



**CHARLOTTE**<sup>SM</sup>

CHARLOTTE-MECKLENBURG  
UTILITIES

# Wastewater Performance Report

**July 1, 2010 – June 30, 2011**

**Charlotte-Mecklenburg Utilities**

5100 Brookshire Blvd.

Charlotte, NC 28216

Phone: (704) 399-2221 Fax: (704) 393-2219

[www.cmutilities.com](http://www.cmutilities.com)

## **I. General Information**

### **Name of Regulated Entity and Responsible Person:**

City of Charlotte  
Barry Gullet, Director  
Charlotte-Mecklenburg Utilities  
Administration Division  
4222 Westmont Drive  
Charlotte, NC 28217  
(704) 336-4407

### **Applicable Permits:**

There are five wastewater treatment facilities owned and operated by Charlotte-Mecklenburg Utilities. Below is a list of these facilities and their applicable NPDES (National Pollutant Discharge Elimination System) permit number. Included with the list of facilities is the name of the Operator in Responsible Charge (ORC) at the facilities and the site telephone numbers.

<b><u>WWTF</u></b>	<b><u>NPDES Permit Number</u></b>	<b><u>ORC</u></b>	<b><u>Phone</u></b>
Irwin Creek WWTP	NC0024945	Michael Lingerfelt	704-357-1344
Mallard Creek WRF	NC0030210	Darrell DeWitt	704-547-0680
McAlpine Creek WWMF	NC0024970	Sandy Kim Neely	704-542-0736
McDowell Creek WWTP	NC0036277	Joseph Lockler	704-875-6443
Sugar Creek WWTP	NC0024937	Elliott E. Goins, Jr.	704-553-2124

In addition to those five plants, Utilities sends wastewater to the Rocky River Regional Wastewater Treatment Plant through an agreement with The Water and Sewer Authority of Cabarrus County (WSACC). Utilities also accepts flow from Union County to McAlpine Creek WWMF.

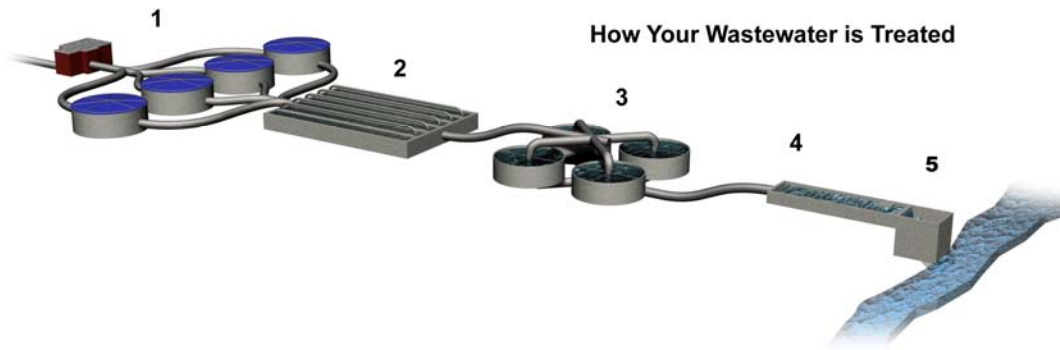
<b><u>WW COLLECTION</u></b>	<b><u>NCDWQ Permit Number</u></b>	<b><u>ORC</u></b>	<b><u>Phone</u></b>
4100 W. Tyvola Road	WQCS00001	Tony Dubois	704-432-2746

### **Description of collection and treatment systems:**

Charlotte-Mecklenburg Utilities collects wastewater from an estimated 229,002 connections to households and businesses throughout the county. Wastewater is collected and directed (via gravity flow supported by sewage lift stations) to one of Utilities five wastewater treatment plants or the Rocky River Regional Plant where it is treated. An average of 75.5 million gallons of wastewater is treated and discharged each day from Utilities plants.

More than 150 employees work to maintain 4,073 miles of collection pipelines and 79 sewage lift stations throughout the county. The gravity sewer pipes in this system range in size from 8 inches in diameter to 78 inches in diameter.

Each of Utilities' wastewater treatment plants provides primary, secondary and advanced treatment to the waste stream. Large solid particles and inorganic materials are removed by screening and settling. The wastewater is treated biologically to remove dissolved pollutants. Disinfection reduces bacterial and pathogenic materials. Finally, the waste stream passes through sand filters to remove very small particles that may not have been removed through the settling process. The treated water is released to the stream.



**1. Primary Treatment**

Solid particles & objects are captured in grit screens and primary clarifiers.

**2. Aeration/Secondary Treatment**

Wastewater is aerated to support growth of microorganisms that remove harmful pollutants.

**3. Clarification**

Solids and microorganisms settle out in large basins.

**4. Advanced Treatment**

Wastewater flows through sand filters to remove fine particles.

**5. Disinfection**

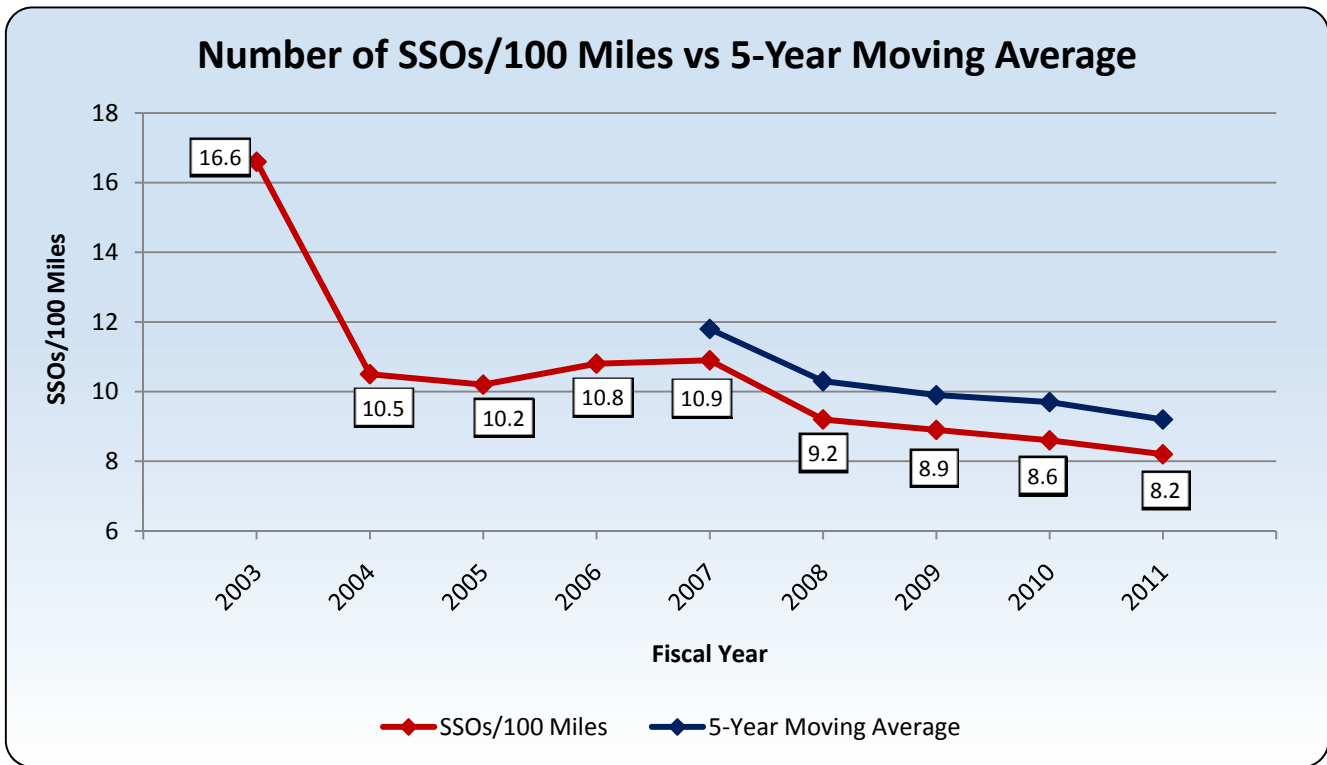
Water is disinfected to remove any remaining pathogens, and then the treated water is released back into creeks to flow downstream.

**II. Summary of System Performance**

**How did we do?**

We are meeting all reporting deadlines and requirements of the federal EPA Administrative Order to reduce spills, and the EPA approved Capacity, Management, Operations and Maintenance (CMOM) Programs.

We successfully collected and treated 99.9986 percent of the more than 27 billion gallons of wastewater the community produced last year. There were 335 sewer spills in our community, a decrease of nine spills compared to the year before. In fact, the number of spills per 100 miles of pipe continued to decline from 10.9 in 2007 to 8.2 spills in fiscal year 2011 as illustrated by the table on page 4.



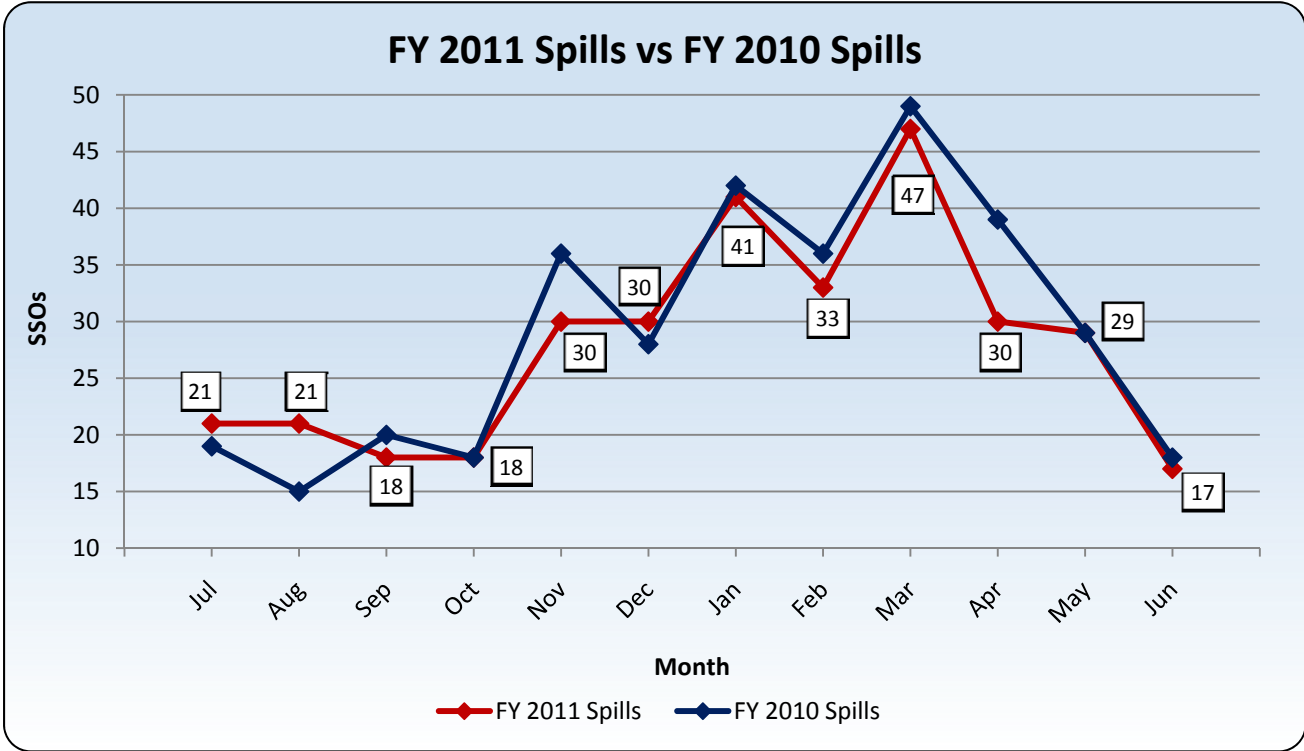
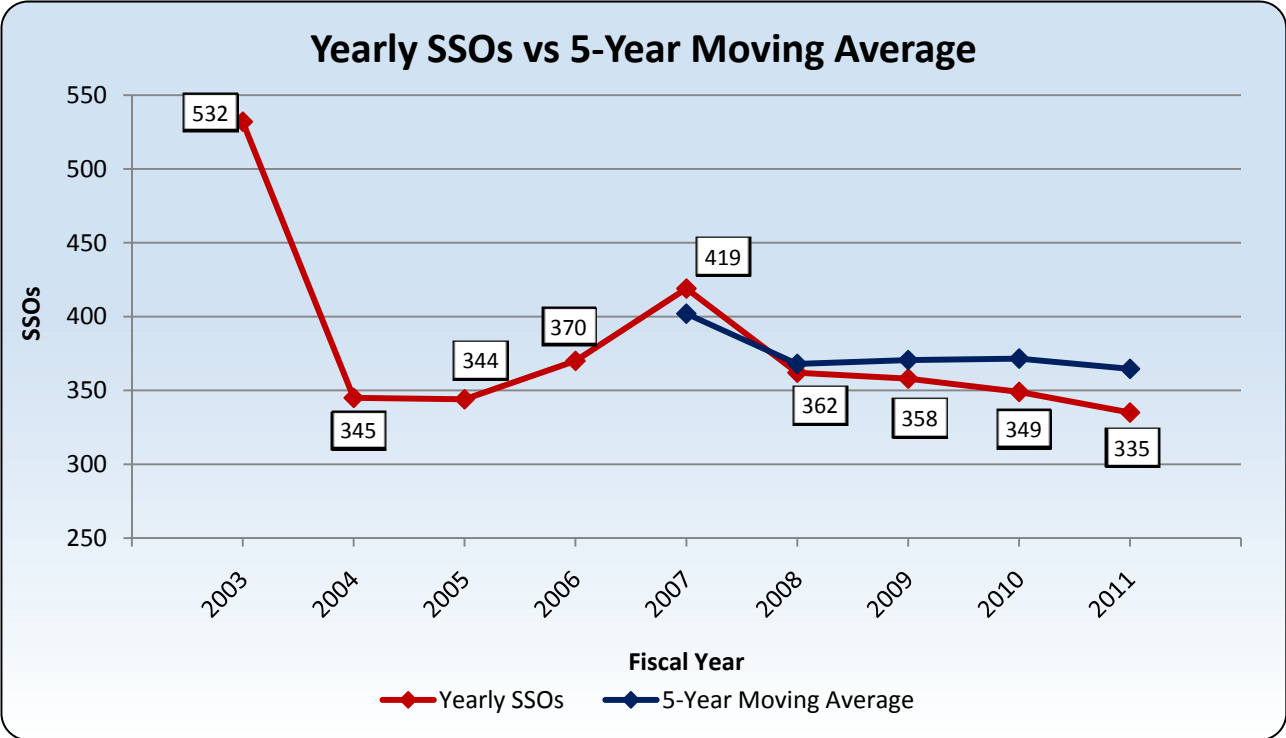
Utilities works 24 hours a day, 365 days per year to prevent and respond to overflows. Crews prevent overflows by clearing pipes of tree roots and grease, as well as replacing broken and aging pipes. Utilities has also increased its efforts to educate customers about properly disposing of fats, oils and grease (FOG).

**Performance Highlights**

Charlotte-Mecklenburg Utilities celebrated some important milestones even as it took numerous actions to prevent overflows and protect water quality through effective wastewater treatment.

- Our wastewater treatment plants met 99.97 percent of all permitted discharge limits.
- All five wastewater treatment plants earned Peak Performance Awards from the National Association of Clean Water Agencies (NACWA) for the calendar year ending 2010. NACWA Peak Performance Awards recognize wastewater treatment professionals throughout the nation for protecting the environment and public health through outstanding treatment and discharge regulatory compliance. McDowell Creek Wastewater Treatment Plant earned a Platinum Award for a third year, which means seven consecutive years of perfect compliance. Mallard Creek Wastewater Treatment Plant received a Platinum Award for six consecutive years of perfect compliance. McAlpine Creek Wastewater Treatment Plant was awarded its third Gold Award in a row for perfect compliance. Sugar Creek Wastewater Treatment Plant also won a Gold Award for perfect compliance. Irwin Creek Wastewater Treatment Plant earned Silver Award for five or fewer violations in a one-year period.
- 12.1 miles of sewer pipe and 774 manholes were rehabilitated, repaired or replaced.
- 293 miles of sewer pipe were treated with root control chemicals.
- 1,013 miles of sewer lines were cleaned (including some multiple cleanings in the same location) by Utilities Field Operations Staff and 86.2 miles of pipe were cleaned by contractors. 12.2 miles of large diameter pipe was also cleaned by contractors.
- 271 sewer service pipes were replaced.
- 240 cleanouts installed for customers that did not have them or had defective cleanouts.
- 243 miles of rights of way were cleared by Field Operations and contractors to maintain access to sanitary sewer pipes and to help prevent root intrusions.

- Utilities is proceeding with the implementation of a Work and Asset Management (WAM) Program that includes deployment of Azteca Cityworks, as well as improved infrastructure management processes. Functional deployment of Azteca Cityworks for Utilities Field Operations Division will be complete in fall 2011. Continuous improvement processes are in place and final testing of integration to the Advantage customer information and billing system are expected to be complete in early September 2011. Field mobility devices (computers) have been acquired and are being configured for use by all field crews. Improved asset management processes are being rolled out in tandem with the system deployment.
- Utilities contracted for a physical survey of the entire wastewater collection system, including inspection of manholes and any exposed piping. This is a multi-year project to collect data that will be used as part of the foundation of a new geographic information system (GIS) and for hydraulic modeling that is needed for planning and implementation of the capacity assurance program. The data being collected includes manhole locations, flowline elevations, pipe sizes, construction materials, and other information. This survey is approximately 99% complete.
- CMUD expanded continuous improvement and optimization efforts utility wide this year. In 2007, Mallard Creek WRF was the first City of Charlotte government facility to earn the prestigious ISO 14001:2004 certification. The ISO 14000 international certification program focuses on sustainable optimized operations that first seek to minimize negative impacts on the environment. This first initiative has helped to lead a refocused effort on instituting best practice standards with ongoing audits to all operations. Corporate ISO 14001:2004 certification was obtained in May 2010. This corporate certification currently covers Mallard Creek WRF, McDowell Creek WWTP, and the Biosolids program. Obtaining the certification was a collaborative effort among many employees throughout CMUD. This ongoing effort serves as a continuous improvement model as we move towards greater sustainability. Additional continuous improvement approaches include seeking certification through the National Environmental Laboratory Accreditation Program (NELAP) for Lab Services, participating in the AWWA Partnership for Safe Water, and instituting reliability centered maintenance practices in our sewer service area.
- Utilities continues to collaborate with UNC-Charlotte, Centralina Council of Governments, and CPCC to assess the feasibility of using problematic fats, oil and grease (FOG) as biodiesel feedstock. This feasibility study of alternative fuel has been awarded grant funds from the Biofuels Center of NC and the NC Green Fund. The study is investigating brown grease use as an alternative fuel product to determine if it will save on fuel costs, avoid disposal costs, and reduce pollution for local governments. The economic analysis will consider conventional costs and total life cycle impact assessment. Final reporting is expected by the end of FY2012.
- Utilities reclaimed water program continues to operate. Reclaimed water is highly treated wastewater effluent that is land applied, rather than being discharged into the creek. The Traditions Golf Course is using up to 500,000 gallons a day during spring and summer time. Mallard Creek Park is using up to 500,000 gallons each month.
- There were 79 Wastewater Lift Stations serving our low-lying areas. Staff performed 131 preventative maintenance tasks for a total of 2301 work hours. This does not include twice weekly station checks, wet well cleaning, emergency generator testing, or emergency/routine repairs.
- Plott Road, Kingstree, White Forrest, Quay Road, and Christenbury lift stations were removed from service due to construction of new gravity lines.
- Phase one of the Briar Creek Relief Sewer project was completed. Construction of phase two is expected to begin fall 2011 or early 2012.
- Phase two of the McAlpine Creek Relief Sewer project was completed and in service on June 13, 2011. Construction on phase three is expected to begin in spring 2012.
- Last year's frequency of sewer spills was below the 5-year average in eight of the twelve months.





- City staff inspected grease-handling facilities at 3,744 food service establishments and restaurants (not including follow-up inspections) to ensure proper grease disposal. The City continued its Grease Free education program to teach proper disposal of a pipe-blocking menace. Inspectors mailed information to more than 4,464 customers and handed out information to 10,510 customers in apartments / multi-family complexes.
- Staff conducted more than 19 presentations to more than 1,217 children and adults. Some of the key presentations were to ten apartment property managers and plumbers. Multiple Earth Day events also provided opportunities to distribute Grease Free scrapers, pens and other items.
- Utilities continues to use door-hangers specifically for maintenance personnel or property manager of apartment or multi-family complexes. This reinforces best management practices for prevention.
- Staff continues to provide bilingual door hangers and promotional items for property managers to give to new residents.

**GREASE FREE**  
Charlotte-Mecklenburg Utilities

### Protect Your Pipes from the Start

What you do in your new kitchen can have a big impact on your plumbing and our community's water quality.

Residents pouring cooking grease and oils down drains is the leading cause of sewer backups into homes and streets in our community. Avoid costly repairs and keep your family safe with these easy tips:

- Pour grease left in cookware into a lidded jar or container. Once full, recycle the grease at one of Mecklenburg County's four full-service recycling centers ([www.mecklenburgcountync.gov](http://www.mecklenburgcountync.gov)). If that's not possible, absorb the grease with kitty litter, coffee grounds or paper towels, and throw the container in the trash.
- Wipe out cookware with a paper towel to remove greasy residue before washing.

Learn more about Grease Free, water conservation, your drinking water and more at [www.cmutilities.com](http://www.cmutilities.com).

**Pour grease in a can, and throw it in the trash!**  
**¡Vierta la grasa en una lata, y tírela a la basura!**

*Our Special Offer to the **SAMPLE** Household*  
**One Grease Free Can Lid**

Call 704.391.4685 to receive a Grease Free can lid. This free lid turns vegetable or soup cans into a grease storage container until you're ready to recycle or throw it away.

90-Day Expiration Date to go here.

WELCOMEMAT SERVICES INC.  
[www.welcomematservices.com](http://www.welcomematservices.com)

- Advertised in a popular direct mail coupon book (above), WelcomeMat, that new single-family and multi-family residents receive monthly. The Utilities “coupon” explains proper disposal methods and offers a free grease lid. The ads ran from July 2010 through June 2011.
- Grease Free Public service announcement video aired in November on Government Channel 16.
- Continued to maintain and update our Grease Free Website. During this reporting period we had 883 visits to our grease free website.
- Grease Free message was printed in the November 19<sup>th</sup> edition of the South Charlotte Weekly newspaper.
- 450 Grease Free radio advertisements throughout late November and December. Developed 311 Scripts for Operators and trained regarding the Grease Free radio advertisements. In preparation of the holiday radio campaign, operators were trained on the newly developed 311 scripts with information on proper grease disposal. The scripts also included Utilities web address for additional information in English and Spanish.
- Work continues on our statewide Urban Water Consortium-funded research project. UNC Charlotte has conducted focus groups and surveys to form a strategic communications plan for better reaching multi-family and Latino customers with Grease Free messages. A draft of the strategic communication plan has been received for comments. The final communication plan is expected to be presented for consideration in September of 2011.



- Utilities continues to distribute bilingual door hangers to apartment managers and at community presentations and events. We are also providing pan scrapers and jar openers with the bilingual Grease Free message.
- Along with ongoing media notifications about spills, customers within 1,000 feet of a grease-caused spill receive a letter alerting them of the spill and how to properly dispose of grease.
- Bill inserts in October, November and December mailed (example on next page) to nearly 250,000 customer account holders each month. These also were repurposed as messages on our web site, and extra inserts were made available at events during those months.

## Reduce Your Plumbing Costs and Protect the Environment!

These items should NEVER be flushed or poured down any drain:



Remains in frying pans, turkey fryers or deep fryers



Fatty meats, lard, shortening, butter and margarine



Oils (olive, cooking, motor)



Paper products other than toilet paper (Ex.-paper towel, diaper, mail or regular paper)



Prescription medication or over-the-counter drugs



Leftover cleaning supplies

Here are tips to properly dispose of these items and protect your water supply:

- After cooking, never pour grease down any drain! Freeze cooking grease and oils in a coffee can, or mix liquid vegetable fats with kitty litter or coffee grounds in a lidded container. Deposit it in the trash, or at a full-service recycling center.
- Never mix chemicals and make sure containers do not leak. Pack items securely in a sturdy box and deposit at a full-service recycling center.

Visit [www.cmutilities.com](http://www.cmutilities.com) or [www.wipeoutwaste.com](http://www.wipeoutwaste.com) for more information or to locate the nearest full-service recycling center.

30320-1-0122



## Don't let plumbing problems haunt you!

Never pour cooking grease or other fats and oils down any drain. They can clog your pipes!

Freeze cooking grease and oils in a coffee can, or mix liquid vegetable fats with kitty litter or coffee grounds in a lidded container. Deposit it in the trash, or take it to a full-service recycling center.

Visit [www.cmutilities.com](http://www.cmutilities.com) for more information.



¡Vierta la grasa en una lata, y tírela a la basura!

30% total recycled fiber



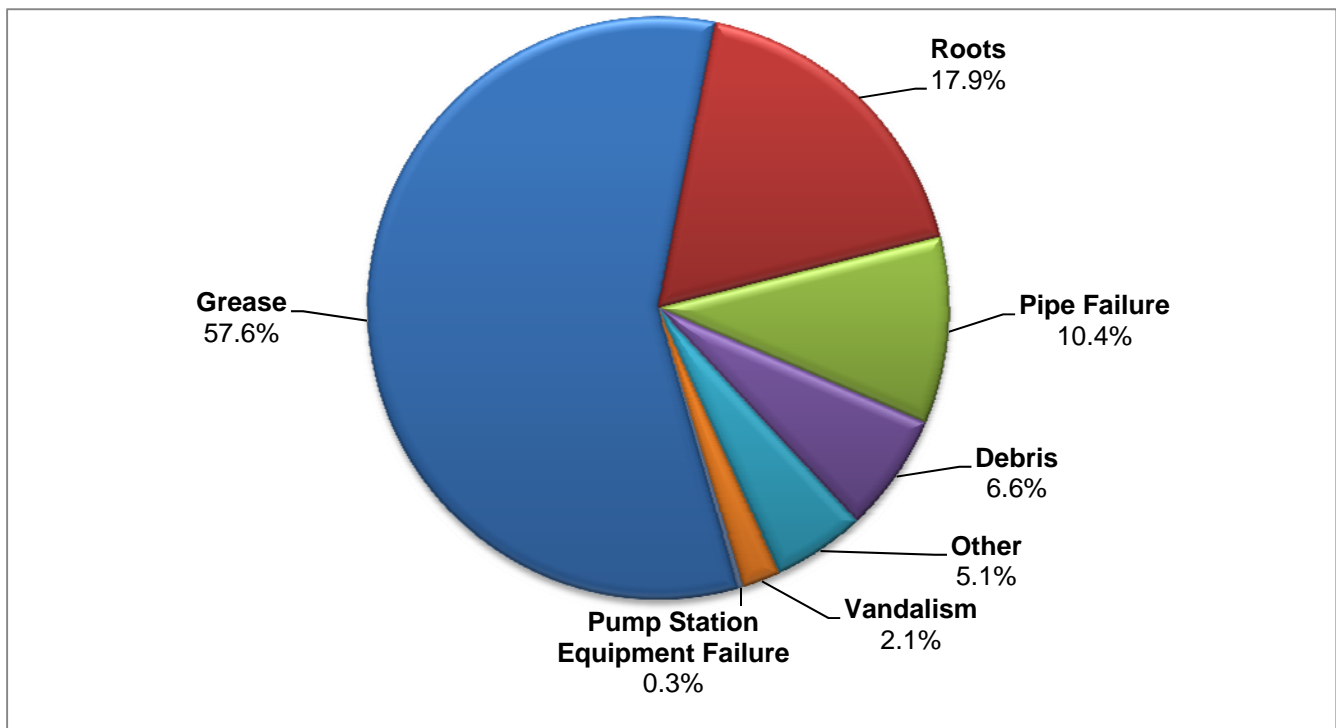
## Continuing Challenges

### *Wastewater Collection Challenges*

The volume of wastewater that overflowed decreased from 813,044 gallons in fiscal year 2010 to 378,865 gallons in fiscal year 2011. This represents a 53% reduction in volume spilled. The volume of wastewater that reached surface waters also decreased from 661,883 gallons in fiscal year 2010 to 310,864 gallons in fiscal year 2011.

The greatest continuing wastewater challenge in this community – and in others across the U.S. – is sewage overflows. Of the 335 sewer spills that occurred, more than half were due to hardened grease clogging pipes. Other spill causes included the infiltration of tree roots into pipes, vandalism, general debris, and broken pipes.

## **Fiscal Year 2011 Overflows by Primary Cause**



Grease and other blockages that lead to sewer overflows are cleared by Utilities crews, using various cleaning methods, including mechanical rodders and truck-mounted water jets. If damaged pipe or other infrastructure is discovered it is repaired. The spilled sewage can sometimes be captured and pumped back into the sewer system.

Inspection crews and our customers find overflows. Reports of overflows where 1,000 or more gallons reach surface waters are distributed to the media in an effort to notify the public. A legal notice is posted when overflows of 15,000 gallons or more reach surface waters. Crews also use door hangers to notify customers when appropriate.

Charlotte-Mecklenburg Utilities continues its excellent sewage spill response record. Crews responded to more than 90 percent of the spills within 60 minutes and more than 96 percent of the spills within 120 minutes. The state standard for response is 120 minutes or less.

Utilities has continued to evaluate and refine sewer cleaning operation. Utilities initiated a Consolidated Cleaning Project in January 2009. Under the direction of the Field Operations Senior Engineer, and using our SSO data base and GIS, sub-basins with high concentrations of system failures and SSOs are being identified. Resources from each of the Field Operation Zones are pooled or consolidated in these problematic sub-basins and deliberate and focused cleaning, inspection, and repair efforts are directed from the top to the bottom of the sub-basins.

Year over year comparisons of footage maintained through the consolidated approach are not meaningful this year. Utilities has been production-testing sewer condition testing equipment developed in partnership with private industry and the University of North Carolina at Charlotte. The equipment uses acoustics to assess pipe flow conditions and is designed to improve the relevance and effectiveness of maintenance tasks and reduce wasted resources within the consolidated approach. Resources can be allocated to assets more likely to require maintenance.

Historically, conditional testing of sewers has consumed as much resource as performing sewer maintenance; therefore, it has not been economical to conduct testing to verify the need for sewer maintenance. The acoustic testing equipment being evaluated requires significantly less resources than maintenance, opening the possibility for economically viable condition-dependent maintenance and accompanying reduction of unnecessary maintenance. For example, a single area last year required 52,000 feet of sewer cleaning. With the conditional test results, cleaning was reduced to 22,000 feet this year. 30,000 feet of sewer passed conditional testing and required no maintenance. Without the assurance of an economical conditional test, the additional 30,000 feet of sewer would have to be cleaned. The savings compound through reduction of quality assurance activities such as CCTV pipeline inspection and improve the effectiveness of scheduling.

Utilities is encouraged economical conditional test equipment will deliver a demonstrable efficiency improvement requisite with the ability to move from a time-dependent maintenance schedule to a condition-dependent schedule.

Utilities has continued to implement its sewer cleaning and maintenance programs consisting of Predictive Maintenance, Preventive Maintenance, and Corrective Maintenance. The predictive maintenance, preventive maintenance, and corrective maintenance approach is expected to reduce SSOs caused by grease, roots, debris, and system defects such as broken pipe and off-set joints.

Charlotte Mecklenburg Utilities continues to deal with severe budget constraints during these recessive economic times. During this period, City Council approved an increase in water and sewer rates, and a new rate methodology. The FY 2012 budget increases the operating budget, and accommodates the hiring of over 30 Field Operations positions. These additional positions are currently being recruited, and will help Utilities sustain its maintenance efforts to reduce SSOs.

Utilities tracks, trends, and analyzes the effectiveness of its efforts in reducing SSOs. On a monthly basis Utilities studies SSOs trends, including: a comparison of the current month's SSO total and SSOs experienced the same month during the previous year, SSOs per 100 miles of pipe, SSOs versus the five year average number of SSOs, and SSO volume.

Comparing FY 2010 with FY 2011 SSOs, shows that Utilities has experienced a 4% decrease in total annual SSOs. Since 2007, Utilities' annual SSO count has reduced as follows:

FY 2007	419
FY 2008	362
FY 2009	358

FY 2010 349

FY 2011 335

The reduction in SSOs since the effective date of the Environmental Protection Agency Administration Order is 84 SSOs annually, or a 20% decrease.

### ***U.S. Environmental Protection Agency (EPA) Administrative Order Update***

Charlotte-Mecklenburg Utilities performed a voluntary Management, Operation, and Maintenance (MOM) Audit in 1999-2000 at the EPA's request. During 2003, frequent heavy rains contributed to Charlotte's worst year of wastewater overflows. At that point the EPA and Utilities met several times to review the audit and actions taken since 2000. Utilities also worked with North Carolina Department of Environment and Natural Resources (NCDENR) to receive a state collection system permit.

In March 2007, the U.S. EPA issued a formal Administrative Order for Charlotte-Mecklenburg Utilities. This Administrative Order is a regulatory enforcement action that includes a series of steps Utilities must take to reduce overflows in our community. These steps included paying a civil penalty for past spills and assuring that certain construction projects would be completed on time.

Charlotte is the first major city in the Carolinas to face EPA enforcement as it relates to overflows. Quite a few other communities in the southeast, including Atlanta, Mobile and Knoxville have already received a much more severe EPA enforcement action known as a judicial Consent Decree.

Preventing sewer spills has been a high priority in Charlotte-Mecklenburg for more than a decade. The administrative order will help further guide our ongoing efforts to address a community problem. We have increased preventative line maintenance, capital improvements and other programs.

The EPA's and our goal for overflows is zero. Reality is that a system our size will always have some overflows, but we agree even one spill is too many. Zero spills continue to be our standard and goal in Charlotte-Mecklenburg.

### ***Wastewater Treatment Plant Challenges***

Charlotte-Mecklenburg Utilities five wastewater treatment plants met 99.97 percent of all discharge limit tests set forth by our NPDES permits but our commitment is 100 percent compliance. Staff continues to improve maintenance capabilities and overall performance. Major rehabilitation and improvement projects help maintain compliance. Future upgrades and expansions are being added.

During this fiscal year there were two permit limit violations out of a potential of 7,151 compliance tests. These violations were exceeding the daily maximum effluent mercury limit at Irwin Creek Wastewater Treatment Plant on June 21 and June 28. The source of the mercury was found and the discharge of the excess mercury was stopped. Prior to this point Irwin Creek WWTP's average concentration of mercury discharged was 10% of the permitted discharge.

Discharge of wastewater that had not completed all of the treatment processes occurred three times. On each occasion, the wastewater was treated with the exception of the final disinfection process. These bypasses can be caused by an electrical, mechanical, computer, or operator error. In each case, operators on-site quickly responded to the bypass and took appropriate cleanup/repair action. No dead fish were found associated with these bypasses.

Utilities Environmental Management Division operates the System Protection Section to help maintain our infrastructure. System Protection consists of the Industrial Pretreatment Program and the Commercial Source Program.

The Pretreatment Program identifies, permits, and regulates Industrial Users and others to keep unsuitable discharges out of the Publicly Owned Treatment Works (POTW). The Commercial Source Program inspects and regulates Commercial Users, such as food service establishments, to keep unsuitable discharges such as fats oils and grease out of the POTW.

While industrial and commercial compliance is extremely high in Charlotte-Mecklenburg, identifying sources of potentially harmful discharges is an ongoing challenge. In fiscal year 2011, the Trunkline Monitoring and Grease Free programs also continued, enabling Utilities' System Protection and Water Quality staff to closely observe what industrial, institutional, and commercial customers discharge into the POTW, identify potential problem areas, and protect the collection system, sewer line workers, treatment plants and the Environment.

### **Wastewater Capacity Needs**

In 2007 a study of the McAlpine, Irwin and Sugar creek basins was completed to help identify our community's future wastewater treatment capacity needs through the year 2030. Two of the larger projects include an expansion at the Sugar Creek Wastewater Treatment Plant and a new regional wastewater treatment plant along the Catawba River, near its intersection with Long Creek. Both projects will take years and tens of millions of dollars to complete. Both projects are continuing but at a slower pace due to lower-than-projected flow rates at our wastewater plants. It is unclear yet whether these patterns will persist over time such that wastewater capacities may be extended further than we originally projected. Utilities plans to upgrade Sugar Creek and Irwin Creek Wastewater Treatment Plants which were originally constructed about 90 years ago.

*The sections following this page – Sections IIA and IIB -- detail all spills from the collection system and plants, along with plant permit limit violations and monitoring and reporting violations. Section IIA includes spills for the fiscal year ending June 30, 2011 and is separated by month. These include size of spills, their cause and descriptions of any known environmental impact.*

*The second section, Section IIB, represents NPDES reporting and monitoring violations and is separated by plant.*

### **III. Notification**

This report is available to the users or customers of this system by clicking on the 'Education' link of the Charlotte-Mecklenburg Utilities homepage at [www.cmutilities.com](http://www.cmutilities.com). There are also printed copies available at the Charlotte-Mecklenburg Utilities Administration Building at 5100 Brookshire Blvd., Charlotte, NC 28216, and at the City/County Customer Service and Information Center at 600 East Fourth Street, Charlotte, NC 28202. The users or customers of this system will receive a summary version of this report and will be notified of the availability of this comprehensive version via a bill insert in the September water/sewer bill. A news release will be issued before September 1 about this report. In addition, the summary version will be translated into Spanish and advertised during the month of September in a regional Spanish-speaking newspaper. We will also make this Spanish version available via our website.

#### **IV. Certification**

I certify under penalty of law that this report is complete and accurate to the best of my knowledge. I further certify that this report has been made available to the users or customers of the named system and that those users have been notified of its availability.

  
\_\_\_\_\_  
Barry Gullet, Director  
Charlotte - Mecklenburg Utilities

8-29-2011  
Date

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## IIA. Listing of Sewer Spills by Month

The following is a list of spills (in gallons) from the public wastewater system that occurred between July 1, 2010 and June 30, 2011.

July	Total Estimate	Volume Reaching Surface Water	Surface Water Name	Fish Killed	Block	Street Name and Type	Cause of Spill / Bypass
7/1/2010	600	300	Paw Creek	0	3414	Forestbrook Dr	Grease
7/3/2010	270	270	McMullen Creek	0	6914	Riesman Ln	Vandalism
7/4/2010	1400	1400	McAlpine Creek	0	1301	East Barden Rd	Grease
7/6/2010	30	0	Not Applicable	0	2237	Longleaf Dr	Grease
7/9/2010	275	275	Mallard Creek	0	11855	Tryon (North) St	Grease
7/11/2010	1880		Not Applicable	0	8220	Mt Holly-Huntersville Rd	Grease
7/12/2010	1500	1500	Little Sugar Creek	0	2714	Chilton Pl	Roots
7/14/2010	3150	2520	Irwin Creek	0	1000	Thomasboro Dr	Grease
7/15/2010	60	0	Not Applicable	0	2416	Smugglers (Mecklenburg County) Ct	Vandalism
7/17/2010	3605	3605	Four Mile Creek	0	501	Sadie (Matthews) Dr	Pipe Failure [Break]
7/19/2010	750	375	Lake Cornelius	0	725	Peninsula (Davidson) Dr	Other
7/20/2010	900	900	Little Hope Creek	0	612	Heather Ln	Roots
7/21/2010	240	240	Lake Norman	0	18619	Peninsula Club (Cornelius) Dr	Other
7/22/2010	485	0	Not Applicable	0	2541	Heidleburg Ln	Roots
7/23/2010	86	0	Not Applicable	0	18633	Peninsula Club (Cornelius) Dr	Pipe Failure [Break]
7/23/2010	9000	9000	Briar Creek	0	7120	Covecreek Dr	Pipe Failure [Break]
7/25/2010	460	460	Six Mile Creel	0	9208	Autumn Applause Dr	Grease
7/26/2010	75	75	Little Hope Creek	0	600	Heather Ln	Other
7/26/2010	1590	1590	Back Creek	0	570	Rocky River (West) Rd	Roots
7/30/2010	40	40	McMullen Creek	0	9611	Lone Oak Ct	Grease
7/30/2010	315	315	McAlpine Creek	0	6513	Dana Ct	Grease
<b>21 Spills</b>	<b>26,711</b>	<b>20,620</b>		<b>0</b>			

August	Total Estimate	Volume Reaching Surface Water	Surface Water Name	Fish Killed	Block	Street Name and Type	Cause of Spill / Bypass	
8/1/2010	60	60	Little Sugar Creek	0	420	15 <sup>th</sup> (East)	St	Grease
8/2/2010	1500	1500	Briar Creek	0	2101	Kenmore	Av	Grease
8/2/2010	422	422	Irwin Creek	0	2047	English	Dr	Pipe Failure [Break]
8/4/2010	278	0	Not Applicable	0	105	Yandell (Pineville)	St	Other
8/4/2010	204	204	McAlpine Creek	0	138	Dovershire	Rd	Grease
8/8/2010	475	118	Steele Creek Tributary	0	9319	Forsyth Park	Dr	Grease
8/9/2010	66	33	Four Mile Creek	0	3000	Hornell	Pl	Grease
8/13/2010	240	240	McMullen Creek	0	4827	Fairheath	Rd	Pipe Failure [Break]
8/13/2010	140	0	Not Applicable	0	1831	Beckwith	Pl	Roots
8/15/2010	1200	1200	Campbell Creek	0	5827	Idlebrook	Dr	Grease
8/17/2010	1220	610	McAlpine Creek	0	1805	Sardis (North)	Rd	Grease
8/17/2010	2250	2250	McAlpine Creek	0	618	Charles, West (Matthews)	St	Other
8/21/2010	291	0	Not Applicable	0	9932	Four Mile Creek	Rd	Roots
8/24/2010	4280	2140	Walker Branch Tributary	0	13355	Tryon (South)	St	Grease
8/24/2010	374	374	Toby Creek Tributary	0	8908	Nottoway	Dr	Pipe Failure [Break]
8/25/2010	600	600	Little Hope Creek	0	4800	South	Bv	Pipe Failure [Break]
8/25/2010	3115	3115	Little Sugar Creek	0	3001	Manor	Rd	Pipe Failure [Break]
8/26/2010	80	80	McAlpine Creek	0	5824	Preston	Ln	Roots
8/29/2010	294	0	Not Applicable	0	2710	Kendrick	Dr	Grease
8/31/2010	273	0	Not Applicable	0	1006	Chelsea (Matthews)	Pl	Roots
8/31/2010	30	0	Not Applicable	0	21504	Lake Point (Cornelius)	Ln	Pipe Failure [Break]
<b>21 Spills</b>	<b>17,392</b>	<b>12,946</b>		<b>0</b>				

September	Total Estimate	Volume Reaching Surface Water	Surface Water Name	Fish Killed	Block	Street Name and Type	Cause of Spill / Bypass	
9/2/2010	265	0	Not Applicable	0	5349	Fernhill	Dr	Roots

9/4/2010	73	0	Not Applicable	0	311	Red Roan	Pl	Grease
9/8/2010	5	5	Irwin Creek	0	1800	West	Bv	Other
9/8/2010	120	120	Little Sugar Creek	0	627	Cooper	Dr	Pipe Failure [Break]
9/8/2010	177	177	Little Sugar Creek Tributary	0	411	Lambeth	Dr	Other
9/10/2010	78	78	Briar Creek	0	4900	Kistler	Av	Roots
9/11/2010	255	255	Briar Creek Tributary	0	6800	Barrington	Dr	Grease
9/13/2010	234	0	Not Applicable	0	900	Alexander (North)	St	Grease
9/13/2010	900	900	Long Creek	0	10600	Spruce Mountain	Rd	Grease
9/14/2010	125	125	Irwin Creek	0	2400	Morton	St	Grease
9/22/2010	252	252	Briar Creek	0	1451	Wembley	Dr	Debris In Line
9/23/2010	1710	1710	Briar Creek Tributary	0	423	Eastway	Dr	Pipe Failure [Break]
9/23/2010	14	14	Little Sugar	0	3300	Westfield	Rd	Other
9/24/2010	155	0	Not Applicable	0	15100	Wyndham Oaks	Dr	Debris In Line
9/24/2010	32	0	Not Applicable	0	16639	Greenfarm (Huntersville)	Rd	Roots
9/24/2010	255	0	Not Applicable	0	1555	Hollow Maple	Dr	Debris In Line
9/28/2010	25	0	Not Applicable	0	20536	Lagoona (Cornelius)	Dr	Pipe Failure [Break]
9/29/2010	1710	1710	Briar Creek	0	1032	Pierson	Dr	Debris In Line
<b>18 Spills</b>	<b>6,385</b>	<b>5,346</b>		<b>0</b>				

October	Total Estimate	Volume Reaching Surface Water	Surface Water Name	Fish Killed	Block	Street Name and Type	Cause of Spill / Bypass
10/1/2010	920	920	Kings Branch	0	741	Silverleaf Rd	Debris In Line
10/3/2010	130	104	Irwin Creek	0	6118	Sunstone Dr	Roots
10/4/2010	74	66	Six Mile Creek	0	10623	Bryony Ct	Grease
10/5/2010	90	72	Coffey Creek	0	7104	Falling Tree Ct	Grease
10/5/2010	118	0	Not Applicable	0	8707	Coach Wood Ct	Grease
10/6/2010	176	88	Irwin Creek	0	4321	Equipment Dr	Roots
10/7/2010	225	225	Irwin Creek	0	702	Hoskins (South) Rd	Grease

10/10/2010	93	0	Not Applicable	0	2701	Tiergarten	Ln	Grease
10/12/2010	40	0	Not Applicable	0	21026	Cornelius (Cornelius)	St	Grease
10/14/2010	47	0	Not Applicable	0	132	Bradford	Dr	Roots
10/15/2010	196	196	Briar Creek	0	2228	Colony	Rd	Roots
10/15/2010	90	0	Not Applicable	0	3800	Miriam	Dr	Roots
10/17/2010	156	156	Upper Little Sugar	0	4308	Tipperary	Pl	Grease
10/18/2010	200	200	Little Sugar Creek	0	415	Hawthorne	Ln	Grease
10/19/2010	4000	0	Not Applicable	0	3100	Winterfield	Pl	Other
10/19/2010	3750	3750	Little Sugar Creek	0	311	Alberto	St	Pipe Failure [Break]
10/26/2010	1890	1890	Little Sugar Creek	0	311	Alberto	St	Pipe Failure [Break]
10/26/2010	2610	2610	Briar Creek	0	1700	Progress	Ln	Roots
<b>18 Spills</b>	<b>14,805</b>	<b>10,277</b>		<b>0</b>				

November	Total Estimate	Volume Reaching Surface Water	Surface Water Name	Fish Killed	Block	Street Name and Type	Cause of Spill / Bypass
11/1/2010	145	72	Lower Little Sugar Creek	0	11306	Painted Tree Rd	Roots
11/1/2010	159	159	McMullen Creek	0	3517	Johnny Cake Ln	Pipe Failure [Break]
11/1/2010	1380	1380	Little Sugar Creek	0	300	Bland (West) St	Pipe Failure [Break]
11/3/2010	1400	1400	Little Hope Creek	0	1229	Lalex Ln	Grease
11/4/2010	175	175	Briar Creek Tributary	0	101	Traditional Ln	Pipe Failure [Break]
11/6/2010	620	310	McAlpine Tributary 1A	0	15110	John J Delaney Dr	Grease
11/6/2010	3800	1900	Crooked Creek	0	13517	Five Gait (Matthews) Ct	Pipe Failure [Break]
11/6/2010	120	0	Not Applicable	0	17105	Greycroft Ct	Grease
11/7/2010	640	640	Campbell Creek	0	1511	Lansdale Dr	Grease
11/8/2010	252	0	Not Applicable	0	311	Alberto St	Other
11/8/2010	584	438	Lower Little Sugar Creek	0	9530	South Bv	Grease
11/9/2010	215	107	Lower Little Sugar Creek	0	11107	South Commerce Bv	Roots
11/9/2010	1500	1500	McMullen Creek	0	6831	Fairview Rd	Grease
11/9/2010	190	190	Little Sugar Creek	0	309	Bennett St	Grease

11/10/2010	130	0	Not Applicable	0	4421	Swan Meadow	Ln	Roots
11/11/2010	1200	1200	McMullen Creek	0	3335	Gresham	Pl	Roots
11/16/2010	830	415	Campbell Creek Tributary	0	6436	Dale	Av	Grease
11/17/2010	156	78	Stewart Creek	0	2908	Stewart Creek	Bv	Roots
11/18/2010	5	5	Taggart Creek	0	3210	Cpcc Harris Campus	Dr	Other
11/19/2010	700	0	Not Applicable	0	6543	Summerlin	Pl	Roots
11/20/2010	360	360	Gutter Branch	0	956	Grass Hollow (Mecklenburg County)	Ct	Grease
11/20/2010	1055	1055	Four Mile Creek	0	17414	Westmill	Ln	Grease
11/22/2010	60	30	McAlpine Creek	0	7141	Knightswood	Dr	Grease
11/23/2010	830	747	Four Mile Creek	0	5652	Via Romano	Dr	Grease
11/23/2010	184	0	Not Applicable	0	17701	Speakwell (Cornelius)	Ct	Pipe Failure [Break]
11/25/2010	3	0	Not Applicable	0	601	Kelford	Ln	Grease
11/26/2010	810	405	Little Sugar Creek	0	2909	Mcdowell (North)	St	Other
11/27/2010	25	0	Not Applicable	0	3707	Willow Point	Dr	Debris In Line
11/28/2010	60	0	Not Applicable	0	300	7th (East)	St	Grease
11/30/2010	450	0	Not Applicable	0	19842	Coachman's Trace (Cornelius)		Roots
<b>30 Spills</b>	<b>18,038</b>	<b>12,566</b>		<b>0</b>				

December	Total Estimate	Volume Reaching Surface Water	Surface Water Name	Fish Killed	Block	Street Name and Type	Cause of Spill / Bypass
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12/2/2010	2950	2950	Briar Creek	0	3412	Teal Point	Dr	Grease
12/3/2010	305	305	Four Mile Creek	0	8300	Ballantyne Commons	Py	Grease
12/3/2010	27	0	Not Applicable	0	9935	Packard	St	Grease
12/5/2010	300	300	Briar Creek	0	5710	Allenstown	Dr	Roots
12/7/2010	29	0	Not Applicable	0	223	Eden (Pineville)	Cr	Grease
12/9/2010	1500	1500	McMullen Creek	0	3700	Sharon View	Rd	Grease
12/9/2010	230	115	Reedy Creek Tributary	0	6402	Grove Park	Bv	Roots
12/14/2010	3990	3990	Irwin Creek	0	2619	Christie	St	Grease

12/15/2010	60	60	Taggart Creek	0	5010	Wilkinson	Bv	Grease
12/15/2010	1025	1025	Little Sugar Creek	0	1311	College (South)	St	Grease
12/16/2010	555	555	Fourmile Creek	0	7903	Crockett	Ln	Grease
12/17/2010	1905	1905	Gum Branch	0	107	Margaret Turner	Rd	Roots
12/17/2010	395	395	Irwin Creek	0	2229	Madrid	St	Grease
12/19/2010	79	79	Lower Little Sugar Creek	0	7237	Hopeton	Rd	Grease
12/20/2010	210	210	Irwin Creek	0	1329	Rising Oak	Dr	Grease
12/20/2010	54	0	Not Applicable	0	18705	Harbor Light (Cornelius)	Bv	Pipe Failure [Break]
12/21/2010	204	0	Not Applicable	0	618	Main (Pineville)	St	Roots
12/22/2010	360	270	Six Mile Creek	0	6001	Providence Country Club	Dr	Grease
12/23/2010	400	400	Mt Island Lake	0	2801	Mt Isle Harbor	Dr	Pipe Failure [Break]
12/24/2010	900	900	Little Sugar Creek	0	2328	Wittstock	Dr	Pipe Failure [Break]
12/25/2010	360	360	McAlpine Creek	0	5600	McCallum	Ct	Grease
12/28/2010	156	78	Steele Creek	0	11000	South Commerce	Bv	Debris In Line
12/28/2010	245	122	McMullen Creek	0	6603	Monroe	Rd	Grease
12/28/2010	1320	1320	McAlpine Creek	0	8226	Wallace Glen	Dr	Grease
12/29/2010	420	210	McAlpine Creek	0	700	Beckmore	Pl	Grease
12/29/2010	1500	1500	McAlpine Creek	0	8227	Bald Ridge	Dr	Grease
12/29/2010	600	600	Doby Creek	0	5801	Equipment	Dr	Grease
12/29/2010	190	190	Kennedy Branch	0	1900	Holly	St	Roots
12/30/2010	430	430	Lake Norman	0	18315	Harbor Light (Cornelius)	Bv	Pipe Failure [Break]
12/31/2010	75	0	Not Applicable	0	5523	Manning	Rd	Roots
<b>30 Spills</b>	<b>20,774</b>	<b>19,769</b>		<b>0</b>				

January	Total Estimate	Volume Reaching Surface Water	Surface Water Name	Fish Killed	Block	Street Name and Type	Cause of Spill / Bypass	
1/3/2011	46	0	Not Applicable	0	2748	Interstate	St	Roots
1/4/2011	14	0	Not Applicable	0	7301	Willow Creek	Dr	Grease



1/5/2011	1770	885	McMullen Creek	0	1737	Dallas	Av	Grease
1/5/2011	730	0	Not Applicable	0	5008	Glenview	Ct	Grease
1/6/2011	350	0	Not Applicable	0	6117	The Plaza		Grease
1/6/2011	112	56	McAlpine Creek	0	1701	Burtonwood	Cr	Roots
1/7/2011	425	425	Clarks Creek	0	9501	Saddle Run	Tl	Roots
1/8/2011	600	600	McMullen Creek	0	7902	Charter Oak	Ln	Grease
1/8/2011	15	0	Not Applicable	0	3200	Dalecrest	Dr	Roots
1/11/2011	450	450	Steele Creek	0	13110	Moss	Rd	Grease
1/14/2011	35604	26703	Clems Branch	0	15640	Lancaster (Mecklenburg County)	Hy	Pipe Failure [Break]
1/16/2011	390	292	Irwin Creek	0	2951	Barringer	Dr	Debris In Line
1/18/2011	765	0	Not Applicable	0	4114	Eddleman	Rd	Grease
1/18/2011	404	202	Steele Creek 6-B	0	9309	Stockport	Pl	Grease
1/19/2011	260	0	Not Applicable	0	508	Tremont (East)	Av	Grease
1/19/2011	140	140	Briar Creek	0	5100	Grafton	Dr	Debris In Line
1/19/2011	110	0	Not Applicable	0	19824	Shearwater Point (Cornelius)	Dr	Pipe Failure [Break]
1/20/2011	1500	1500	Paw Creek	0	1120	Saratoga	Dr	Grease
1/21/2011	1545	1545	McMullen Creek	0	3106	Providence	Rd	Grease
1/21/2011	87	0	Not Applicable	0	2621	Ashley	Rd	Grease
1/21/2011	275	137	Porter Branch	0	10818	Steele Creek	Rd	Grease
1/22/2011	320	160	Irwin Creek Tributary	0	3028	DePaul	Ct	Grease
1/22/2011	600	570	Little Sugar Creek	0	400	Queens	Rd	Grease
1/23/2011	295	0	Not Applicable	0	10804	Chamberlain Hall	Ct	Grease
1/23/2011	260	0	Not Applicable	0	19900	Shearwater Point (Cornelius)	Dr	Pipe Failure [Break]
1/23/2011	530	530	McMullen Creek	0	4009	Craig	Av	Debris In Line
1/23/2011	98	0	Not Applicable	0	2000	Lyndhurst	Av	Debris In Line
1/24/2011	62	31	Lower Little Sugar Creek	0	8021	Regent Park	Ln	Grease
1/24/2011	174	174	Toby Creek	0	9430	White Cedar	Ct	Grease
1/25/2011	300	300	Irwin Creek Tributary	0	1200	Burton	St	Grease

1/25/2011	882	882	Irwin Creek	0	1933	Camp Greene	St	Grease
1/26/2011	855	855	McAlpine Creek	0	6200	Old Meadow	Rd	Grease
1/27/2011	8180	6135	Upper Little Sugar Creek	0	600	Johnson	Rd	Grease
1/27/2011	195	195	Irwin Creek	0	8043	Bald Ridge	Dr	Vandalism
1/27/2011	360	180	Irwin Creek Tributary	0	606	Wabash	Av	Grease
1/27/2011	185	0	Not Applicable	0	1731	Shannonhouse	Dr	Roots
1/28/2011	110	0	Not Applicable	0	2523	Remus	Rd	Grease
1/29/2011	4200	4200	Rocky River Tributary	0	3409	Dominion Green	Dr	Grease
1/31/2011	700	0	Not Applicable	0	2014	Choyce	Cr	Grease
1/31/2011	3750	0	Not Applicable	0	11539	Carnsore	Ct	Grease
1/31/2011	3350	3350	Stewart Creek	0	3808	Annisa	Ct	Grease
<b>41 Spills</b>	<b>70,998</b>	<b>50,497</b>		<b>0</b>				

February	Total Estimate	Volume Reaching Surface Water	Surface Water Name	Fish Killed	Block	Street Name and Type	Cause of Spill / Bypass
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2/1/2011	1500	1425	Paw Creek	0	1801	Sloan	Dr	Vandalism
2/1/2011	1180	590	McAlpine Creek	0	6001	Creola	Rd	Debris In Line
2/2/2011	4320	2160	Gum Branch	0	745	Wilderness Trail	Dr	Grease
2/3/2011	76	0	Not Applicable	0	335	Pine Island	Dr	Grease
2/4/2011	840	840	Torrence Creek	0	500	Main, South (Huntersville)	St	Debris In Line
2/5/2011	1500	1500	Torrence Creek	0	203	Mt Holly-Huntersville (Huntersville)	Rd	Grease
2/5/2011	500	500	Paw Creek	0	2500	Burkholder	Rd	Grease
2/6/2011	360	180	McAlpine Creek	0	7410	Wallace	Rd	Grease
2/7/2011	20	0	Not Applicable	0	1100	Rosewood	Cr	Roots
2/8/2011	30	30	Irwin Creek	0	2000	Genesis Park	Pl	Grease
2/8/2011	52	26	Upper Little Sugar Creek	0	1201	Elizabeth	Av	Grease
2/9/2011	1950	1950	Coffey Creek	0	2310	Bonner Bridge	Ct	Grease
2/10/2011	385	0	Not Applicable	0	3021	Seymour	Dr	Grease

2/10/2011	65	65	McAlpine Creek	0	3100	Mill Pond	Rd	Grease
2/10/2011	390	390	Campbell Creek	0	6801	Rambling Rose	Dr	Grease
2/13/2011	369		Not Applicable	0	1162	Nations	Dr	Roots
2/14/2011	3480	1740	Catawba River Tributary# 2	0	2413	Winding River	Dr	Grease
2/14/2011	66	0	Not Applicable	0	3907	Amerigo	St	Debris In Line
2/15/2011	180	180	Irwin Creek	0	3129	Morning	Dr	Grease
2/15/2011	2295	2295	McMullen Creek	0	8420	Tifton	Rd	Debris In Line
2/17/2011	2100	1575	Taggart Creek	0	2857	Westport	Rd	Grease
2/17/2011	625	625	Briar Creek	0	4391	Central	Av	Grease
2/18/2011	68	0	Not Applicable	0	548	Bramlet	Rd	Grease
2/19/2011	52	0	Not Applicable	0	1105	Cindy Carr (Matthews)	Dr	Grease
2/20/2011	1750	1750	McAlpine Creek	0	2314	Knickerbocker	Dr	Grease
2/20/2011	410	205	Little Sugar Tributary	0	7030	Nations Ford	Rd	Roots
2/23/2011	300	0	Not Applicable	0	517	Blairhill	Rd	Grease
2/23/2011	2025	2025	Mallard Creek	0	9902	Applevalley	Ct	Grease
2/24/2011	475	475	Sugar Creek Tributary	0	4524	Reagan	Dr	Grease
2/26/2011	22	22	Campbell Creek	0	7417	Lockmont	Dr	Grease
2/26/2011	385	385	Mallard Creek	0	10200	David Taylor	Dr	Grease
2/28/2011	425	425	South Prong Clark Creek	0	201	Second (Huntersville)	St	Grease
2/28/2011	40	40	Mallard Creek	0	2110	Ben Craig	Dr	Grease
<b>33 Spills</b>	<b>28,235</b>	<b>21,398</b>		<b>0</b>				

March	Total Estimate	Volume Reaching Surface Water	Surface Water Name	Fish Killed	Block	Street Name and Type	Cause of Spill / Bypass
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3/1/2011	675	675	Irwin Creek	0	3819	Fieldcrest	Rd	Grease
3/1/2011	194	0	Not Applicable	0	19520	Center (Cornelius)	St	Grease
3/1/2011	300	300	Dixon Branch	0	12202	Hambright (Huntersville)	Rd	Grease
3/3/2011	2430	2430	Mallard Creek	0	8801	J M Keynes	Dr	Grease

3/3/2011	455	0	Not Applicable	0	221	Fielding	Rd	Pipe Failure [Break]
3/4/2011	1200	1200	McAlpine Creek	0	7020	Tabor	Ln	Grease
3/5/2011	600	0	Not Applicable	0	14111	Caraway Woods	Ct	Grease
3/6/2011	2350	2350	Lower Little Sugar Creek	0	4918	Horton	Ct	Grease
3/7/2011	115	57	McMullen Creek	0	6309	Rosecrest	Dr	Grease
3/7/2011	360	360	Campbell Creek	0	4776	Old Lantern	Wy	Grease
3/7/2011	600	300	McMullen Creek	0	800	Farmhurst	Dr	Grease
3/7/2011	10680	10680	McMullen Creek	0	9141	Covey Hollow	Ct	Roots
3/7/2011	99	99	Coffey Creek	0	811	Cone (Pineville)	Av	Grease
3/7/2011	60	0	Not Applicable	0	529	Crestdale (Matthews)	Rd	Roots
3/8/2011	600	600	Steele Creek	0	12100	Swallow	Ln	Grease
3/9/2011	159	159	Campbell Creek	0	6097	Vernedale	Rd	Grease
3/11/2011	5760	2880	Six Mile Creek	0	11450	Ardrey Crest	Dr	Vandalism
3/12/2011	135	108	Campbell Creek	0	6210	Coach Hill	Ln	Roots
3/12/2011	230	0	Not Applicable	0	10301	Conistan (Cornelius)	Pl	Roots
3/13/2011	63	0	Not Applicable	0	4819	Lindstrom	Dr	Grease
3/13/2011	940	940	Neal Branch/Steele Creek	0	12320	Winget (Mecklenburg County)	Rd	Grease
3/14/2011	500	500	McAlpine Creek Tributary	0	7443	Pirates Cove	Ct	Grease
3/15/2011	155	155	Lower Little Sugar Creek	0	5577	Five Knolls	Dr	Debris In Line
3/15/2011	600	300	Doby Creek	0	6341	Derryfield	Dr	Grease
3/16/2011	1950	1950	Stoney Creek Tributary	0	5314	Prosperity View	Dr	Grease
3/16/2011	15	0	Not Applicable	0	6101	Orr	Rd	Grease
3/16/2011	375	375	Upper Little Sugar Creek	0	1708	Amherst	Pl	Roots
3/17/2011	100	100	Briar Creek Tributary	0	6531	Rosecran	Dr	Grease
3/17/2011	135	67	Taggart Creek	0	2850	West	Bv	Grease
3/17/2011	237	0	Not Applicable	0	7226	Fox Hunt	Rd	Roots
3/17/2011	181	0	Not Applicable	0	19903	Scanmar (Cornelius)	Ln	Grease
3/20/2011	4050	4050	Briar Creek	0	1649	Masonic	Dr	Grease
3/20/2011	36	0	Not Applicable	0	11005	Vista Haven	Dr	Roots

3/20/2011	120	120	Kings Branch	0	7808	Rabbits Foot	Ln	Grease
3/21/2011	535	267	McAlpine Creek	0	552	Charles, West (Matthews)	St	Grease
3/21/2011	1800	1800	Taggart Creek	0	2730	Queen City	Dr	Grease
3/22/2011	195	97	Lower Little Sugar Creek	0	10912	Treebark	Dr	Grease
3/22/2011	6690	6690	Doby Creek	0	7600	Ibm	Dr	Vandalism
3/23/2011	615	615	Briar Creek	0	1611	Tippah Park	Ct	Grease
3/24/2011	640	320	Campbell Creek	0	4608	Gaynelle	Dr	Grease
3/24/2011	2370	2370	Steele Creek	0	11602	Eastwind	Dr	Roots
3/25/2011	80	0	Not Applicable	0	7625	Hammond	Dr	Other
3/27/2011	49	49	Four Mile Creek	0	3717	Smokerise Hill	Dr	Grease
3/29/2011	200	100	McMullen Creek	0	1700	Longleaf	Dr	Grease
3/31/2011	116	0	Not Applicable	0	750	Eastway (Davidson)	St	Other
3/31/2011	0	0	Not Applicable	0	20416	Southshore (Cornelius)	Dr	Pipe Failure [Break]
3/31/2011	120	0	Not Applicable	0	618	Main (Pineville)	St	Grease
<b>47 Spills</b>	<b>49,869</b>	<b>43,063</b>		<b>0</b>				

April	Total Estimate	Volume Reaching Surface Water	Surface Water Name	Fish Killed	Block	Street Name and Type	Cause of Spill / Bypass
4/1/2011	50	50	Lake Norman	0	19708	Outermark (Cornelius)	Ln Pipe Failure [Break]
4/1/2011	990	495	Lower Little Sugar	0	206	Eden (Pineville)	Cr Grease
4/1/2011	204	102	Four Mile Creek	0	6700	Joliette	Ln Roots
4/2/2011	336	0	Not Applicable	0	8400	Hunt Dale	Ct Roots
4/2/2011	65	32	Gum Branch	0	181	Woodlynn	Dr Roots
4/2/2011	435	435	Four Mile Creek Tributary	0	2002	Kilkenney Hill (Matthews)	Rd Roots
4/3/2011	47	47	McMullen Creek Tributary	0	4136	Bloomdale	Dr Grease
4/7/2011	945	945	McAlpine Creek	0	4225	Moorland	Dr Roots
4/7/2011	140	0	Not Applicable	0	7237	Hopeton	Rd Roots
4/7/2011	430	215	Paw Creek	0	1200	Exchange	St Grease

4/8/2011	650	650	Coffey Creek	0	2200	Yager Creek	Dr	Grease
4/8/2011	204	204	Edwards Branch	0	1644	Chippendale	Rd	Grease
4/9/2011	1400	280	Four Mile Creek	0	10003	Swan Lake	Ln	Grease
4/10/2011	67	0	Not Applicable	0	3400	Cardiff	Av	Grease
4/10/2011	2610	1305	McMullen Creek	0	8320	Park Vista	Cr	Grease
4/13/2011	558	0	Not Applicable	0	4512	Meadowridge	Dr	Roots
4/13/2011	3700	3700	Four Mile Creek	0	3100	Windbluff	Dr	Grease
4/14/2011	80	40	Lake Norman	0	103	Sloan (Davidson)	St	Grease
4/16/2011	698	698	Briar Creek	0	5700	Wedgewood	Dr	Roots
4/17/2011	822	822	Sardis Branch	0	5924	Lansing	Dr	Roots
4/20/2011	4770	4770	Four Mile Creek	0	7810	Spindletop	Pl	Debris In Line
4/20/2011	3160	3160	McMullen Creek	0	3940	Huckleberry	Rd	Grease
4/21/2011	540	540	McAlpine Creek	0	6500	Thermal	Rd	Grease
4/24/2011	1280	640	Catawba River Tributary	0	2502	Oakboro	Ln	Grease
4/25/2011	310	0	Not Applicable	0	1817	Russell	Av	Grease
4/25/2011	47	0	Not Applicable	0	8806	Moores Chapel	Rd	Grease
4/25/2011	315	0	Not Applicable	0	7523	Woodknoll	Dr	Grease
4/25/2011	600	300	Paw Creek	0	5535	Carlingford	Ct	Grease
4/29/2011	1200	960	Paw Creek	0	6304	Deep Forest	Ln	Pipe Failure [Break]
4/29/2011	40	0	Not Applicable	0	9718	Buckskin (Mint Hill)	Ln	Grease
<b>30 Spills</b>	<b>26,693</b>	<b>20,390</b>		<b>0</b>				

May	Total Estimate	Volume Reaching Surface Water	Surface Water Name	Fish Killed	Block	Street Name and Type	Cause of Spill / Bypass	
5/2/2011	600	600	Campbell Creek Tributary	0	7001	Snow	Ln	Grease
5/3/2011	1260	1260	McMullen Creek	0	3517	Johnny Cake	Ln	Pipe Failure [Break]
5/3/2011	350	350	Dairy Branch	0	525	Belton	St	Grease
5/3/2011	63750	63750	Mallard Creek	0	3235	Harris Mill	Ln	Grease
5/4/2011	2710	1355	Kings Branch	0	428	Short Hills	Dr	Grease



5/5/2011	67	67	Paw Creek	0	7812	Tuckaseegee	Rd	Grease
5/9/2011	112	56	Sugar Creek	0	630	Herrin	Av	Grease
5/9/2011	0	0	Taggart Creek	0	2842	Fordwood	Dr	Grease
5/12/2011	250	250	Ramah Creek	0	16109	Grassy Creek (Huntersville)	Dr	Grease
5/13/2011	900	900	McMullen Creek	0	4376	Yoruk Forest	Ln	Grease
5/13/2011	244	0	Not Applicable	0	3314	Archdale	Dr	Grease
5/15/2011	670	670	McMullen Creek	0	3009	Wamath	Dr	Grease
5/15/2011	1005	753	Sugar Creek	0	4400	Cinderella	Rd	Roots
5/16/2011	290	290	Briar Creek	0	6134	Bridlewood	Ln	Debris In Line
5/16/2011	525	525	Sugar Creek	0	1941	Sharon (West)	Rd	Debris In Line
5/16/2011	480	240	McMullen Creek	0	8908	Nightingale	Ln	Debris In Line
5/16/2011	2196	2196	Campbell Creek	0	7634	Rawald	Dr	Vandalism
5/17/2011	345	345	Briar Creek	0	300	Eastover	Rd	Debris In Line
5/18/2011	585	585	Irwin Creek	0	1520	Clanton	Rd	Grease
5/22/2011	1830	1830	McAlpine Creek	21	1808	Village Lake	Dr	Grease
5/23/2011	480	240	Edwards Branch	27	5009	Greenbrook	Dr	Grease
5/25/2011	600	600	Irwin Creek	0	3510	Firestone	Dr	Grease
5/25/2011	1720	860	McAlpine Creek	0	6501	Woodthrush	Dr	Grease
5/26/2011	2220	2220	McAlpine	0	1722	Woodberry	Rd	Grease
5/26/2011	440	440	Briar Creek	0	3023	Telford	Pl	Roots
5/27/2011	850	850	McAlpine Creek	0	6065	Johnnette	Dr	Grease
5/29/2011	335	167	McMullen Creek	0	5914	Ryder	Av	Pipe Failure [Break]
5/29/2011	85	85	McMullen Creek	0	11914	Rock Canyon	Dr	Grease
5/29/2011	195	195	Four Mile Creek	0	202	Southern Cross (Matthews)	Ln	Debris In Line
<b>29 Spills</b>	<b>85,094</b>	<b>81,679</b>		<b>48</b>				

June	Total Estimate	Volume Reaching Surface Water	Surface Water Name	Fish Killed	Block	Street Name and Type	Cause of Spill / Bypass
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6/6/2011	61	0	Not Applicable	0	20313	Backcourse (Cornelius)	Ln	Other
6/10/2011	2175	2175	Four Mile Creek	0	9416	Stonemark	Dr	Roots
6/16/2011	360	360	Retention Pond	0	20010	Colony Point (Cornelius)	Ln	Grease
6/17/2011	1800	1440	Irwin Creek Tributary	0	2301	Distribution	St	Grease
6/18/2011	285	285	Irwin Creek Tributary	0	1900	St John	St	Grease
6/20/2011	81	0	Not Applicable	0	1523	Woodberry	Rd	Roots
6/21/2011	606	0	Not Applicable	0	204	Mattridge (Matthews)	Rd	Roots
6/21/2011	276	276	Lake Norman	0	18805	Windy Point (Cornelius)	Dr	Other
6/22/2011	1750	1575	Clems Branch	0	26251	Camden Woods (York County SC)	Rd	Pump Station Equipment Failure
6/24/2011	80	40	Sugar Creek	0	7437	Flodden Field	Ct	Grease
6/25/2011	68	68	McAlpine Creek	0	3525	Chilham	Pl	Grease
6/25/2011	235	0	Not Applicable	0	112	Wilby	Dr	Grease
6/26/2011	2750	2750	Briar Creek Tributary	0	2100	Peppercorn	Ln	Pipe Failure [Break]
6/27/2011	24	24	Kings Branch	0	710	Peninsula	Ln	Pipe Failure [Break]
6/28/2011	1830	1830	Briar Creek	0	504	Wakefield	Dr	Pipe Failure [Break]
6/29/2011	140	140	Little Sugar Creek	0	220	Wellingford	St	Other
6/30/2011	1350	1350	McAlpine Creek	0	3412	Hilldale	Wy	Grease
<b>17 Spills</b>	<b>13,871</b>	<b>12,313</b>		<b>0</b>				

**TOTAL NUMBER OF FY2011 COLLECTION SYSTEM SPILLS: 335**

Volume Safely Collected, Treated & Discharged During Fiscal Year 2011:	27,659,980,000 Gallons
Volume Spilled:	378,865 Gallons
Volume That Reached Surface Waters:	310,864 Gallons

**PERCENTAGE OF WASTWATER SAFELY COLLECTED, TREATED AND RELEASED DURING**

FY11: more than 99.9986%  
FY10: more than 99.9973%  
FY09: more than 99.9987%  
FY08: more than 99.9982%  
FY07: more than 99.9948%

**SECTION IIB. Permit Compliance and Reporting Violations, by plant**

**Irwin Creek WWTP -- NPDES Permit #NC0024945**

<b>MONTH</b>	<b>PERMIT LIMIT COMPLIANCE</b>	<b>REPORTING REQUIREMENT COMPLIANCE</b>
July, 2010	None	None
August, 2010	None	None
September, 2010	None	None
October, 2010	None	None
November, 2010	None	None
December, 2010	None	None
January, 2011	None	None
February, 2011	None	None
March, 2011	None	None
April, 2011	None	None
May, 2011	None	None
June, 2011	On June 21 and June 28, 2011 Irwin Creek WWTP exceeded the daily maximum effluent mercury limit. The source of the mercury was found and the discharge of the excess mercury was stopped. Prior to this point Irwin Creek WWTP's average concentration of mercury discharged was 10% of the permitted discharge.	None

**Mallard Creek WRF -- NPDES Permit #NC0030210**

<b>MONTH</b>	<b>PERMIT LIMIT COMPLIANCE</b>	<b>REPORTING REQUIREMENT COMPLIANCE</b>
July, 2010	None	None
August, 2010	None	None
September, 2010	None	None
October, 2010	None	None
November, 2010	None	None
December, 2010	None	None
January, 2011	None	None
February, 2011	None	None
March, 2011	None	None
April, 2011	None	None
May, 2011	None	None

June, 2011	None	None
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**McAlpine Creek WWTF -- NPDES Permit #NC0024970**

MONTH	PERMIT LIMIT COMPLIANCE	REPORTING REQUIREMENT COMPLIANCE
July, 2010	None	None
August, 2010	None	None
September, 2010	None	None
October, 2010	None	None
November, 2010	None	None
December, 2010	None	None
January, 2011	None	None
February, 2011	None	None
March, 2011	None	None
April, 2011	None	None
May, 2011	None	None
June, 2011	None	None

**McDowell Creek WWTP -- NPDES Permit #NC0036277**

MONTH	PERMIT LIMIT COMPLIANCE	REPORTING REQUIREMENT COMPLIANCE
July, 2010	None	None
August, 2010	None	None
September, 2010	None	None
October, 2010	None	None
November, 2010	None	None
December, 2010	None	None
January, 2011	None	None
February, 2011	None	None
March, 2011	None	None
April, 2011	None	None
May, 2011	None	None
June, 2011	None	In the last week of June, 2011 the conductivity tests were not collected at the Creek Above (CA) and Creek Below (CB) sites. This is a violation of the sampling requirements. There

		are no permit limits for conductivity and no water quality standards for this parameter. Sampling was missed due to an internal miscommunication.
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**Sugar Creek WWTP -- NPDES Permit #NC0024937**

<b>MONTH</b>	<b>PERMIT LIMIT COMPLIANCE</b>	<b>REPORTING REQUIREMENT COMPLIANCE</b>
July, 2010	None	None
August, 2010	None	None
September, 2010	None	None
October, 2010	None	None
November, 2010	None	None
December, 2010	None	None
January, 2011	None	None
February, 2011	None	None
March, 2011	None	None
April, 2011	None	None
May, 2011	None	None
June, 2011	None	None