CHARLOTTE

CHARLOTTE-MECKLENBURG UTILITIES

State of the Utility Report

May 14, 2007

I. Background

Charlotte-Mecklenburg Utilities (Utilities) was formed in 1972 when the City of Charlotte and Mecklenburg County combined its water and sewer systems. Consolidation continued during the 1980s when Utilities entered into operating agreements with and accepted water/sewer assets from the towns of Huntersville, Davidson, Cornelius, Mint Hill, Matthews and Pineville. Our service area is generally considered to be Mecklenburg County, although we convey some wastewater from the eastern part of the county for treatment in Cabarrus County through a regional sewer service agreement. We treat a small amount of wastewater from the Six Mile Creek basin of Union County at the McAlpine Wastewater Treatment Plant in southern Mecklenburg. Utilities also has a handful of metered drinking water interconnections with the City of Concord (3), Union County, Lancaster County, S.C and York County, S.C.

Distance-wise, our 7,924 miles of pipe is comparable to a journey from Charlotte to the North Pole and back.

The Charlotte-Mecklenburg water & sewer system includes two drinking water intakes from impounded lakes on the Catawba River (Lake Norman and Mountain Island Lake), three water treatment plants, five wastewater treatment plants, 72 sewage lift stations and a whopping 7,924 miles of water and sewer pipe countywide.

All told, our community's water and sewer infrastructure carries a net book value of $2.4 billion.

II. Advisory Committee

The Utilities Advisory Committee is comprised of seven members representing real estate developers, neighborhoods, water-sewer contractors, civil engineers, financial industries and the Mecklenburg towns. The Advisory Committee is charged with reviewing:

- all Utilities capital improvement programs
- proposed changes in the method for determining water and sewer charges; and
- proposed changes in the policy for extending water and sewer service.

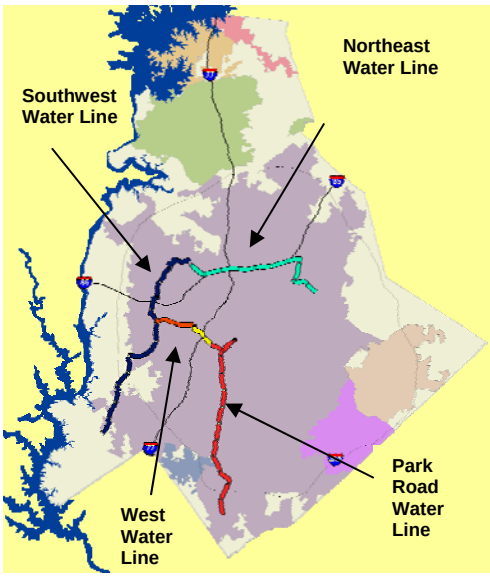
III. Major Issues

Utilities currently faces several issues and challenges that will affect our operation's future water and sewer service to customers. Those issues include:

- **Wastewater Capacity Needs**
- **Water Master Plan**
- **Duke Energy Re-licensing**
- **Inter-Basin Transfer**
- **Sewer Relief Lines In Urban Areas**
- **Sewer Overflows**

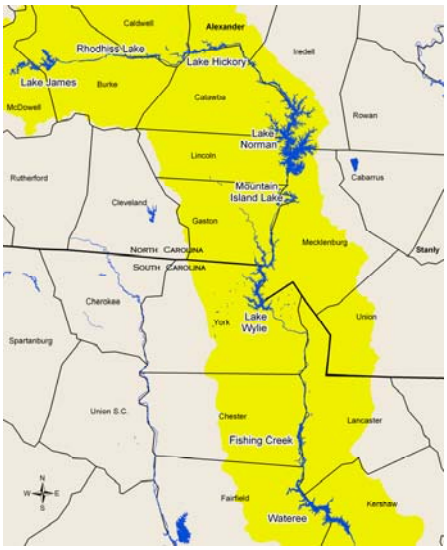
Wastewater Capacity Needs.

We recently completed a study of the McAlpine, Irwin and Sugar creek basins to help determine our community's future wastewater treatment capacity needs through the year 2030. These three basins encompass most of the Charlotte metro area and the majority of our sewer service area. Based on current and projected population and flow figures, Charlotte-Mecklenburg will start needing additional wastewater treatment capacity by 2012. Solutions identified to provide that additional capacity over the next 23 years include rehabilitation projects at the Irwin Creek and McAlpine Creek wastewater plants, as well as two expansions at Sugar Creek WWTP and the addition of a new regional wastewater treatment plant along the Catawba River near its intersection with Long Creek. The Long Creek plant could also treat wastewater from Mount Holly and allow that town's older plant to be taken out of service. These projects all represent significant investments and are subject to actual capacity need, regulatory permitting, funding availability and so forth. The estimated price tag for new capacity through 2015 alone is $344 million and several of the projects, including the new plant and the Sugar expansions, will require significant stakeholder input.



Water Master Plan.

This spring our next water master plan is getting under way, and we are already aware of several new water transmission mains needed to meet future needs. Our water accounts continue growing at a healthy rate and we are particularly seeing growth in the southwestern and northeastern parts of the county. A few years ago we completed the Park Road water line. Within months, we will have activated the first section of the Southwest Water Main between Franklin Water Treatment Plant and the airport. Two more phases of the Southwest line will be built to get water down to the Lake Wylie/Shopton Road area, and the West Water Main will link the Southwest main and the Park Road line. In addition, our service area will require a large, new Northeast Water Main running along the I-85 corridor to help serve the university area.

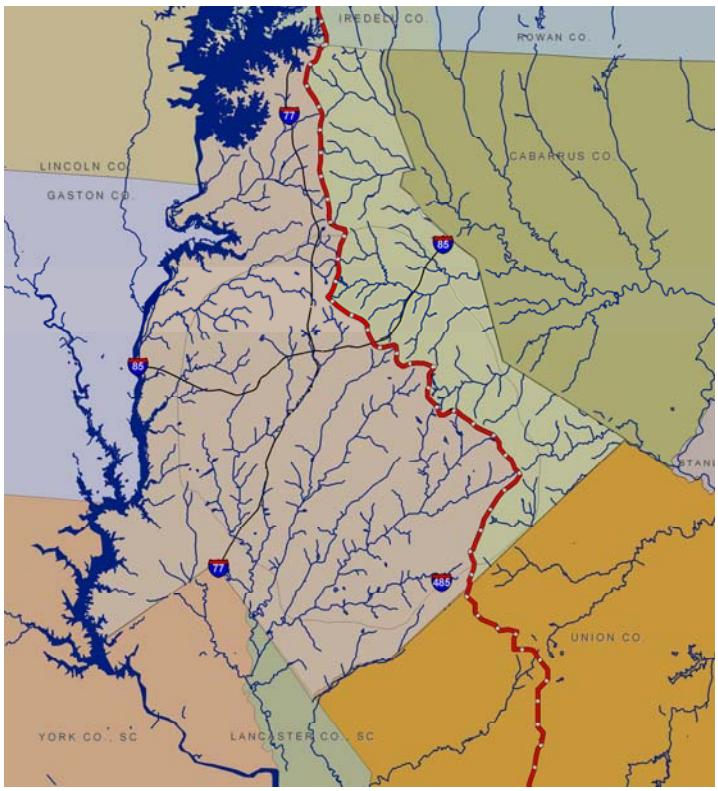


Duke Re-licensing.

Duke Energy operates the Catawba River reservoirs under the authority of a license issued in 1958 by the Federal Energy Regulatory Commission (FERC). That license expires in 2008, and Charlotte-Mecklenburg Utilities has been a leading

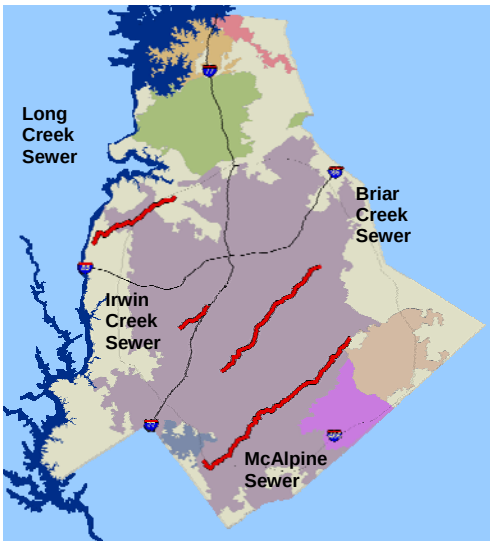
partner in helping to develop a basin-wide Water Management Group and a Low Inflow Protocol as part of Duke's relicensing process. The reissuance of the FERC license will change the way Duke is required to operate the reservoirs. These changes will affect the capacity of the reservoirs as a water supply source and will also affect the process for obtaining authorization for future additional withdrawals.

Inter-Basin Transfer.



About one-third (the eastern section) of Mecklenburg lies on the other side of a ridge that flows away from the Catawba River Basin into Cabarrus County's Rocky River/Yadkin/Pee Dee River Basin. Catawba River water used on the east side of the Catawba/Yadkin ridge line and not returned to the Catawba River is considered to be an Inter-Basin Transfer (IBT).

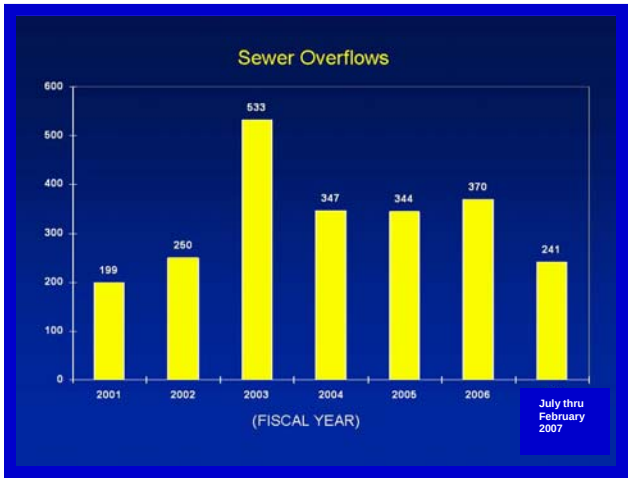
Although Charlotte-Mecklenburg is authorized to make this IBT, the IBT certification process has become quite controversial statewide. To meet long-term supply needs beyond 2025, we will require additional IBT authorization and that is going to be difficult. In fact, current legislation is pending that would make sweeping changes to how IBTs are regulated. These changes could restrict service to the eastern side of the county or could make the cost of providing service much more costly.



Sewer Relief Lines in Urban Areas.

During the next few years, several large-diameter sewer relief lines will be needed to add wastewater collection capacity and help prevent sewer spills due to extreme wet weather events. These lines will be installed along Long Creek, Irwin Creek, Briar Creek and McAlpine Creek. The projects represent a challenge in terms of construction cost and disruption to homeowners, but play a key role in sewer overflow reduction and making sure our growing community's wastewater needs are met.

Sewer Overflows.



Sewer overflows represent one of our utility's greatest operational challenges. During most of the past decade we have stepped up line cleaning, pipe rehabilitation, capital improvements and initiated other strategies and tactics to reduce spills. In the past few years we have tended to see a lower amount of wastewater that has overflowed, but the number of spill incidents has generally stayed neutral and is on the rise again this year. While our system safely collects, treats and recycles 99.9+ percent of our community's 80 million gallons of wastewater each day we know we need to do more to reach the regulatory goal of zero sewer spills. Beginning in March 2007 we formally began working under an Administrative Order with the U.S. Environmental Protection Agency that outlines our capital improvements plan and an additional list of spill-prevention and reporting tasks to be performed within a few years. Protecting the environment and public health through effective wastewater treatment is one of our two core missions and we are committed to reducing spills.

IV. Looking Ahead

While we are successfully meeting the needs of our growing community, we are increasingly challenged to maintain quality service delivery and competitive water & sewer rates. In addition to building and operating new facilities, we must reinvest in aging parts of our system that are approaching the end of their natural service life. *Our proposed FY08-12 (5-year) capital improvements plan represents more than $1.1 billion in needed investment.*

We know our future solutions are not just found in concrete and steel. We are continuously developing better business processes and tools to work smarter and more efficiently. We recently combined our water and sewer line crews into one division that now operates cross-trained teams in 4 geographic zones to improve response time and reduce the quantity of service calls. We consolidated our laboratory functions and increased in-house testing capabilities. We have installed automated meters to reduce meter reader labor costs and increase reading accuracy. We continue building a Geographic Information System network of maps and data to make our information more consistent, updated and efficient. We are equipping water service technicians with wireless laptops to complete faster work orders from the field. This past year we began spearheading a Citywide effort toward developing a comprehensive Work & Asset Management program to shift emphasis from reactive to predictive system maintenance.

Beyond all this, we must continue cultivating our most important resource – the people that run our systems and serve our customers. Recruiting and retaining top employees will continue to be a challenge. Like other employers we face a changing and aging work force. The retirement of the baby boomer generation will last many years and result in fewer available workers. More technology means changing skill sets are necessary. Finding the right people for the right jobs will be our most critical challenge and accomplishment.