City of Newton Wastewater Treatment System
Performance Annual Report for 2008
February 11, 2009

I. General Information

Facility Name:	City of Newton Sanitary Sewer Collection System
Contact Person:	Dennis Falder, Collection and Distribution Superintendent
	PO Box 550, Newton, NC 28658 or call (828) 695-4298
Applicable Permits:	Wastewater Collection System Permit Number - WQCS00044

ALSO

Facility Name:	City of Newton, Clark Creek Wastewater Treatment Plant
Contact Person:	Danny Sigmon, WWTP Superintendent
	PO Box 550, Newton, NC 28658 or call (828) 695-4346
Applicable Permits:	National Pollutant Discharge Elimination System (NPDES) Permit Number - NC0036196
	Land Application (Non-Discharge) Permit Number - WQ0003902

The City of Newton views environmental protection as one of our top priorities. For this reason, the City actively participates in the collection, treatment, and disposition of sewage generated within its boundaries.

Description of system

Wastewater (sewage), discharged by customers, flows to the city owned and operated Clark Creek Wastewater Treatment Plant through a sanitary sewer system encompassing approximately 123.4 miles of sanitary sewer lines. Of these lines, approximately 6.9 miles are force mains with the remaining 116.5 being gravity lines. The force mains consist of piping ranging in size from 6" to 12" and the gravity lines consist of piping ranging in size from 6" to 36". The City of Newton operates and maintains 8 sewer lift stations within the sewer collection system. During the year 2008, the sewer collection staff visited all lift stations a minimum of once a week. The pump maintenance crew performed scheduled preventative maintenance and made all necessary repairs as needed to keep lift stations operating at peak performance.

Upon arrival at the treatment plant all wastewater is treated and discharged in an environmentally safe manner in accordance with National Pollutant Discharge Elimination System (NPDES) regulations.

Clark Creek Wastewater Treatment Plant, completed in 1979, upgraded in 1992 and 2005 currently operates under a 5.0 million gallons of wastewater per day (MGD) NPDES permit. Homes, businesses, and industries discharge their wastewater (sewage) into the sanitary sewer system. Once the wastewater is discharged into the pipes it travels through the collection system until it reaches the Wastewater Treatment Plant. The system is composed of a complicated network of pumps, manholes, standby generators and over six hundred thousand (651,000) feet of pipe. The Wastewater Treatment Plant is staffed and operated 24 hours per day, 365 days a year. The City of Newton Wastewater Plant staff includes 13 State Certified Operators, including three employees that hold the highest

certification obtainable in North Carolina for Wastewater Treatment Operators. The Environmental Protection Agency has recognized the Clark Creek WWTP for Operation and Maintenance Excellence.

II. Performance

Yearly Performance: During the past 12 months, we have cleaned 70,910 feet of sewer lines. This equals to 13.43 miles, which represents about 11 percent of our collection system. Aerial and high priority lines were inspected in April and May, and then again in October. All lines and right of ways not visible to the general public were inspected and bush-hogged between April and October.

Capital Improvement Projects: The City of Newton continued to work on the schedule set forth by the Sanitary Sewer System Evaluation Study from W.K. Dickson. From this study we replaced 3 manholes and 7 manhole rings and covers. As part of our permitting requirements, we have replaced 1 of the PVC aerials with ductile iron pipe so far for our budget year.

The City of Newton has budgeted for the replacement of the other PVC aerials in the second half of our budget year, January to June 2009.

Sanitary Sewer Overflows

- 1/25/2008 -- 791 Woodson Road - Heavy paper towels and rags caused 4445-gallon spill with 4000 gallons entering water of the state (Hildebran Creek) Anthony Creek.
- 2/20/2008 -- 1305 NW Blvd. & 13 Street - Heavy paper towels caused 100-gallon spill with 50 gallon reaching water of state (Hildebran Creek) Anthony Creek.
- 4/10/2008 -- Right-of-way at MH #46 off North Stewart Avenue - Rags and large paper towels caused 2700-gallon spill with 270 gallons reaching water of state.
- 4/24/2008 -- 2200 North Main Avenue - Roots caused 1670-gallon spill with 1503 gallons reaching water of state (Hildebran Creek) Anthony Creek.
- 5/01/2008 -- 511 Burton Ave. - Gravel and small rocks caused 1670-gallon spill with 170 gallons reaching water of the state (Town Creek).
- 8/27/2008 -- 632 East 1st St. - Heavy rain took out 12" line and caused 56250-gallon spill with 56250 reaching water of the state (Snow Creek).
- 9/01/2008 -- 1810 North Hewitt Ave - Grease caused a 1470-gallon spill with all 1470 gallons reaching water of the state (Snow Creek).
- 11/18/2008 -- 10 North Gaither Ave @ MH # 419 - Pipe failure and debris in the line caused 70,000-gallon spill with all 70,000 gallons reaching water of the state (Snow Creek).
- 12/11/2008 -- Heavy rains caused two different areas to overflow: 1) Burris Rd MH #1798, 1805, 1817, 1819, 1823, 2394 and 2396 all overflowed causing an estimated 15801-gallon spill with 11060 gallons going to waters of the state (McLin Creek). 2) The second spill happened on Hwy 10 West an estimated spill of 5100 gallons with an estimated 3060 gallons reaching water of the state (McLin Creek).

During the year 2008, the City of Newton Collection System received 4 Notices of Violation for Sanitary Sewer Overflows.

(1) NOV-2008-DV-0067 for debris in the line on 1-25-2008.
(2) NOV-2008-DV-0214 for roots and a broken pipe on 4-24-2008.

(3) NOV -2008-DV-0270 for debris in the line on 5-10-2008.
(4) NOV-2008-DV-0410 for pipe failure and debris in the line 11-18-2008.

In 2008, the City of Newton WWTP effectively treated six hundred fifty eight million eight hundred thirteen thousand (658,813,000) gallons of wastewater. During this time the City of Newton wastewater collection system experienced ten (10) overflows. The amount of these overflows to reach surface waters was less than 0.0022% of the amount of wastewater collected and treated for 2008. No overflows resulted in a fish kill or other negative environmental impact.

The Clark Creek WWTP average daily flow for 2008 was 1.8 MGD. To ensure compliance with all Federal and State laws regarding the safe treatment of wastewater, the City of Newton appropriated more than two million two hundred thousand dollars ($2,200,000.00) toward operating and maintaining its wastewater treatment plant. The City of Newton Clark Creek Wastewater Treatment Plant was issued one Notice of Violation pertaining to the National Pollutant Discharge Elimination System (NPDES) Permit NC0036196 for the year of 2008. The City of Newton has met with the North Carolina Department of Environment and Natural Resources and strongly disagrees with the fecal coliform average weekly limits violation issued by the Division on July 7, 2008.

III. Notification

The City will notify the users of the wastewater system of this report by way of the City Newsletter, the City Website, and by announcement at a City of Newton Council meeting on April 7, 2009.

IV. General Information

The City of Newton is responsible for maintaining unobstructed wastewater flow in the City-owned sewer system. The line that connects a house or building to the City sewer system is called a service lateral. The property owner is responsible for maintaining the service lateral. If a blockage occurs causing a sewer backup, the city encourages residents to call the city so a crew can verify which part of the line is obstructed. A city crew will check the main line and clear the line if necessary. If the main line is clear, the property owner will be notified of the need to call a plumber to clear the service lateral. Occasionally there are blockages in service laterals that extend into the utility right-of-way. When this occurs the City will check and clean the line to the “clean out” if requested. However, the property owner is ultimately responsible for the entire length of the service lateral.

Why do sewer lines block?

Many things can become lodged in a sewer line causing a backup; e.g. sticks, rocks, bricks, pieces of broken pipe, string, rags, GREASE, paper towels, newspapers, sanitary napkins, plastics, etc. Many blockages occur as a result of tree roots growing into sewer pipes. Roots collect grease and animal fat poured down drains. Over time, this collection of debris can cause an obstruction. You can help prevent sewer backups in your home and protect the environment if you adhere to the following advice: (1) Never flush or put anything down a toilet or drain that would clog a sewer line, (2) do not wash grease down a drain and (3) report any sewer overflow immediately. It is a good idea to collect grease in a can or jar and put it in the refrigerator. When the container is full, and it solidifies, dispose of it with the household garbage. The City of Newton has a Grease Trap

Policy and a Standard Operating Procedure for controlling grease discharge from commercial establishments.

What is a "backwater valve" and do I need one?

A backwater valve is a relatively inexpensive item that can be installed on your plumbing system that will help prevent sewer back-ups and overflows that could occur on your property or in your home. The N.C. Plumbing Code requires that a "backwater valve" be installed in all structures if they have a plumbing fixture that has a "flood rim elevation" below the next upstream city sewer manhole. City residents can avoid sewer back-ups by installing this backwater valve, which is designed to prevent a sewer back-up in the customer's plumbing caused by a blockage in the city's sewer system. The valve allows sewage to leave the residence or business, but does not allow sewage to flow back into the property. (The flood rim elevation is the level at which a fixture, such as a toilet or sink, will overflow.) It is possible that some local homes or businesses that have fixtures with flood rim elevations below the next upstream sewer manhole may not have the backwater valve installed. Any structure with plumbing fixtures below the next upstream sewer manhole is at risk of sewage backing up into the structure. Structures with plumbing fixtures in basements are more likely to need the valve installed. Residents are advised that the city is not responsible for damages caused by a sewer back-up on private property if the required backwater valve has not been installed. For more information or to determine if your home needs a backwater valve, contact Dennis Falder at 695-4298.

Should you have any questions regarding the treatment of wastewater in your community or need to report a sewer problem, please feel free to call the City of Newton Public Works and Utilities Department at 828 695-4310. To report a sewer problem after 5:00 p.m. or on weekends call 695-4306.