

**CHARLOTTE-MECKLENBURG UTILITIES  
ADVISORY COMMITTEE  
MINUTES OF MEETING  
January 17, 2013**

The Charlotte-Mecklenburg Utilities Advisory Committee met Thursday, January 17, 2013, 2:30 pm at 4222 Westmont Drive, Charlotte, North Carolina.

Members Present: Ron Charbonneau, Jim Duke, Frank McMahan, Jim Merrifield, Ralph Messera, Pride Patton, Eric Sieckmann

Staff Present:	Barry Gullet	Director
	Kim Eagle	Deputy Director
	Regina Cousar	Continuous Improvement Officer
	Karen Whichard	Community Relations Manager
	Angela Lee	Field Operations Division Manager
	Barry Beamer	Field Operations Compliance Officer
	Stuart Rosenberg	Field Operations Lift Stations Supervisor
	William Lee	Field Operations Zone 4 Manager
	John Bumgarner	Field Operations Zone 2 Manager

**Safety Minute**

Prevention of slips, trips and falls

**Minutes**

A motion was made by Jim Merrifield, and seconded by Eric Sieckmann, to approve the December 2012 minutes.

**Wastewater Collection System**

- CMUD maintains over 8,000 miles of pipes on collection (sewer) and water sides.
- CMUD currently has 75 lift stations.
- Field Operations has a \$28.5 million budget; 270 employees work 24/7 to manage and maintain water and sewer pipes.
- SSO (Sanitary Sewer Overflow) – focus has been on reduction of number of SSOs
- There has been a 33% reduction in the number of SSOs from FY2007 (419) to FY2012 (281)
- EPA Administrative Order was closed out in 2012. The Administrative Order required CMUD to report semiannually on SSO details and procedures in place to reduce occurrences.
- Monthly SSO/100 miles is on downward trend (calculate per 100 miles for benchmarking purposes) which is a good indicator of how Utility is doing.
- Compared to other cities across the country, CMUD is about midway in terms of SSOs/100 miles. The goal is to have zero overflows, but no one has accomplished that task yet. Benchmarking data from other cities shows a correlation between resources used in cleaning efforts and the number of SSOs experienced.

- Grease causes 50%-60% of SSOs. The second leading cause is roots, which is approximately 22%. CMUD applies root treatment in about 300 miles of pipe each year. The grease is mainly from households. CMUD has a stringent grease policy in which approximately 4,000 inspections are conducted per year for businesses industries.
- The State requires a response within two hours of an SSO being identified. CMUD has a one hour goal, with most crews being deployed within 30 minutes.
- The Grease Free program is helping. Information about proper grease disposal is sent to all addresses within the zip code where an SSO occurred if the overflow was due to grease.
- At the wastewater treatment plants, there are flow equalization basins to hold excess wastewater during wet weather until flow rates subside and it can be returned to the plant to be treated.
- The number of SSOs per 100 miles of pipe is presently below the five year moving average. The goal for FY2013 is 6.1 SSOs/100 miles or less.
- Two main functions of Field Operations are cleaning/maintaining sewer lines and repairing sewer lines.
- Rapid Response Crews are dispatched to SSOs with a small hydraulic jetter to quickly remove blockages.
- CMUD currently owns 14 combination trucks; each truck is equipped with a large hydraulic jetter and a vacuum. The trucks are used to clean sewers daily. They are very expensive to own and operate and very high maintenance. CMUD is working to find the right balance between utilization of combo trucks and the smaller hydraulic jettors.
- SSOs are both environmental and legal issues. Federal law states sewer spills are illegal. A potential impact of too many SSOs is the regulatory agencies imposing a moratorium on new sewer connections, which would shut down economic development.
- A mechanical rodder is used to mechanically trim and clean roots from sewer lines when the combination trucks can't remove them.
- All sewer pipes do not run under streets; many run beside creeks and behind houses, industries, etc.
- CMUD and Stormwater work together as much as possible.
- The Engineering division outsources rehab of older mains (repairs), installation of new connections, maintenance, and backup of construction crews.
- There are 4 CCTV (closed circuit television) units in Field Operations.
- Each CCTV operator is trained and certified by industry to document what they see throughout pipe. The operator sits in the back of van to control the camera and document conditions.
- City Works, which is a Work and Asset Management software system, is the technology used in the field. Pertinent information is shown on the left side of the screen and a map of the area is shown on the right side.

### **WWC System Permit**

- The Wastewater Collection System Permit is up for renewal. The draft permit is in hand and some changes are being proposed.
- The State of NC establishes minimum requirements for how to maintain sewer systems. Wastewater collection system permitting began 7-8 years ago. CMUD has permit

number one. The State is prescriptive in requirements for monitoring, tracking and reporting.

- The permit fee is approximately \$1,500.
- CMUD surpasses most requirements in the permit currently. One main impact is with the critical asset group where CMUD has developed a program to more closely monitor areas that have a high consequence of failure. Currently, this includes 1,200 assets. New language in the permit indicates inspections are to be conducted every six months, which would equal over 5,000 per year. The first permit negotiations included inspecting areas less prone to failure yearly and inspecting others more often.

Q: What is the situation on the sewer pipes in the older neighborhoods?

A: A lot of work is done trenchlessly where customers would not know pipes have been relined. Currently, CMUD is rehabbing more sewer lines than water lines annually.

- A guide to help customers when a sewer backup occurs is distributed to impacted customers. The guide gives next steps and information for customers to follow.
- When a sewer backup occurs, it may back up into a customer's home. The City is generally not liable for damages within a home. Charlotte has taken a different approach in the spirit of giving good customer service. The City will pay for a certain amount of damages to help the customer restore the home. The City asks the customer to sign a release and install a backup prevention device, which requires maintenance and is not 100% effective. The policy states the City will pay up to \$15,000 for damages. The City spends approximately \$300,000 annually on sewer backup damages under this policy.
- The rapid response crew is the first responder to a sewer backup in a customer's home and helps get the situation under control and begins the cleaning process. The program periodically comes up for discussion around budget time.
- CMUD staff have been contacted by several municipalities looking to implement this same type of program.

Q: Does a homeowner have to use his/her insurance policy before the City pays?

A: Yes, but homeowner policies may not cover this type of damage.

Q: The City requires a backflow preventer for irrigation; does it require it for sewer?

A: No. In theory, the house should be higher than the manhole, so no backups into the house should occur. In reality, some houses are lower than the manhole and become the low point in the system.

- If all money set aside for sewer backups is not used during the fiscal year, it goes to the general reserves and is reallocated the following year.
- Big picture items for Advisory re: Collections System:
  - Regulatory aspect – SSOs
  - Sewer Overflow Prevention – Grease Control
  - Backup Policy
  - Level of effort that we're putting in to maintain system
- CMUD has an ongoing program (Grease Free) to communicate about proper grease disposal, including logos on trucks, door hangers, billboards, etc. The program works directly with apartment managers to provide flyers and other communications for the residents. There is usually a blitz of communication during Thanksgiving season because there is a spike in grease blockages due to turkey fryers.
- Staff sends reports to the media regarding a spill if it is a certain magnitude.

- CMUD has been part of developing acoustical technology to inspect sewer lines for blockages. UNCC professors came up with the technology to screen the lines, which costs much less than using CCTV.
- After using the technology, it was shown that approximately 40% of the lines needed cleaning rather than the 100% that were getting cleaned previously.

#### **Future Agenda Items**

- Rates & Budgets

#### **CIP**

- CMUD is on track with schedule discussed last month.

#### **High Occupancy Toll Lane**

Q: Are there issues with sewer relocations?

A: CMUD doesn't anticipate much of an impact because most work looks to be in the median at this time. If DOT decides to rebuild interchanges, CMUD staff will review plans for possible impacts.

Adjourned at 4:45 pm  
Karen Baldwin