


City of Atlanta: Large Waters Meters

Project:	Repair and Replacement of Large Water Meters	
Client:	City of Atlanta -Watershed Management	
Location:	Atlanta, GA	
Completion:	2009	

Objective: This project was initiated to replace outdated or damaged water meters to properly account for the water usage of larger clients.



In 2005, Metals & Materials Engineers (MME) was awarded an annual contract for the repair and replacement of large water meters (3 inches to 12 inches) and related components throughout the City of Atlanta. Many of the existing water meters were out of calibration to the extent that they were not functional and some were so corroded that their moving parts had rendered them irreparable. The lack of functional meters to record water usage from these large clients was costing the City quite a bit in lost revenue. These and related conditions were slated for correction under this contract as well as re-orchestrating the City’s approach to polling data.

The City’s current system of retrieving meter data was a direct-read (touch) system that functioned adequately, but required a work force of significant size to acquire timely data. The system MME proposed revolves around the concept of Automatic Meter Reading (AMR) that functions on a radio frequency tuned to the receiver on a Monitoring Vehicle that traverses the area bi-monthly to collect water usage data for each address. The AMR concept cuts the necessary workforce by as much as 50-80%, among other benefits that contribute to lower water rates for City clients. Such accessory benefits are:

1. Greater accuracy as polling occurs at least once per billing cycle, eliminating the need for utilizing “historical” estimates.
2. Reduces the error derived from the “human element” by digitizing the data acquisition process.
3. Increases City safety by eliminating the need for City employees to access residents’ properties to collect data each billing cycle.
4. Greatly reduces the possibility of fraud as the technology is advanced and difficult to tamper with.

MME replaced over 300 large water meters in the execution of the contract.