



WASTEWATER PERFORMANCE REPORT



JULY 1, 2023 - JUNE 30, 2024

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WATER

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4222 Westmont Drive Charlotte, NC 28217

I. General Information

Name of Regulated Entity and Responsible Person

City of Charlotte
Angela Charles, Director
Charlotte Water (CLTWater)
Administration Division
4222 Westmont Drive
Charlotte, NC 28217
704-336-4407

Applicable Permits

There are six wastewater treatment plants (WWTP) owned and operated by Charlotte Water (CLTWater). 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.

WWTP	NPDES Permit Number	ORC	Phone
Irwin Creek WWTP	NC0024945	Jacob Bolick	704-336-2572
Mallard Creek WRF	NC0030210	Henry Eudy	704-336-1024
McAlpine Creek WWMF	NC0024970	Reid Smith	704-542-0736
McDowell Creek WWTP	NC0036277	Dan Matias	704-336-1125
Sugar Creek WWTP	NC0024937	Donna Slachciak	704-432-2510
Ashe Plantation WWTP	NC0065749	Jeremy Nance	704-634-3389

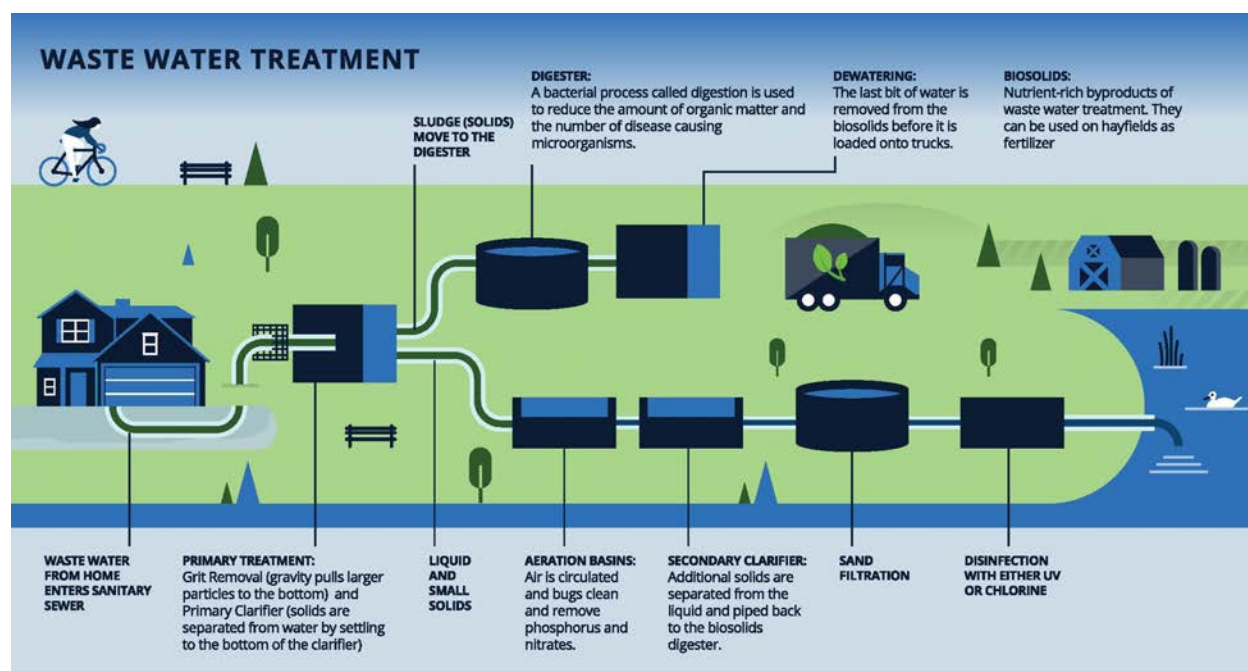
WW COLLECTION	NCDWQ Permit Number	ORC	Phone
4100 W. Tyvola Rd.	WQCS00001	Steven Wroblewski Malcom Edwards (backup)	704-432-2748 704-649-5098

Description of collection and treatment systems

Charlotte Water (CLTWater) collects wastewater from approximately 292,053 households and businesses throughout the county. Wastewater is collected and directed (via gravity flow supported by sewage lift stations) to one of six CLTWater wastewater treatment plants or the Rocky River Regional Plant (owned and operated by the Water and Sewer Authority of Cabarrus County [WSACC]) where it is treated. An average of 86 million gallons of wastewater is treated and discharged each day from CLTWater plants. CLTWater sends an average of 4.96 million gallons per day (MGD) of wastewater to the Rocky River Regional Wastewater Treatment Plant (WWTP) operated by WSACC. Roughly 2.1 MGD of wastewater from Union County is treated at McAlpine Creek WWTP, roughly 5.2% of its 40.6 MGD annual average daily flow (AADF) treatment volume.

More than 300 of CLTWater's 1,106 employees work to maintain 4,595 miles of collection pipelines and 74 wastewater lift stations throughout the county. The gravity wastewater pipes in this system range in size from 8 inches in diameter to 78 inches in diameter.

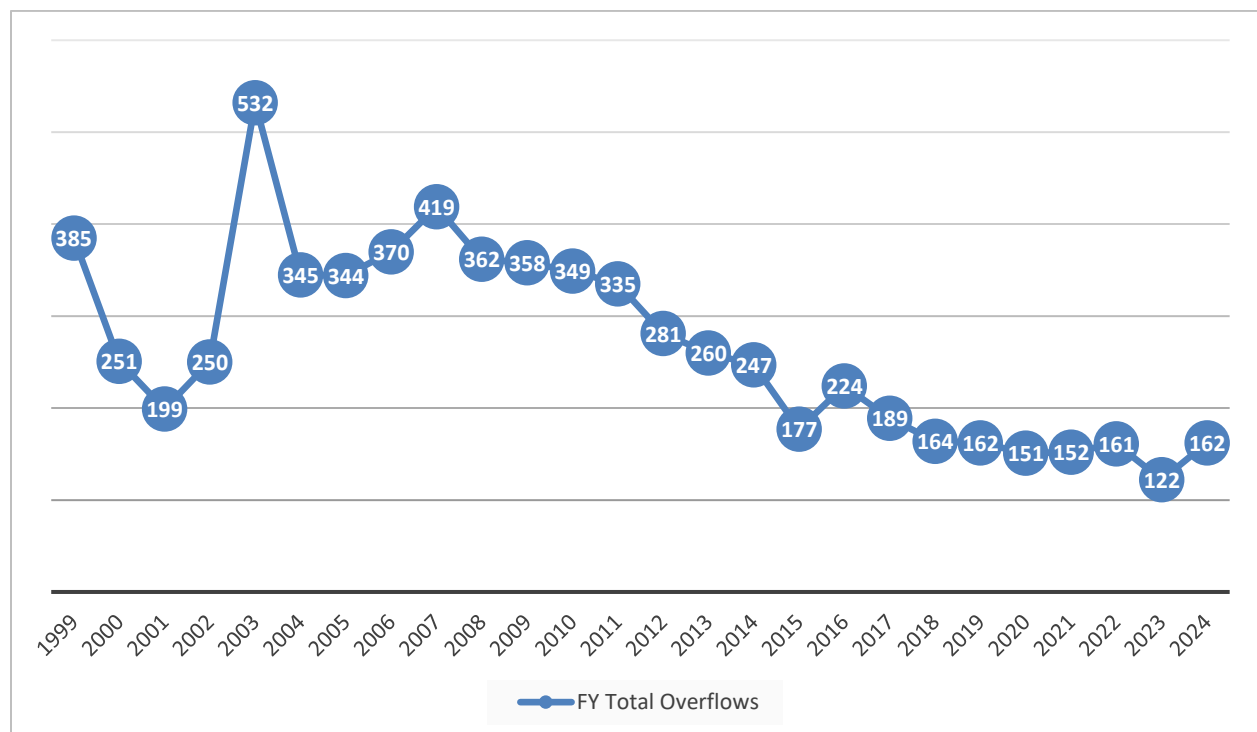
Each of CLTWater's wastewater treatment plants applies primary, secondary and tertiary treatment to the waste stream. Large solid particles and inorganic materials are removed by screening and settling. The wastewater is treated biologically to remove dissolved pollutants. The waste stream passes through granular filters to remove very small particles that may not have been removed through the settling process. Finally, disinfection reduces bacterial and pathogenic materials. The treated water is released to the nearby creek.

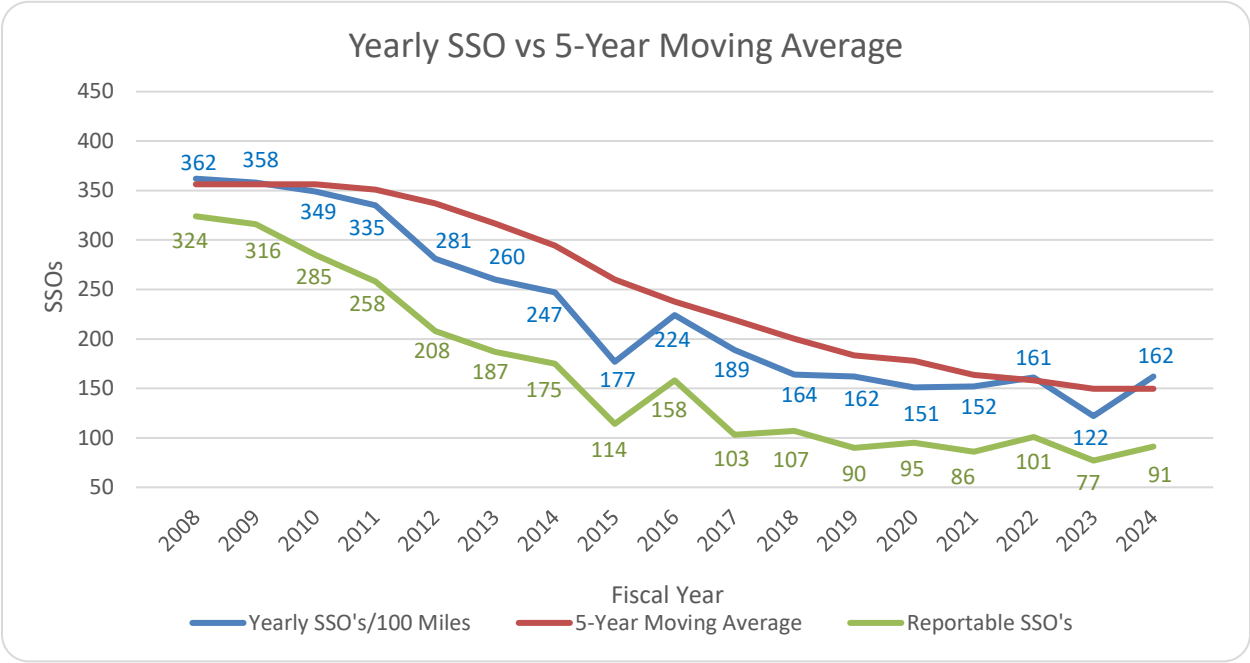


1. **Primary Treatment**
Solid particles & objects are captured by screens, grit chambers, and primary clarifiers.
2. **Aeration/Secondary Treatment**
Wastewater is aerated to support growth of microorganisms that remove harmful pollutants. Nutrient levels are reduced at McDowell and McAlpine Creek Wastewater Treatment Plants.
3. **Clarification**
Solids and microorganisms settle out in large basins.
4. **Tertiary Treatment**
Wastewater flows through granular filters to remove fine particles.
5. **Disinfection**
Water is disinfected to remove any remaining pathogens, and then the treated water is released into creeks.

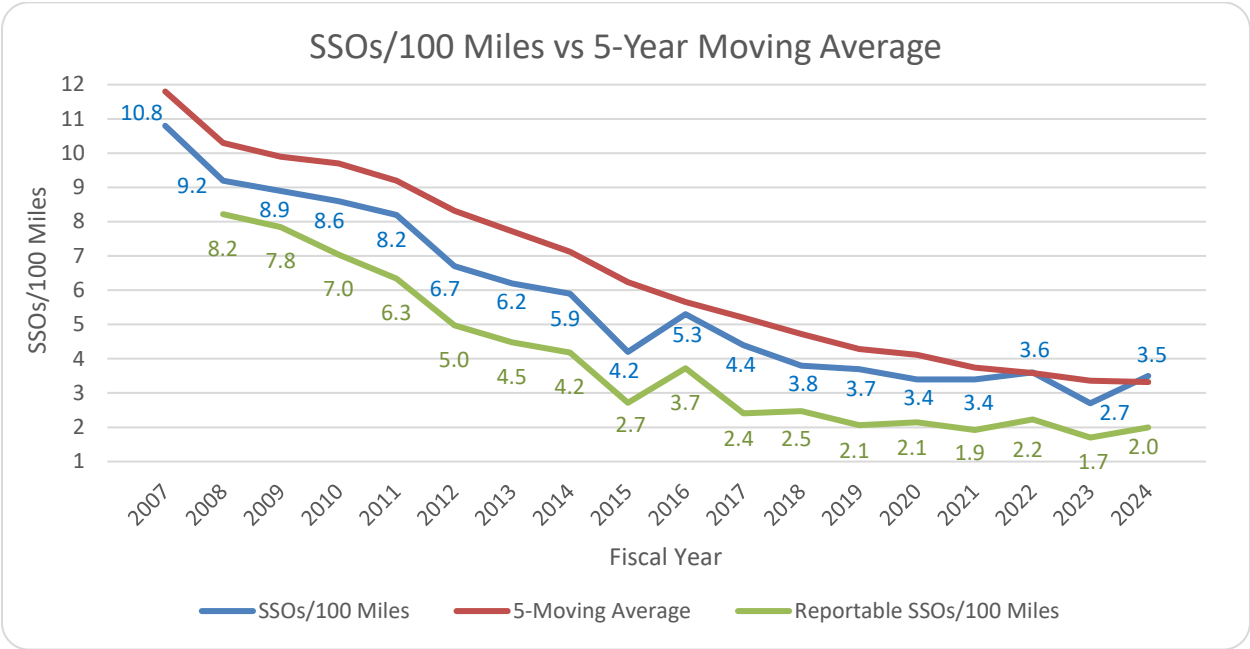
II. Summary of System Performance

FY24 Performance





The number of spills per 100 miles of pipe continued to decline in general from 9.2 in fiscal year 2008 to 3.5 spills (2 reportable spills) in fiscal year 2024 as illustrated by the table below.



Inspection crews and our customers find overflows. Overflows from the wastewater collection system are discovered during routine inspections of the system and through reports from the public to our 311 Customer Service Call Center. CLTWater notifies media any time a sanitary sewer overflow results in 1,000 gallons or more reaching surface

waters or any size overflow reaching recreational waters. Crews provide notices to customers to the overflow via calls, texts, and/or emails and posts on Nextdoor social media. A legal notice is posted in the Charlotte Observer when overflows of 15,000 gallons or more reach surface waters.

This annual report includes all incidents where wastewater escaped out of a public manhole or public collection system pipe before reaching proper treatment, including spills less than required reporting thresholds (i.e. less than 1,000 gallons or any amount reaching surface water). There were 91 reportable spills (by State definition) during fiscal year 2024. All spill response protocols are followed regardless of the spill volume or reporting status. Private spills and sewer backups inside homes are not included. The report summarizes spills (both reportable to the State and SSOs that do not meet State definition) and other challenges at wastewater treatment plants.

CLTWater 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, wipes, and grease, as well as replacing, repairing or rehabilitating broken and aging pipes. CLTWater has increased its efforts to educate customers about properly disposing of fats, oils, and grease (FOG).

Performance Highlights

CLTWater celebrated some important milestones in FY2024 while taking numerous actions to prevent overflows and protect water quality through effective wastewater treatment.

- All six water resource recovery facilities earned Peak Performance Awards from the National Association of Clean Water Agencies (NACWA) for the calendar year ending 2023. 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.
 - McAlpine Creek Water Resource Recovery Facility was awarded its twelfth Platinum Award for sixteen consecutive years of perfect compliance. (Five years of perfect compliance are needed to achieve the Platinum award.)
 - McDowell Creek Water Resource Recovery Facility earned their seventh consecutive Platinum Award for eleven consecutive years of perfect compliance.
 - Mallard Creek Water Resource Recovery Facility earned their fourth Platinum Award for eight years of perfect compliance.
 - Irwin Creek Water Resource Recovery Facility earned their fourth consecutive Gold Award for four consecutive years of perfect compliance.
 - Ashe Plantation earned their first Platinum Award for five consecutive years of perfect compliance.
 - Sugar Creek Water Resource Recovery Facility earned a Silver Award.
 - Over 7,100 compliance judgement points were met during the 2023 calendar year.
- 15.88 miles of wastewater pipe and 2,113 manholes were rehabilitated or replaced.
- 293 miles of wastewater pipe were treated with root control chemicals.

- 877 miles of wastewater lines were cleaned (including some multiple cleanings in the same location) by CLTWater Field Operations Staff and contractors.
- 113 wastewater service connections were replaced.
- 173 miles of rights of way were cleared by contractors to maintain access to off-street sanitary wastewater pipes and to help prevent root intrusions.
- 111 miles of pipe were closed-circuit television recorded (CCTV) for inspection by CLTWater staff and contractors.
- There are 74 Wastewater Lift Stations serving the CLTWater service area. Staff performed 136 preventative maintenance/electrical tasks for a total of 3597 work hours. This does not include daily/weekly station checks, wet well cleaning, emergency generator testing, or emergency/routine repairs. Deerwood Lift Station was removed this year.
- McAlpine Creek Wastewater Treatment Plant captures and converts methane gas (a byproduct of wastewater treatment) into a fuel for electricity production and useful heat. In the past 12 months the Combined Heat & Power (CHP) system engine has generated more than 3.9 million kilowatt hours of energy. Since it started running, the CHP has generated in excess of 39.7 million kilowatt hours of clean energy approaching \$1.787 million in gross revenue back to the City. Methane gas is also generated at Irwin, McDowell, and Mallard WWTPs. There, methane gas is used to generate heat required for anaerobic digestion to treat the solids produced during the treatment process.

Capital & Community Investment Highlights

Projects in Progress in FY24

- The first phase of the Stowe Regional Water Resources Recovery Facility (WRRF) construction is well underway and has reached approximately 33% completion. The Stowe WRRF will start with the capacity to process up to 15 million gallons of wastewater per day. The first phase is scheduled for completion in 2027. Future Phase 2 will expand the facility's wastewater treatment capacity to be able to process 25 million gallons of wastewater per day. The Mount Holly Pump Station & Force main project wrapped up this Fiscal year. Learn more about the project at <https://stoweregionalwrrf.com>.
- Little Hope Creek Wastewater Project (Phase 2) began March 2022 and was completed. The existing pipes are reaching the end-of-life expectancy and substantial growth requires larger wastewater pipes to serve the area. Phase 2 is an investment of approximately \$25 million. Phase 3 is approximately three miles of pipe upsizing. Phase 3a.1 will be completed early fiscal year 2025. The total investment for Phases 1-3 is approximately \$50 million.
- Derita Branch Tributary Wastewater Project Phase 2 started. The combination of Phase 1 and Phase 2 projects is a \$24+ million investment to upsize pipe to accommodate current and future capacity.

Projects Completed in FY24

- Dairy Creek Wastewater Project (Phase 2) started September 2021 and was completed this year. The project replaced wastewater pipe from Kenilworth Road to South Boulevard.
- Derita Branch Tributary Wastewater Project Phase 1 was completed in late 2023.



Fats, Oils and Grease Education Highlights

- Charlotte Water started a fats, oil and grease reduction effort during the late 1990s to educate customers about food related clogs that lead to sanitary sewer overflows. In 2017, Charlotte Water rebranded to FlowFree to focus on other overflow contributors now that grease related spills continue to decline.
- In FY24, CLTWater staff inspected grease-handling facilities at 4,244 food service establishments and restaurants (not including follow-up inspections) to ensure proper grease disposal. BMP Posters were distributed to the facilities to post. (1,185 posters distributed)
- Staff issued 20 Notices of Deficiency (NOD) of which 20 returned to compliance and one is still under investigation.
- Staff issued 0 Notices of Violation (NOV).
- Inspectors mailed information to 8921 customers near spill sites and handed out information after spill events to 406 customers in apartments/multi-family complexes.
- Staff conducted 10 outreach educational presentations to more than 406 children and adults.
- Staff continues to provide bilingual door hangers and promotional items for property managers to give to new residents. Educational posters were also provided for managers to post. (1,203 posters provided)
- A multi-family outreach team was created in the System Protection division in 2019 that worked closely with the Communications Team to create a multi-pronged outreach plan for multi-family units that were causing blockages or SSO's in the system. The plan included targeted doorhangers, pop up events, meetings with facilities staff and residents, educational materials and if necessary, enforcement techniques. For FY24, the Multi- Family Team conducted 512 Inspections at Multi-Family units across Mecklenburg County.

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 162 sewer spills that occurred; debris, grease, and roots accounted for most of the sanitary sewer overflow causes.

The largest individual spill in FY24 was on September 4th, 2023. Charlotte Water crews responded to a wastewater overflow near 16505 Birkdale Commons Parkway in Huntersville. An estimated 16,250 gallons reached McDowell Creek. The cause of the overflow was a private contractor damaged a manhole causing debris to fall into the manhole and clog the pipe. There was no impact to drinking water. Charlotte Water informed customers in the immediate area via text alert and on Nextdoor.

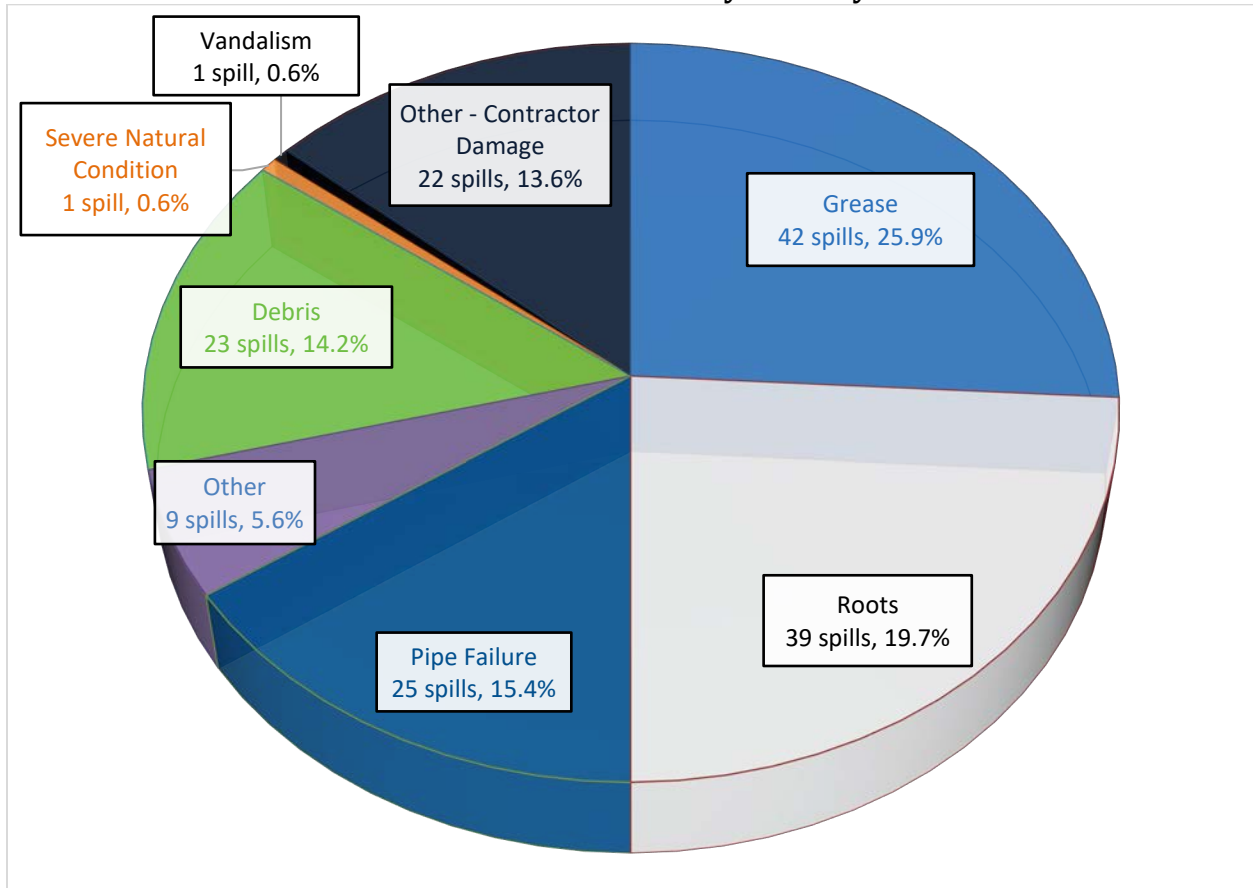
Twenty-two spills were caused by private contractors (directional boring, etc.).

Thirty-four spills were 100 gallons or less.

Mainline blockages, by any cause and including those unrelated to overflows, have decreased from 189 in fiscal year 2023 to 159 in fiscal year 2024. Fifty-seven of the mainline blockages were found through SmartCover sensors (see *Field Operations – Critical Assets Group* on page 10) and several were in off-street sewer lines that would have become SSOs if not found by staff.

Wipes, even ‘flushable’ wipes, and other rags accounted for several blockages leading to spills. These are typically categorized as “Debris in The Line,” which also includes rocks, gravel, etc. Wipes related spills are typically in wastewater pipes serving multi-family (apartments, condos) and institutions (hospitals, nursing facilities, schools, daycares etc.).

Fiscal Year 2024 Overflows by Primary Cause



Grease and other blockages that lead to sewer overflows are cleared by CLTWater crews using various cleaning methods, including mechanical rodders and truck-mounted water jets. The spilled wastewater can sometimes be captured and pumped back into the sewer system. After cleaning, if follow up CCTV discovers damaged pipe, a repair is initiated based on CLTWater’s “Find and Fix” protocols.

CLTWater Rapid Response Crews are quick to respond when notified of a possible spill. Crews responded to more than 93 percent of the spills within 60 minutes and 98 percent of the spills within 120 minutes. The average for all response was 28 minutes. The state standard for response is 120 minutes or less.

Field Operations – Critical Assets Group

Regular inspections are performed by Field Operations - Critical Assets Group which was established to inspect all high priority and vulnerable lines. The Critical Assets Group has expanded its inspection responsibilities to include additional pipes not previously identified as critical but have become critical due to streambank erosion. Additionally, pipes installed after 2007, which were not included in an evaluation of critical infrastructure during an NCDEQ Collection Permit renewal, have been identified and added to the inspections. As part of a collaboration effort with the Mecklenburg Storm Water Services numerous stream bank erosion problems have been identified threatening sanitary sewer lines. A contract for streambank restoration, which protects these sanitary lines, was established several years ago and has been renewed. The Critical Assets team maintains 470 SmartCover level sensors strategically placed in areas with a history of SSOs. Fifty-seven mainline blockages were found and 54 resolved before they became SSOs in FY24. The cost to maintain the SmartCovers is more than \$1 million annually, reducing the significantly higher cost of adding additional staff and cleaning equipment.

Critical asset crews also continue to use a drone to inspect previously inaccessible locations and to assist with streambank inspections.

Wastewater Treatment Plant / Water Resource Recovery Facility Challenges

Charlotte Water's water resource recovery facility met 100% of all discharge limit tests set forth by our NPDES permits. Staff continue to improve maintenance capabilities and overall performance. Major rehabilitation and improvement projects help maintain compliance.

CLTWater WRRFs did not have any permit limit violations in FY24 however CLTWater did receive the following three NOVs (Notice of Violation = two NOVs without a civil penalty assessment and one NOV with potential to assess civil penalty).

- In July 2023 McAlpine Creek WWMF received an NOV for an Unpermitted Discharge of Wastewater due to a pipe failure on the piping system that conveys digested sludge from the anaerobic digesters to the digested sludge storage tank causing digested sludge to be discharged to McAlpine Creek by way of the stormwater drainage system.
- In May 2024 Irwin Creek WRRF received an NOV for Unpermitted Outlet to waters of the State / Improper Operation & Maintenance due to a buildup of struvite in the onsite piping system causing a discharge of belt filter press filtrate into an unnamed tributary of Irwin Creek.
- In May 2024 McAlpine Creek WWMF received an NOV for Unpermitted Outlet to Waters of the State for the discharge of ferric chloride into McAlpine Creek via the

stormwater drainage system due to a broken feed line that had resulted from a collapsed bank of an excavation trench.

Charlotte Water System Protection

CLTWater System Protection operates within CLTWater's service area to enforce federal, state, and local regulations pertaining to discharges to the sanitary sewer, including protection of workers and treatment processes from pollutants harmful to people or the environment. System Protection includes the Industrial Pretreatment Program, the Commercial Source Program, and our Septage Receiving Program.

The Pretreatment Program identifies, permits, and regulates industrial users and others to keep unsuitable discharges out of the wastewater treatment plants. The Commercial Source Program, also referred to as Flow Free, inspects and regulates commercial users, such as food service establishments, to keep unsuitable discharges such as fats, oils and grease out of the collection system and wastewater treatment plants. Our Septage Receiving Program permits septic haulers that discharge septic waste at our McAlpine Creek wastewater treatment plant. The receiving station is staffed by System Protection personnel, and this program includes monitoring and analysis of waste received.

While industrial and commercial compliance is extremely high, identifying sources of potentially harmful discharges is an ongoing challenge. In fiscal year 2024, the Trunkline Monitoring program continued, enabling CLTWater's System Protection and Water Quality staff to closely observe what industrial, institutional, and commercial customers discharge to the wastewater treatment plants, identify potential problem areas, and protect the collection system, wastewater line workers, treatment plants and the environment.

- There were over 250 industrial inspections and site visits in the past fiscal year. As part of the Commercial Source program, food service establishments and other grease producing businesses are identified and inspected on an annual basis. Compliance is also monitored using a document tracking software system.
- During fiscal year 2024 the Commercial Source program continued their outreach program specifically focused on multi-family housing properties.
- CLTWater honored 26 local companies with Environmental Excellence Awards in fiscal year 2024 for compliance during calendar year 2023 including:
 - Four (4) Platinum recipients for at least five consecutive years of Gold level compliance and reporting,
 - Twelve (12) Gold recipients for 100% compliance with permit limits and reporting, and
 - Ten (10) Silver recipients for 90% compliance with permit limits and 100% compliance with reporting.
 - Two (2) awardees also received Crown Awards for Water Conservation, recognizing significant reductions in water use and unique approaches to achieving water use reduction and reuse.
- To date CLTWater has recorded 284 industrial permit limit violations for effluent samples collected by Significant Industrial Users (SIU) during the past fiscal year,

resulting in a Notice of Violation, Notice of Non-Compliance, Administrative Order, or similar assessment.

- 31 Notices of Violation with Civil penalties were assessed to users during the fiscal year for permit limit exceedances and other violations.

In November of 2021 CLTWater began a collaborative permitting program with our local brewery community. The goal of the program is to ensure that our sanitary sewer system continues to perform properly and allows the brewers to keep producing the best beer possible. Working with the Charlotte Area Brewers Alliance and representatives from five area breweries, a local brewery permit program was developed and put into place on July 1, 2022. The program is based on Best Management Practices and focuses on low cost for the brewers and compliance assistance from CLTWater. In fiscal year 2024 over 40 inspections were conducted at local breweries and distilleries as part of this program. An award program for these permittees was also put into place in fiscal year 2024, awarding permittees for compliance during calendar year 2023. Thirty five (35) Certificates of Environmental Achievement were awarded to local brewers in fiscal year 2024.

Wastewater Capacity Needs

Charlotte Water is in the construction phase for its sixth major WWTP, the Stowe Regional Water Resources Recovery Facility (WRRF) and plans to have Phase 1 of the WRRF online in 2026. Phase 2 will be triggered when McAlpine WWTP ADF reaches 70% capacity. Several conveyance projects associated with the development of the Stowe Regional WRRF will change the current WWTP service area delineation. Two new pump stations will be built to allow Charlotte Water to support the region with wastewater service by conveying wastewater from the City of Mount Holly and City of Belmont in Gaston County. The pump stations will pump wastewater under the Catawba River to the Charlotte Water wastewater system. The agreements between Charlotte Water, Mount Holly, and Belmont, are interlocal agreements (ILA) for wholesale wastewater conveyance and treatment.

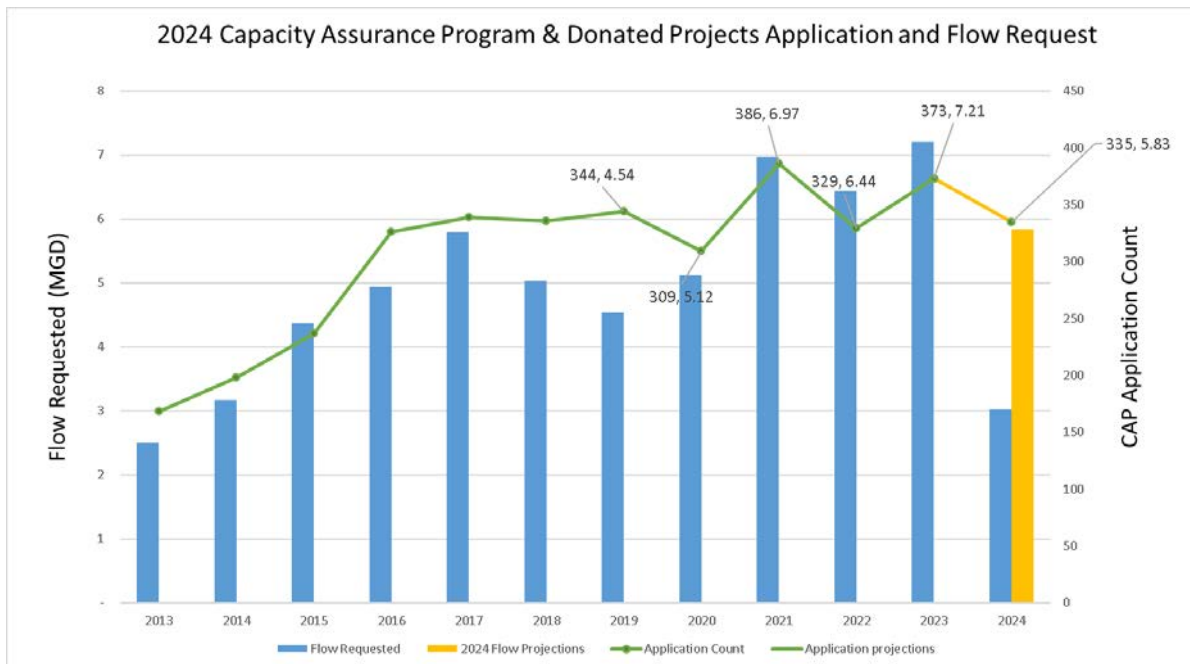
The Wastewater System Master Plan (WWSMP) completed in December of 2022, lays the foundation for the systemwide needs for the next 30+ years. This comprehensive master plan provides over 20 recommendations for each of the six WW treatment plans and the major trunks along the system, including lift stations and alternative scenarios.

In addition to the WWSMP, individual basin studies have been conducted over the past fiscal year. These basin studies are conducted to complement the WWSMP and address challenges at the local basin or area. In FY24, four basin studies were completed, Coffey Creek, Steele Creek, Lake Wylie, and Clarke Creek. We are near completing the Central Business District (CBD) area (or I-277 loop) by first quarter of FY25.

Finally, in terms of basin studies, CLTWater revised the Lake Area (area along the Catawba River from Lake Norman to Lake Wylie). The Lake Area was last evaluated and modeled in 1990. the 2024 Lake Area Study, heavily focused on recommendations for low pressure sanitary sewer (LPSS) is the most cost-efficient and viable wastewater collection options for this part of the system..

CLTWater’s Capacity Assurance Program (CAP) was implemented on January 1, 2009. CAP helps CLTWater prevent sanitary sewer overflows (SSOs) that could be caused by adding too many customers’ wastewater flow to an existing pipe. Developers are encouraged to apply for a CAP review during the early stages of requesting building permits or rezoning. This review process is performed at no cost to the applicant. Engineers analyze hydraulic models, past spills in the area and other field data to verify that there is adequate capacity in the pipes downstream. If no major sewer capacity limitations are found during the review, applications are generally approved in 30 days. Some reviews lead to identification of capital pipeline projects to improve the service level to our current customers as well as accommodate projected development.

Examples of projects identified from the CAP reviews are mentioned on page 6. Below graphic is historic CAP requests for previous calendar years and a projection of total CAPs thru the end of this calendar year December 2024.



III. Notification

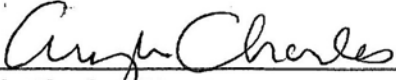
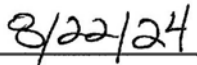
Sanitary sewer overflow and wastewater treatment plant details are included in Sections V and VI.

This report is available to the users or customers of this system by visiting <http://charlottewater.org>. Printed copies are available at the Charlotte-Mecklenburg Government Center at 600 E. Fourth Street, Charlotte, NC 28202, Charlotte Water 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 bill. A news release will be issued to local media outlets. 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 Charlotte Water 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.

	
_____ Angela Charles, Director Charlotte Water	_____ Date

V. Listing of Sewer Spills

The following is a list of spills (in gallons) from the public wastewater system that occurred between July 1, 2023 and June 30, 2024.

Date	Volume (Gallons)	Volume to Surface Water	Surface Water Name	Fish Kill?	Address	Primary Cause
7/4/2023	925	700	Lake Norman	No	18630 Jetton Rd, Cornelius	Pipe Failure
7/5/2023	154	154	Kings Branch	No	930 Tyvola Rd	Grease
7/5/2023	710	710	Four Mile Creek	No	4754 Andrews Links St	Debris In Line
7/10/2023	4730	4730	Gum Branch	No	7524 Kenstead Cr	Debris In Line
7/18/2023	62	0	Four Mile Creek	No	6900 Ancient Oak Ln	Grease
7/19/2023	45	0	Irwin Creek	No	2448 Freedom Dr	Roots
7/20/2023	332	0	Sugar Creek	No	1750 Shopton Rd	Roots
7/26/2023	86	0	Stewart Creek (Irwin)	No	3200 Freedom Dr	Grease
7/26/2023	1272	1272	Four Mile Creek	No	8209 Brooknell Tr	Roots
7/27/2023	570	0	Paw Creek	No	1022 Exchange St	Grease
8/2/2023	41	0	Kings Branch	No	1223 Archdale Dr	Debris In Line
8/6/2023	1055	1055	Taggart Creek (Sugar)	No	4950 Morris Field Dr	Roots
8/7/2023	46	0	Four Mile Creek	No	3127 Weddington Rd	Other - Contractor Construction Damage
8/8/2023	900	900	Taggart Creek (Sugar)	No	4950 Morris Field Dr	Roots
8/23/2023	1890	1890	Reedy Creek	No	6627 Linda Lake Dr	Roots
8/23/2023	4465	4465	Back Creek	No	10825 Middle Acres Rd	Roots
9/2/2023	60	0	Campbell Creek (McAlpine)	No	7410 Meadowdale Ln	Roots
9/4/2023	16250	16250	McDowell Creek	Yes	16505 Birkdale Commons Py, Huntersville	Other - Contractor Construction Damage
9/7/2023	500	0	Sugar Creek	No	666 Sheryl Cr	Roots

Date	Volume (Gallons)	Volume to Surface Water	Surface Water Name	Fish Kill?	Address	Primary Cause
9/8/2023	25	0	Stewart Creek (Irwin)	No	818 Dedmon Dr	Roots
9/8/2023	900	450	Sugar Creek	No	618 Main St, Pineville	Other
9/13/2023	210	210	McMullen Creek	No	8203 Prince George Rd	Debris In Line
9/18/2023	30	0	Sugar Creek	No	6608 Love Ridge Ln	Grease
9/21/2023	2840	2840	Sugar Creek	No	1938 Choyce Cr	Pipe Failure
9/25/2023	220	0	Sugar Creek	No	618 Main St, Pineville	Grease
10/2/2023	70	0	Mallard Creek	No	111 Ken Hoffman Dr	Grease
10/2/2023	178	178	Dairy Branch	No	2440 Park Rd	Grease
10/2/2023	2400	2400	Sugar Creek	No	9401 Arrowpoint Bv	Pipe Failure
10/5/2023	2550	2550	Lower Little Sugar Creek	No	5600 Flagstaff Dr.	Pipe Failure
10/5/2023	8590	8590	Irwin Creek	No	2300 Hawkins St	Pipe Failure
10/10/2023	196	0	Stewart Creek (Irwin)	No	5301 Brookshire Bv	Roots
10/16/2023	114	0	Long Creek	No	2860 Oasis Ln, Charlotte, 28214	Roots
10/17/2023	780	780	Stewart Creek (Irwin)	No	216 Centre St	Pipe Failure
10/24/2023	150	0	Long Creek	No	1121 Bethany Dallas Dr	Other
10/26/2023	3720	3720	McMullen Creek	No	3904 Providence Rd	Debris In Line
10/26/2023	111	0	Mallard Creek	No	2215 Aria Park Dr	Debris In Line
10/27/2023	138	0	Toby Creek	No	336 Owen Bv	Grease
10/28/2023	200	190	Mallard Creek	No	2900 Governor Hunt Rd	Debris In Line
11/1/2023	680	510	Mallard Creek	No	4439 Brandie Glen Rd	Grease
11/1/2023	455	455	Upper Little Sugar Creek	No	1807 Montford Dr	Grease
11/5/2023	90	0	McAlpine Creek	No	5400 Jaslie Ln	Grease
11/5/2023	240	0	Irvins Creek	No	2723 Cedarhurst Dr	Grease

Date	Volume (Gallons)	Volume to Surface Water	Surface Water Name	Fish Kill?	Address	Primary Cause
11/10/2023	2070	2070	Lower Little Sugar Creek	No	2239 Wensley Dr	Grease
11/12/2023	189	0	Stevens Creek	No	14131 Mareshead Ln	Other - Contractor Construction Damage
11/13/2023	900	450	Mallard Creek	No	3833 Sipes Ln	Debris In Line
11/14/2023	1800	900	McMullen Creek	No	5355 Pinehurst Park Dr	Debris In Line
11/15/2023	675	0	Reedy Creek	No	11313 Gold Pan Rd	Grease
11/15/2023	900	900	Upper Little Sugar Creek	No	530 E Sugar Creek Rd	Other - Contractor Construction Damage
11/17/2023	2430	2430	Mallard Creek	No	9705 N Tryon St	Pipe Failure
11/20/2023	1260	1260	Lower Little Sugar Creek	No	2800 Chelsea Dr	Pipe Failure
11/20/2023	73	0	Kings Branch	No	315 W Hebron St	Grease
11/28/2023	288	0	Briar Creek	No	2800 Glendale Rd	Grease
11/29/2023	52	0	Paw Creek	No	4622 Wind Chime Ct	Debris In Line
12/4/2023	33	0	Lower Little Sugar Creek	No	6116 Sharon Rd	Roots
12/9/2023	386	386	Steele Creek	No	14201 Laughing Gull Dr	Other - Contractor Construction Damage
12/11/2023	51	51	McDowell Creek	No	18005 Train Station Dr	Other - Contractor Construction Damage
12/14/2023	1467	733	Rocky River	No	101 N Thompson St, Davidson	Pipe Failure
12/15/2023	455	400	Paw Creek	No	324 West Av	Roots
12/15/2023	67	0	Six Mile Creek	No	10624 Bryony Ct	Debris In Line
12/16/2023	500	500	McMullen Creek	No	7818 Davinci Ln	Roots
12/18/2023	75	0	Paw Creek	No	8524 Moores Chapel Rd	Roots
12/24/2023	200	0	Mallard Creek	No	12205 Sutters Hill Ct	Grease
12/29/2023	10800	5400	Rocky River	No	17438 Summers Walk Bv, Davidson	Roots

Date	Volume (Gallons)	Volume to Surface Water	Surface Water Name	Fish Kill?	Address	Primary Cause
12/29/2023	120	0	McAlpine Creek	No	5213 Providence Rd	Grease
12/30/2023	10760	10760	McAlpine Creek	No	6605 Rothchild Dr	Debris In Line
1/2/2024	88	0	McMullen Creek	No	8324 Woodgate Ln	Grease
1/8/2024	625	625	McAlpine Creek	No	6207 Riverton Ct	Vandalism
1/8/2024	423	141	Upper Little Sugar Creek	No	6347 Elgywood Ln	Grease
1/9/2024	1100	1050	Four Mile Creek	No	1634 Hugh Forest Rd	Severe Natural Condition
1/9/2024	3600	1800	Little Hope Creek	No	4925 Seacroft Rd	Pipe Failure
1/10/2024	605	605	Sugar Creek	No	10022 Woody Ridge Rd	Grease
1/10/2024	202	0	Lake Wylie	No	16025 Moxie Glen Ct	Other - Contractor Construction Damage
1/11/2024	900	900	Lake Norman	No	17311 Belle Isle Dr, Cornelius	Other
1/13/2024	4440	4440	Four Mile Creek	No	4754 Andrews Links St	Pipe Failure
1/17/2024	325	300	Upper Little Sugar Creek	No	1019 N Brevard St	Debris In Line
1/17/2024	555	555	Lower Little Sugar Creek	No	1608 Keeling Pl	Other
1/22/2024	292	0	Upper Little Sugar Creek	No	124 Dorton St	Other
1/23/2024	509	0	Lower Mountain Island Lake	No	11728 Mountain Island Brook Ln	Other - Contractor Construction Damage
1/23/2024	2856	2000	Four Mile Creek	No	2804 Ezra Ct, Matthews	Roots
1/23/2024	300	0	Clarke Creek	No	11236 Shreveport Dr, Huntersville	Other - Contractor Construction Damage
1/28/2024	645	645	Stewart Creek (Irwin)	No	429 Tuckaseegee Rd	Grease
1/29/2024	285	285	Four Mile Creek	No	202 Southern Cross Ln, Matthews	Roots

Date	Volume (Gallons)	Volume to Surface Water	Surface Water Name	Fish Kill?	Address	Primary Cause
1/29/2024	600	300	Mallard Creek	No	300 Heritage Lake Dr	Roots
1/29/2024	150	75	Lower Little Sugar Creek	No	134 Kenmore Dr, Pineville	Pipe Failure
1/30/2024	396	0	Lake Wylie	No	17848 Wilbanks Dr	Other - Contractor Construction Damage
1/31/2024	975	877	McAlpine Creek	No	5720 Old Meadow Rd.	Debris In Line
1/31/2024	274	0	Lake Norman	No	18301 Mandrian Point Dr, Cornelius	Other - Contractor Construction Damage
2/2/2024	442	331.5	McMullen Creek	No	6120 Sharon Hills Rd	Roots
2/6/2024	175	175	Paw Creek	No	1920 Daytona Av	Roots
2/8/2024	200	0	Reedy Creek	No	8235 Appaloosa Ln	Roots
2/8/2024	1059	1059	Briar Creek	No	3200 Monroe Rd	Grease
2/10/2024	1155	577	Upper Little Sugar Creek	No	3915 Haverhill Dr	Other - Contractor Construction Damage
2/11/2024	2100	2100	McAlpine Creek	No	1823 Carmel Ridge Rd	Debris In Line
2/11/2024	1470	1470	Back Creek	No	1821 Back Creek Church Rd	Grease
2/13/2024	900	800	Briar Creek	No	2459 Dunlavin Wy	Grease
2/13/2024	201	0	Lake Wylie	No	16025 Moxie Glen Ct	Other - Contractor Construction Damage
2/13/2024	550	550	Back Creek	No	1825 Back Creek Dr	Pipe Failure
2/13/2024	120	0	Lake Norman	No	21308 Norman Shores Dr, Cornelius	Other - Contractor Construction Damage
2/15/2024	214	0	Steele Creek	No	15119 Wiltshire Manor Dr	Roots
2/15/2024	68	0	McMullen Creek	No	815 Long Ave	Pipe Failure
2/15/2024	525	525	Upper Little Sugar Creek	No	5109 Wedgewood Dr	Roots
2/16/2024	690	690	McAlpine Creek	No	7427 Sheffingdell D	Other
2/16/2024	605	605	Irwin Creek	No	4601 Nevin Rd	Grease
2/19/2024	500	250	Kings Branch	No	609 Farmhurst Dr	Grease
2/19/2024	4800	4800	Gum Branch	No	7120 Red Bud Cr	Pipe Failure

Date	Volume (Gallons)	Volume to Surface Water	Surface Water Name	Fish Kill?	Address	Primary Cause
2/20/2024	37	0	Lake Norman	No	7616 Windaliere Dr, Cornelius	Other - Contractor Construction Damage
2/20/2024	2720	2720	Mallard Creek	No	11815 N Tryon St	Other
2/20/2024	250	0	Reedy Creek	No	8036 Hood Rd	Other - Contractor Construction Damage
2/22/2024	1030	1030	McAlpine Creek	No	11450 Legette Ct	Grease
2/22/2024	500	500	Toby Creek	No	720 Ann Elizabeth Dr	Roots
2/26/2024	1625	1625	Irwin Creek	No	2449 Kendrick Av	Roots
2/28/2024	3600	3600	Paw Creek	No	6931 Crossridge Rd	Pipe Failure
2/28/2024	165	0	Mallard Creek	No	9900 Park Walk E	Roots
3/1/2024	3950	3950	Toby Creek	No	7256 Leaves Ln	Roots
3/2/2024	600	600	Briar Creek	No	6101 Covecreek Dr	Roots
3/3/2024	97	0	Lower Mountain Island Lake	No	1845 Mountain Trail Dr	Pipe Failure
3/5/2024	121	121	McAlpine Creek	No	7309 Hackberry Ln	Roots
3/12/2024	760	760	Sugar Creek	No	5275 Parkway Plaza Bv	Grease
3/17/2024	372	0	McAlpine Creek	No	7405 Arborwood Ct	Roots
3/18/2024	330	165	Sugar Creek	No	311 N Polk St, Pineville	Debris In Line
3/22/2024	88.5	88.5	Paw Creek	No	4001 Duplin Dr	Pipe Failure
3/22/2024	61	0	Lake Norman	No	20517 N Main St, Cornelius	Roots
3/24/2024	345	345	McKee Creek	No	9704 Cresswind Bv	Debris In Line
3/25/2024	120	0	Steele Creek	No	12341 Delshire Ln	Debris In Line
3/25/2024	64	0	Upper Little Sugar Creek	No	6404 Elgywood Ln	Grease
3/27/2024	866	866	Upper Little Sugar Creek	No	901 N Church St	Pipe Failure
3/31/2024	260	0	Mallard Creek	No	8700 J W Clay Bv	Debris In Line
4/1/2024	500	400	Long Creek	No	1540 Braveheart Ln	Grease

Date	Volume (Gallons)	Volume to Surface Water	Surface Water Name	Fish Kill?	Address	Primary Cause
4/2/2024	880	880	Lower Little Sugar Creek	No	4117 Ashton Dr	Roots
4/6/2024	285	0	Long Creek	No	8300 Woodford Bridge Dr	Grease
4/13/2024	90	0	Lake Norman	No	18718 Ramsey Cove Dr, Cornelius	Pipe Failure
4/15/2024	590	295	Mallard Creek	No	5611 Mallard Grove Rd	Roots
4/16/2024	240	0	Torrence Creek	No	12300 Statesville Rd, Huntersville	Grease
4/20/2024	83	0	Briar Creek	No	7101 Cardigan Av	Other
4/20/2024	43	0	Paw Creek	No	1942 Crooked Creek Dr	Grease
4/23/2024	132	0	Torrence Creek	No	10411 Arahova Dr, Huntersville	Other - Contractor Construction Damage
4/24/2024	425	425	Edwards Branch	No	5001 Erickson Rd	Grease
4/26/2024	120	120	McKee Creek	No	8819 Festival Wy	Grease
4/28/2024	128	64	Lake Wylie	No	16504 Crosshaven Dr	Other - Contractor Construction Damage
4/30/2024	303	0	McAlpine Creek	No	15220 John J. Delaney Dr	Grease
5/1/2024	175	0	Lake Wylie	No	18025 Barksdale Ln	Pipe Failure
5/2/2024	600	600	Lake Wylie	No	15206 Red Canoe Wy	Pipe Failure
5/13/2024	330	110	Briar Creek	No	2732 Temple Ln	Grease
5/16/2024	70	0	Mallard Creek	No	8808 Royal Bluff Dr	Debris In Line
5/16/2024	77	0	Rocky River	No	308 O Henry Av, Davidson	Roots
5/22/2024	150	0	Lake Norman	No	19709 Bustle Rd, Cornelius	Other - Contractor Construction Damage
5/31/2024	72	0	Back Creek	No	1005 Grays Mill Rd	Other - Contractor Construction Damage
6/1/2024	148	0	Paw Creek	No	6416 Pennacook Dr	Roots
6/5/2024	180	0	Torrence Branch	No	15206 Red Canoe Wy	Pipe Failure
6/5/2024	225	0	Neal Branch	No	13211 Planters Row Dr	Other - Contractor Construction Damage

Date	Volume (Gallons)	Volume to Surface Water	Surface Water Name	Fish Kill?	Address	Primary Cause
6/9/2024	385	385	Lower Little Sugar Creek	No	2505 N. Pine St	Other - Contractor Construction Damage
6/11/2024	300	300	Paw Creek	No	1800 Still Pond Ct	Roots
6/11/2024	44	0	McKee Creek	No	7715 Bondhaven Dr	Grease
6/14/2024	2790	2500	Stoney Creek	No	5622 Waverly Lynn Ln	Grease
6/18/2024	54	0	McDowell Creek	No	15700 Framingham Ln, Huntersville	Roots
6/20/2024	50	50	Irwin Creek	No	2949 Revolution Park Dr	Pipe Failure
6/24/2024	230	0	Paw Creek	No	618 Northway Dr	Debris In Line
6/26/2024	55	55	McAlpine Creek	No	814 Winter Wood Dr, Matthews	Debris In Line
6/27/2024	66	0	Taggart Creek (Sugar)	No	5116 Eaton Cr	Debris In Line
6/28/2024	552	276	Upper Little Sugar Creek	No	2856 Hillsdale Av	Pipe Failure
6/28/2024	265	265	McMullen Creek	No	3510 Sharon View Rd	Other
6/30/2024	1175	1175	McAlpine Creek	No	6323 Woodleigh Oaks Dr	Grease

TOTAL NUMBER OF FY 2024 COLLECTION SYSTEM SPILLS:

162

Volume Safely Collected, Treated & Discharged During Fiscal Year 2024: 31,512,000,000 Gallons (99.99%)
Volume Spilled: 160,224 Gallons

VI. Permit Compliance and Reporting Violations, by plant

Ashe Plantation WWTP -- NPDES Permit #NC0065749

MONTH	PERMIT LIMIT VIOLATIONS	REPORTING REQUIREMENT VIOLATIONS
July, 2023	None	None
August, 2023	None	None
September, 2023	None	None
October, 2023	None	None
November, 2023	None	None
December, 2023	None	None
January, 2024	None	None
February, 2024	None	None
March, 2024	None	None
April, 2024	None	None
May, 2024	None	None
June, 2024	None	None

Irwin Creek WWTP -- NPDES Permit #NC0024945

MONTH	PERMIT LIMIT VIOLATIONS	REPORTING REQUIREMENT VIOLATIONS
July, 2023	None	None
August, 2023	None	None
September, 2023	None	None
October, 2023	None	None
November, 2023	None	None
December, 2023	None	None
January, 2024	None	None
February, 2024	None	None
March, 2024	None	None
April, 2024	None	None
May, 2024	None	None
June, 2024	None	None

Mallard Creek WRF -- NPDES Permit #NC0030210

MONTH	PERMIT LIMIT VIOLATIONS	REPORTING REQUIREMENT VIOLATIONS
July, 2023	None	None
August, 2023	None	None
September, 2023	None	None
October, 2023	None	None
November, 2023	None	None
December, 2023	None	None
January, 2024	None	None
February, 2024	None	None
March, 2024	None	None
April, 2024	None	None
May, 2024	None	None
June, 2024	None	None

McAlpine Creek WWMF -- NPDES Permit #NC0024970

MONTH	PERMIT LIMIT VIOLATIONS	REPORTING REQUIREMENT VIOLATIONS
July, 2023	None	None
August, 2023	None	None
September, 2023	None	None
October, 2023	None	None
November, 2023	None	None
December, 2023	None	None
January, 2024	None	None
February, 2024	None	None
March, 2024	None	None
April, 2024	None	None
May, 2024	None	None
June, 2024	None	None

McDowell Creek WWTP -- NPDES Permit #NC0036277

MONTH	PERMIT LIMIT VIOLATIONS	REPORTING REQUIREMENT VIOLATIONS
July, 2023	None	None
August, 2023	None	None
September, 2023	None	None
October, 2023	None	None
November, 2023	None	None
December, 2023	None	None
January, 2024	None	None
February, 2024	None	None
March, 2024	None	None
April, 2024	None	None
May, 2024	None	None
June, 2024	None	None

Sugar Creek WWTP -- NPDES Permit #NC0024937

MONTH	PERMIT LIMIT VIOLATIONS	REPORTING REQUIREMENT VIOLATIONS
July, 2023	None	None
August, 2023	None	None
September, 2023	None	None
October, 2023	None	None
November, 2023	None	None
December, 2023	None	None
January, 2024	None	None
February, 2024	None	None
March, 2024	None	None
April, 2024	None	None
May, 2024	None	None
June, 2024	None	None