

**CITY OF GRAHAM**  
**2008-2009**  
**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:

Victor Quick, Utilities Director, at 336.570.6721

David Lawson, Wastewater Plant Superintendent, at 336.570.6721

Ladd Nall, Distribution & Collection Superintendent, at 336.570.6709

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 seven liftstations. The liftstations are named Back Creek No. 1, Back Creek No.2, Boyd Creek, Cherry Lane, Haw River, Old Fields, and Prytle 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, sand filtration, 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, 2008 to June 30, 2009.

**Collection System:** The collection system had a total of 30 sewer calls in response to blockages, maintenance, and three sanitary sewer overflows –two were reportable to the North Carolina Department of Environment and Natural Resources, Division of Water Quality. Approximately 15,000 feet of pipe was chemically treated to prevent root intrusion. Over 10% of the collection system was inspected with closed circuit television camera and hydraulically cleaned. All of the City's sewer easements were inspected and mowed twice.

**Lift Stations:** The City of Graham operates seven lift stations that are maintained by plant maintenance personnel. During this reporting period the lift stations had two reportable sewer overflows.

**Wastewater Treatment Plant:** The Wastewater Treatment Plant **No** violations of its NPDES permit. The City's NPDES 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 Discharge Monitoring Report (DMR). 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.

**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. There were **No** violations.

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

**August 27, 2008. SEWER OVERFLOW, Boyd Creek Lift Station;** A reportable sewer overflow of 12,500 gallons of untreated sewage spilled into "Boyd Creek" and entered the Cape Fear River Basin. The spill was the result of the abnormal rainfall associated with remnants of tropical storm Fay.

**September 6, 2008. SEWER OVERFLOW, Boyd Creek Lift Station;** A reportable sewer overflow of 1500 gallons of untreated sewage spilled into "Boyd Creek" and entered the Cape Fear River Basin. The spill was the result of the abnormal rainfall associated with remnants of tropical storm Hannah.

**September 25, 2008. SEWER OVERFLOW;** A reportable sewer overflow of 11,250 gallons of untreated sewage spilled into "County Home Creek" and entered the Cape Fear River Basin. The spill was the result of root intrusion in pipe. Blockage was cleared and service was restored.

**November 11, 2008. SEWER OVERFLOW;** A reportable sewer overflow of 21,000 gallons of untreated sewage spilled into "County Home Creek" and entered the Cape Fear River Basin." The blockage was the result of vandalism of a manhole on Sun Drive outfall line.

## **SUMMARY**

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

The City of Graham had only four reportable sanitary sewer overflows of 1000 gallons or more during this reporting period. The total gallons of overflow were 46,250. Total gallons handled by the system were 507,940,000. Percent gallons overflowed are 46,250 divided by 507,940,000 x 100% = less than 0.009 per cent. Therefore, the City of Graham achieved a 99.991 % successful collection rate of all water discharged into the system.

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.

\_\_\_\_\_

(Date)\_\_\_\_\_

Victor R. Quick  
Utilities Director  
City of Graham