



**City of Concord Wastewater Resources Department**  
Wastewater Collection System Performance Annual Report  
Fiscal Year July 2004 – June 2005

**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 475 miles of sewer pipelines, approximately 11,000 manholes, and 28 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 25,500 customers. This service is provided by nine crews. 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 28 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 video tapes 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.

During the past fiscal year, the City of Concord was requested to investigate approximately 177 calls for possible sewer-related overflows. These calls were regarding both municipal and private lines. The City of Concord had 5 incidences that resulted in the spill or overflow of more than 1,000 gallons of wastewater to surface waters of the State.

**July 2004** Total - +/- 1,403 gallons

*Bampton Drive , Concord (1,403)*

This spill occurred as a result of a level control unit failure caused by a power surge on the electrical circuit at the sewer pump station. A high-water float has been added to the remote telemetry unit monitoring the station to ensure that City staff will be notified of any future high water conditions. There were no known environmental impacts as a result of this spill.

**February 2005** Total - +/- 11,520 gallons

*Georgia Street, Concord (11,520)*

This spill occurred as a result of tree roots. The Jet-Vac truck was used to remove the roots from the line and clear the blockage. This line segment will be included in the root control program until the pipe is replaced. There were no known environmental impacts as a result of this spill.

**March 2005** Total - +/- 4,500 gallons

*Bridlewood Place, Concord (4,500)*

This spill occurred as a result of rock blasting, which was performed by a contractor while installing a new parallel sewer line with a larger capacity. This blasting unknowingly caused the existing pipe to collapse. The old line has been abandoned and the new larger sewer line is now in service. There were no known environmental impacts as a result of this spill.

April 2005

Total - +/- 52,573 gallons

*Cabarrus Avenue, Concord (32,573)*

This spill occurred as a result of a contractor error. While attempting to abandon a water line, the contractor cut a sewer line by mistake. The mistake was discovered and the sewer line was repaired. The sewer line has been realigned and the old sewer line has been abandoned. There were no known environmental impacts as a result of this spill.

*Wilkinson Court, Concord (20,000)*

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 flow 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	457,816 linear feet
Root Control	28,400 linear feet
Dye Test	2
Sewer Service Inspections	1,320
Sewer Line Replacement	4,394 linear feet
Smoke Testing	48,608 linear feet
T.V. Inspections	73,477 linear feet
Slip-lining	4,255 linear feet

The City of Concord Wastewater Resources Department is continuing to take corrective actions to complete all of the rehabilitation work identified in the FY '03 -'04, inflow and infiltration report.

During FY '04-'05, the City completed the delineation of existing and future sewer service drainage basins in the City's service area. These basins are used to evaluate capacity needs in the collection system, assist with proper pipe sizing, and create more effective and systematic maintenance schedules. Polygons representing these basins are stored in the City's digital geographic information system (GIS) database.

### 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