

CITY OF GRAHAM
2010-2011
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

Cris Routh, 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 lift stations. The lift stations 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, 2010 to June 30, 2011.

Collection System: The collection system had **No** sanitary sewer overflows that were reportable to the North Carolina Department of Environment and Natural Resources, Division of Water Quality. Over 10% of the collection system was hydraulically cleaned. Approximately 16,000 linear feet of pipe was chemically treated to prevent root infiltration and approximately 13,000 linear feet of pipe was inspected with closed circuit television camera. 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 one reportable sewer overflow.

Wastewater Treatment Plant: The Wastewater Treatment Plant had two 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

July, 2010. NPDES PERMIT: The Wastewater Plant had a permit violation for monthly Ammonia average. The limit is a monthly average of 4.0 milligrams per liter (mg/L) of effluent. The City's average for the month of July, 2010 was 4.76 mg/L. Repairs to faulty equipment corrected the problem and brought the plant back into compliance.

November 5, 2010. SEWER OVERFLOW: The City of Graham had a wastewater spill of an estimated 300,000 gallons. The untreated wastewater spilled into "Boyd Creek" in the Cape Fear River Basin. The spill was a result of lift station pump failure due to vandalism. Repairs and security measures were

made and service restored. A Vandalism report was filed with Graham Police Department.

November 8, 2011. NPDES PERMIT: Daily Residual Chlorine was above the permit limit for November 8, 2010. The allowable daily limit is 50 ug/L and the reported value was 61 ug/L. The cause of the violation was determined to be a faulty Chlorine Residual analyzer when operated in the auto mode. Changes made to the operation of the Chlorine chemical feed system corrected the issue.

SUMMARY

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

The City of Graham had only one reportable sanitary sewer overflow of 1000 gallons or more during this reporting period. The total gallons of overflow were 300,000. Total gallons handled by the system were 425,841,000. Percent gallons overflowed are 300,000 divided by 425,841,000 x 100% = 0.07 per cent. Therefore, the City of Graham achieved a 99.93 % 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.

Victor R. Quick
Utilities Director
City of Graham