



**City of Concord Wastewater Resources Department**  
Wastewater Collection System Performance Annual Report  
Fiscal Year July 2005 – June 2006

**I. General Information**

System Name: City of Concord Wastewater Collection System

Responsible Entity: City of Concord

Persons in Charge: T. Mark Fowler  
Director of Wastewater Resources

Aaron R. Cook  
Wastewater Collection Superintendent and System Operator

Applicable Permits: WQCS00326  
Tributary to NC0036269, NC0081621, and NC0067172

Description of the System:

The City of Concord Wastewater Collection System consists of over 486 miles of sewer pipelines, approximately 11,727 manholes, and 27 wastewater pump stations. The system came into existence in the early 1920s and continued to be upgraded and extended to become the system we operate today.

**II. Performance**

The City of Concord's Wastewater Resources Department performs the operation and maintenance of the City's collection system, which serves approximately 26,500 customers. Nine crews provide this service. A rapid-response crew responds to all calls related to potential blockages and overflows in the system. Two jet-vac truck crews perform maintenance on the system by removing obstructions that may be present in the system, thus limiting the number of possible back-ups and overflows. These trucks are

also used to maintain the City's 27 wastewater pump stations through periodic cleaning and sludge removal. A closed circuit TV inspection crew locates defects and obstructions in the pipelines by the use of a camera that videotapes the inside of the sewers. This crew also inspects all new collection system extensions prior to the City's acceptance of the extension's operation and maintenance responsibility. The City also has a crew that is dedicated to the operation and maintenance of the City's wastewater pump stations. Two service line installation and repair crews install new service connections to the City's sewer mains and repair sewer mains as well as manholes. One crew is dedicated to the installation of new sewer lines and the replacement of aged and deteriorated sewer lines. The City has a Global Positioning System (GPS) and right-of-way maintenance crew that collects data on the location of the various components of the City's system, provides maintenance of the wastewater collection system's rights-of-way, and performs semi-annual inspections of the system. The City has a System Compliance Officer who is responsible for the implementation of the Fats, Oil, and Grease Program (FOG), along with the inspection of sewer right-of-ways to ensure easement accessibility.

During the past fiscal year, the City of Concord was requested to investigate approximately 184 calls for possible sewer-related overflows. These calls were regarding both municipal and private lines. The City of Concord had 4 incidences that resulted in the spill or overflow of more than 1,000 gallons of wastewater to surface waters of the State.

**September 2005**

Total - +/- 5,056 gallons

*Lawndale Drive, Concord (2,416)*

This spill occurred as a result of an illegal discharge into the sewer system that caused the line to become blocked and overflow. The illegal debris was removed from the pipe and normal capacity was restored. There were no known environmental impacts as a result of this spill.

*McGill Avenue, Concord (2,640)*

This spill occurred as a result of a defect in a pipe joint, which allowed water to leak out of the pipe. The defective section of pipe was repaired and normal flow restored to the pipe.

**November 2005**

Total - +/- 6,000 gallons

*Memory Lane, Concord (6,000)*

This spill occurred as a result of an illegal discharge into the sewer system that caused the line to become blocked and overflow. The illegal debris was removed from the pipe and normal capacity was restored. There were no known environmental impacts as a result of this spill.

**February 2006**

Total - +/- 5,850 gallons

*Daffodil Lane, Concord (5,850)*

This spill occurred as a result of an act of vandalism. A manhole lid was removed and several pieces of wood dumped into the manhole, which caused the pipe to become blocked and overflow. The wood was removed from the pipe and normal capacity was restored. There were no known environmental impacts as a result of this spill.

The City of Concord is continually performing preventative maintenance activities and undergoing rehabilitation projects to prevent sanitary sewer overflows. The following activities have been completed during the past fiscal year.

Jet-Vac Line Cleaning	339,217 linear feet
Root Control	34,301 linear feet
Dye Test	1
Sewer Service Inspections	1,500
Sewer Line Replacement	2,126 linear feet
Smoke Testing	146,771 linear feet
T.V. Inspections	70,358 linear feet
Slip-lining	13,486 linear feet

During FY '05-'06, the City of Concord hired a Wastewater Systems Compliance Officer to administer the City's Fats, Oils, and Grease program (FOG). He is also responsible for monitoring and enforcing sewer right-of-way encroachment issues.

The City of Concord Engineering Department began representing the location of City property rights, including utility easements, in GIS. Attributes include the grantor, date obtained, and deed or plat reference information. All Engineering Department surveying files have been reviewed and the corresponding property rights have been represented in GIS when the location could be determined. Approximately 20% of all plats recorded at the Cabarrus County Registrar of Deeds have been reviewed and property rights within the City's proposed service area have been represented in GIS as well. Over 2,700 property rights have been entered so far, but a considerable amount of work remains to complete this task.

In an effort to improve customer service, the Wastewater Resources Department began using GPS equipment to locate sewer cleanouts at the edge of public rights-of-way. This information will help staff more efficiently locate and determine causes for back-ups on service lines and laterals.

The City of Concord was awarded a grant from the NC Clean Water Management Trust Fund for the construction of a sewer extension to transport wastewater from an abandoned wastewater treatment facility. The application was prepared by the City on the behalf of homeowners living approximately a half-mile outside of the municipal

limits. This project will eliminate the discharge of nearly 5,000 gallons per day of untreated or poorly treated wastewater that currently drains to a roadside ditch.

**III. Notification**

Customers of the City of Concord's wastewater collection system were notified regarding the availability of this annual report through a public notice in the *Concord & Kannapolis Independent Tribune*, a local daily newspaper. A copy of this report is available for review at the Alfred M. Brown Operations Center at 850 Warren C. Coleman Boulevard, Concord, North Carolina; at City Hall, 26 Union Street South, Concord, North Carolina; and on the City of Concord's website at <http://ci.concord.nc.us>.

**III. 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.

\_\_\_\_\_ Date: \_\_\_\_\_

CITY OF CONCORD

T. Mark Fowler, Director of Wastewater Resources