06	5,434.32	457,761.50	162,390.25	210.98	127.87	6.39	44.75	6.39
Transportation	8.49	1700	99	77.5	0.25	1.93	0.28	100	8	0.2	0.0275	0.001	0.035	0.002	529.16	7,869.96	100,561.07	78,722.05	253.94	1,960.43	284.42	101,576.84	8,126.15	203.15	27.93	1.02	35.55	2.03
Total																**446,773.61**	**1,077,332.48**	**1,621,192.74**	**5,223.98**	**5,404.01**	**11,517.84**	**1,105,967.59**	**261,651.61**	**1,341.63**	**288.00**	**13.93**	**201.57**	**22.36**
Gibson Creek																												
Industrial	14.46	2400	90	84	0.27	0.17	0.75	61	9	0.22	0.0237	0.0019	0.0218	0.0014	29.28	1,046.75	8,612.80	8,038.62	25.84	16.27	71.77	5,837.57	861.28	21.05	2.27	0.18	2.09	0.13
Commercial	14.46	3000	48	74	0.23	0.17	0.62	60	12	0.15	0.017	0.0009	0.015	0.0016	404.43	18,072.76	63,447.65	97,815.13	304.02	224.71	819.53	79,309.57	15,861.91	198.27	22.47	1.19	19.83	2.11
Residential	14.46	7750	50	69	0.31	0.29	0.58	55.5	9.05	0.073	0.012	0.0005	0.0111	0.00142	1,651.90	190,697.59	269,950.87	372,532.19	1,673.70	1,565.72	3,131.43	299,645.46	48,861.11	394.13	64.79	2.70	59.93	7.67
Open/Vacant Land	14.46	5000	72.3	134	0.33	0.14	0.85	71.6	25.4	0.033	0.02	0.001	0.007	0.001	437.81	32,607.34	103,455.82	191,743.85	472.21	200.33	1,216.29	102,454.18	36,345.48	47.22	28.62	1.43	10.02	1.43
Transportation	14.46	1700	99	77.5	0.25	1.93	0.28	100	8	0.2	0.0275	0.001	0.035	0.002	212.88	5,390.68	68,881.25	53,922.19	173.94	1,342.84	194.82	69,577.02	5,566.16	139.15	19.13	0.70	24.35	1.39
Total																**247,815.12**	**514,348.40**	**724,051.99**	**2,649.70**	**3,349.86**	**5,433.84**	**556,823.79**	**107,495.94**	**799.83**	**137.28**	**6.20**	**116.21**	**12.74**
Gizzard Branch																												
Industrial	17.10	2400	90	84	0.27	0.17	0.75	61	9	0.22	0.0237	0.0019	0.0218	0.0014	24.47	1,034.20	8,509.54	7,942.24	25.53	16.07	70.91	5,767.58	850.95	20.80	2.24	0.18	2.06	0.13
Commercial	17.10	3000	48	74	0.23	0.17	0.62	60	12	0.15	0.017	0.0009	0.015	0.0016	452.11	23,884.92	83,852.32	129,272.32	401.79	296.98	1,083.09	104,815.39	20,963.08	262.04	29.70	1.57	26.20	2.80
Residential	17.10	7750	50	69	0.31	0.29	0.58	55.5	9.05	0.073	0.012	0.0005	0.0111	0.00142	514.36	70,198.43	99,372.66	137,134.27	616.11	576.36	1,152.72	110,303.65	17,986.45	145.08	23.85	0.99	22.06	2.82
Open/Vacant Land	17.10	5000	72.3	134	0.33	0.14	0.85	71.6	25.4	0.033	0.02	0.001	0.007	0.001	354.97	31,255.05	99,165.28	183,791.81	452.62	192.02	1,165.84	98,205.18	34,838.15	45.26	27.43	1.37	9.60	1.37
Transportation	17.10	1700	99	77.5	0.25	1.93	0.28	100	8	0.2	0.0275	0.001	0.035	0.002	101.92	3,051.17	38,987.40	30,520.44	98.45	760.06	110.27	39,381.22	3,150.50	78.76	10.83	0.39	13.78	0.79
Total																**129,423.77**	**329,887.20**	**488,661.08**	**1,594.51**	**1,841.49**	**3,582.84**	**358,473.01**	**77,789.13**	**551.95**	**94.05**	**4.51**	**73.71**	**7.91**

Table E-5 PY8 Pollutant Loading Estimates (Continued)

Watershed	Annual Runoff (inches)	Fecal coliform (mpn/100ml)	TSS (mg/l)	TDS (mg/l)	Total P (mg/l)	DP (mg/l)	NO2/NO3 (mg/l)	COD (mg/l)	BOD(5) (mg/l)	Zn (mg/l)	Pb (mg/l)	Cd (mg/l)	Cu (mg/l)	TKN (mg/l)	Total Watershed Land Area Per Land Use	Fecal coliform (billion colonies)	TSS (pounds)	TDS (pounds)	Total P (pounds)	DP (pounds)	NO2/NO3 (pounds)	COD (pounds)	BOD(5) (pounds)	Zn (pounds)	Pb (pounds)	Cd (pounds)	Cu (pounds)	TKN (pounds)
Harpeth River																												
Industrial	6.40	2400	90	84	0.27	0.17	0.75	61	9	0.22	0.0237	0.0019	0.0218	0.0014	8.90	140.73	1,157.98	1,080.78	3.47	2.19	9.65	784.85	115.80	2.83	0.30	0.02	0.28	0.02
Commercial	6.40	3000	48	74	0.23	0.17	0.62	60	12	0.15	0.017	0.0009	0.015	0.0016	592.77	11,716.65	41,133.42	63,414.02	197.10	145.68	531.31	51,416.77	10,283.35	128.54	14.57	0.77	12.85	1.37
Residential	6.40	7750	50	69	0.31	0.29	0.58	55.5	9.05	0.073	0.012	0.0005	0.0111	0.00142	8,113.71	414,302.26	586,484.87	809,349.12	3,636.21	3,401.61	6,803.22	650,998.21	106,153.76	856.27	140.76	5.86	130.20	16.66
Open/Vacant Land	6.40	5000	72.3	134	0.33	0.14	0.85	71.6	25.4	0.033	0.02	0.001	0.007	0.001	8,394.97	276,557.39	877,454.84	1,626,264.85	4,004.98	1,699.08	10,315.86	868,959.43	308,262.14	400.50	242.73	12.14	84.95	12.14
Transportation	6.40	1700	99	77.5	0.25	1.93	0.28	100	8	0.2	0.0275	0.001	0.035	0.002	688.90	7,716.16	98,595.87	77,183.63	248.98	1,922.12	278.86	99,591.78	7,967.34	199.18	27.39	1.00	34.86	1.99
Total																**710,433.19**	**1,604,826.97**	**2,577,292.40**	**8,090.74**	**7,170.68**	**17,938.90**	**1,671,751.04**	**432,782.40**	**1,587.32**	**425.74**	**19.79**	**263.15**	**32.17**
Indian Creek																												
Industrial	2.88	2400	90	84	0.27	0.17	0.75	61	9	0.22	0.0237	0.0019	0.0218	0.0014	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Commercial	2.88	3000	48	74	0.23	0.17	0.62	60	12	0.15	0.017	0.0009	0.015	0.0016	38.88	345.85	1,214.18	1,871.86	5.82	4.30	15.68	1,517.73	303.55	3.79	0.43	0.02	0.38	0.04
Residential	2.88	7750	50	69	0.31	0.29	0.58	55.5	9.05	0.073	0.012	0.0005	0.0111	0.00142	2,192.47	50,382.54	71,321.36	98,423.47	442.19	413.66	827.33	79,166.71	12,909.17	104.13	17.12	0.71	15.83	2.03
Open/Vacant Land	2.88	5000	72.3	134	0.33	0.14	0.85	71.6	25.4	0.033	0.02	0.001	0.007	0.001	1,585.36	23,504.05	74,573.09	138,212.92	340.38	144.40	876.72	73,851.08	26,198.57	34.04	20.63	1.03	7.22	1.03
Transportation	2.88	1700	99	77.5	0.25	1.93	0.28	100	8	0.2	0.0275	0.001	0.035	0.002	33.11	166.90	2,132.60	1,669.46	5.39	41.58	6.03	2,154.15	172.33	4.31	0.59	0.02	0.75	0.04
Total																**74,399.34**	**149,241.23**	**240,177.71**	**793.77**	**603.94**	**1,725.77**	**156,689.66**	**39,583.61**	**146.27**	**38.77**	**1.79**	**24.19**	**3.14**
Island Creek																												
Industrial	3.51	2400	90	84	0.27	0.17	0.75	61	9	0.22	0.0237	0.0019	0.0218	0.0014	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Commercial	3.51	3000	48	74	0.23	0.17	0.62	60	12	0.15	0.017	0.0009	0.015	0.0016	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Residential	3.51	7750	50	69	0.31	0.29	0.58	55.5	9.05	0.073	0.012	0.0005	0.0111	0.00142	149.19	4,182.17	5,920.27	8,169.98	36.71	34.34	68.68	6,571.50	1,071.57	8.64	1.42	0.06	1.31	0.17
Open/Vacant Land	3.51	5000	72.3	134	0.33	0.14	0.85	71.6	25.4	0.033	0.02	0.001	0.007	0.001	351.72	6,361.04	20,182.15	37,405.36	92.12	39.08	237.27	19,986.74	7,090.27	9.21	5.58	0.28	1.95	0.28
Transportation	3.51	1700	99	77.5	0.25	1.93	0.28	100	8	0.2	0.0275	0.001	0.035	0.002	9.65	59.34	758.22	593.56	1.91	14.78	2.14	765.88	61.27	1.53	0.21	0.01	0.27	0.02
Total																**10,602.55**	**26,860.64**	**46,168.89**	**130.74**	**88.20**	**308.09**	**27,324.12**	**8,223.11**	**19.39**	**7.21**	**0.35**	**3.54**	**0.46**
Little Harpeth River																												
Industrial	5.25	2400	90	84	0.27	0.17	0.75	61	9	0.22	0.0237	0.0019	0.0218	0.0014	6.12	79.38	653.16	609.61	1.96	1.23	5.44	442.70	65.32	1.60	0.17	0.01	0.16	0.01
Commercial	5.25	3000	48	74	0.23	0.17	0.62	60	12	0.15	0.017	0.0009	0.015	0.0016	504.83	8,185.01	28,734.93	44,299.69	137.69	101.77	371.16	35,918.66	7,183.73	89.80	10.18	0.54	8.98	0.96
Residential	5.25	7750	50	69	0.31	0.29	0.58	55.5	9.05	0.073	0.012	0.0005	0.0111	0.00142	3,969.55	166,262.97	235,361.30	324,798.59	1,459.24	1,365.10	2,730.19	261,251.04	42,600.39	343.63	56.49	2.35	52.25	6.68
Open/Vacant Land	5.25	5000	72.3	134	0.33	0.14	0.85	71.6	25.4	0.033	0.02	0.001	0.007	0.001	3,938.06	106,415.50	337,632.61	625,764.46	1,541.06	653.78	3,969.40	334,363.69	118,615.05	154.11	93.40	4.67	32.69	4.67
Transportation	5.25	1700	99	77.5	0.25	1.93	0.28	100	8	0.2	0.0275	0.001	0.035	0.002	330.72	3,038.52	38,825.71	30,393.86	98.04	756.91	109.81	39,217.89	3,137.43	78.44	10.78	0.39	13.73	0.78
Total																**283,981.37**	**641,207.71**	**1,025,866.21**	**3,237.99**	**2,878.79**	**7,186.01**	**671,193.98**	**171,601.93**	**667.56**	**171.02**	**7.97**	**107.80**	**13.11**
Loves Branch																												
Industrial	11.56	2400	90	84	0.27	0.17	0.75	61	9	0.22	0.0237	0.0019	0.0218	0.0014	7.06	201.67	1,659.34	1,548.72	4.98	3.13	13.83	1,124.67	165.93	4.06	0.44	0.04	0.40	0.03
Commercial	11.56	3000	48	74	0.23	0.17	0.62	60	12	0.15	0.017	0.0009	0.015	0.0016	100.42	3,585.58	12,587.82	19,406.22	60.32	44.58	162.59	15,734.77	3,146.95	39.34	4.46	0.24	3.93	0.42
Residential	11.56	7750	50	69	0.31	0.29	0.58	55.5	9.05	0.073	0.012	0.0005	0.0111	0.00142	709.16	65,412.95	92,598.35	127,785.73	574.11	537.07	1,074.14	102,784.17	16,760.30	135.19	22.22	0.93	20.56	2.63
Open/Vacant Land	11.56	5000	72.3	134	0.33	0.14	0.85	71.6	25.4	0.033	0.02	0.001	0.007	0.001	479.78	28,551.57	90,587.75	167,894.30	413.47	175.41	1,065.00	89,710.69	31,824.74	41.35	25.06	1.25	8.77	1.25
Transportation	11.56	1700	99	77.5	0.25	1.93	0.28	100	8	0.2	0.0275	0.001	0.035	0.002	144.37	2,921.08	37,325.12	29,219.16	94.26	727.65	105.57	37,702.14	3,016.17	75.40	10.37	0.38	13.20	0.75
Total																**100,672.84**	**234,758.38**	**345,854.13**	**1,147.13**	**1,487.85**	**2,421.13**	**247,056.43**	**54,914.10**	**295.34**	**62.55**	**2.83**	**46.86**	**5.08**
Marrowbone Creek																												
Industrial	3.35	2400	90	84	0.27	0.17	0.75	61	9	0.22	0.0237	0.0019	0.0218	0.0014	16.70	138.22	1,137.28	1,061.46	3.41	2.15	9.48	770.83	113.73	2.78	0.30	0.02	0.28	0.02
Commercial	3.35	3000	48	74	0.23	0.17	0.62	60	12	0.15	0.017	0.0009	0.015	0.0016	82.31	851.55	2,989.54	4,608.87	14.32	10.59	38.61	3,736.92	747.38	9.34	1.06	0.06	0.93	0.10
Residential	3.35	7750	50	69	0.31	0.29	0.58	55.5	9.05	0.073	0.012	0.0005	0.0111	0.00142	5,456.09	145,821.60	206,424.57	284,865.91	1,279.83	1,197.26	2,394.53	229,131.27	37,362.85	301.38	49.54	2.06	45.83	5.86
Open/Vacant Land	3.35	5000	72.3	134	0.33	0.14	0.85	71.6	25.4	0.033	0.02	0.001	0.007	0.001	6,194.46	106,810.05	338,884.42	628,084.55	1,546.78	656.21	3,984.12	335,603.39	119,054.83	154.68	93.74	4.69	32.81	4.69
Transportation	3.35	1700	99	77.5	0.25	1.93	0.28	100	8	0.2	0.0275	0.001	0.035	0.002	177.73	1,041.95	13,313.92	10,422.51	33.62	259.55	37.66	13,448.40	1,075.87	26.90	3.70	0.13	4.71	0.27
Total																**254,663.38**	**562,749.73**	**929,043.30**	**2,877.97**	**2,125.76**	**6,464.39**	**582,690.80**	**158,354.66**	**495.08**	**148.34**	**6.97**	**84.55**	**10.94**
Mansker Creek																												
Industrial	5.97	2400	90	84	0.27	0.17	0.75	61	9	0.22	0.0237	0.0019	0.0218	0.0014	226.76	3,346.74	27,537.51	25,701.68	82.61	52.02	229.48	18,664.31	2,753.75	67.31	7.25	0.58	6.67	0.43
Commercial	5.97	3000	48	74	0.23	0.17	0.62	60	12	0.15	0.017	0.0009	0.015	0.0016	420.02	7,748.82	27,203.63	41,938.93	130.35	96.35	351.38	34,004.54	6,800.91	85.01	9.63	0.51	8.50	0.91
Residential	5.97	7750	50	69	0.31	0.29	0.58	55.5	9.05	0.073	0.012	0.0005	0.0111	0.00142	7,629.91	363,634.94	514,760.39	710,369.34	3,191.51	2,985.61	5,971.22	571,384.04	93,171.63	751.55	123.54	5.15	114.28	14.62
Open/Vacant Land	5.97	5000	72.3	134	0.33	0.14	0.85	71.6	25.4	0.033	0.02	0.001	0.007	0.001	4,175.71	128,394.03	407,365.58	755,006.75	1,859.34	788.81	4,789.22	403,421.52	143,113.22	185.93	112.69	5.63	39.44	5.63
Transportation	5.97	1700	99	77.5	0.25	1.93	0.28	100	8	0.2	0.0275	0.001	0.035	0.002	432.90	4,525.65	57,828.04	45,269.43	146.03	1,127.35	163.55	58,412.16	4,672.97	116.82	16.06	0.58	20.44	1.17
Total																**507,650.19**	**1,034,695.16**	**1,578,286.13**	**5,409.85**	**5,050.14**	**11,504.86**	**1,085,886.57**	**250,512.48**	**1,206.63**	**269.18**	**12.46**	**189.33**	**22.76**
Mill Creek Lower																												
Industrial	19.79	2400	90	84	0.27	0.17	0.75	61	9	0.22	0.0237	0.0019	0.0218	0.0014	1,218.87	59,623.01	490,587.35	457,881.53	1,471.76	926.67	4,088.23	332,509.21	49,058.74	1,199.21	129.19	10.36	118.83	7.63
Commercial	19.79	3000	48	74	0.23	0.17	0.62	60	12	0.15	0.017	0.0009	0.015	0.0016	2,599.11	158,924.61	557,933.38	860,147.30	2,673.43	1,976.01	7,206.64	697,416.73	139,483.35	1,743.54	197.60	10.46	174.35	18.60
Residential	19.79	7750	50	69	0.31	0.29	0.58	55.5	9.05	0.073	0.012	0.0005	0.0111	0.00142	5,339.92	843,493.40	1,194,046.41	1,647,784.04	7,403.09	6,925.47	13,850.94	1,325,391.51	216,122.40	1,743.31	286.57	11.94	265.08	33.91
Open/Vacant Land	19.79	5000	72.3	134	0.33	0.14	0.85	71.6	25.4	0.033	0.02	0.001	0.007	0.001	3,017.64	307,526.59	975,713.19	1,808,375.76	4,453.46	1,889.35	11,471.04	966,266.45	342,781.67	445.35	269.91	13.50	94.47	13.50
Transportation	19.79	1700	99	77.5	0.25	1.93	0.28	100	8	0.2	0.0275	0.001	0.035	0.002	945.97	32,777.18	418,821.54	327,865.35	1,057.63	8,164.90	1,184.55	423,052.06	33,844.16	846.10	116.34	4.23	148.07	8.46
Total																**1,402,344.78**	**3,637,101.87**	**5,102,053.98**	**17,059.37**	**19,882.40**	**37,801.39**	**3,744,635.96**	**781,290.32**	**5,977.51**	**999.61**	**50.48**	**800.80**	**82.10**
Mill Creek Upper																												
Industrial	6.70	2400	90	84	0.27	0.17	0.75	61	9	0.22	0.0237	0.0019	0.0218	0.0014	157.09	2,601.07	21,402.03	19,975.23	64.21	40.43	178.35	14,505.82	2,140.20	52.32	5.64	0.45	5.18	0.33
Commercial	6.70	3000	48	74	0.23	0.17	0.62	60	12	0.15	0.017	0.0009	0.015	0.0016	814.01	16,847.82	59,147.30	91,185.42	283.41	209.48	763.99	73,934.13	14,786.83	184.84	20.95	1.11	18.48	1.97
Residential	6.70	7750	50	69	0.31	0.29	0.58	55.5	9.05	0.073	0.012	0.0005	0.0111	0.00142	6,827.69	365,063.35	516,782.45	713,159.78	3,204.05	2,997.34	5,994.68	573,628.52	93,537.62	754.50	124.03	5.17	114.73	14.68
Open/Vacant Land	6.70	5000	72.3	134	0.33	0.14	0.85	71.6	25.4	0.033	0.02	0.001	0.007	0.001	5,943.70	205,031.05	650,517.73	1,205,662.17	2,969.17	1,259.65	7,647.86	644,219.49	228,535.96	296.92	179.95	9.00	62.98	9.00
Transportation	6.70	1700	99	77.5	0.25	1.93	0.28	100	8	0.2	0.0275	0.001	0.035	0.002	538.39	6,314.50	80,685.62	63,162.98	203.75	1,572.96	228.20	81,500.63	6,520.05	163.00	22.41	0.82	28.53	1.63
Total																**595,857.79**	**1,328,535.13**	**2,093,145.59**	**6,724.59**	**6,079.85**	**14,813.07**	**1,387,788.58**	**345,520.67**	**1,451.57**	**352.97**	**16.54**	**229.90**	**27.61**
Overall Creek																												
Industrial	5.42	2400	90	84	0.27	0.17	0.75	61	9	0.22	0.0237	0.0019	0.0218	0.0014	232.80	3,118.70	25,661.16	23,950.42	76.98	48.47	213.84	17,392.56	2,566.12	62.73	6.76	0.54	6.22	0.40
Commercial	5.42	3000	48	74	0.23	0.17	0.62	60	12	0.15	0.017	0.0009	0.015	0.0016	268.01	4,487.99	15,755.89	24,290.34	75.50	55.80	203.51	19,694.87	3,938.97	49.24	5.58	0.30	4.92	0.53
Residential	5.42	7750	50	69	0.31	0.29	0.58	55.5	9.05	0.073	0.012	0.0005	0.0111	0.00142	2,559.32	110,714.86	156,727.58	216,284.05	971.71	909.02	1,818.04	173,967.61	28,367.69	228.82	37.61	1.57	34.79	4.45
Open/Vanta Land	5.42	5000	72.3	134	0.33	0.14	0.85	71.6	25.4	0.033	0.02	0.001	0.007	0.001	1,652.58	46,122.42	146,336.15	271,217.75	667.92	283.36	1,720.41	144,919.34	51,409.93	66.79	40.48	2.02	14.17	2.02
Transportation	5.42	1700	99	77.5	0.25	1.93	0.28	100	8	0.2	0.0275	0.001	0.035	0.002	178.02	1,689.26	21,585.14	16,897.46	54.51	420.80	61.05	21,803.17	1,744.25	43.61	6.00	0.22	7.63	0.44
Total																**166,133.23**	**366,065.91**	**552,640.02**	**1,846.62**	**1,717.46**	**4,016.86**	**377,777.55**	**88,026.97**	**451.19**	**96.43**	**4.65**	**67.73**	**7.84**
Pages Branch																												
Industrial	13.55	2400	90	84	0.27	0.17	0.75	61	9	0.22	0.0237	0.0019	0.0218	0.0014	136.42	4,569.11	37,595.37	35,089.01	112.79	71.01	313.29	25,481.31	3,759.54	91.90	9.90	0.79	9.11	0.58
Commercial	13.55	3000	48	74	0.23	0.17	0.62	60	12	0.15	0.017	0.0009	0.015	0.0016	361.19	15,121.66	53,087.32	81,842.95	254.38	188.02	685.71	66,359.15	13,271.83	165.90	18.80	1.00	16.59	1.77
Residential	13.55	7750	50	69	0.31	0.29	0.58	55.5	9.05	0.073	0.012	0.0005	0.0111	0.00142	702.03	75,927.66	107,482.93	148,326.45	666.39	623.40	1,246.80	119,306.06	19,454.41	156.93	25.80	1.07	23.86	3.05
Open/Vacant Land	13.55	5000	72.3	134	0.33	0.14	0.85	71.6	25.4	0.033	0.02	0.001	0.007	0.001	684.36	47,752.62	151,508.41	280,803.97	691.53	293.38	1,781.22	150,041.53	53,227.02	69.15	41.91	2.10	14.67	2.10
Transportation	13.55	1700	99	77.5	0.25	1.93	0.28	100	8	0.2	0.0275	0.001	0.035	0.002	170.53	4,045.69	51,695.15	40,468.43	130.54	1,007.79	146.21	52,217.33	4,177.39	104.43	14.36	0.52	18.28	1.04
Total																**147,416.75**	**401,369.19**	**586,530.81**	**1,855.63**	**2,183.60**	**4,173.24**	**413,405.36**	**93,890.19**	**588.31**	**110.77**	**5.48**	**82.50**	**8.55**

Table E-5 PY8 Pollutant Loading Estimates (Continued)

Watershed	Annual Runoff (inches)	Fecal coliform (mpn/100ml)	TSS (mg/l)	TDS (mg/l)	Total P (mg/l)	DP (mg/l)	NO2/NO3 (mg/l)	COD (mg/l)	BOD(5) (mg/l)	Zn (mg/l)	Pb (mg/l)	Cd (mg/l)	Cu (mg/l)	TKN (mg/l)	Total Watershed Land Area Per Land Use	Fecal coliform (billion colonies)	TSS (pounds)	TDS (pounds)	Total P (pounds)	DP (pounds)	NO2/NO3 (pounds)	COD (pounds)	BOD(5) (pounds)	Zn (pounds)	Pb (pounds)	Cd (pounds)	Cu (pounds)	TKN (pounds)
Percy Priest Lake, Lower																												
Industrial	6.66	2400	90	84	0.27	0.17	0.75	61	9	0.22	0.0237	0.0019	0.0218	0.0014	678.89	11,175.92	91,957.23	85,826.75	275.87	173.70	766.31	62,326.57	9,195.72	224.78	24.22	1.94	22.27	1.43
Commercial	6.66	3000	48	74	0.23	0.17	0.62	60	12	0.15	0.017	0.0009	0.015	0.0016	320.65	6,598.20	23,164.15	35,711.40	110.99	82.04	299.20	28,955.19	5,791.04	72.39	8.20	0.43	7.24	0.77
Residential	6.66	7750	50	69	0.31	0.29	0.58	55.5	9.05	0.073	0.012	0.0005	0.0111	0.00142	2,706.71	143,885.22	203,683.42	281,083.13	1,262.84	1,181.36	2,362.73	226,088.60	36,866.70	297.38	48.88	2.04	45.22	5.78
Open/Vacant Land	6.66	5000	72.3	134	0.33	0.14	0.85	71.6	25.4	0.033	0.02	0.001	0.007	0.001	7,084.12	242,956.57	770,846.96	1,428,679.01	3,518.39	1,492.65	9,062.52	763,383.71	270,809.30	351.84	213.24	10.66	74.63	10.66
Transportation	6.66	1700	99	77.5	0.25	1.93	0.28	100	8	0.2	0.0275	0.001	0.035	0.002	265.36	3,094.26	39,537.99	30,951.46	99.84	770.79	111.82	39,937.37	3,194.99	79.87	10.98	0.40	13.98	0.80
Total																**407,710.17**	**1,129,189.76**	**1,862,251.74**	**5,267.94**	**3,700.54**	**12,602.58**	**1,120,691.43**	**325,857.75**	**1,026.26**	**305.52**	**15.47**	**163.34**	**19.45**
Percy Priest Lake, Upper																												
Industrial	6.95	2400	90	84	0.27	0.17	0.75	61	9	0.22	0.0237	0.0019	0.0218	0.0014	14.94	256.60	2,111.33	1,970.57	6.33	3.99	17.59	1,431.01	211.13	5.16	0.56	0.04	0.51	0.03
Commercial	6.95	3000	48	74	0.23	0.17	0.62	60	12	0.15	0.017	0.0009	0.015	0.0016	239.08	5,132.82	18,019.67	27,780.32	86.34	63.82	232.75	22,524.59	4,504.92	56.31	6.38	0.34	5.63	0.60
Residential	6.95	7750	50	69	0.31	0.29	0.58	55.5	9.05	0.073	0.012	0.0005	0.0111	0.00142	2,840.37	157,531.63	223,001.24	307,741.71	1,382.61	1,293.41	2,586.81	247,531.37	40,363.22	325.58	53.52	2.23	49.51	6.33
Open/Vacant Land	6.95	5000	72.3	134	0.33	0.14	0.85	71.6	25.4	0.033	0.02	0.001	0.007	0.001	9,014.23	322,544.60	1,023,362.00	1,896,687.52	4,670.95	1,981.61	12,031.23	1,013,453.93	359,521.37	467.09	283.09	14.15	99.08	14.15
Transportation	6.95	1700	99	77.5	0.25	1.93	0.28	100	8	0.2	0.0275	0.001	0.035	0.002	342.44	4,166.05	53,233.13	41,672.40	134.43	1,037.78	150.56	53,770.84	4,301.67	107.54	14.79	0.54	18.82	1.08
Total																**489,631.69**	**1,319,727.37**	**2,275,852.53**	**6,280.66**	**4,380.61**	**15,018.95**	**1,338,711.74**	**408,902.31**	**961.69**	**358.33**	**17.30**	**173.55**	**22.20**
Pond Creek																												
Industrial	2.76	2400	90	84	0.27	0.17	0.75	61	9	0.22	0.0237	0.0019	0.0218	0.0014	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Commercial	2.76	3000	48	74	0.23	0.17	0.62	60	12	0.15	0.017	0.0009	0.015	0.0016	1.50	12.80	44.95	69.30	0.22	0.16	0.58	56.19	11.24	0.14	0.02	0.00	0.01	0.00
Residential	2.76	7750	50	69	0.31	0.29	0.58	55.5	9.05	0.073	0.012	0.0005	0.0111	0.00142	1,048.39	23,118.84	32,726.95	45,163.20	202.91	189.82	379.63	36,326.92	5,923.58	47.78	7.85	0.33	7.27	0.93
Open/Vacant Land	2.76	5000	72.3	134	0.33	0.14	0.85	71.6	25.4	0.033	0.02	0.001	0.007	0.001	607.24	8,639.17	27,410.15	50,801.66	125.11	53.08	322.25	27,144.77	9,629.57	12.51	7.58	0.38	2.65	0.38
Transportation	2.76	1700	99	77.5	0.25	1.93	0.28	100	8	0.2	0.0275	0.001	0.035	0.002	12.02	58.14	742.94	581.59	1.88	14.48	2.10	750.44	60.04	1.50	0.21	0.01	0.26	0.02
Total																**31,828.95**	**60,924.99**	**96,615.74**	**330.11**	**257.54**	**704.56**	**64,278.32**	**15,624.42**	**61.93**	**15.66**	**0.71**	**10.20**	**1.33**
Richland Creek																												
Industrial	10.75	2400	90	84	0.27	0.17	0.75	61	9	0.22	0.0237	0.0019	0.0218	0.0014	421.04	11,193.27	92,099.96	85,959.97	276.30	173.97	767.50	62,423.31	9,210.00	225.13	24.25	1.94	22.31	1.43
Commercial	10.75	3000	48	74	0.23	0.17	0.62	60	12	0.15	0.017	0.0009	0.015	0.0016	1,586.57	52,723.33	185,094.73	285,354.38	886.91	655.54	2,390.81	231,368.42	46,273.68	578.42	65.55	3.47	57.84	6.17
Residential	10.75	7750	50	69	0.31	0.29	0.58	55.5	9.05	0.073	0.012	0.0005	0.0111	0.00142	8,218.38	705,521.57	998,733.94	1,378,252.84	6,192.15	5,792.66	11,585.31	1,108,594.68	180,770.84	1,458.15	239.70	9.99	221.72	28.36
Open/Vacant Land	10.75	5000	72.3	134	0.33	0.14	0.85	71.6	25.4	0.033	0.02	0.001	0.007	0.001	3,292.60	182,360.74	578,589.91	1,072,351.98	2,640.87	1,120.37	6,802.23	572,988.08	203,266.72	264.09	160.05	8.00	56.02	8.00
Transportation	10.75	1700	99	77.5	0.25	1.93	0.28	100	8	0.2	0.0275	0.001	0.035	0.002	1,051.88	19,807.86	253,101.65	198,135.13	639.15	4,934.20	715.84	255,658.23	20,452.66	511.32	70.31	2.56	89.48	5.11
Total																**971,606.77**	**2,107,620.21**	**3,020,054.31**	**10,635.38**	**12,676.74**	**22,261.70**	**2,231,032.71**	**459,973.90**	**3,037.11**	**559.86**	**25.96**	**447.37**	**49.08**
Sevenmile Creek																												
Industrial	12.13	2400	90	84	0.27	0.17	0.75	61	9	0.22	0.0237	0.0019	0.0218	0.0014	159.72	4,790.16	39,414.20	36,786.59	118.24	74.45	328.45	26,714.07	3,941.42	96.35	10.38	0.83	9.55	0.61
Commercial	12.13	3000	48	74	0.23	0.17	0.62	60	12	0.15	0.017	0.0009	0.015	0.0016	1,107.15	41,505.67	145,713.11	224,641.04	698.21	516.07	1,882.13	182,141.38	36,428.28	455.35	51.61	2.73	45.54	4.86
Residential	12.13	7750	50	69	0.31	0.29	0.58	55.5	9.05	0.073	0.012	0.0005	0.0111	0.00142	6,557.06	635,024.62	898,938.71	1,240,535.41	5,573.42	5,213.84	10,427.69	997,821.96	162,707.91	1,312.45	215.75	8.99	199.56	25.53
Open/Vacant Land	12.13	5000	72.3	134	0.33	0.14	0.85	71.6	25.4	0.033	0.02	0.001	0.007	0.001	2,245.81	140,321.02	445,207.25	825,142.07	2,032.07	862.09	5,234.11	440,896.81	156,407.53	203.21	123.16	6.16	43.10	6.16
Transportation	12.13	1700	99	77.5	0.25	1.93	0.28	100	8	0.2	0.0275	0.001	0.035	0.002	794.24	16,872.54	215,594.59	168,773.55	544.43	4,203.01	609.76	217,772.32	17,421.79	435.54	59.89	2.18	76.22	4.36
Total																**838,514.01**	**1,744,867.86**	**2,495,878.65**	**8,966.37**	**10,869.46**	**18,482.14**	**1,865,346.54**	**376,906.91**	**2,502.90**	**460.77**	**20.89**	**373.97**	**41.51**
South Harpeth River, Lower																												
Industrial	3.23	2400	90	84	0.27	0.17	0.75	61	9	0.22	0.0237	0.0019	0.0218	0.0014	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Commercial	3.23	3000	48	74	0.23	0.17	0.62	60	12	0.15	0.017	0.0009	0.015	0.0016	53.55	534.77	1,877.42	2,894.36	9.00	6.65	24.25	2,346.78	469.36	5.87	0.66	0.04	0.59	0.06
Residential	3.23	7750	50	69	0.31	0.29	0.58	55.5	9.05	0.073	0.012	0.0005	0.0111	0.00142	4,206.13	108,511.17	153,608.05	211,979.11	952.37	890.93	1,781.85	170,504.93	27,803.06	224.27	36.87	1.54	34.10	4.36
Open/Vacant Land	3.23	5000	72.3	134	0.33	0.14	0.85	71.6	25.4	0.033	0.02	0.001	0.007	0.001	4,663.60	77,621.38	246,275.30	456,443.86	1,124.08	476.88	2,895.35	243,890.90	86,519.95	112.41	68.13	3.41	23.84	3.41
Transportation	3.23	1700	99	77.5	0.25	1.93	0.28	100	8	0.2	0.0275	0.001	0.035	0.002	153.40	868.09	11,092.31	8,683.37	28.01	216.24	31.37	11,204.35	896.35	22.41	3.08	0.11	3.92	0.22
Total																**187,535.42**	**412,853.08**	**680,000.69**	**2,113.45**	**1,590.70**	**4,732.83**	**427,946.96**	**115,688.72**	**364.95**	**108.74**	**5.09**	**62.45**	**8.06**
Stoner Creek																												
Industrial	10.56	2400	90	84	0.27	0.17	0.75	61	9	0.22	0.0237	0.0019	0.0218	0.0014	236.43	6,174.72	50,806.52	47,419.42	152.42	95.97	423.39	34,435.53	5,080.65	124.19	13.38	1.07	12.31	0.79
Commercial	10.56	3000	48	74	0.23	0.17	0.62	60	12	0.15	0.017	0.0009	0.015	0.0016	771.20	25,176.27	88,385.82	136,261.47	423.52	313.03	1,141.65	110,482.27	22,096.45	276.21	31.30	1.66	27.62	2.95
Residential	10.56	7750	50	69	0.31	0.29	0.58	55.5	9.05	0.073	0.012	0.0005	0.0111	0.00142	4,045.47	341,172.33	482,962.39	666,488.10	2,994.37	2,801.18	5,602.36	536,088.26	87,416.19	705.13	115.91	4.83	107.22	13.72
Open/Vacant Land	10.56	5000	72.3	134	0.33	0.14	0.85	71.6	25.4	0.033	0.02	0.001	0.007	0.001	1,903.40	103,562.66	328,581.18	608,988.64	1,499.75	636.26	3,862.99	325,399.90	115,435.16	149.97	90.89	4.54	31.81	4.54
Transportation	10.56	1700	99	77.5	0.25	1.93	0.28	100	8	0.2	0.0275	0.001	0.035	0.002	502.70	9,299.53	118,827.90	93,021.84	300.07	2,316.54	336.08	120,028.18	9,602.25	240.06	33.01	1.20	42.01	2.40
Total																**485,385.50**	**1,069,563.81**	**1,552,179.46**	**5,370.12**	**6,162.98**	**11,366.47**	**1,126,434.13**	**239,630.71**	**1,495.56**	**284.49**	**13.30**	**220.97**	**24.40**
Stones River																												
Industrial	8.88	2400	90	84	0.27	0.17	0.75	61	9	0.22	0.0237	0.0019	0.0218	0.0014	110.66	2,428.31	19,980.51	18,648.48	59.94	37.74	166.50	13,542.35	1,998.05	48.84	5.26	0.42	4.84	0.31
Commercial	8.88	3000	48	74	0.23	0.17	0.62	60	12	0.15	0.017	0.0009	0.015	0.0016	2,951.71	80,964.98	284,242.10	438,206.56	1,361.99	1,006.69	3,671.46	355,302.62	71,060.52	888.26	100.67	5.33	88.83	9.47
Residential	8.88	7750	50	69	0.31	0.29	0.58	55.5	9.05	0.073	0.012	0.0005	0.0111	0.00142	2,783.48	197,238.67	279,210.39	385,310.34	1,731.10	1,619.42	3,238.84	309,923.54	50,537.08	407.65	67.01	2.79	61.98	7.93
Open/Vacant Land	8.88	5000	72.3	134	0.33	0.14	0.85	71.6	25.4	0.033	0.02	0.001	0.007	0.001	2,707.01	123,754.82	392,646.41	727,726.40	1,792.16	760.31	4,616.17	388,844.85	137,942.17	179.22	108.62	5.43	38.02	5.43
Transportation	8.88	1700	99	77.5	0.25	1.93	0.28	100	8	0.2	0.0275	0.001	0.035	0.002	442.62	6,879.90	87,910.29	68,818.66	222.00	1,713.81	248.64	88,798.27	7,103.86	177.60	24.42	0.89	31.08	1.78
Total																**411,266.68**	**1,063,989.70**	**1,638,710.45**	**5,167.20**	**5,137.97**	**11,941.62**	**1,156,411.63**	**268,641.69**	**1,701.56**	**305.98**	**14.86**	**224.75**	**24.92**
Sugartree Creek																												
Industrial	12.37	2400	90	84	0.27	0.17	0.75	61	9	0.22	0.0237	0.0019	0.0218	0.0014	0.90	27.52	226.43	211.33	0.68	0.43	1.89	153.47	22.64	0.55	0.06	0.00	0.05	0.00
Commercial	12.37	3000	48	74	0.23	0.17	0.62	60	12	0.15	0.017	0.0009	0.015	0.0016	270.41	10,335.22	36,283.64	55,937.28	173.86	128.50	468.66	45,354.55	9,070.91	113.39	12.85	0.68	11.34	1.21
Residential	12.37	7750	50	69	0.31	0.29	0.58	55.5	9.05	0.073	0.012	0.0005	0.0111	0.00142	1,976.99	195,200.91	276,325.74	381,329.52	1,713.22	1,602.69	3,205.38	306,721.57	50,014.96	403.44	66.32	2.76	61.34	7.85
Open/Vacant Land	12.37	5000	72.3	134	0.33	0.14	0.85	71.6	25.4	0.033	0.02	0.001	0.007	0.001	561.02	35,737.49	113,387.06	210,150.30	517.53	219.56	1,333.04	112,289.26	39,834.46	51.75	31.37	1.57	10.98	1.57
Transportation	12.37	1700	99	77.5	0.25	1.93	0.28	100	8	0.2	0.0275	0.001	0.035	0.002	205.30	4,446.45	56,816.05	44,477.21	143.47	1,107.63	160.69	57,389.95	4,591.20	114.78	15.78	0.57	20.09	1.15
Total																**245,747.58**	**483,038.92**	**692,105.64**	**2,548.77**	**3,058.81**	**5,169.66**	**521,908.80**	**103,534.17**	**683.91**	**126.38**	**5.59**	**103.80**	**11.78**
Sulpher Creek																												
Industrial	3.60	2400	90	84	0.27	0.17	0.75	61	9	0.22	0.0237	0.0019	0.0218	0.0014	4.16	37.00	304.43	284.14	0.91	0.58	2.54	206.34	30.44	0.74	0.08	0.01	0.07	0.00
Commercial	3.60	3000	48	74	0.23	0.17	0.62	60	12	0.15	0.017	0.0009	0.015	0.0016	18.91	210.23	738.05	1,137.83	3.54	2.61	9.53	922.56	184.51	2.31	0.26	0.01	0.23	0.02
Residential	3.60	7750	50	69	0.31	0.29	0.58	55.5	9.05	0.073	0.012	0.0005	0.0111	0.00142	2,153.96	61,861.70	87,571.22	120,848.28	542.94	507.91	1,015.83	97,204.05	15,850.39	127.85	21.02	0.88	19.44	2.49
Open/Vacant Land	3.60	5000	72.3	134	0.33	0.14	0.85	71.6	25.4	0.033	0.02	0.001	0.007	0.001	1,521.69	28,195.43	89,457.81	165,800.08	408.31	173.22	1,051.72	88,591.69	31,427.78	40.83	24.75	1.24	8.66	1.24
Transportation	3.60	1700	99	77.5	0.25	1.93	0.28	100	8	0.2	0.0275	0.001	0.035	0.002	82.82	521.76	6,666.90	5,219.04	16.84	129.97	18.86	6,734.25	538.74	13.47	1.85	0.07	2.36	0.13
Total																**90,826.12**	**184,738.41**	**293,289.37**	**972.54**	**814.30**	**2,098.47**	**193,658.89**	**48,031.86**	**185.20**	**47.96**	**2.20**	**30.76**	**3.89**

Table E-5 PY8 Pollutant Loading Estimates (Continued)

Watershed	Annual Runoff (inches)	Fecal coliform (mpn/100ml)	TSS (mg/l)	TDS (mg/l)	Total P (mg/l)	DP (mg/l)	NO2/NO3 (mg/l)	COD (mg/l)	BOD(5) (mg/l)	Zn (mg/l)	Pb (mg/l)	Cd (mg/l)	Cu (mg/l)	TKN (mg/l)	Total Watershed Land Area Per Land Use	Fecal coliform (billion colonies)	TSS (pounds)	TDS (pounds)	Total P (pounds)	DP (pounds)	NO2/NO3 (pounds)	COD (pounds)	BOD(5) (pounds)	Zn (pounds)	Pb (pounds)	Cd (pounds)	Cu (pounds)	TKN (pounds)
Sycamore Creek																												
Industrial	3.86	2400	90	84	0.27	0.17	0.75	61	9	0.22	0.0237	0.0019	0.0218	0.0014	1.28	12.23	100.62	93.91	0.30	0.19	0.84	68.20	10.06	0.25	0.03	0.00	0.02	0.00
Commercial	3.86	3000	48	74	0.23	0.17	0.62	60	12	0.15	0.017	0.0009	0.015	0.0016	96.32	1,150.29	4,038.29	6,225.70	19.35	14.30	52.16	5,047.86	1,009.57	12.62	1.43	0.08	1.26	0.13
Residential	3.86	7750	50	69	0.31	0.29	0.58	55.5	9.05	0.073	0.012	0.0005	0.0111	0.00142	7,587.06	234,068.93	331,347.19	457,259.12	2,054.35	1,921.81	3,843.63	367,795.38	59,973.84	483.77	79.52	3.31	73.56	9.41
Open/Vacant Land	3.86	5000	72.3	134	0.33	0.14	0.85	71.6	25.4	0.033	0.02	0.001	0.007	0.001	1,865.84	37,137.53	117,829.07	218,383.07	537.81	228.16	1,385.27	116,688.27	41,395.00	53.78	32.59	1.63	11.41	1.63
Transportation	3.86	1700	99	77.5	0.25	1.93	0.28	100	8	0.2	0.0275	0.001	0.035	0.002	291.51	1,972.74	25,207.42	19,733.08	63.66	491.42	71.29	25,462.04	2,036.96	50.92	7.00	0.25	8.91	0.51
Total																**274,341.72**	**478,522.60**	**701,694.89**	**2,675.47**	**2,655.88**	**5,353.19**	**515,061.75**	**104,425.44**	**601.34**	**120.58**	**5.28**	**95.17**	**11.69**
Whites Creek																												
Industrial	4.62	2400	90	84	0.27	0.17	0.75	61	9	0.22	0.0237	0.0019	0.0218	0.0014	174.99	1,997.80	16,438.19	15,342.31	49.31	31.05	136.98	11,141.44	1,643.82	40.18	4.33	0.35	3.98	0.26
Commercial	4.62	3000	48	74	0.23	0.17	0.62	60	12	0.15	0.017	0.0009	0.015	0.0016	959.34	13,690.55	48,063.13	74,097.32	230.30	170.22	620.82	60,078.91	12,015.78	150.20	17.02	0.90	15.02	1.60
Residential	4.62	7750	50	69	0.31	0.29	0.58	55.5	9.05	0.073	0.012	0.0005	0.0111	0.00142	6,240.38	230,059.28	325,671.13	449,426.17	2,019.16	1,888.89	3,777.79	361,494.96	58,946.48	475.48	78.16	3.26	72.30	9.25
Open/Vacant Land	4.62	5000	72.3	134	0.33	0.14	0.85	71.6	25.4	0.033	0.02	0.001	0.007	0.001	23,036.60	547,917.79	1,738,420.78	3,221,969.37	7,934.70	3,366.24	20,437.87	1,721,589.60	610,731.51	793.47	480.89	24.04	168.31	24.04
Transportation	4.62	1700	99	77.5	0.25	1.93	0.28	100	8	0.2	0.0275	0.001	0.035	0.002	834.34	6,747.13	86,213.74	67,490.55	217.71	1,680.73	243.84	87,084.59	6,966.77	174.17	23.95	0.87	30.48	1.74
Total																**800,412.54**	**2,214,806.98**	**3,828,325.72**	**10,451.19**	**7,137.14**	**25,217.29**	**2,241,389.49**	**690,304.35**	**1,633.50**	**604.35**	**29.42**	**290.09**	**36.89**

Note: The above calculation was performed, as prescribed by the MS4 permit, for purposes of estimating loadings of pollutant runoff. The calculation is not scientific and by no means represents actual loading numbers for streams. As NPDES further develops GIS coverages and sampling plans, the calculation will continue to be refined as a more accurate estimate. There are numerous variables that are not accounted for in this calculation such as a strong public education program, a strong illicit discharge detection and elimination program, a strong industrial inspection program, etc. Future estimates will attempt to quantify non-structural BMPs.

The "Simple Method" was used to calculate the Pollutant Loading Estimates:

For Chemical Parameters;

$L = 0.226 * R * C * A$

Where:

0.226 = Unit conversion factor
L = Annual load (pounds)
R = Annual runoff (inches)
C = Pollutant concentration (Event Mean Concentrations) (mg/l)
A = Watershed land area (acres) (Per each land use)

For the Biological Parameters:

$L = 0.00103 * R * C * A$

Where:

L = Annual load (billion colonies)
0.00103 = Unit conversion factor
R = Annual runoff (inches)
C = Pollutant concentration (Event Mean Concentration) (colonies/100ml)
A = Watershed land area (acres) (Per each land use)

The same EMC values used in PY5's calculation were used for PY8. Refer to Annual Report for PY5 for more details of the calculation.

Table E-6 Estimated Pollutant Loading Reduction by BMPs Per Each Watershed

Watershed	Total Watershed Land Area (acres)	Number of Estimated Properties with BMPs per Watershed	Estimated BMP Treatment Area per Watershed
Back Creek	1,595.62	1	0.19%
Browns Creek	8,804.70	56	1.91%
Bull Run Creek	2,913.00	0	0.00%
Cooper Creek	2,355.89	9	1.15%
Cub Creek	1,581.29	0	0.00%
Cumberland River	46,188.76	185	1.20%
Davidson Branch	2,376.23	8	1.01%
Dry Creek	5,595.79	22	1.18%
Ewing Creek	8,893.37	33	1.11%
Gibson Creek	2,736.30	10	1.10%
Gizzard Branch	1,447.68	9	1.87%
Harpeth River	17,801.03	54	0.91%
Indian Creek	3,849.82	0	0.00%
Island Creek	510.56	0	0.00%
Little Harpeth River	8,749.29	10	0.34%
Loves Branch	1,440.79	5	1.04%
Marrowbone Creek	11,928.48	2	0.05%
Mansker Creek	12,884.01	10	0.23%
Mill Creek Lower	13,120.19	115	2.63%
Mill Creek Upper	14,280.88	88	1.85%
Overall Creek	4,890.74	15	0.92%
Pages Branch	2,054.53	15	2.19%
Percy Priest Lake, Lower	11,056.84	56	1.52%
Percy Priest Lake, Upper	12,452.32	44	1.06%
Pond Creek	1,669.15	0	0.00%
Richland Creek	14,569.01	63	1.30%
Sevenmile Creek	10,865.05	72	1.99%
South Harpeth River, Lower	9,076.68	3	0.10%
Stoner Creek	7,458.46	63	2.53%
Stones River	8,996.37	35	1.17%
Sugartree Creek	3,014.63	38	3.78%
Sulpher Creek	3,781.53	2	0.16%
Sycamore Creek	12,842.01	2	0.05%
Whites Creek	31,248.78	46	0.44%
Overall County	**311,212.00**	**1071**	**1.03%**

Note: The pollutant removal estimates of post-construction BMPs installed around the county were calculated using the following technique. Properties that obtained grading permits for site development after 2000 were mapped to each respective watershed. Some sites have multiple BMPs installed that treat a variety of different areas. For purposes of this calculation, each mapped property with a BMP was assumed to treat approximately 3 acres of runoff. Some BMPs treat more than 10 acres, while others treat less than one. We determined 3 to be a good average number using best professional judgement. The number of BMPs mapped for each watershed was multiplied by 3 acres and divided by the total land area for the watershed.

Table E-7 Estimated Pollutant Loadings Per Watershed Subtracting Estimated Loading Reduction Values for Post-Construction BMPs Installed Around the County

Watershed	Percentage of Watershed Land Area Treated by Post-Construction BMPs	Fecal coliform (billion colonies)	TSS (pounds)	TDS (pounds)	Total P (pounds)	DP (pounds)	NO2/NO3 (pounds)	COD (pounds)	BOD(5) (pounds)	Zn (pounds)	Pb (pounds)	Cd (pounds)	Cu (pounds)	TKN (pounds)
Back Creek	0.19%	35,280.79	54,909.17	78,730.12	324.77	302.73	629.78	59,963.70	11,110.76	73.23	13.49	0.58	11.38	1.44
Back Creek (After Estimated BMP Reduction)		**35,240.99**	**54,847.22**	**78,641.30**	**324.41**	**302.39**	**629.07**	**59,896.05**	**11,098.23**	**73.15**	**13.47**	**0.58**	**11.37**	**1.44**
Browns Creek	1.91%	786,145.35	1,912,141.39	2,660,039.77	9,105.92	11,067.03	19,524.65	1,948,355.30	402,646.02	2,871.23	509.63	25.16	407.47	42.10
Browns Creek (After Estimated BMP Reduction)		**777,145.22**	**1,890,250.37**	**2,629,586.48**	**9,001.67**	**10,940.33**	**19,301.12**	**1,926,049.69**	**398,036.36**	**2,838.36**	**503.79**	**24.88**	**402.81**	**41.62**
Bull Run Creek	0.00%	56,541.17	126,360.79	210,450.94	643.92	461.30	1,455.54	130,494.52	36,146.55	106.22	33.34	1.57	18.45	2.41
Bull Run Creek (After Estimated BMP Reduction)		**56,541.17**	**126,360.79**	**210,450.94**	**643.92**	**461.30**	**1,455.54**	**130,494.52**	**36,146.55**	**106.22**	**33.34**	**1.57**	**18.45**	**2.41**
Cooper Creek	1.15%	178,952.49	357,940.29	505,751.82	1,866.76	2,298.24	3,781.25	383,738.02	74,999.81	516.16	93.52	4.19	77.78	8.67
Cooper Creek (After Estimated BMP Reduction)		**177,721.94**	**355,478.96**	**502,274.07**	**1,853.92**	**2,282.44**	**3,755.25**	**381,099.29**	**74,484.08**	**512.61**	**92.87**	**4.16**	**77.25**	**8.61**
Cub Creek	0.00%	34,200.24	59,666.00	90,337.98	335.64	290.30	685.63	63,984.62	13,808.30	70.00	15.06	0.67	11.14	1.42
Cub Creek (After Estimated BMP Reduction)		**34,200.24**	**59,666.00**	**90,337.98**	**335.64**	**290.30**	**685.63**	**63,984.62**	**13,808.30**	**70.00**	**15.06**	**0.67**	**11.14**	**1.42**
Cumberland River	1.20%	2,399,327.46	6,075,282.48	9,172,508.77	29,041.08	29,825.02	65,258.41	6,268,963.42	1,490,707.46	8,052.34	1,655.24	81.12	1,163.41	127.39
Cumberland River (After Estimated BMP Reduction)		**2,382,029.40**	**6,031,482.45**	**9,106,379.14**	**28,831.71**	**29,610.00**	**64,787.93**	**6,223,767.04**	**1,479,960.13**	**7,994.29**	**1,643.31**	**80.54**	**1,155.02**	**126.48**
Davidson Branch	1.01%	131,036.26	241,713.61	342,914.79	1,310.35	1,486.76	2,617.16	260,426.05	50,106.33	340.40	62.00	2.74	51.78	6.00
Davidson Branch (After Estimated BMP Reduction)		**130,242.18**	**240,248.82**	**340,836.72**	**1,302.40**	**1,477.75**	**2,601.30**	**258,847.86**	**49,802.69**	**338.34**	**61.63**	**2.73**	**51.46**	**5.96**
Dry Creek	1.18%	304,023.93	677,141.08	1,003,453.39	3,384.80	3,458.71	7,286.10	698,971.65	157,962.17	863.84	178.32	8.54	129.75	14.62
Dry Creek (After Estimated BMP Reduction)		**301,872.42**	**672,349.12**	**996,352.21**	**3,360.84**	**3,434.24**	**7,234.54**	**694,025.21**	**156,844.31**	**857.73**	**177.06**	**8.48**	**128.83**	**14.52**
Ewing Creek	1.11%	446,773.61	1,077,332.48	1,621,192.74	5,223.98	5,404.01	11,517.84	1,105,967.59	261,651.61	1,341.63	288.00	13.93	201.57	22.36
Ewing Creek (After Estimated BMP Reduction)		**443,789.55**	**1,070,136.83**	**1,610,364.58**	**5,189.09**	**5,367.92**	**11,440.91**	**1,098,580.69**	**259,904.01**	**1,332.67**	**286.08**	**13.84**	**200.22**	**22.21**
Gibson Creek	1.10%	247,815.12	514,348.40	724,051.99	2,649.70	3,349.86	5,433.84	556,823.79	107,495.94	799.83	137.28	6.20	116.21	12.74
Gibson Creek (After Estimated BMP Reduction)		**246,184.94**	**510,964.90**	**719,289.01**	**2,632.27**	**3,327.82**	**5,398.09**	**553,160.88**	**106,788.81**	**794.57**	**136.38**	**6.16**	**115.45**	**12.65**
Gizzard Branch	1.87%	129,423.77	329,887.20	488,661.08	1,594.51	1,841.49	3,582.84	358,473.01	77,789.13	551.95	94.05	4.51	73.71	7.91
Gizzard Branch (After Estimated BMP Reduction)		**127,975.48**	**326,195.66**	**483,192.80**	**1,576.66**	**1,820.88**	**3,542.75**	**354,461.59**	**76,918.65**	**545.77**	**93.00**	**4.46**	**72.89**	**7.82**
Harpeth River	0.91%	710,433.19	1,604,826.97	2,577,292.40	8,090.74	7,170.68	17,938.90	1,671,751.04	432,782.40	1,587.32	425.74	19.79	263.15	32.17
Harpeth River (After Estimated BMP Reduction)		**706,553.97**	**1,596,064.04**	**2,563,219.46**	**8,046.56**	**7,131.53**	**17,840.94**	**1,662,622.68**	**430,419.25**	**1,578.65**	**423.42**	**19.68**	**261.71**	**32.00**
Indian Creek	0.00%	74,399.34	149,241.23	240,177.71	793.77	603.94	1,725.77	156,689.66	39,583.61	146.27	38.77	1.79	24.19	3.14
Indian Creek (After Estimated BMP Reduction)		**74,399.34**	**149,241.23**	**240,177.71**	**793.77**	**603.94**	**1,725.77**	**156,689.66**	**39,583.61**	**146.27**	**38.77**	**1.79**	**24.19**	**3.14**
Island Creek	0.00%	10,602.55	26,860.64	46,168.89	130.74	88.20	308.09	27,324.12	8,223.11	19.39	7.21	0.35	3.54	0.46
Island Creek (After Estimated BMP Reduction)		**10,602.55**	**26,860.64**	**46,168.89**	**130.74**	**88.20**	**308.09**	**27,324.12**	**8,223.11**	**19.39**	**7.21**	**0.35**	**3.54**	**0.46**

Table E-7 Estimated Pollutant Loadings Per Watershed Subtracting Estimated Loading Reduction Values for Post-Construction BMPs Installed Around the County

(Continued)

Watershed	Percentage of Watershed Land Area Treated by Post-Construction BMPs	Fecal coliform (billion colonies)	TSS (pounds)	TDS (pounds)	Total P (pounds)	DP (pounds)	NO2/NO3 (pounds)	COD (pounds)	BOD(5) (pounds)	Zn (pounds)	Pb (pounds)	Cd (pounds)	Cu (pounds)	TKN (pounds)
Little Harpeth River	0.34%	283,981.37	641,207.71	1,025,866.21	3,237.99	2,878.79	7,186.01	671,193.98	171,601.93	667.56	171.02	7.97	107.80	13.11
Little Harpeth River (After Estimated BMP Reduction)		**283,397.13**	**639,888.54**	**1,023,755.68**	**3,231.33**	**2,872.87**	**7,171.22**	**669,813.13**	**171,248.89**	**666.19**	**170.67**	**7.95**	**107.58**	**13.08**
Loves Branch	1.04%	100,672.84	234,758.38	345,854.13	1,147.13	1,487.85	2,421.13	247,056.43	54,914.10	295.34	62.55	2.83	46.86	5.08
Loves Branch (After Estimated BMP Reduction)		**100,043.98**	**233,291.94**	**343,693.72**	**1,139.97**	**1,478.56**	**2,406.00**	**245,513.18**	**54,571.08**	**293.49**	**62.15**	**2.81**	**46.57**	**5.05**
Marrowbone Creek	0.05%	254,663.38	562,749.73	929,043.30	2,877.97	2,125.76	6,464.39	582,690.80	158,354.66	495.08	148.34	6.97	84.55	10.94
Marrowbone Creek (After Estimated BMP Reduction)		**254,586.52**	**562,579.89**	**928,762.91**	**2,877.10**	**2,125.12**	**6,462.44**	**582,514.95**	**158,306.87**	**494.93**	**148.30**	**6.96**	**84.53**	**10.93**
Mansker Creek	0.23%	507,650.19	1,034,695.16	1,578,286.13	5,409.85	5,050.14	11,504.86	1,085,886.57	250,512.48	1,206.63	269.18	12.46	189.33	22.76
Mansker Creek (After Estimated BMP Reduction)		**506,940.96**	**1,033,249.61**	**1,576,081.14**	**5,402.30**	**5,043.08**	**11,488.78**	**1,084,369.50**	**250,162.50**	**1,204.95**	**268.80**	**12.44**	**189.07**	**22.73**
Mill Creek Lower	2.63%	1,402,344.78	3,637,101.87	5,102,053.98	17,059.37	19,882.40	37,801.39	3,744,635.96	781,290.32	5,977.51	999.61	50.48	800.80	82.10
Mill Creek Lower (After Estimated BMP Reduction)		**1,380,219.69**	**3,579,718.55**	**5,021,557.80**	**16,790.22**	**19,568.71**	**37,204.99**	**3,685,556.05**	**768,963.74**	**5,883.21**	**983.84**	**49.69**	**788.16**	**80.80**
Mill Creek Upper	1.85%	595,857.79	1,328,535.13	2,093,145.59	6,724.59	6,079.85	14,813.07	1,387,788.58	345,520.67	1,451.57	352.97	16.54	229.90	27.61
Mill Creek Upper (After Estimated BMP Reduction)		**589,248.68**	**1,313,799.34**	**2,069,928.94**	**6,650.00**	**6,012.42**	**14,648.77**	**1,372,395.57**	**341,688.24**	**1,435.47**	**349.06**	**16.36**	**227.35**	**27.30**
Overall Creek	0.92%	166,133.23	366,065.91	552,640.02	1,846.62	1,717.46	4,016.86	377,777.55	88,026.97	451.19	96.43	4.65	67.73	7.84
Overall Creek (After Estimated BMP Reduction)		**165,216.07**	**364,045.00**	**549,589.09**	**1,836.43**	**1,707.97**	**3,994.68**	**375,691.97**	**87,541.00**	**448.69**	**95.90**	**4.62**	**67.36**	**7.79**
Pages Branch	2.19%	147,416.75	401,369.19	586,530.81	1,855.63	2,183.60	4,173.24	413,405.36	93,890.19	588.31	110.77	5.48	82.50	8.55
Pages Branch (After Estimated BMP Reduction)		**145,479.44**	**396,094.52**	**578,822.81**	**1,831.25**	**2,154.91**	**4,118.39**	**407,972.52**	**92,656.31**	**580.58**	**109.31**	**5.41**	**81.42**	**8.43**
Percy Priest Lake, Lower	1.52%	407,710.17	1,129,189.76	1,862,251.74	5,267.94	3,700.54	12,602.58	1,120,691.43	325,857.75	1,026.26	305.52	15.47	163.34	19.45
Percy Priest Lake, Lower (After Estimated BMP Reduction)		**403,993.27**	**1,118,895.46**	**1,845,274.47**	**5,219.91**	**3,666.81**	**12,487.69**	**1,110,474.62**	**322,887.06**	**1,016.91**	**302.74**	**15.33**	**161.85**	**19.27**
Percy Priest Lake, Upper	1.06%	489,631.69	1,319,727.37	2,275,852.53	6,280.66	4,380.61	15,018.95	1,338,711.74	408,902.31	961.69	358.33	17.30	173.55	22.20
Percy Priest Lake, Upper (After Estimated BMP Reduction)		**486,517.51**	**1,311,333.56**	**2,261,377.51**	**6,240.71**	**4,352.74**	**14,923.42**	**1,330,197.19**	**406,301.58**	**955.57**	**356.05**	**17.19**	**172.45**	**22.06**
Pond Creek	0.00%	31,828.95	60,924.99	96,615.74	330.11	257.54	704.56	64,278.32	15,624.42	61.93	15.66	0.71	10.20	1.33
Pond Creek (After Estimated BMP Reduction)		**31,828.95**	**60,924.99**	**96,615.74**	**330.11**	**257.54**	**704.56**	**64,278.32**	**15,624.42**	**61.93**	**15.66**	**0.71**	**10.20**	**1.33**
Richland Creek	1.30%	971,606.77	2,107,620.21	3,020,054.31	10,635.38	12,676.74	22,261.70	2,231,032.71	459,973.90	3,037.11	559.86	25.96	447.37	49.08
Richland Creek (After Estimated BMP Reduction)		**964,044.13**	**2,091,215.24**	**2,996,547.28**	**10,552.59**	**12,578.07**	**22,088.42**	**2,213,667.15**	**456,393.63**	**3,013.47**	**555.50**	**25.76**	**443.89**	**48.70**
Sevenmile Creek	1.99%	838,514.01	1,744,867.86	2,495,878.65	8,966.37	10,869.46	18,482.14	1,865,346.54	376,906.91	2,502.90	460.77	20.89	373.97	41.51
Sevenmile Creek (After Estimated BMP Reduction)		**828,512.08**	**1,724,054.80**	**2,466,107.43**	**8,859.42**	**10,739.80**	**18,261.68**	**1,843,096.40**	**372,411.11**	**2,473.05**	**455.28**	**20.64**	**369.51**	**41.02**
South Harpeth River, Lower	0.10%	187,535.42	412,853.08	680,000.69	2,113.45	1,590.70	4,732.83	427,946.96	115,688.72	364.95	108.74	5.09	62.45	8.06
South Harpeth River, Lower (After Estimated BMP Reduction)		**187,423.84**	**412,607.46**	**679,596.14**	**2,112.20**	**1,589.76**	**4,730.01**	**427,692.36**	**115,619.89**	**364.73**	**108.67**	**5.09**	**62.42**	**8.05**

Table E-7 Estimated Pollutant Loadings Per Watershed Subtracting Estimated Loading Reduction Values for Post-Construction BMPs Installed Around the County

(Continued)

Watershed	Percentage of Watershed Land Area Treated by Post-Construction BMPs	Fecal coliform (billion colonies)	TSS (pounds)	TDS (pounds)	Total P (pounds)	DP (pounds)	NO2/NO3 (pounds)	COD (pounds)	BOD(5) (pounds)	Zn (pounds)	Pb (pounds)	Cd (pounds)	Cu (pounds)	TKN (pounds)
Stoner Creek	2.53%	485,385.50	1,069,563.81	1,552,179.46	5,370.12	6,162.98	11,366.47	1,126,434.13	239,630.71	1,495.56	284.49	13.30	220.97	24.40
Stoner Creek (After Estimated BMP Reduction)		**478,005.59**	**1,053,301.93**	**1,528,579.80**	**5,288.47**	**6,069.28**	**11,193.65**	**1,109,307.59**	**235,987.32**	**1,472.82**	**280.17**	**13.10**	**217.61**	**24.03**
Stones River	1.17%	411,266.68	1,063,989.70	1,638,710.45	5,167.20	5,137.97	11,941.62	1,156,411.63	268,641.69	1,701.56	305.98	14.86	224.75	24.92
Stones River (After Estimated BMP Reduction)		**408,386.65**	**1,056,538.77**	**1,627,234.85**	**5,131.01**	**5,101.99**	**11,857.99**	**1,148,313.48**	**266,760.44**	**1,689.64**	**303.83**	**14.76**	**223.17**	**24.75**
Sugartree Creek	3.78%	245,747.58	483,038.92	692,105.64	2,548.77	3,058.81	5,169.66	521,908.80	103,534.17	683.91	126.38	5.59	103.80	11.78
Sugartree Creek (After Estimated BMP Reduction)		**240,171.73**	**472,079.08**	**676,402.21**	**2,490.94**	**2,989.41**	**5,052.37**	**510,067.03**	**101,185.04**	**668.39**	**123.51**	**5.46**	**101.45**	**11.51**
Sulpher Creek	0.16%	90,826.12	184,738.41	293,289.37	972.54	814.30	2,098.47	193,658.89	48,031.86	185.20	47.96	2.20	30.76	3.89
Sulpher Creek (After Estimated BMP Reduction)		**90,739.65**	**184,562.54**	**293,010.16**	**971.61**	**813.52**	**2,096.47**	**193,474.53**	**47,986.14**	**185.03**	**47.91**	**2.20**	**30.73**	**3.88**
Sycamore Creek	0.05%	274,341.72	478,522.60	701,694.89	2,675.47	2,655.88	5,353.19	515,061.75	104,425.44	601.34	120.58	5.28	95.17	11.69
Sycamore Creek (After Estimated BMP Reduction)		**274,264.81**	**478,388.45**	**701,498.18**	**2,674.72**	**2,655.14**	**5,351.69**	**514,917.36**	**104,396.17**	**601.17**	**120.54**	**5.27**	**95.14**	**11.68**
Whites Creek	0.44%	800,412.54	2,214,806.98	3,828,325.72	10,451.19	7,137.14	25,217.29	2,241,389.49	690,304.35	1,633.50	604.35	29.42	290.09	36.89
Whites Creek (After Estimated BMP Reduction)		**798,291.68**	**2,208,938.39**	**3,818,181.79**	**10,423.50**	**7,118.22**	**25,150.47**	**2,235,450.48**	**688,475.25**	**1,629.17**	**602.75**	**29.34**	**289.32**	**36.80**

Note: The above pollutant loading numbers were calculated with the assumption of 60% pollutant removal from properties identified within each watershed as having post-construction BMPs to treat stormwater runoff. For purpose of this calculation only the properties developed after 2000 (when Nashville's stormwater regulations were revised to require specific water quality treatment) were mapped and considered to treat runoff of up to 60% pollutant removal. Since all properties that installed post-construction BMPs treat different amounts of land area, an estimate of 3 acres of treatment for each property was assumed in the calculation. Even though post-construction BMPs were designed to focus pollution reduction on TSS it is also assumed in this calculation that by virtue of removing sediment from runoff, other contaminants would be removed as well. The following formula was used to perform the calculation.

$L_{BMP} = L - ((L * T)*60\%)$

Where:

L_{BMP} =Annual loading after estimating the pollutant reduction of post-construction BMPs

L=Annual loading (without factoring BMPs) from Table E-5

T=the percentage of land treated by structural BMPs (calculated in Table E-6)

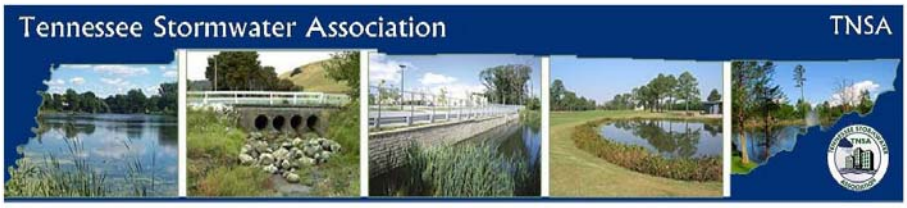
Appendix B – Example Public Educational Materials

Photograph of post-flood trash collected from Mill Creek by volunteers organized by the Cumberland River Compact. Metro provided assistance in organizing some post-flood clean-ups.

Photograph of post-flood trash collected from Mill Creek by volunteers organized by the Cumberland River Compact.

Typical MWS Stormwater Booth at the Tennessee Lawn and Garden Show

Rain Garden Installed at the MWS Stormwater NPDES Office



Invoice Date: 6/21/2011
Invoice No: TNS068047TAB2011

MS4 INVOICE- INTENT TO PARTICIPATE

TNSA/TAB STATEWIDE CONTRACT FOR FY 2011 RADIO ADS

INVOICE TO: (Please fill in your MS4 information)

Participating MS4: Metro Nashville/ Davidson County
Stormwater Contact: Michael Hunt
email: michael.hunt@nashville.gov

Make check payable to: "TN Stormwater Association"

Include Description: "MS4/ TAB Radio 2011FY "

PLEASE REMIT TO:

ATTN: John Chlarson
605 Airways Blvd, Suite 109
Jackson, TN 38301
Office: (731) 425-4785 Email: john.chlarson@tennessee.edu

Questions? Call Cynthia Allen at 615-898-2660 or email *callen@mtsu.edu*

Tier Level: Identify appropriate MS4 Tier and Amount

Description:			FY Tier Rate	Amount Due
Tier Level/ MS4 Population/ Applicable Tier Yearly Rate				
Tier 1		*Population 25,000 or less*	*$400.00*	
Tier 2		*Population 50,000 or less*	*$800.00*	
Tier 3		*Population 75,000 or less*	*$1,200.00*	
Tier 4		*Population 100,000 or less*	*$1,600.00*	
Tier 5	x	*Population over 100,000*	*$2,000.00*	$2,000.00

PAYMENT DUE: $2,000.00
(30 days)

Metro Nashville's Invoice for Contributing to the Water Works Public Education Campaign

METRO NASHVILLE INDUSTRIAL STORMWATER INSPECTION PROGRAM

TO: DAVIDSON COUNTY TENNESSEE GENERAL MULTI-SECTOR PERMITEES FOR INDUSTRIAL STORMWATER DISCHARGES

FROM: METROPOLITAN GOVERNMENT OF NASHVILLE, DAVIDSON COUNTY
METRO WATER SERVICES, STORMWATER NPDES DIVISION

DATE: 3/12/2010

CC: TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION, DIVISION OF WATER POLLUTION CONTROL

Our records indicate that your industrial facility is operating within the jurisdictional boundaries of Metropolitan Government of Nashville, Davidson County (Metro) under the newly issued Tennessee Stormwater Multi-Sector General Permit (TMSP) for stormwater discharges associated with industrial activities. Metro is required by the Municipal Separate Storm Sewer System (MS4) Permit it holds to inspect, monitor, and control runoff from industrial facilities that discharge stormwater directly or indirectly to Metro's MS4 (road ditches, street inlets, drainage pipes, etc.). Metro's MS4 does not include streams, rivers, springs, or other water bodies that are considered to be "Waters of the State".

Metro Water Services', Stormwater, National Pollutant Discharge Elimination System (NPDES) program will be performing inspections on TMSP facilities within Metro's jurisdiction. The inspection will include a review of all permit-required Stormwater Pollution Prevention Plan (SWPPP) documentation (i.e. required outfall inspections, stormwater monitoring results, employee training records, etc.). In order to prepare for our inspections, we are requesting each industrial permitted facility within Metro's jurisdiction complete the attached information request form and submit it back to our office prior to April 15, 2010. Metro will utilize the information to prioritize inspections of industrial facilities. The information request form can be submitted back to our office via fax, e-mail, or regular mail to the location listed below:

Metro Water Services
Stormwater, NPDES Office
1607 County Hospital Road
Nashville, TN 37218
Phone: 615-880-2420
Email: joshua.hayes@nashville.gov

If for any reason, you can not meet the conditions of this request or have general questions, please feel free to call Josh Hayes at the NPDES Office to discuss your concerns. It is Metro's desire to work with the industrial community to ensure that no exposed industrial contaminants are mixing with natural stormwater runoff that could impact Metro's ability to comply with the MS4 permit and, more importantly, impact the health and safety of Metro Nashville/Davidson County's waterways. We thank you in advance for your attention to this matter.

Page 1 of the Industrial Facility Survey Mail-out.

Metro Water Services, Stormwater Department, NPDES Industrial Stormwater Information Request

1. Please list contact information of your company's Nashville location: Note: If you have more than one facility within Nashville, please complete one form for each permitted location.

Address, Contact Name, and Phone:

2. What does the facility do or produce? What are the basic raw materials involved? What are the major industrial processes that can be exposed to stormwater?

3. How many shifts does the facility operate? **1 2 3** How do you handle environmental issues during nights and weekends? (i.e. spills)

4. How many storm water outfalls does your facility have? Where are they located? How often are the outfalls inspected?

5. Are any industrial processes or materials exposed on the roof of the facility? If so, how often is the roof inspected and roof downspout stormwater flow inspected?

6. How many dumpsters are on site? Are the dumpsters covered and plugged and is the area around the dumpster inspected and maintained routinely?

7. Is there an up to date SWPPP for the site? **Y N** Have the Quarterly Outfall Inspections been performed? **Y N**
Is sampling required by the TMSP permit? **Y N** Are sampling records present from the past three years? **Y N**
Are any of the sampling results over the permit cut-off concentrations? **Y N**
Has the facility performed an annual site compliance inspection? **Y N** Is there a non-stormwater certification? **Y N**

8. Are there any outside storage tanks? **Y N** If so, do they have secondary containment? **Y N**
What materials are stored in the outside tank(s)?

9. Are there any detention ponds or treatment structures on site? **Y N** How often are they inspected/monitored?

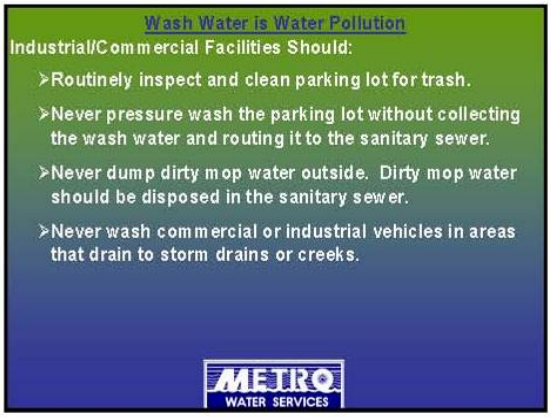
10. Have any inside floor drains been verified to route to the sanitary sewer (and not to the storm sewer)? **Y N Unknown**

11. Have there been any spills within the last 3 years? If so, when, what, and how much spilled and was it remediated? **Y N**

- Either mail the completed form back to: 1607 County Hospital Road, Nashville, TN 37218, email it to joshua.hayes@nashville.gov , or fax it back to (615) 880-2425.

Page 1 of the Industrial Facility Survey Mail-out.

Slides Aired on Metro Public Access Channel



Slides Aired on Metro Public Access Channel

Slides Aired on Metro Public Access Channel

Karl F. Dean
Mayor

METROPOLITAN GOVERNMENT OF NASHVILLE AND DAVIDSON COUNTY

DEPARTMENT OF WATER AND SEWERAGE SERVICES
STORMWATER DIVISION
NPDES OFFICE
1607 COUNTY HOSPITAL ROAD
NASHVILLE, TN 37218

Attention: Important Stormwater Pollution Notification

Dear Metro Water Services Customer,

Metro Water Services has observed several occurrences of **a petroleum based product smelling like diesel fuel and/or used motor oil** accumulating on Brown's Creek (see map on back)**. We are asking for your assistance to pinpoint the source and help stencil catch basins in the area with "No Dumping" signs.**

How to report an illegal discharge or other water quality concern:

- Call Metro Water Services at 615-880-2420 or 615-313-PURE;
- Call Metro Water Services Dispatch 862-4600 option 3 and reference issue as "stormwater quality"; or
- Visit our website at www.nashville.gov/stormwater - click on "contact us."
- To volunteer to stencil catch basins, contact Sonia Harvat at 615-862-4494

What could be causing the discharge? The following activities are likely sources of this pollution in your area and are prohibited under Metro Code § 15.64.205:

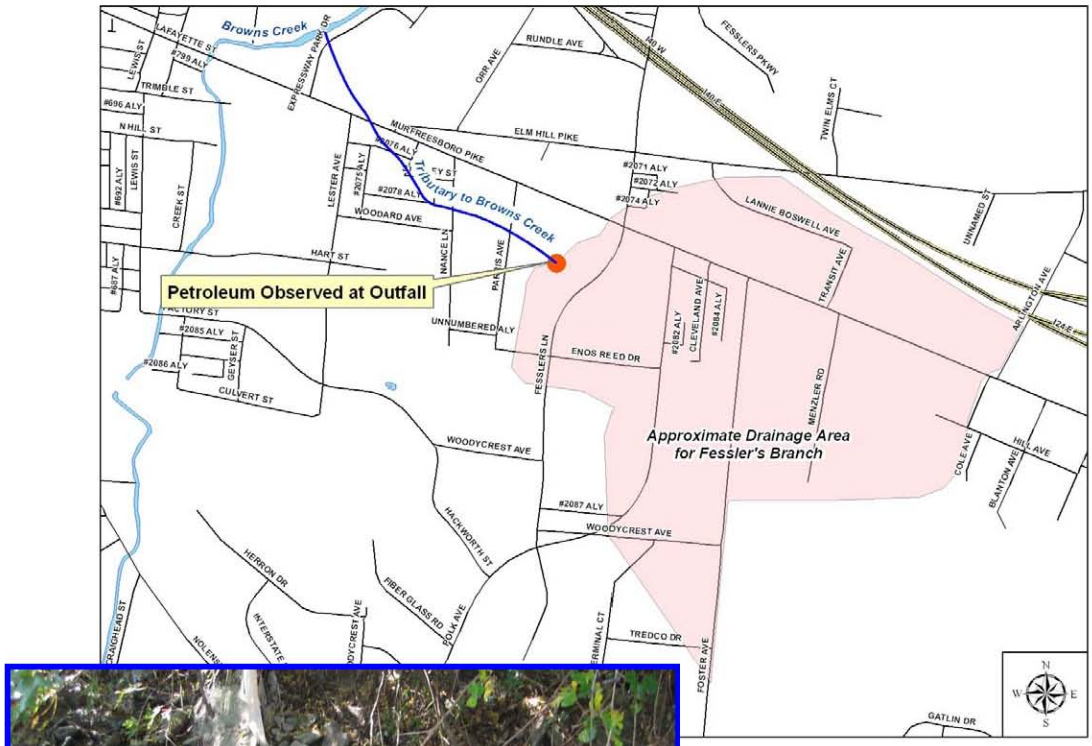
- Floor drains at a maintenance shop that are connected to the storm sewer instead of the sanitary sewer;
- Leaking above ground or below ground storage tanks;
- Dumping oil or diesel fuel into a storm drain;
- Oil leaking from parked cars into storm drains; and
- Power washing oily or greasy parking lots and letting water run into storm drains.

Why should you be concerned? Stormwater and groundwater travels through underground pipes until it daylights at an outfall near Parris Ave., from there it alternates flowing on the surface and through more pipes, directly into Brown's Creek. Water quality and wildlife in Brown's Creek is suffering as a result of the petroleum pollution discharging from the watershed area upstream of the Parris Ave. outfall.

Why does Metro Water Services need your help? The source of the pollution is difficult to track because it travels a long distance in a culvert deep underground. The pollution cannot be seen or smelled until it accumulates on the water at the Parris Ave. outfall. It is important to notify us immediately of unusual odors, discoloration of water, or visible dumping. This will help us narrow down the area of investigation.
We also need volunteers to help stencil public and private catch basins with, "No Dumping-Drains Directly to Brown's Creek Watershed" signage. To help, contact Sonia Harvat 615-862-4494. She will provide maps and materials. You and your neighbors are the eyes and ears of Brown's Creek. We need and appreciate your assistance in improving the water quality in your area.

Metro Water Services,
Sonya Erickson, --Environmental Compliance Officer II
Watershed Management 615-880-2420

Illicit Discharge Notification Mail-Out (Page 1)



Petroleum in Fessler's Branch tributary (to the left)

Diesel in Fessler's branch tributary (to the right)

Illicit Discharge Notification Mail-Out (Page 2)

Guidelines for Draining Your Pool or Spa

You can help keep our creeks, streams and rivers clean by properly draining your swimming pool or spa.

Whenever possible, **please drain your pool, spa, filter backwash, and pool wastewater into the sanitary sewer cleanout** or down a drain leading to the **sanitary sewer**.

If it is not possible to drain the water into the sanitary sewer, you may drain the water onto grassy areas following these guidelines:

- De-chlorinate the water by allowing it to stand untreated for 7 to 10 days before you drain the pool/spa.
- Drain the water directly onto the grass in your yard. Be a good neighbor – allow the water to only drain onto your property so that it does not cause erosion or flooding in your neighbor's yard.
- Drain the pool water slowly to allow it to be absorbed into the ground and to prevent erosion and ponding. Standing water can lead to mosquito problems in as little as 48 to 72 hours and may be a code violation.
- Note: draining saltwater onto grass and landscape can damage plants and soil due to high salt content.

It is illegal in Davidson County to drain your filter backwash water, saltwater or chlorinated pool water, or spa directly into the stormwater drainage system or a creek. (Metro Code §15.64.205)

DID YOU KNOW? . . .

- High levels of chlorine in pool water can kill wildlife, fish, crayfish and other aquatic animals.
- A saltwater swimming pool system uses pool salt to make chlorine. The chemicals and salt in saltwater pools can kill plants, wildlife, and aquatic animals such as fish and crayfish.
- Stormwater drainage systems (catch basins in the streets, ditches, etc.) drain rain water directly to creeks and streams.

TOGETHER WE CAN KEEP OUR CREEKS, STREAMS AND RIVERS CLEAN! Remember…

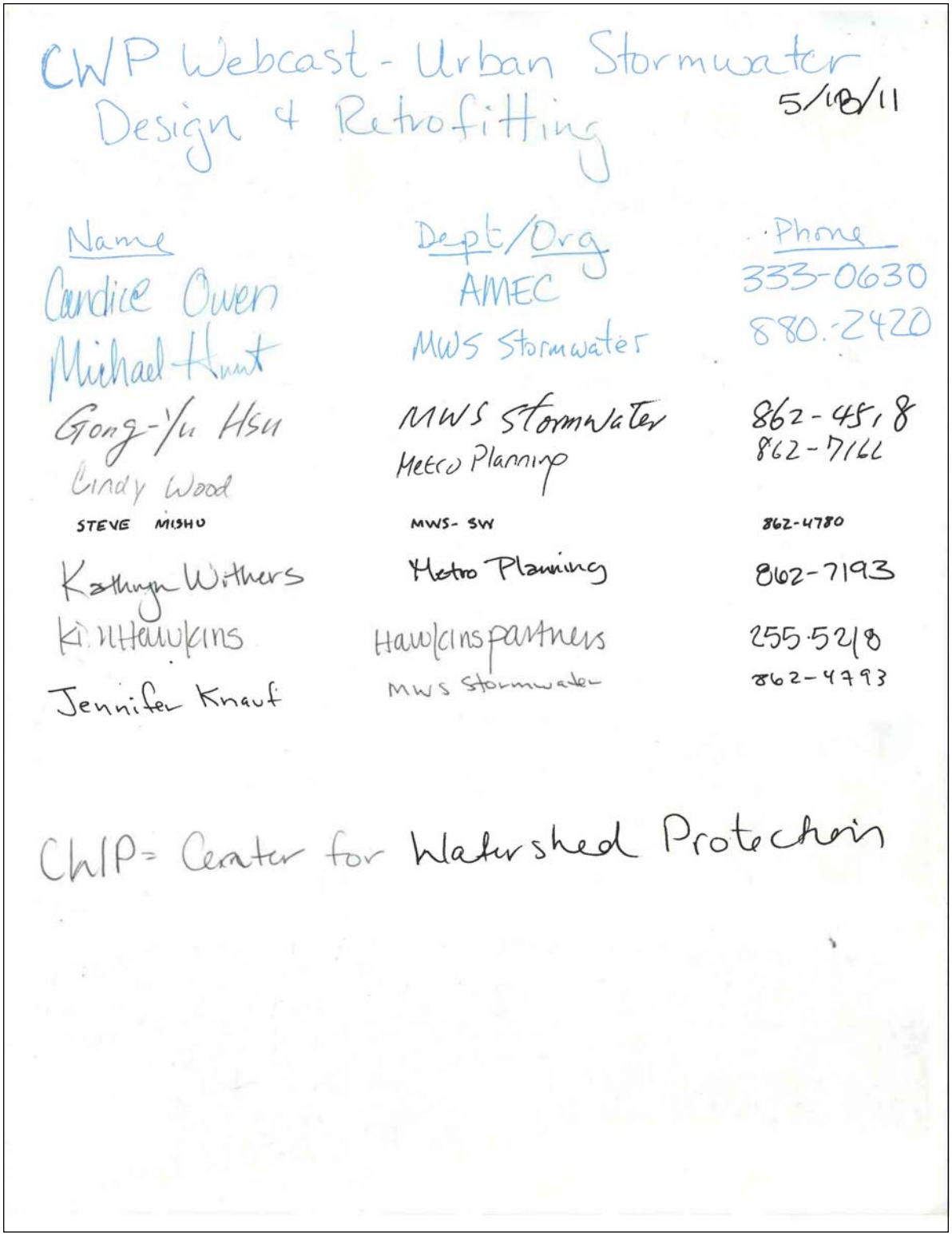
- Drain pools and spas into the sanitary sewer whenever possible.
- Drain only de-chlorinated water onto grassy areas. Drain the water slowly.

And **NEVER** drain pool and spa water directly into street drains or drainage ditches – they lead directly to our creeks, streams and rivers.

Questions concerning pool guidelines and saltwater pools should be directed to Metro Water Services 880-2420

May 2011

MWS Brochure that was Sent to the Middle Tennessee Pool Association



CWP Webcast - Urban Stormwater Design & Retrofitting

5/18/11

Name	Dept/Org	Phone
Candice Owen	AMEC	333-0630
Michael Hunt	MWS Stormwater	880-2420
Gong-Yu Hsu	MWS Stormwater	862-4518
Cindy Wood	Metro Planning	862-7166
STEVE MISHU	MWS- SW	862-4780
Kathryn Withers	Metro Planning	862-7193
Ki Hawkins	Hawkins partners	255-5218
Jennifer Knauf	MWS stormwater	862-4793

CWP= Center for Watershed Protection

Metro Staff Sign-in Sheet for a Webcast Training on Urban Stormwater Retrofitting & Design. MWS staff viewed numerous other stormwater webinars during PY8.

Stormwater maintenance slideshow that aired on Channel 3

Stormwater maintenance slideshow that aired on Channel 3 (Page 2)

Stormwater maintenance slideshow that aired on Channel 3 (Page 3)

Environment

Dirty water

Mayor spearheads a volunteer effort to clean up Nashville's rivers and creeks still suffering from flood pollution

By Joey Garrison
jgarrison@nashvillecitypaper.com

At recent public appearances, Mayor Karl Dean has called Nashville the "poster child for volunteerism," a title he says the city earned following its well-documented philanthropic response to May's historic floods.

That slogan is about to be tested.

In partnership with several environmental organizations, the mayor's office this week is kicking off a citywide effort in which it hopes to mobilize upwards of 400 volunteers to put behind some not-so-minor unfinished business that remains on the to-do list after The Great Flood of 2010: canvass Davidson County's streams and creeks to clean up large amounts of debris still littering waterways more than eight months after the record rainfall.

"There's just a ton of debris out there that is near the waterways or in them," Dean said. "And if it's not taken out, what's going to happen is that the next time we get — hopefully nothing like what we had before — but the next time we get rising water, we'll have the possibility of dams being created that could create more flooding."

> *"If [debris is] not taken out, what's going to happen the next time we get rising water, we'll have the possibility of dams being created that could create more flooding."*
>
> MAYOR KARL DEAN

Dubbed the Nashville Waterways Recovery Project, the new initiative comes from the mayor's office volunteer arm known as Impact Nashville, launched this year after the city became a member of New York Mayor Michael Bloomberg's Cities of Service.

Nashville's participation in the coalition — a bipartisan alliance of 17 mayors across the nation — nabbed the city $200,000 in grant dollars from Cities of Service and The Rockefeller Foundation to create a new chief service officer's position. Former Lightning 100 "Team Green" organizer Laurel Creech leads the new wing. Appropriately, she assumed her new role the weekend of the flood.

"In midsummer, when we started getting a hold of some of the immediate humanitarian and social services, it was acutely visible that there was a need to clean up some of our waterways," Creech said. "Not only could you see construction trash and trash in general, there was also a lot of wooded debris and natural debris blocking the natural [water] flow.

"Given the rainy season coming in the spring time, all that's going to be washed down and disrupt the natural flow even further if we don't get volunteers in there," she added.

Impact Nashville has teamed up with organizers of the Cumberland River Compact, Richland Creek Watershed, Harpeth River Watershed and Hands on Nashville. The hope is to begin cleanup efforts in February, with a focus on seven locations determined to be safe for volunteers. After several volunteer outings, the project is set to conclude in April. High-priority spots, stretching between 25 and 50 miles, include stretches of Richland Creek, most notably near The Nations neighborhood in West Nashville; Mill Creek in Antioch; Browns Creek in South Nashville; Whites Creek in North Nashville; the Harpeth River in Bellevue; and Dry Creek.

"We think if we bring in somewhere around 400 volunteers, and get about 1,600 hours of volunteer work, we'll be able to make a significant impact on cleaning up our creeks and waterways," Dean said. "We also want to get the public interested in our waterways and to take ownership of the issue of keeping them clean."

Monette Rebecca, executive director of the Richland Creek Watershed, will be directing volunteer efforts near The Nations, one the city's hardest-hit areas. She said debris left in the watershed by the flood runs the gamut — things like barrels, tires, bathtubs, trash cans, gas cans and furniture.

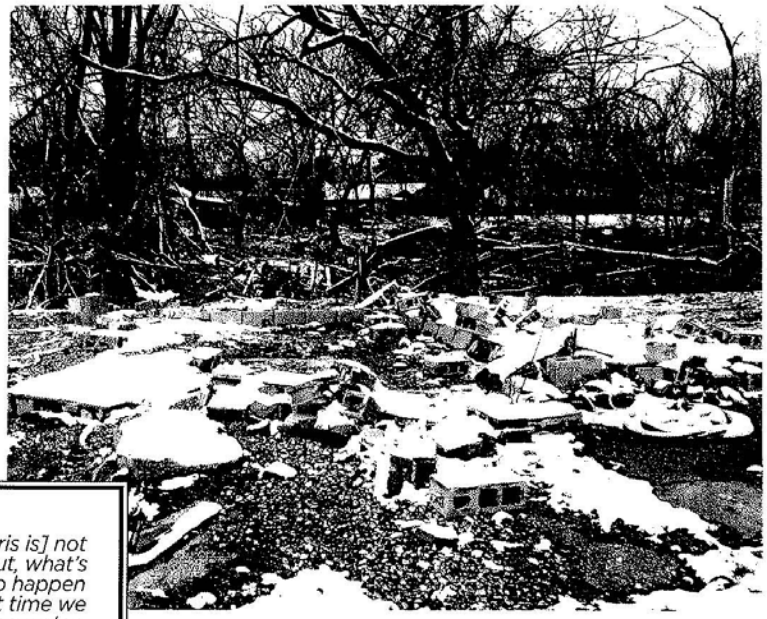
"Each cleanup will be a little different because of different logistic problems," Rebecca said. "This particular one [Richland Creek near The Nations] has a very tight area, there's fencing, maneuvering problems due to the way the development is laid out along the stream. So it's hard to get in and out. We're going to need to do a preliminary event there to just make trails and an access point for removal, a staging area, to make it safe.

"The problem is, people don't see this [debris]," she said. "You don't see it when you turn on the TV or when people go to dead-end streets. It's back behind all the houses."

Doug Hausken, executive director of the Cumberland River Compact, said there are plenty of reasons for Nashvillians to help out with the cleanup. They begin, however, with the obvious.

"People should get involved, because one of the greatest assets our community has is our rivers," Hausken said. "Everyone drinks water. All these tributaries run into our water supply. This garbage and debris isn't good for the overall water quality of the water we drink." CP

To participate, volunteers are encouraged to visit www.impactnashville.net.



This area along Richland Creek is one of many still littered with debris and pollution caused by May's historic floods. Mayor Dean and others are trying to compel volunteers to help with the cleanup effort, which is set to begin soon.

Jude Ferrara/SouthComm

Pinnacle's green is golden, Mayor Dean says of LEED-certified Nashville skyscraper

Gold-level eco-certified The Pinnacle at Symphony Place is called sign of growth, success

2:17 AM, Jun. 24, 2011 | Comments

Pinnacle Tower earns LEED gold certification: First LEED-certified skyscraper in Tennessee

Written by **Anne Paine | The Tennessean**

FILED UNDER

News
News Nashville Area

Mayor Karl Dean held tightly to his notes as rosemary, black-eyed Susans and grasses bent in the strong breeze around him.

This wasn't his typical park outing.

He was standing several stories up on The Pinnacle at Symphony Place's green roof covering the parking garage of what is proclaimed to be the first Leadership Energy and Environmental Design-certified skyscraper in the state.

"Everywhere you look you can see signs of a growing, thriving city," Dean said to dozens of business-suited listeners there for a reception Thursday.

Walkers could be seen on the Shelby Avenue pedestrian bridge, which connects the city's network of greenways. Piles of fresh dirt stood just across the river where Cumberland Park is being built to draw

Local Newspaper Article

The Pinnacle at Symphony Place earned LEED gold certification for the building's green efforts, including this seventh-floor garden. / Samuel M. Simpkins / The Tennessean

Mayor Karl Dean presented The Pinnacle at Symphony Place with the impressive LEED Gold certification award plaque on Thursday for the building's green efforts. / Samuel M. Simpkins / The Tennessean

more families and visitors downtown and outside.

The whir of equipment issued from the nearby Music City Center, which is under construction. That, too, is designed to win a LEED designation from the U.S. Green Building Council for eco-friendly features similar to The Pinnacle's.

Dean spoke of other projects — also in view — that would mean more jobs and more bicycle- and walker-friendly streets. He said a green, sustainable community is key to attracting talented, creative people and businesses.

The one-acre, seventh-floor garden roof where Dean spoke will help filter rainwater and act as a park and employee lunch spot.

The Pinnacle's 29 floors are surrounded by sky-reflecting, insulated windows that mesh with a high-efficiency heating and air conditioning system to reduce energy use. Low-flow bathroom fixtures are expected to be 30 percent more efficient than standard ones. The garage offers preferred parking for low-emission vehicles and bicycle parking.

The $105 million building at 150 Third Ave. S., with 520,000 square feet of office space and 15,000 square feet of ground-level retail space, has 60 percent confirmed occupancy. Tenants so far are Bass, Berry & Sims; Pinnacle Financial Partners; and Sherrard &

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Student volunteers build rain garden for Habitat

5:42 PM, May. 4, 2011 | Comments

Ensworth 8th grade students Ellie Davidson, left, and Laura Sims, right, work on the rain garden at the new Habitat for Humanity neighborhood Park Preserve. / Sanford Myers/The Tennessean

Written by Nicole Young | The TennesseanBy Nicole Young | The Tennessean

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It was about 9:30 a.m. last Thursday when 88 Ensworth Middle School students began to work in Park Preserve, a Habitat for Humanity neighborhood in North Nashville.

They had arrived about an hour earlier at the site of what would become the neighborhood's new rain garden for a brief orientation about what a rain garden is, said Nashville Area Habitat Chief Operating Officer Ralph Knauss.

"We explained how it works to filter the stormwater, removing it of debris and pollutants before it drains into the natural streams nearby," Knauss said.

"Rain gardens are one of the easiest, most cost-efficient forms of low-impact stormwater management."

In Park Preserve, the rain garden takes up more than 3,000 square feet.

It's really just an excavated site filled with layers of rock, sand, mulch and soil and then planted with deep-rooted plants and

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Humanity neighborhood Park Preserve on April 28. / Sanford Myers/The Tennessean

grasses.

Last week, the students from Ensworth installed the layers of the garden, smoothing loose sand over rocks, then covering that sand with a layer of garden fabric and topping it all off with planting mix.

The next day a group of seniors from Franklin Road Academy helped plant and mulch.

Carson Pittman, 14, an eighth-grader at Ensworth, said she had looked forward to the project for weeks.

"It's fun to help out and feel like you're doing something for a purpose," said Carson, a Green Hills resident and native Nashvillian who hopes to one day become an athletic director.

"It makes me realize how much some people have and how much others don't. It's kind of hard to complain when I see people who have much less than I do."

'We love Habitat'

At Ensworth's Lower School, students in every grade complete a service project every year, said math teacher Bill Kautzman.

"We love Habitat," said Kautzman, a Franklin resident who has taught at Ensworth for 41 years. "Our students start with Habitat in prekindergarten collecting pennies and finish out their lower school years with them again in eighth grade.

"The students love it," Kautzman said. "The thing with eighth-graders is that you have to have a service project that's really hands on, something where they can get their hands dirty."

Ensworth's 88 eighth-graders, the largest class the school has ever seen, Kautzman said, worked at Park Preserve for about three hours on Thursday.

Students from Franklin Road Academy were slated to spend about six hours working in the garden on Friday, Knauss said.

"There's really a lot to take away from this for every student," he said. "Not only is this about working together to get something done, but it's also about helping the environment.

"They'll be able to come back to this site years later, as adults, and the garden, something they helped build, will still be here."

The garden was made possible by a partnership between Nashville Area Habitat for Humanity, the U.S. Green Building Council of Middle Tennessee, Franklin Road Academy and Ensworth. Metro Public Works donated mulch and compost; Ingram Barge donated sand and rock; Gardens of Babylon provided discounted plants; and Ragan-Smith donated design and survey work.

"It was not always our intent to put in a rain garden here," said Alan Thompson, director of sustainable design for Ragan-Smith. "Habitat came to us about three months ago and said they wanted to implement one.

"They saw it as an educational tool for the community. Once it's finished, we'll install a sign explaining what it is and how it works."

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TheCityPaper
NASHVILLE'S ONLINE SOURCE FOR DAILY NEWS

Metro's stormwater fee continues to frustrate while funding projects

Sunday, March 20, 2011 at 9:05pm

By William Williams

In March 2009, the Metro Council wrestled with how to institute a stormwater user fee that Mayor Karl Dean and Metro Water Services Executive Director Scott Potter pushed to generate revenue for a backlog of water and sewer projects.

The debate was spirited. Council members Jason Holleman and Emily Evans were concerned about the mayor's plan. Holleman — arguing that the bill provided no incentive for property owners to keep from using excessive amounts of hard paved or roofed surfaces that exacerbate stormwater management problems — offered an amendment that ultimately failed.

The council passed the legislation the administration wanted, a $50 million capital plan for stormwater projects was incorporated via the fee, and billing took effect July 1, 2009.

Almost two years later — and as the May anniversary of the Great Flood of 2010 approaches — the fee continues to draw citizen criticism that ranges from confusion to frustration to anger. There's been an uptick in property-owner frustration over the fee and its confusing details.

"You contact customer service and it's abysmal," said one Metro water customer and commercial property owner, who asked to remain anonymous because of past disagreements with various city officials.

In simplest terms, stormwater fees are based on a property's use of, or demand on, the public drainage system and stormwater management services. The fee establishes a direct link between the demand for stormwater services and the cost of providing those services.

Citizens' complaints vary, but most note it's difficult to determine how the surface area being charged the fee is calculated and say some pervious-surface areas are having fees applied when they should not. In addition, a Davidson County resident can use Harpeth Valley Utilities District or Madison Suburban Utility District for her water service, for example, but still have a Metro water bill quarterly.

Some of the confusion might stem from the fact that Metro water uses tiered billing systems for both commercial and residential customers. For example, single-family residential properties are charged between $1.50 and $4.50 per month based on the amount of impervious area on their property. Commercial owners are billed on seven tiers starting at $10 and capped at $400.

Sonia Harvat, Metro water spokeswoman, said the billing structure focuses on the

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amount of impervious area, or areas covered with hard surfaces that do not allow rain or snow to infiltrate into the soil as they would into, say, grass or dirt. Examples of impervious surfaces include parking lots, rooftops, asphalt driveways, gravel driveways, patio areas and sidewalks.

That tiered system can be puzzling to those unfamiliar with it.

"We've had a lot of confusion from those customers who live in Davidson County who get their water from [a district other than Metro water]," Harvat said. "Every three months they get a bill from MWS and they ignore it. Then they get a late notice and they ignore."

And there are some who think they should have to pay no more for stormwater management than they should for public education if they don't have children in Metro schools, for instance.

"Someone called me and wanted to cancel their stormwater service," said Harvat, noting that some customers simply don't realize that the stormwater fee is not paid in exchange for a direct service, but instead assessed so that the utility can better fund water- and sewer-related projects.

"When you drive over a culvert or bridge, your stormwater user fee is contributing to maintaining that culvert or bridge," she said.

Metro water has undertaken almost 200 projects since the stormwater user fee was instituted in mid-2009. Prior to that, Metro's stormwater program was administered through Public Works and funded with surplus revenue accrued from water and sewer fees. As the cost of providing services increased without a water and sewer rate hike for 14 years, surplus funds disappeared, and the city had to defer some maintenance and postpone construction of corrective projects. The stormwater user fee provides Metro a dedicated funding source for needed projects.

Alexis Smith, who lives downtown in The Westview condo building on Ninth Avenue North, said the building's homeowners association invested in a green roof that captures rain and feeds the plants and grass that top the building.

"So we don't understand why we still have to pay," Smith said.

Compounding the matter is the fact that the owners of each of The Westview's 11 units are billed the stormwater fee individually.

And the aforementioned customer who requested anonymity said the bill itself is confusing.

"It's hard to determine how they calculate it and who you talk to [at Metro water]," the customer said.

Harvat acknowledged that the analysis of impervious surface area for large commercial and residential properties can be a challenge.

"It can happen," she said of inaccurate hard-surface area calculations. "But we will go out and recalculate."

Holleman remains opposed to the tier structure — particularly for commercial property owners. In 2009, he proposed a system based on a fee for every 3,200 square feet of impervious surface within a property.

"I had — and continue to have — concerns about the fairness of how the adopted fee is charged to nonresidential users," Holleman said. "Currently, we charge in broad per-parcel categories rather than in direct proportion to the amount of impervious surface on a property. The result of this system is that some property owners pay many times more than other property owners for the same amount of rooftops and concrete."

Holleman said, for example, Fisk University has a campus divided into numerous lots, which results in the school's paying significant stormwater management fees.

"Fisk ends up paying 30 percent more in the current tiered system than it would if we had the 'equivalent residential unit' system that I proposed in 2009," he said.

In contrast, Holleman said, a large industrial entity like DuPont pays dramatically less than it would otherwise because its properties are divided into only a few parcels.

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