



Sanitary Sewer Overflow Remediation Program

Beyond the 19-square-mile combined sewer area, Atlanta's sewers are separated (85% of the total sewer area). Sanitary wastewater flows in its own pipe to the treatment facility, and stormwater flows in a separate pipe to a receiving stream. Like many older cities, much of Atlanta's sanitary sewer system is aged and in disrepair. Cracked and leaking pipes, built to handle sanitary sewage alone, admit groundwater and storm water as well, increasing the volume of flow in the pipes. In addition, as a result of Atlanta's growth, the sewers are receiving sanitary sewage volumes greater than anticipated when they were originally constructed. Improper connections at residences and businesses also allow stormwater to enter the sanitary sewer system. Consequently, these sanitary sewer systems are strained beyond their capacity and experience sanitary sewer overflows – or SSOs.

During SSOs, a mixture of untreated sewage, groundwater and stormwater overflows from the pipes or from manholes connected to the pipes. Many sewer lines run alongside creeks and streams. When SSOs occur, the overflow goes directly into those creeks and streams, many of which are adjacent to private property.

In order to address sanitary sewer system improvements, the City, USEPA and GAEPD negotiated a second comprehensive settlement, titled the First Amended Consent Decree (FACD). The FACD prescribes evaluation and improvement measures to eliminate SSOs and to protect the City's investment in upgraded WRCs. The SSO program includes the development and implementation of Maintenance, Operations and Management (MOM) programs, completion of the City's Capital Improvement Program (CIP) for the sewer system, an aggressive grease management program and the evaluation and rehabilitation of existing sewers.

Much of the work mandated in the FACD builds on City programs that are already underway, including:

- SSES, using closed circuit television cameras to inspect the insides of the sewers and assess their condition
- capacity certification programs to intensify review of building permit applications that propose adding new flows into the sewer system, and
- management plans to operate the collection system more effectively,
- fully implemented grease permitting program.

The long-term goal of the SSO program is to eliminate groundwater and stormwater entering the system. The project begins with the Sewer System Evaluation Survey (SSES), a comprehensive evaluation of the system's condition. The SSES will help identify locations where major rehabilitation and repairs are needed. The SSES work will be carried out over 6 to 8 years, and involves 6 sewer groups, prioritized according to the severity of their condition.

Some of the signs of a sewer failure are obvious –sinking or cave-in of a street surface or the ground above the sewer. The work sequence for determining and addressing less visible problems is: 1) clean the sewers; 2) install, monitor and analyze data from flow meters; 3) assess current condition of the sewers with closed circuit TV; 4) conduct smoke and dye testing, flow isolation and soil boring, groundwater monitoring using meters placed at strategic locations throughout the City; 5) assess the condition of manholes and manhole covers; 6) make point repairs where collapse has occurred or is imminent.

Once the needs have been identified, rehabilitation and repair will be accomplished with trenchless technology (i.e., cured-in-place pipe or pipe-bursting techniques) wherever possible, to minimize impact to public and private property.

Capital Improvement Program (CIP)

Atlanta's future will be greatly affected by the City's ability to maintain affordable, high levels of service for the health and safety of its citizens. The CIP will upgrade, rehabilitate, or replace sanitary sewers, as needed, to address sewer overflows and backups into homes that result from a lack of capacity within the sanitary and combined sewer systems. Sixteen individual sewer systems are being addressed by the CIP. The projects include construction of relief sewers, sewer separation, lining of existing sewers, and construction of new sewer pipes – often with larger diameter than the original pipes, to increase flow capacity.

The FACD deadline to complete the sanitary system repair program is July 2014. The Mayor has recently committed to achieving full compliance by 2012, two years early!

Sewer System Evaluation Survey (SSES) Progress To Date

Basin	District	Miles Cleaned	Miles Inspected
Camp Creek	11	3.5	7
Nancy Creek	7, 8	2	8
Peachtree Creek	6, 7, 8	2.8	12.5
Proctor Creek	3, 9	5	13
South River	1, 12	2	6
Sugar Creek	5	4.5	13
Utoy Creek	4, 10, 11	4.2	9.6

