

CITY OF GRAHAM 2024-2025

ANNUAL PERFORMANCE REPORT OF WASTEWATER TREATMENT OPERATION AND COLLECTION

GENERAL INFORMATION

Facility/System Name: City of Graham Wastewater Treatment Plant

Responsible Entity: City of Graham

Person in Charge/Contact:

Tonya Mann, Utilities Director, at 336.570.6721

Cris Routh, Wastewater Plant Superintendent, at 336.570.6721

Kenny Hill, Distribution & Collection Superintendent, at 336.570.6721

Applicable Permit(s):	NPDES Permit:	NC0021211
	Non-Discharge Permit:	WQ0003824
	Collection System Permit:	WQCS00065

Description of Collection System and Treatment Process

The City of Graham operates a Public Owned Treatment Works consisting of a North Carolina Grade II Collection System and a North Carolina Grade IV Wastewater Treatment Plant.

The collection system operates under a North Carolina Division of Water Quality Collection System Permit and contains approximately 89 miles of piping and five lift stations. The lift stations are named Back Creek No. 2, Boyd Creek, Cherry Lane, Haw River, and Pyrtle Drive.

The wastewater treatment facility has a permitted flow of 3.5 million gallons per day (MGD). This facility consists of bar screens, grit collectors, primary clarification, extended aeration, final clarifiers, chlorination, post chlorination basin, de-chlorination, digestion, lime stabilization, sludge disposal, and laboratory. Effluent is discharged to the Haw River designated as Nutrient Sensitive Waters (NSW), which is part of the Cape Fear River Basin.

Performance

Text Summary of the System Performance for the Period of July 1, 2024 to June 30, 2025.

Collection System: The City of Graham collection system is a combination of gravity and forced mains. The city is proactive in monitoring and utilizing various methods to maintain the wastewater collection system. An education program is in place to inform water customers about the impact of improper disposal of Fats, Oils and Grease (FOG). Over 10% of the collection system is hydraulically cleaned annually. Chemical treatment, closed circuit inspection and rehab projects are just a few methods we implement to reduce and eliminate service outages and overflows. During the past fiscal year, the collection experienced no reportable wastewater overflows.

Lift Stations: The City of Graham operates five lift stations that are maintained by Collection and Distribution personnel. During this reporting period, the lift stations had no reportable sewer overflows.

Wastewater Treatment Plant: The City of Graham Wastewater Treatment Plant's permit has limits on Flow, Biological Oxygen Demand, Total Suspended Solids, Ammonia, Dissolved Oxygen, Fecal Coliform, Chronic Toxicity, and Total Phosphorus. Additional testing is performed for Total Residual Chlorine, Temperature, Conductivity, Copper, Mercury, and Zinc. Each month this data is reported to the state thru the electronic Discharge Monitoring Report (eDMR). The City is a member of The Upper Cape Fear River Basin Dischargers Coalition that performs monitoring upstream and downstream of our discharge point on the Haw River as well as other locations on the Haw and Deep Rivers. The Wastewater Treatment Plant had two reportable sewer overflows and three exceedances of its NPDES permit.

Non-Discharge Permit: The City of Graham land applies biosolids to agricultural land under regulations of the Environmental Protection Agency and the State of North Carolina. The City of Graham had no violations in the past year.

Violations of permit conditions or other environmental regulations relating to water quality from the above areas

August 8, 2024. Splitter Box overflows: A reportable overflow of 213,844 gallons of untreated sewage spilled out of two splitter boxes. The spill was the result of over 5 inches of rain received over two days pushing plant influent flows over 14 MGD. All equipment and alarms worked properly during this event.

September 24, 2024. Splitter Box overflows: A reportable overflow of 12,431 gallons of untreated sewage spilled out of two splitter boxes. The spill was the result of 3 inches of rain received over two days pushing plant influent flows to 14 MGD. All equipment and alarms worked properly during this event.

September 22 – September 28, 2024. NPDES Permit: The Wastewater Plant exceeded its weekly BOD average. The limit is a weekly average of 18.0 mg/L of effluent. The City's average for the week was 19.4 mg/L. Heavy rainfall on September 24th and 25th resulted in high flows that upset our plant early in the week. BOD results were back in compliance by the end of the week.

April 6-12, 2025. NPDES Permit: The Wastewater Plant exceeded its weekly TSS average. The limit is a weekly average of 45 mg/L of effluent. The City's average for the week was 53.4 mg/L. A brief upset of the plant was caused by excessive rainfall on April 7th and 8th. By the next week, the TSS results were back in compliance.

April 2025. NPDES Permit: The Wastewater Plant exceeded its monthly Effluent BOD limit average. The limit is a monthly average of 12.0 mg/L. The City's average for the month of April was 12.3 mg/L. Higher than usual BOD results early in the month along with a brief upset of the plant caused by excessive rainfall on April 7th and 8th were the main causes. A chemical adjustment later in the month returned weekly results to normal but not enough to bring the monthly results in compliance.

SUMMARY

During this 12-month period, there were three NPDES permit violations out of more than 2,400 sample results.

The City of Graham had two reportable sanitary sewer overflows of 1,000 gallons or more during this reporting period. The total gallons of overflow were 226,275.

Total gallons handled by the system were 759,700,000. Percent gallons overflowed are 226,275 divided by 759,700,000 x 100 = 0.02978 %. Therefore, the City of Graham achieved a 99.9702 % collection rate of all gallons discharged into the system, excluding any spills that were less than 1,000 gallons.

All sludge was land applied per Land Application Permit regulations with no permit violations.

Notification

A Public Notice was placed in a local newspaper informing the public that a copy of this report can be obtained at the City of Graham, City Hall located at 201 South Main Street, Graham, NC. Additionally, this report is also, available on the Internet at <http://www.cityofgraham.com/>

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.

Tonya Mann

Tonya Mann
Utilities Director
City of Graham

(Date) 8-18-2025