



CHARLOTTE

**CHARLOTTE-MECKLENBURG
UTILITY DEPARTMENT**

Wastewater Performance Report

July 1, 2012 – June 30, 2013

Charlotte-Mecklenburg Utility Department

4222 Westmont Drive
Charlotte, NC 28217

Phone: 704-336-4407
Website: www.cmutilities.com

I. General Information

Name of Regulated Entity and Responsible Person:

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

Applicable Permits:

There are five wastewater treatment facilities (WWTF) owned and operated by Charlotte-Mecklenburg Utility Department (CMUD). 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.

<u>WWTF</u>	<u>NPDES Permit Number</u>	<u>ORC</u>	<u>Phone</u>
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	Billy Allen	704-553-2124

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

<u>WW COLLECTION</u>	<u>NCDWQ Permit Number</u>	<u>ORC</u>	<u>Phone</u>
4100 W. Tyvola Road	WQCS00001	Stuart Rosenberger	704-432-4376

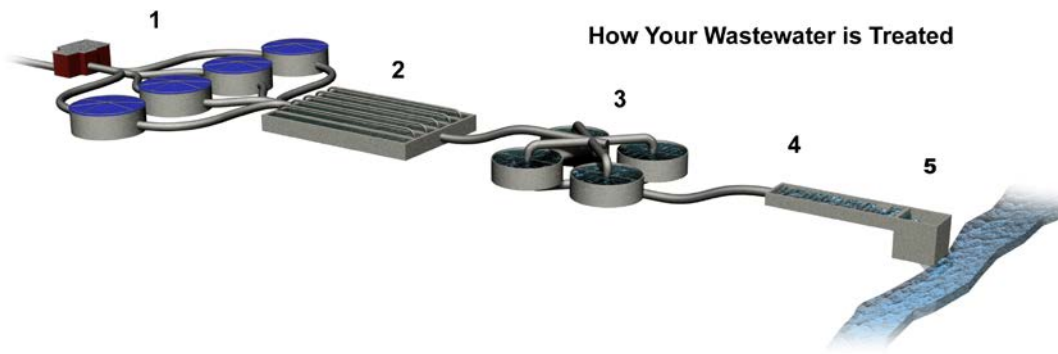
Description of collection and treatment systems:

Charlotte-Mecklenburg Utility Department (CMUD) collects wastewater from approximately 238,854 households and businesses throughout the county. Wastewater is collected and directed (via gravity flow supported by sewage lift stations) to one of five CMUD wastewater treatment plants or the Rocky River Regional Plant (owned and operated by the Water and Sewer Authority of Cabarrus County) where it is treated. An average of 78.86 million gallons of wastewater is treated and discharged each day from CMUD plants. CMUD contributes an average of 3.40 million gallons a day (MGD) to the Rocky River Plant. CMUD also treats roughly two million gallons for Union County.

More than 150 of CMUD's 761 employees work to maintain 4,170 miles of collection pipelines and 75 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 CMUD's wastewater treatment plants applies 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 granular 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 by screens, grit chambers, 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 granular filters to remove fine particles. Nutrient levels are reduced at McDowell and McAlpine Creek Wastewater Treatment Plants.

5. Disinfection

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

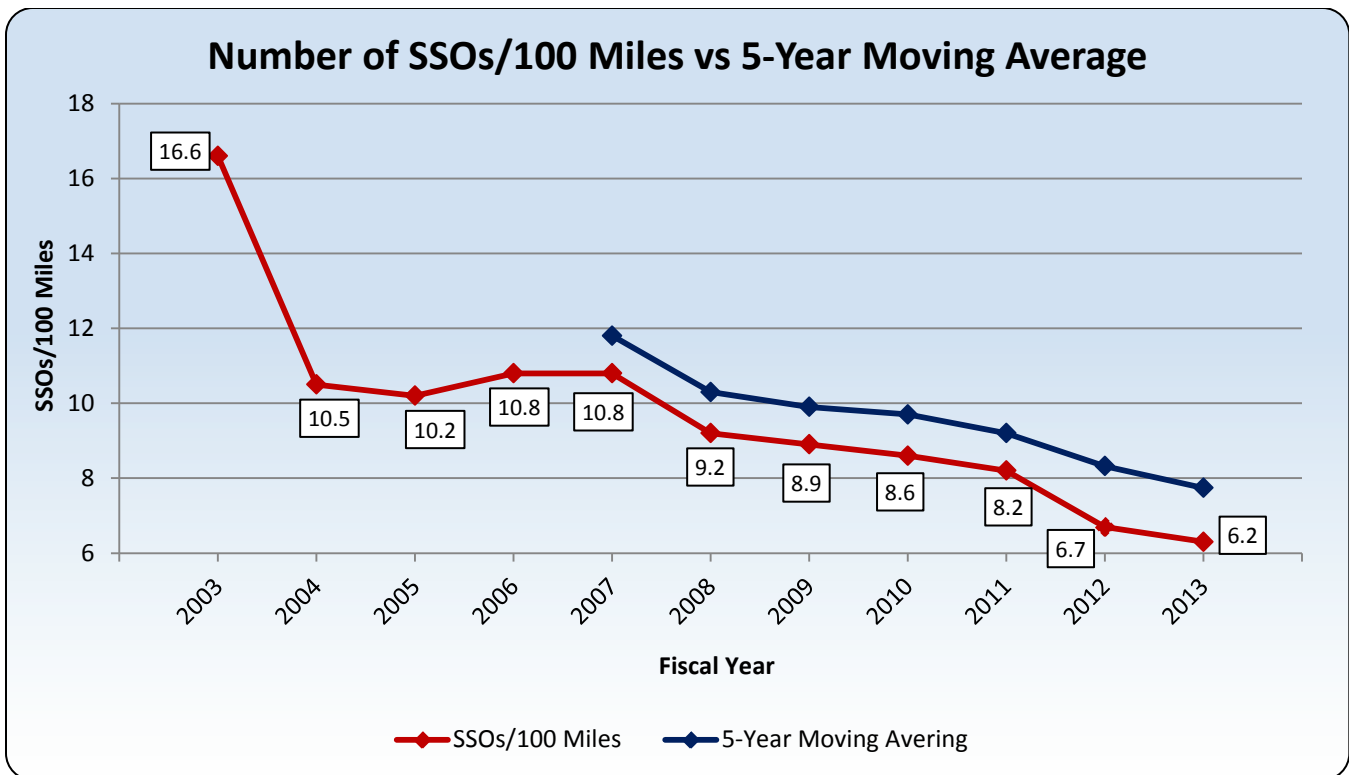
II. Summary of System Performance

How did we do?

CMUD successfully closed out the federal EPA Administrative Order. Additional information is available on page 8.

We successfully collected and treated 99.9992 percent of the more than 28 billion gallons of wastewater the community produced last year. There were 260 sanitary sewer overflows (SSOs) in our community, a decrease of 21 spills compared to the year before. This is the lowest number of spills since 2002 (259). In fact, the number of spills per 100 miles of pipe continued to decline from 10.9 in 2007 to 6.2 spills in fiscal year 2013 as illustrated by the table on page 3. An estimated 208,582.75 gallons spilled which is the lowest since 1999.

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.



CMUD employees work 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. CMUD has increased its efforts to educate customers about properly disposing of fats, oils and grease (FOG).

Performance Highlights

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

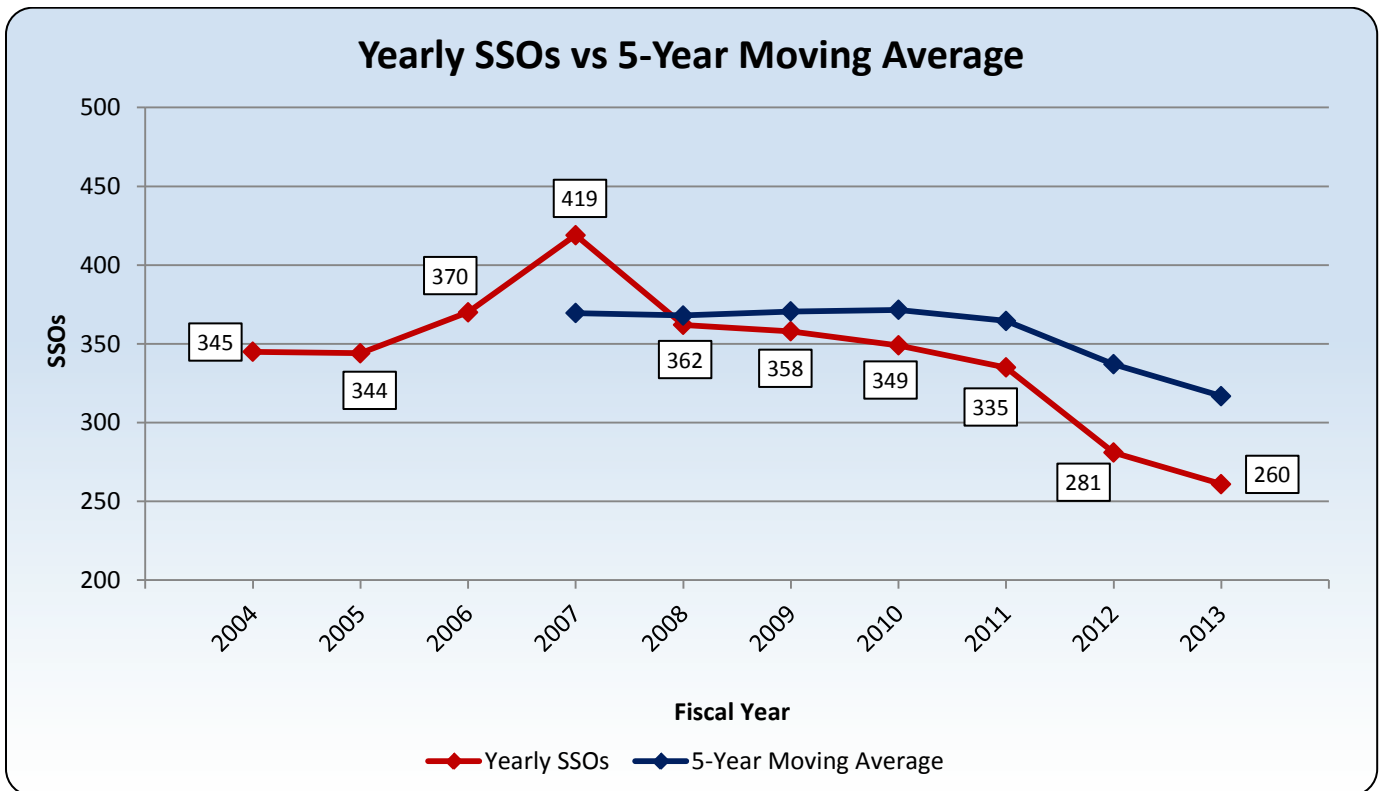
- Our wastewater treatment plants met 99.95 percent of all permitted discharge limits.
- All five wastewater treatment plants earned Peak Performance Awards from the National Association of Clean Water Agencies (NACWA) for the calendar year ending 2012. NACWA Peak Performance Awards recognize wastewater treatment professionals throughout the nation for protecting the environment and public health through outstanding treatment and discharge regulatory compliance. Mallard Creek Wastewater Treatment Plant earned a Platinum Award for a fourth year, which means eight consecutive years of perfect compliance. McAlpine Creek Wastewater Treatment Plant was awarded its first Platinum Award for five consecutive years of perfect compliance. Sugar Creek Wastewater Treatment Plant, Irwin Creek Wastewater Treatment Plant, and McDowell Creek Wastewater Treatment Plant earned Silver Awards for five or fewer violations in a one-year period.
- 8.88 miles of sewer pipe and 205 manholes were rehabilitated, repaired or replaced.
- 167.9 miles of sewer pipe were treated with root control chemicals.
- More than 998 miles of sewer lines were cleaned (including some multiple cleanings in the same location) by CMUD Field Operations Staff and an additional 4.2 miles of pipe were cleaned by contractors.
- 306 sewer service connections were replaced.
- More than 173 miles of rights of way were cleared by Field Operations and contractors to maintain access to off-street sanitary sewer pipes and to help prevent root intrusions.
- CMUD continued to implement configuration and usability improvements for the Field Operations deployment of the Work & Asset Management (WAM) Program's Azteca Cityworks system. All field

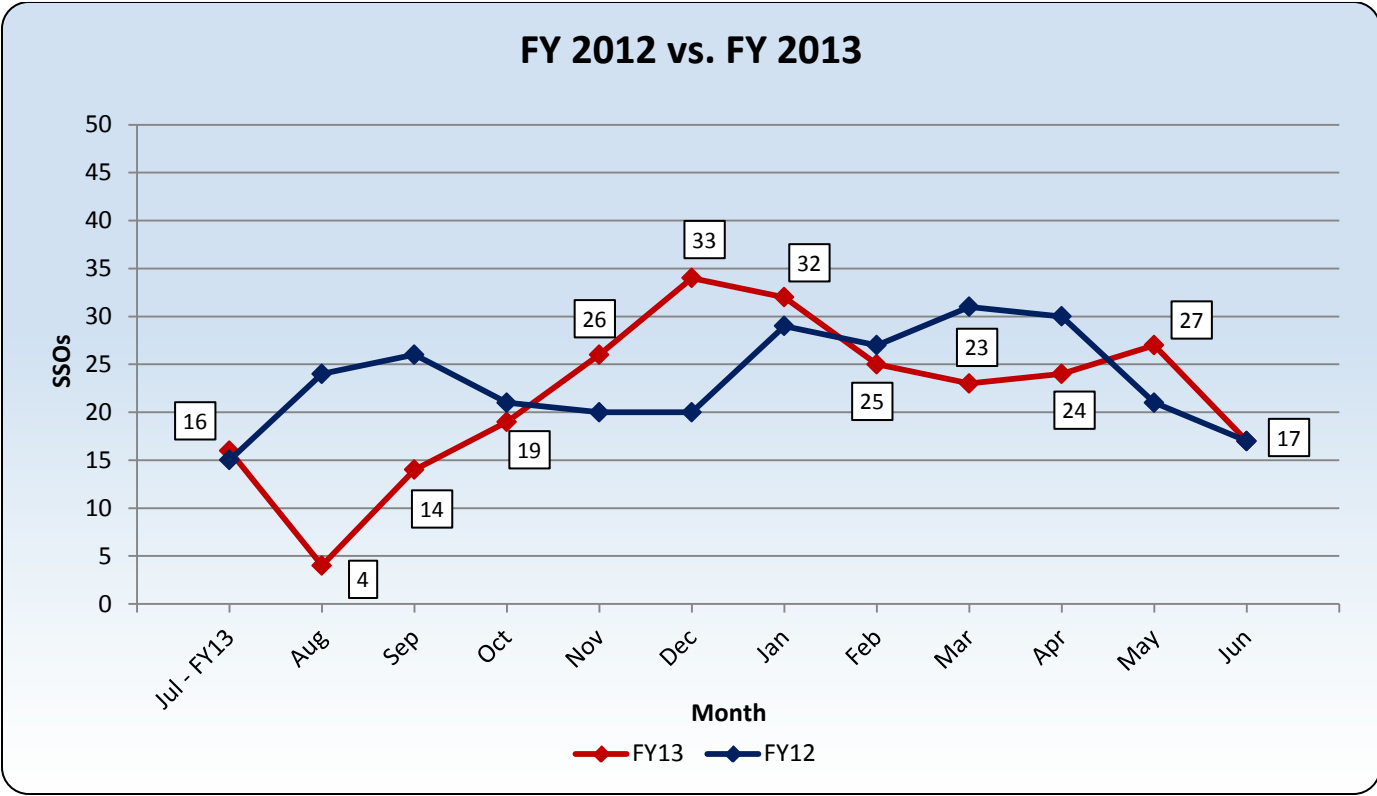
crews in the CMUD Field Operations Division continue to use Cityworks in the conduct of their day-to-day maintenance, repair and overhaul activities across Mecklenburg County. The WAM team also initiated the implementation of Cityworks for the Water Treatment and Environmental Management Divisions and has compiled comprehensive asset registries for all water and wastewater treatment plants. The WAM Team will pilot the system and processes for both divisions in Fall 2013 with expected go-live in early 2014. The team will conduct classroom as well as one-on-one training and mentoring for new Cityworks users and will deliver updated training to existing users as new functionality is deployed.

- With the GIS Foundation Project completed the GIS team is now focused on daily maintenance of data and applications as well as continuing to refine the completeness and accuracy of the data. Business processes have been established to assist in maintaining and distributing data to users in the office and field. GIS is also integrated with other business systems used by the department for daily operations.
- CMUD expanded continuous improvement and optimization efforts utility wide in FY2013. CMUD has increased performance levels using continuous improvement processes and techniques coordinated at the department level and implemented at the division level. Continuous improvement is used to achieve and maintain operational and economic competitiveness and is coordinated with the Balanced Scorecard/Business Planning process. These processes encourage and support operations and management of the Utility in accordance with recognized best practice standards such as ISO, AWWA, NELAP, and others as appropriate. Compliance with recognized standards are measured and confirmed by the establishment and implementation of periodic and recurring audit procedures, along with monitoring key performance indicators (KPI) and metrics. 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 launch a refocused effort on instituting best practice standards with ongoing audits to all CMUD operations. Corporate ISO 14001:2004 certification was obtained in May 2010. This corporate certification currently covers Mallard Creek WRF, McDowell Creek WWTP, the Biosolids program, and Sugar Creek WWTP. This certification was recertified by external audit for FY2013. Obtaining and maintaining the certification is a collaborative effort among many employees throughout CMUD. This ongoing effort serves as a continuous improvement model for increased citywide efforts as we move towards greater sustainability. Additional recent continuous improvement approaches include obtaining certification through the National Environmental Laboratory Accreditation Program (NELAP) for Lab Services in July 2012, with 2 sections of the laboratory now fully certified, and 4 more sections working towards certification within the next 24 months. CMUD is also participating in the AWWA Partnership for Safe Water certification process for our water treatment facilities and distribution system, including Vest WTP, Lee Duke's WTP, and the Distribution System at Phase II of four phases, and Franklin WTP at Phase III certification, along with instituting reliability centered maintenance (RCM) practices in our sewer collection service, and implementing new quality assurance metrics in our customer service division.
- CMUD continues to strive to be good stewards in all parts of operations, including fuel consumption. In FY2012, CMUD completed a collaborative effort with UNC-Charlotte, Centralina Council of Governments (CCOG), and Central Piedmont Community College (CPCC) to assess the feasibility of using problematic fats, oil and grease (FOG) as biodiesel feedstock. This feasibility study of alternative fuel was supported in part by grant funds from the Biofuels Center of NC and the NC Green Fund. The study investigated 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 considered conventional

costs and total life cycle impact assessment. Final reporting, which indicated new potential operational approaches for wastewater utilities, was submitted in FY2012. Presentation of the results and the possibilities of identified sustainability practices, were given throughout the state by members of the collaboration. Additionally, new study work on Fuel Analysis for CMUD field operations, other City of Charlotte and UNC- Charlotte Alternative Fuels Feasibility Study work, and several other energy management and air quality initiatives, such as the installation of an electric vehicle charging station at one CMUD facility and the purchase of an electric vehicle, are all steps in the evolution towards greater sustainability within clean, efficient, cost effective utility operation. In FY2013, a citywide effort, in which CMUD is strongly involved, was initiated as a result of the Alternative Fuels Study. This effort is an exploration of a potential citywide RFP for infrastructure associated with alternative fuels and technology for city fleet.

- There are 75 Wastewater Lift Stations serving portions of the CMUD service area. Staff performed 160 preventive maintenance tasks for a total of 3,012 work hours. This does not include twice weekly station checks, wet well cleaning, emergency generator testing, or emergency/routine repairs. Turtle Rock, Stewart’s Crossing, Avensong, and Woodbury were removed from service due to the installation of new gravity outfalls.
- Construction of the Briar Creek Relief Sewer Project (Phase Two) began in Spring 2012. The project is 35% complete. Phase Three is being designed and will begin after Phase Two is complete.
- Construction of the McAlpine Creek Relief Sewer Project (Phase Three) began in October 2012 and is 20% complete.
- Construction of the McAlpine Creek Wastewater Treatment Plant Design Build Project began. It will add filters to improve reliability and provide redundancy. This project will not increase treatment capacities or permits. This is the first CMUD Design Build Project.





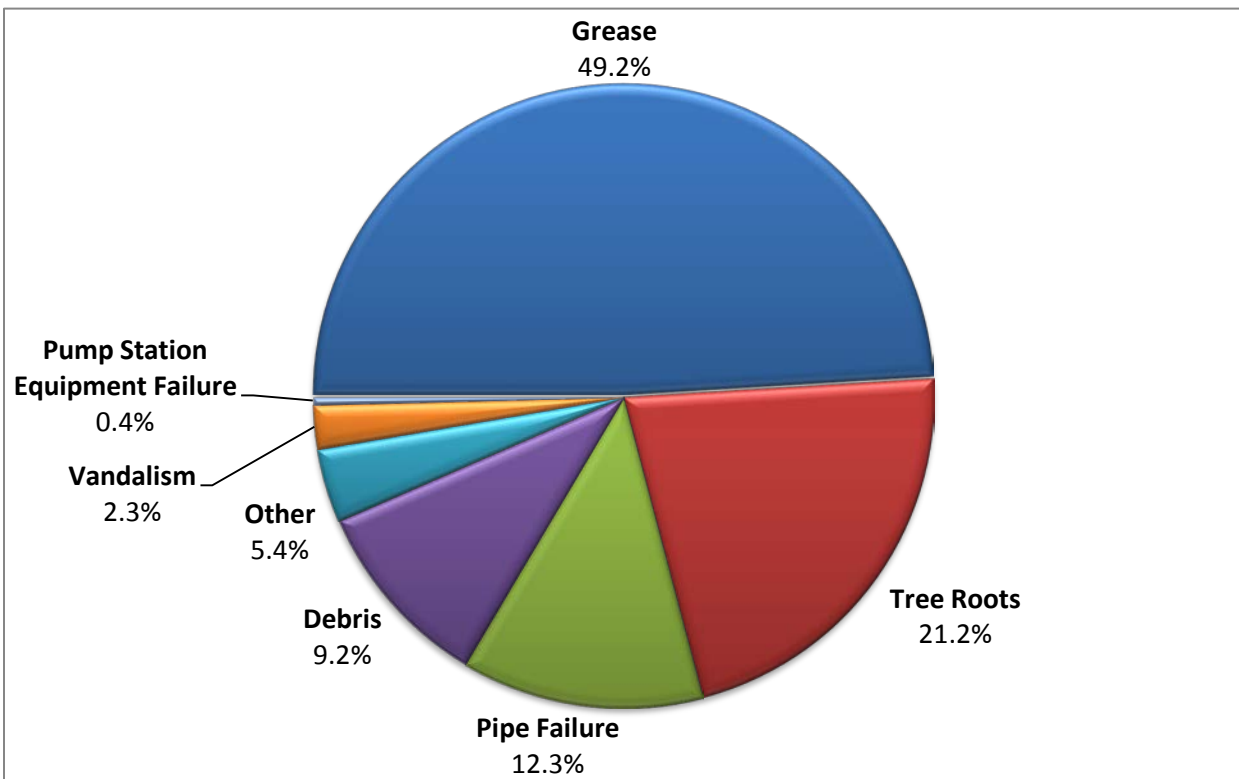
- CMUD and the North Carolina Urban Water Consortium worked with UNC-Charlotte (UNC-C) staff and students to create new educational materials. The students researched, created, and then presented brochures, social media, and educational documents to CMUD and other utilities in May. UNC-C will formally present to N.C. Urban Water Consortium in September. Some of the materials will be implemented during fiscal year 2014.
- City staff inspected grease-handling facilities at 4,664 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 this pipe-blocking menace. Inspectors mailed information to 3,250 customers near spill sites and handed out information to 11,624 customers in apartments / multi-family complexes.
- Staff conducted presentations to more than 1,550 children and adults. Multiple Earth Day events also provided opportunities to distribute Grease Free scrapers, pens and other items.
- CMUD continues to use door-hangers specifically for maintenance personnel or property managers 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.
- Bill insert in November mailed to 250,000 customer account holders each month. These also were repurposed as messages on our web site, and extra inserts were used at events.

Continuing Challenges

Wastewater Collection Challenges

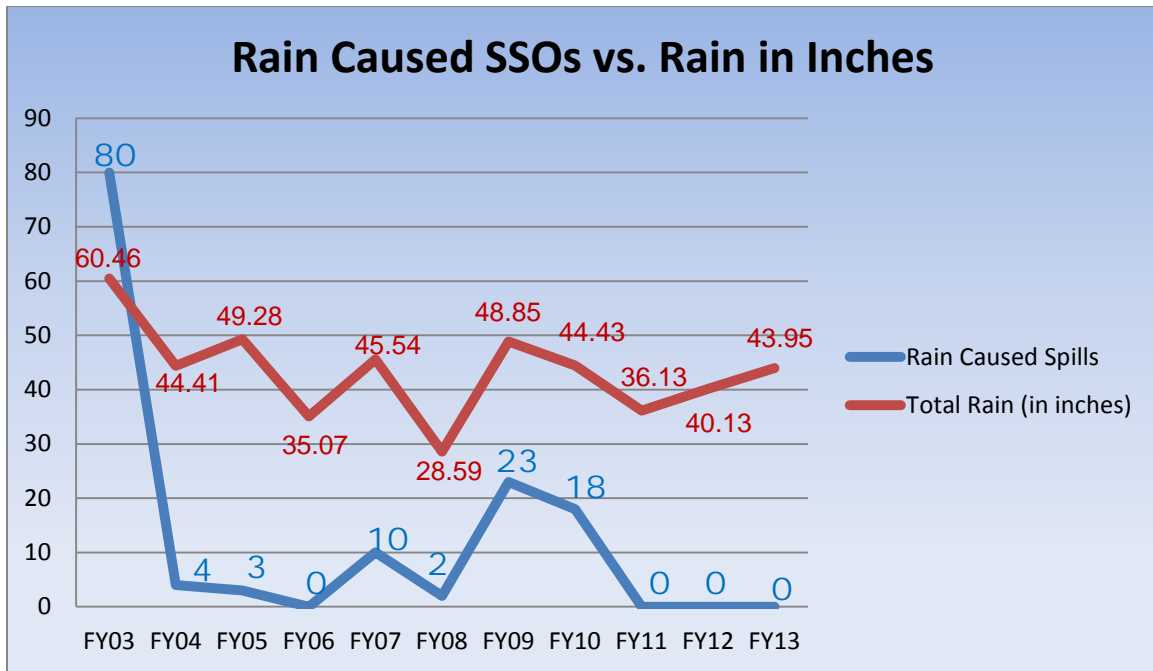
The greatest continuing wastewater challenge in this community – and in others across the U.S. – is sewage overflows. Of the 260 sewer spills that occurred, for the first time since recording primary causes, grease accounted for less than 50%. Grease has traditionally been the primary cause of 50-60% of spills. Other spill causes included the infiltration of tree roots into pipes, broken pipes, debris, and vandalism.

Fiscal Year 2013 Overflows by Primary Cause



Grease and other blockages that lead to sewer overflows are cleared by CMUD 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.

For the third straight year, CMUD successfully kept sewer in the pipe during large rain events. Large sewer pipes and regular cleanings are keys to this success.



CMUD Rapid Response Crews are quick to respond when notified of a possible spill. Crews responded to more than 90.4 percent of the spills within 60 minutes and more than 96.2 percent of the spills within 120 minutes. The state standard for response is 120 minutes or less.

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

Charlotte-Mecklenburg Utility Department (CMUD) 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 CMUD met several times to review the audit and actions taken since 2000. CMUD 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 Utility Department. This Administrative Order is a regulatory enforcement action that includes a series of steps CMUD 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 was 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 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 helped further guide our ongoing efforts to address a community problem. We have increased preventative line maintenance, capital improvements and other programs.

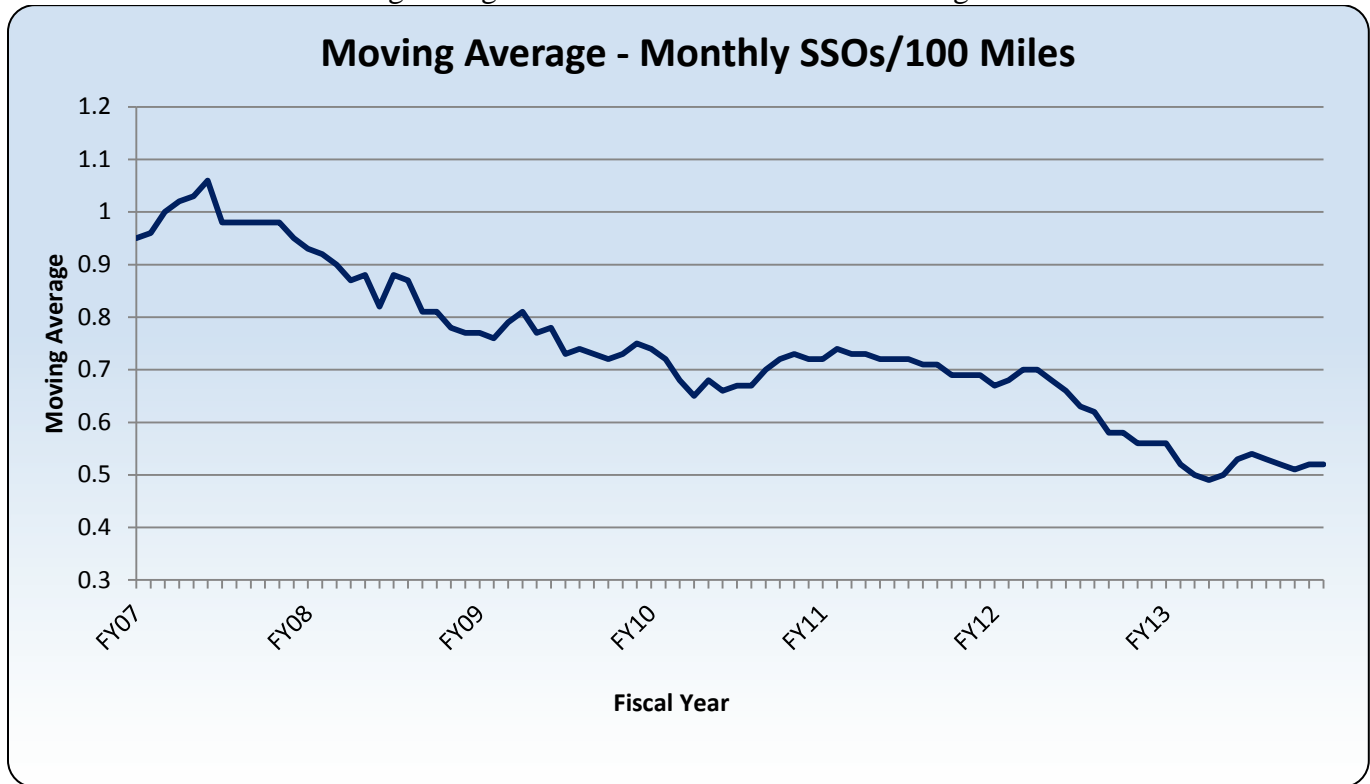
Comparing FY 2012 with FY 2013 SSOs, shows that CMUD has experienced a 7.5% decrease in total annual SSOs. Since 2007, CMUD’s annual SSO count has reduced as follows:

FY 2007	419
FY 2008	362
FY 2009	358
FY 2010	349
FY 2011	335
FY2012	281

The reduction in SSOs since the effective date of the Environmental Protection Agency Administration Order is 158 SSOs annually, or a 37.9% decrease.

As of June 30, 2012, CMUD completed all requirements set forth by the EPA order.

The below graph demonstrates the reduction in monthly SSOs / 100 Miles of collection system and the downward trend of the moving average since the Administrative Order began.



The City of Charlotte and Charlotte-Mecklenburg Utility Department is committed to the continuous improvement of our Management, Operations, and Maintenance Programs, to prevent SSOs.

Wastewater Treatment Plant Challenges

Charlotte-Mecklenburg Utility Department’s five wastewater treatment plants met 99.95 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 three (3) permit limit violations out of a potential of 5,820 compliance tests. These violations were for toxicity testing. The toxicity violations are very unusual and have raised questions about potential sampling or testing errors that could have contributed to these failures. Please see Section IIB of this report for additional details of these violations.

There was one sanitary sewer overflow at a wastewater treatment plant. On June 9, 2013, the McAlpine Creek Wastewater Treatment Plant had a valve that failed to close completely as rain diluted wastewater was moving from Equalization Basin into the treatment process. An estimated 2,500 gallons overflowed. Operators quickly stopped the spill. A formal news release was emailed to media.

Discharge of wastewater that had not completed all of the treatment processes occurred twice. During these events, the wastewater was treated with the exception of the final ultra-violet disinfection process. Operators on-site quickly responded and took appropriate steps to repair equipment and restore treatment process. No dead fish were found associated with this bypass.

CMUD 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 2013, the Trunkline Monitoring and Grease Free programs also continued, enabling CMUD's 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. Construction activity resulting from the study includes extensive rehabilitation and upgrades to Irwin Creek Wastewater Treatment Plant. These activities will improve overall efficiency at the plant. Phase two will start in FY14. At McAlpine Creek Wastewater Treatment Plant, the first CMUD Design Build Project started to add filters. This will improve reliability and provide redundancy. These projects will not increase treatment capacities or permits.

CMUD, Mount Holly, and Belmont entered into memorandums of understanding to create the partnership needed for the regional wastewater plant. Based on these agreements, CMUD purchased about 180 acres of land along with nutrient allocations from an existing industrial treatment plant. The agreements and nutrient allocation purchase will facilitate maintaining compliance with the Lake Wylie nutrient TMDL while planning and construction of the regional plant progresses. An Environmental Impact Statement is being completed with N.C. DENR. Once the E.I.S. is successfully completed and the NPDES permit is obtained, wastewater capacity requirements will be monitored and construction timed and sequenced to meet those needs.

III. Notification

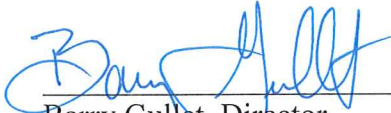
Sanitary sewer overflow and wastewater treatment plant details are included in Sections IIA and IIB.

This report is available to the users or customers of this system by clicking on the 'Education' link of the CMUD homepage at www.cmutilities.com. Printed copies are available at the Charlotte-Mecklenburg Government Center at 600 E. Fourth Street, Charlotte, NC 28202, Charlotte-Mecklenburg Utility Department buildings at 4222 Westmont Drive, Charlotte, NC 28217 and at 5100 Brookshire Boulevard, Charlotte, NC 28216. 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. The Spanish version will also be on the 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 Utility Department

8-14-2013
Date

IIA. Listing of Sewer Spills

The following is a list of spills (in gallons) from the public wastewater system that occurred between July 1, 2012 and June 30, 2013.

Date	Volume (Gallons)	Volume to Surface Water	Surface Water Name	Fish Kill ?	Address	Primary Cause
07/02/12	214	0	Long Creek	No	1904 Stoneyridge Dr	Grease
07/06/12	900	900	Edward Branch	No	1511 Lansdale Dr	Grease
07/08/12	198	198	McMullen Creek	No	1219 Redcoat Dr	Roots
07/09/12	290	0	Torrence Creek Tributary	No	12824 Heath Grove Dr (Huntersville)	Debris In Line
07/09/12	820	820	Little Sugar	No	7100 Marden Ct	Debris In Line
07/09/12	200	0	Four Mile Creek	No	308 Mcleod St (Matthews)	Roots
07/10/12	147	0	Not Applicable	No	929 Foxborough Rd	Debris In Line
07/16/12	880	880	Briar Creek	No	6600 Duncroft Ln	Debris In Line
07/17/12	252	0	Lake Norman	No	18420 Nantz Rd. (Cornelius)	Pipe Failure
07/17/12	82	82	McAlpine Creek	No	8601 Sunflower Rd	Roots
07/17/12	510	510	Long Creek	No	3404 Dunn Commons Py	Grease
07/20/12	1,520	1,520	Little Sugar Creek Tributary	No	2525 Forest Dr	Roots
07/21/12	2,400	2,400	McAlpine Creek	No	7522 Dwight St	Grease
07/23/12	185	185	Briar Creek	No	4242 Folkston Dr	Grease
07/26/13	13,170	13,170	Doby Creek Tributary	No	1328 Clooney Ln	Roots
07/28/12	2,424	2,424	Back Creek	No	1905 Forest Side Ln	Other
08/05/12	55	0	Four Mile Creek	No	3900 Woodfox Dr	Grease
08/08/12	100	100	Briar Creek	No	6101 Channing Ct	Other
08/14/12	434	0	Toby Creek	No	6630 Kemp St	Roots
08/15/12	450	450	Stoney Creek	No	3904 Thomas Ridge Dr	Grease
09/03/12	74	74	Briar Creek	No	1418 Briar Creek Rd	Grease
09/04/12	625	625	Little Sugar Creek	No	555 S Mcdowell St	Roots
09/10/12	175	175	Lake Cornelius Tributary	No	19901 Holiday Ln (Cornelius)	Grease

09/10/12	1,050	1,050	Irwin Creek	No	1908 Beatties Ford Rd	Grease
09/13/12	220	220	Briar Creek	No	2215 Wrenwood Pond Ct	Grease
09/13/12	195	195	Irwin Creek	No	320 Lincoln St	Grease
09/19/12	160	120	Briar Creek Tributary	No	2019 Shamrock Dr	Grease
09/20/12	5400	4590	Doby Creek	No	901 Doby Springs Dr	Grease
09/21/12	900	90	McMullen Creek	No	3700 Sharon View Rd	Grease
09/22/12	128	128	McAlpine Creek Tributary	No	7538 Barn Stone Dr	Grease
09/25/12	475	0	Taggart Creek	No	1713 Brooksvale St	Debris In Line
09/28/12	1725	1725	Reedy Creek Tributary	No	8904 Penstemons Dr	Grease
09/30/12	1,580	1,580	Mountain Island Lake	No	2522 Shady Reach Ln	Grease
09/30/12	63	63	Toby Creek	No	1532 Jeffrey Bryan Dr	Grease
10/02/12	3,200	3,200	Stewart Creek	No	1037 Swearngan Ridge Ct	Grease
10/04/12	1,125	225	Walker Branch	No	12402 Dove Meadow Dr	Pipe Failure
10/05/12	88	0	Not Applicable	No	366 N Caswell Rd	Grease
10/07/12	80	0	Not Applicable	No	7026 Albemarle Rd	Grease
10/09/12	285	285	Little Sugar Creek	No	6115 Park South Dr	Grease
10/09/12	70	0	Coffee Creek	No	1906 Ranchwood Dr	Grease
10/14/12	53	0	McAlpine Creek	No	8116 Ann Arbor Pl	Grease
10/15/12	750	750	Briar Creek Tributary	No	2111 Sharon Av	Grease
10/17/12	3,660	3,660	Sugar Creek	No	7030 Nations Ford Rd	Roots
10/20/12	1,470	800	Caldwell Station Creek	No	9109 Sam Furr Rd (Huntersville)	Grease
10/22/12	410	350	McIntyre Creek Tributary	No	6010 Patric Alan Ct	Grease
10/23/12	64	64	Paw Creek Tributary	No	1301 Ranch Rd	Debris In Line
10/24/12	180	180	Mallard Creek	No	9930 Alexander Glen Dr	Grease
10/24/12	261	60	Upper Sugar Creek Tributary	No	229 S Brevard St	Debris In Line
10/25/12	195	97	McMullen Creek	No	8132 Prince George Rd	Roots
10/26/12	2,080	2,080	McMullen Creek Tributary	No	960 Bridlepath Ln	Debris In Line
10/26/12	2,700	2,700	Dairy Branch	No	600 E Tremont Av	Pipe Failure

10/28/12	300		Not Applicable	No	3402 Pondridge Ct	Grease
10/29/12	510	510	Little Sugar Creek Tributary	No	230 Providence Rd	Pipe Failure
11/02/12	82	0	Lake Norman	No	18639 Nantz Rd (Cornelius)	Other
11/03/12	144	72	McMullen Creek	No	5219 Robinhood Rd	Grease
11/04/12	80	0	McMullen Creek	No	2136 Halford Pl	Roots
11/05/12	2,600	0	Taggart Creek	No	1808 Brooksvale St.	Other
11/05/12	343.75	343.75	Dairy Branch	No	1912 Lyndhurst Ave	Pipe Failure
11/06/12	248	0	Not Applicable	No	8017 King Rd	Roots
11/07/12	8,840	0	Little Sugar Creek Tributary	No	2100 Randolph Rd	Other
11/08/12	79	0	Taggart Creek	No	1808 Brooksvale St.	Other
12/09/12	680	0	Not Applicable	No	208 S Trade St (Matthews)	Grease
11/10/12	950	950	Irvin's Creek	No	9335 Camberwell Rd (Mint Hill)	Vandalism
11/11/12	275	137	Six Mile Creek	No	9015 Castlebay Dr	Roots
11/12/12	51	51	Upper Little Sugar	No	6538 N Tryon St	Grease
11/13/12	13	0	Taggart Creek	No	3915 Whitehall Dr	Grease
11/15/12	300	300	Irwin Creek Tributary	No	115 S Summit Av	Pipe Failure
11/16/12	213	107	Lake Norman	No	17211 Connor Quay Ct (Cornelius)	Pipe Failure
11/19/12	605	605	Edwards Branch	No	3501 N. Sharon Amity Rd.	Debris In Line
11/21/12	3000	2700	Ramah Creek	No	128 Three Greens Dr (Huntersville)	Grease
11/21/12	300	300	McMullen Creek	No	5200 Robinhood Rd	Pipe Failure
11/22/12	378	378	Ramah Creek	No	14802 Salem Ridge Rd (Huntersville)	Other
11/22/12	330	330	McAlpine Creek	No	5038 Carden Dr	Roots
11/24/12	300	0	McAlpine Creek	No	1019 Charter Pl	Roots
11/26/12	31	0	Little Sugar Creek	No	404 Hilo Dr	Grease
11/28/12	24.5	0	Taggart Creek	No	1808 Brooksvale St	Other
11/28/12	61	30	McIntyre	No	6221 McIntyre Ridge Dr	Roots
11/29/12	610	610	Rocky Branch	No	10315 Oak Pond Cr	Roots

11/29/12	5	272.5	Little Hope Creek	No	410 Greystone Rd	Pipe Failure
12/03/12	36	0	Sugar Creek	No	5201 Wales St	Roots
12/03/12	30	30	Sugar Creek	No	3443 Wilkinson Bv.	Grease
12/03/12	1260	1260	Walker Branch	No	12700 S Tryon St	Grease
12/04/12	194	0	Reedy Creek Tributary	No	8124 Ashwood Dr	Roots
12/06/12	750	750	Edwards Branch	No	3221 Monroe Rd	Grease
12/07/12	900	900	Dairy Branch	No	820 Brookside Av	Grease
12/07/12	695	695	Sugar Creek	No	1107 Cone Av (Pineville)	Roots
12/09/12	550	550	McMullen Creek	No	4147 Walker Rd	Pipe Failure
12/09/12	460	460	Little Hope Creek	No	200 Hollis Rd	Grease
12/10/12	300	60	Rea Branch	No	7621 Reavencrest Park Dr	Grease
12/10/12	25	0	Sardis Branch	No	7336 Westcott Tr	Roots
12/13/12	570	570	Irwin Creek Tributary	No	1830 Vinton St	Pipe Failure
12/15/12	216	216	Irwin Creek	No	2501 Crispin Av	Roots
12/16/12	300	30	Big Sugar Creek	No	5401 Queen Anne Rd	Debris In Line
12/16/12	52	0	Little Sugar Creek Tributary	No	700 E Worthington Av	Grease
12/18/12	1370	1370	Caldwell Station Creek	No	19760 Feriba Pl (Cornelius)	Grease
12/18/12	2140	2140	Six Mile Creek	No	17418 Westmill Ln	Grease
12/19/12	300	300	Upper Little Sugar	No	1400 Ventura Way Dr	Grease
12/19/12	40	40	Little Sugar Creek Tributary	No	2521 Merrywood Rd	Pipe Failure
12/19/12	200	190	Little Sugar Creek	No	6029 Crosswood Ct	Grease
12/19/12	1500	1500	Doby Creek	No	627 Graham Meadow Dr	Grease
12/22/12	52.5	0		No	2537 Knollwood Rd	Grease
12/22/12	120	0	Briar Creek	No	2621 Ashley Rd	Roots
12/22/12	2610	705	Mallard Creek	No	3718 Chepstow Ct	Debris In Line
12/23/12	12.5	0		No	518 Sleepy Hollow Rd	Grease
12/24/12	190	190	Edwards Branch	No	1015 W Dresden Dr	Roots
12/25/12	60	0	Gambles Creek	No	19916 Burton Ln	Roots
12/26/12	1050	1050	Stewart Creek	No	4920 Morgan St	Grease
12/26/12	75	75	Lake Norman	No	17211 Connor Quay Ct	Pipe Failure

					(Cornelius)	
12/28/12	52	6	McAlpine Creek	No	2729 Quailrush Rd	Grease
12/28/12	460	460	Gum Branch Creek	No	7524 Kenstead Cr	Roots
12/30/12	656	656	McAlpine Creek	No	6017 Falstaff Dr	Grease
12/31/12	51	0	Lake Norman	No	110 Davidson Gateway Dr (Davidson)	Pipe Failure
01/02/13	600	300	Lake Davidson	No	20723 Torrence Chapel Rd. (Cornelius)	Pipe Failure
01/02/13	520	520	Dairy Branch	No	2701 Park Rd	Debris In Line
01/02/13	110	0	Taggart Creek	No	1807 Brooksvale St	Debris In Line
01/02/13	175	100	Campbell Creek	No	5616 Farm Pond Ln	Grease
01/03/13	650	0		No	8120 England St	Roots
01/03/13	675	0	West Branch Rocky River	No	18924 Riverwest Ct (Davidson)	Grease
01/05/13	98	0	Irwin Creek	No	2852 Willow St	Roots
01/07/13	30	0	Briar Creek	No	3204 Monroe Rd	Grease
01/08/13	1800	1800	South Prong Clarks Creek	No	201 Second St (Huntersville)	Grease
01/09/13	514.5	514.5	Little Sugar Creek	No	2521 Merrywood Rd	Pipe Failure
01/09/13	600	600	Lake Norman	No	22121 Satilla Dr (Cornelius)	Pipe Failure
01/12/13	75	0	Rea Branch	No	5710 Cary Ridge Dr	Grease
01/16/13	357	357	Reedy Creek	No	6315 Market St	Grease
01/17/13	1,160	1,160	Brier Creek	No	2010 Bay St	Grease
01/19/13	60	0	McAlpine Creek	No	3232 Johnny Cake Ln	Roots
01/20/13	330	330	Lake Norman	No	21359 Crown Lake Dr (Cornelius)	Pipe Failure
01/14/13	110	55	Little Sugar Creek	No	2343 Eastway Dr	Grease
01/22/13	248	0	Mountain Island Lake	No	2214 Sun Meadow Ln	Other
01/22/13	220	0	Briar Creek	No	1619 Medford Dr	Roots
01/22/13	1,650	1,650	Stewart Creek	No	1634 W Morehead St	Pipe Failure
01/23/13	180	0	Lake Norman	No	19108 Betty Stough Rd (Cornelius)	Pipe Failure

01/23/13	203	203	McMullen Creek	No	5411 Doncaster Dr	Grease
01/24/13	525	525	Irwin Creek	No	1132 Blazer Dr	Grease
01/26/13	302	302	McAlpine Creek	No	2511 Lynbridge Dr	Grease
01/26/13	1380	680	Rocky Branch	No	10625 Oak Pond Cr	Roots
01/26/13	300	300	Irwin Creek	No	3336 Autumn Ridge Dr	Roots
01/27/13	305	305	Four Mile Creek	No	6501 Glynmoor Lakes Dr	Roots
01/28/13	1,490	596	McAlpine Creek	No	6725 Old Providence Rd	Roots
01/28/13	300	300	McAlpine Creek	No	5000 Erickson Rd	Debris In Line
01/29/13	990	990	Little Sugar Creek Tributary	No	6046 Brookhaven Rd.	Pipe Failure
01/29/13	3,960	3,960	Little Sugar Creek	No	8036 Tifton Rd	Grease
01/31/13	184	184	Irwin Creek	No	3247 Dalecrest Dr	Roots
02/01/13	45	0	Campbell Creek	No	7500 Idlewild Rd	Debris In Line
02/04/13	95	95	Little Sugar Creek	No	1932 Pegram St	Grease
02/08/13	2900	2175	Taggart Creek	No	3934 Hager Dr	Roots
02/10/13	460	460	Toby Creek	No	8924 Nottoway Dr	Grease
02/08/13	93	93	Kings Branch	No	5917 Cherrycrest Ln	Pipe Failure
02/12/13	1,700	0	Kings Branch	No	605 Silverleaf Rd	Debris In Line
02/12/13	1,500	1,500	Four Mile Creek	No	1947 Wilrose Pl (Matthews)	Grease
02/12/13	84	84	Little Sugar Creek	No	3300 Woodbine Ln	Debris In Line
02/15/13	1,060	1,060	Campbell Creek	No	6604 Wagon Oak Rd	Grease
02/15/13	2730	2730	Campbell Creek	No	6801 Rambling Rose Dr	Grease
02/15/13	81	81	Briar Creek	No	2301 Mecklenburg Av	Roots
02/15/13	585	585	Four Mile Creek	No	432 River Banks Rd (Matthews)	Grease
02/16/13	242	0	Torrence Creek	No	14333 Hunters Rd (Huntersville)	Grease
02/19/13	5040	0	Little Sugar Creek	No	729 Baldwin Av	Pipe Failure
02/19/13	300	300	Irwin Creek	No	4347 Statesville Rd	Roots
02/20/13	137	137	Four Mile Creek	No	448 Sadie Dr (Matthews)	Debris In Line
02/20/13	800	800	Stewart Creek	No	4404 Stuart Andrew Bv	Debris In Line
02/20/13	2,220	2,220	Steele Creek	No	11004 Steele Creek Rd	Grease
02/21/13	83	0	McAlpine Creek	No	711 Regency Dr	Grease
02/21/13	222	0	McMullen Creek	No	1101 Rosewood Cr	Roots

02/21/13	105	0	Irvin's Creek	No	9201 Lawyers Rd (Mint Hill)	Grease
02/24/13	485	400	Walker Branch Tributary	No	13102 S Tryon St	Grease
02/25/13	241	120	Lake Norman	No	18532 Torrence Chapel Estates Cr (Cornelius)	Pipe Failure
02/26/13	420	420	Irwin Creek	No	1501 McDonald St	Roots
02/28/13	238	0	Upper Little Sugar Creek.	No	3502 Frew Rd	Grease
03/01/13	870	435	McMullen Creek	No	11507 Painted Tree Rd	Roots
03/01/13	2,340	1,440	Mallard Creek	No	4421 Brandie Glen Rd	Grease
03/03/13	585	585	Lil Sugar Creek	No	424 N College St	Grease
03/04/13	300	300	McAlpine Creek	No	14483 Nolen Ln	Grease
03/04/13	1,200	1,200	McMullen Creek	No	3207 Johnny Cake Ln	Pipe Failure
03/05/13	4,540	4,540	Stony Creek	No	12321 Mallard Creek Rd	Pipe Failure
03/05/13	1,270	1,143	Campbell Creek	No	6348 Green Vista Ct	Vandalism
03/08/13	153	76	Mountain Island Lake	No	2215 Sun Meadow Ln	Pipe Failure
03/12/13	114	0	Stewart Creek	No	4705 Wildwood Av	Debris In Line
03/13/13	370	370	Edwards Branch	No	3532 N Sharon Amity Rd	Grease
03/14/13	530	530	Irwin Creek	No	2738 Celia Av	Pipe Failure
03/14/13	300	300	Reedy Creek	No	11601 Calgary Dr	Grease
03/15/13	120	0	Not Applicable	No	6244 River Cabin Ln	Pipe Failure
03/19/13	108	108	McMullen Creek	No	6817 Carmel Rd Apartment	Roots
03/19/13	74	0	Torrence Creek	No	100 N Statesville Rd (Huntersville)	Grease
03/22/13	415	415	McAlpine Creek	No	7500 Sardis Rd	Grease
03/22/13	2780	2780	Irwin Creek Tributary	No	533 Chicago Av	Grease
03/22/13	3	3	Irwin Creek	No	3000 Barringer Dr	Other
03/25/13	1695	1695	Little Sugar Creek	No	6330 Hazelton Dr	Grease
03/28/13	590	590	McAlpine Creek	No	11421 Painted Tree Rd	Vandalism
03/28/13	550	550	Campbell Creek	No	5315 Coronado Dr	Grease
03/29/13	470	470	Irvin's Creek	No	629 Creekwood Ct (Matthews)	Grease
03/30/13	1575	0	Toby Creek	No	8410 Knollwood Cr	Grease

04/02/13	21	0	Paw Creek	No	1439 Little Rock Rd	Grease
04/02/13	180	180	McAlpine Creek	No	729 Peranna Pl	Grease
04/06/13	155	155	McAlpine Creek Tributary	No	423 Whitestone Rd	Roots
04/06/13	690	550	Idlewild Creek	No	6627 Barcliff Dr	Vandalism
04/06/13	778	778	Campbell Creek	No	6616 Highbrook Dr	Debris In Line
04/08/13	13	13	Little Hope Creek Tributary	No	646 Manhasset Rd	Roots
04/09/13	650	552.5	McAlpine Creek	No	421 Livingston Dr	Roots
04/10/13	1560	1560	Briar Creek	No	3316 Sam Drenan Rd	Grease
04/11/13	450	400	Reedy	No	6624 Lakeside Dr	Grease
04/11/13	189	189	Paw Creek (Tricer Branch)	No	2150 Pheasant Glen Rd	Grease
04/12/13	532	425	Dairy Branch	No	1148 Park West Dr	Debris In Line
04/12/13	360	180	Rea Branch	No	7701 Bedfordshire Dr	Roots
04/15/13	252	0	Catawba River Tributary	No	11815 Kilrush Dr	Debris In Line
04/16/13	615	615	Six Mile Creek	No	16615 Bridgehampton Club Dr	Grease
04/16/13	4.4	0	Not Applicable	No	125 Boatright Rd (Pineville)	Roots
04/16/13	4,389	4,389	Gum Branch Creek	No	1718 Plumcrest Dr	Grease
04/18/13	155	0	Sugar Creek Tributary	No	4500 Rose Ridge Pl	Grease
04/18/13	1480	1480	McMullen Creek	No	4617 Colony Rd	Grease
04/18/13	2	0	Dixon Branch	No	8918 Treyburn Dr	Vandalism
04/19/13	140	135	Briar Creek	No	2762 Meadowcliff Dr	Grease
04/18/13	1820	1820	Steward Creek	No	4612 Sampson St	Grease
04/21/13	336	0	McAlpine Creek	No	1800 Pineville-Matthews Rd Lot 508	Grease
04/24/13	3640	364	Briar Creek	No	220 Wyanoke Av	Roots
04/27/13	45	0	Briar Creek	No	3445 Windsor Dr	Grease
05/01/13	1410	705	Briar Creek	No	201 Wyanoke Av	Roots
05/03/13	111	55.5	Mallard Creek Tributary	No	10028 Mallard Creek Rd	Roots
05/04/13	270	270	Briar Creek	No	2620 Dunlavin Wy	Grease

05/04/13	550	550	Four Mile Creek	No	2227 Blue Bell Ln	Roots
05/06/13	292	0	McMullen Creek	No	4053 Arborway	Roots
05/07/13	106	0	Irwin Creek	No	1609 Whisnant St	Grease
05/07/13	415	0		No	7455 Albemarle Rd	Grease
05/08/13	132	132	Four Mile	No	15139 Wyndham Oaks Dr	Grease
05/08/13	900	450	McMullen Creek	No	516 Nottingham Dr	Roots
05/08/13	265	238.5	Kings Branch	No	636 Archdale Dr	Grease
05/09/13	720	720	Little Hope Creek Tributary	No	5311 Baker Dr	Pipe Failure
05/10/13	3190	3190	Irwin Creek	No	1032 Woodward Av	Pipe Failure
05/11/13	1160	1160	Clark Creek	No	5004 Bellville Ct	Debris In Line
05/12/13	23	12	Davis Lake	No	4912 Downing Creek Dr	Grease
05/13/13	285	285	Paw Creek	No	4409 Gatewood Dr	Grease
05/13/13	820	820	Stewart Creek	No	530 Gallagher St	Grease
05/16/13	7	0	Irwin Creek Tributary	No	2800 Baltimore Av	Grease
05/16/13	235	235	Mallard Creek	No	1204 Ogden Pl	Roots
05/17/13	780	780	Briar Creek	No	3747 Delgany Dr	Grease
05/18/13	340	340	Four Mile Creek	No	1030 Matthews School Rd (Matthews)	Grease
05/18/13	156	156	Dixon Tributary	No	9300 Feldbank Dr	Grease
05/25/13	180	100	North Prong Clark Creek	No	15900 Cranleigh Dr (Huntersville)	Grease
05/26/13	56	56	Paw Creek	No	4745 Palm Breeze Ln	Grease
05/27/13	100	50	Irwin Creek	No	3449 Reid Av	Debris In Line
05/28/13	900	450	Gum Branch	No	6720 Raysmoor Dr	Grease
05/29/13	60	0	Lake Norman	No	17926 John Connor Rd (Cornelius)	Pipe Failure
05/30/13	1,012	1,012	Little Hope Creek	No	700 Heather Ln	Grease
06/02/13	11,760	11,760	Clems Branch	No	26251 Camden Woods Rd	Pump Station Equipment Failure
06/05/13	2270	2270	Gum Branch	No	401 Cottonwood Park Dr	Roots
06/10/13	204	0	Rea Branch	No	7112 Wessynton Dr	Roots

06/13/13	207	207	McMullen Creek	No	8401 Castlekeep Rd	Grease
06/18/13	240	240	Briar Creek	No	5913 Plainfield Dr	Grease
06/19/13	60	0	Mt. Island Lake	No	1408 Wrangell Ln	Pipe Failure
06/20/13	135	135	Rea Branch	No	630 Brackenbury Ln	Grease
06/20/13	990	990	McMullen Creek	No	6500 Sharon Hills Rd	Roots
06/21/13	200	200	Steele Creek	No	9333 Forsyth Park Dr	Grease
06/23/13	1040	0	McMullen Creek	No	4107 Tapperty Cr	Grease
06/22/13	690	690	McAlpine Creek	No	9531 Barkridge Rd (Mint Hill)	Grease
06/23/13	175	87.5	Mallard Creek	No	6517 Wild Orchid Ct	Grease
06/23/13	1,658	1,658	Briar Creek Tributary	No	2100 Eastway Dr	Grease
06/24/13	332	292	Irwin Creek	No	4606 Biesterfield Dr	Grease
06/24/13	16	0	Briar Creek	No	3614 Jonquil St	Vandalism
06/25/13	42	0	Four Mile	No	9929 Elm Creek Ln	Roots
06/28/13	910	0	Irvin's Creek	No	548 W Charles St (Matthews)	Grease

TOTAL NUMBER OF FY2013 COLLECTION SYSTEM SPILLS: 260

Volume Safely Collected, Treated & Discharged During Fiscal Year 2013: 28,771,000,000 Gallons
Volume Spilled: 208,582 Gallons

PERCENTAGE OF WASTWATER SAFELY COLLECTED, TREATED AND RELEASED DURING

FY13: more than 99.9992%
FY12: more than 99.9977%
FY11: more than 99.9986%
FY10: more than 99.9973%
FY09: more than 99.9987%

SECTION IIB. Permit Compliance and Reporting Violations, by plant

Irwin Creek WWTP -- NPDES Permit #NC0024945

MONTH	PERMIT LIMIT COMPLIANCE	REPORTING REQUIREMENT COMPLIANCE
July, 2012	None	None
August, 2012	None	None

September, 2012	None	None
October, 2012	None	None
November, 2012	None	None
December, 2012	None	None
January, 2013	Irwin Creek failed toxicity in the month of January. CMUD-SPS began an investigation into the cause of the failure.	None
February, 2013	Irwin Creek failed toxicity in the month of February. CMUD-SPS is continuing with their investigation into the cause of the failure.	None
March, 2013	Irwin Creek failed toxicity in the month of March. CMUD-SPS is continuing with their investigation into the cause of the failure.	None
April, 2013	None	None
May, 2013	None	None
June, 2013	None	None

Mallard Creek WRF -- NPDES Permit #NC0030210

MONTH	PERMIT LIMIT COMPLIANCE	REPORTING REQUIREMENT COMPLIANCE
July, 2012	None	None
August, 2012	None	None
September, 2012	None	None
October, 2012	None	None
November, 2012	None	None
December, 2012	None	None
January, 2013	None	None
February, 2013	None	None
March, 2013	None	None
April, 2013	None	None
May, 2013	None	None
June, 2013	None	None

McAlpine Creek WWTF -- NPDES Permit #NC0024970

MONTH	PERMIT LIMIT COMPLIANCE	REPORTING REQUIREMENT COMPLIANCE
July, 2012	None	None
August, 2012	None	None

September, 2012	None	None
October, 2012	None	None
November, 2012	None	None
December, 2012	None	None
January, 2013	None	None
February, 2013	None	None
March, 2013	None	None
April, 2013	None	None
May, 2013	None	None
June, 2013	None	None

McDowell Creek WWTP -- NPDES Permit #NC0036277

MONTH	PERMIT LIMIT COMPLIANCE	REPORTING REQUIREMENT COMPLIANCE
July, 2012	None	None
August, 2012	None	None
September, 2012	None	None
October, 2012	None	None
November, 2012	None	None
December, 2012	None	None
January, 2013	None	None
February, 2013	None	None
March, 2013	None	None
April, 2013	None	None
May, 2013	None	None
June, 2013	None	None

Sugar Creek WWTP -- NPDES Permit #NC0024937

MONTH	PERMIT LIMIT COMPLIANCE	REPORTING REQUIREMENT COMPLIANCE
July, 2012	None	None
August, 2012	None	None
September, 2012	None	None
October, 2012	None	None

November, 2012	None	None
December, 2012	None	None
January, 2013	None	None
February, 2013	None	None
March, 2013	None	None
April, 2013	None	None
May, 2013	None	None
June, 2013	None	None