

# City of Morganton

## 2008 Wastewater System Performance Report



The City of Morganton operates a Wastewater treatment system consisting of a 10.5 million-gallon a day wastewater treatment plant, fourteen sewer lift stations and over 200 miles of collection system. Morganton's collection system operates from the shore of Lake James to the Town of Glen Alpine, to portions of the Salem area and most of the City of Morganton. The collection system is a complex network of piping materials ranging from: six inch diameter vitrified clay pipe, plastic pipe, ductile iron pipe, and cement pipe up to 54 inches in diameter.

NPDES permit #NC0026573, allows the discharge of treated wastewater into the Catawba River. Morganton provides a compost product to its customers which is regulated by requirements in Permit #WQ0002127. The wastewater treatment plant is a pure oxygen type of facility. Its treatment units are bar screens, flow monitoring, cyclone degritting, primary clarification, aeration, secondary clarification, disinfection and chlorine removal before discharge to the river. The solids process consists of raw sludge storage to aerobic digesters, plus activated sludge to aerobic digesters, polymer addition, centrifuges, and composting. The product is then made available for sale to the public as Morganite. Morganton's collection system also is regulated through a permit which is WQCS00028.

During 2008, Morganton treated over 1,500,000,000 + (billion) gallons of wastewater. Performance of the wastewater treatment plant was compliant 10 out of 12 months. The plant was non-compliant in February due to low effluent pH and in December the plant was hydraulically over loaded causing a violation of BOD and TSS. There were three reportable overflows of the sewer system in 2008. On March 5<sup>th</sup> near Herron Street, after heavy rains an eight inch cast iron line broke allowing 400 gallons of wastewater to get to the Catawba River. On June 5<sup>th</sup>, 2008 at 402 Ervin Rd while performing an inspection Collections personnel found a stoppage and relieved it. Sand and sticks had been the causative agent of the blockage. On December 11<sup>th</sup> after heavy rains 100 gallons of wastewater found its way to an unnamed tributary of the Catawba River.

The collection and distribution division monitors the water and sewer system. This small crew of dedicated personnel routinely goes into the lines to maintain and repair them. During 2008, this division maintained 1756 manholes, flushed 246,128 feet of sewer line, used jet power degreaser on 9790 feet of sewer line and used a robotic TV camera to inspect 6,388 feet of sewer. Wastewater crews completed 52 sewer taps during 2008 calendar year, made 46 repairs to the system and relieved 76 stoppages. The ability to get to a sewer line is an important key in maintaining a sewer system because of this need sewer maintenance crews bush-hogged a total of 172,990 feet of sewer line right-of-way.

Annually City crews use a remote camera to help clean and inspect portions of the sewer system. The City plans continue to use contractors, when the money becomes available, to augment its preventive maintenance program. The results will be used to identify areas that need to be repaired and to plan appropriate action.

The camera that is used has its own light system and can rotate 180 degrees. The camera can tell if the lines are in good condition or whether there are cracks that are allowing the surrounding soil to fall into the sewer line. Cameras can also locate missing taps or indicate where leaks are occurring. This information tells us if we need to make an immediate repair or if the repair can be scheduled.

Fats, oils and grease continue to plague the collection system. Residential customers should avoid placing food into sinks and sanitary sewer lines. Particles accumulate in the customer's home as well as the collection system causing maintenance issues for the homeowner and the City.

Often our customers are the first to find problems. If you see something that appears to be wrong, please call the 24-hour number for water and sewer utilities at 438-5276. If you have any questions please call Don Danford, Director of Water Resources, at 438-5285.