

CSOs Reduced by 77%, SSOs Reduced by 78% City of Nashville, Tennessee

Long Term Flow Monitoring

Nashville, TN - The City of Nashville struggled with excessive overflows totaling 158 SSOs and 30 CSOs in 1989 and 1990. They found themselves with a consent decree and officials immediately started abatement programs to address both issues. A long term flow monitoring network was installed by ADS Environmental Services along with I/I analysis designed to isolate the problems.

Measurable Results

Initially reactive, responding to overflows after they happened, Nashville designed a strategy that allowed them to progress over eight years to a proactive management process. Over the last seven years they have been proactively managing their wastewater collection system by identifying areas with increased I/I and addressing it before it becomes an overflow issue.

Primary accomplishments:

- Implemented 223 separate projects to rehabilitate 236 miles of pipe (almost 10% of the system)
- Reduced CSOs from 30 to 7 in fifteen years
- Reduced SSOs from 158 to 34 in fifteen years
- Removed a 33-mile segment of the Cumberland River from the 303(d) list of water quality limited water bodies
- Removed collection system failure as the cause for being on the list

Services Provided by ADS

- Long term flow monitoring network installation and service; data analysis; temporary flow monitoring and I/I assessment; Profile® desktop data analysis software

Underground Intelligence® from ADS

ADS installed 100 flow monitors in 1990 following the EPA's issuance of a consent decree to the City of Nashville. The flow data gathered from these monitors and analyzed by ADS Environmental Services is delivered through electronic reports on a monthly basis. This provides the City of Nashville with Underground Intelligence that allows them to proactively manage their collection system by identifying and addressing I/I problems before they turn into overflows.



Nashville celebrates the removal of the Cumberland River from the 303(d) list with (from l. to r.) Mayor Bill Purcell, past Tennessee Deputy Governor Justin Wilson, and past Governor Don Sundquist.


This same Underground Intelligence is used to target the 223 rehabilitation projects necessary to reduce overflows and address other consent decree mandates.

"We have conducted both long term monitoring and temporary monitoring projects with ADS Environmental Services and have been very pleased with their work. We now have ADS providing data analysis on our long term network because we have been so happy with the reports we have gotten on our temporary projects. I highly recommend ADS for flow monitoring, field services and data analysis."

Cyrus Toosi, P.E.
Engineering Manager
Nashville Metro Water Services

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About ADS

ADS Environmental Services®, a division of ADS® LLC, is a leading technology and service provider and a reliable source of knowledge to the global wastewater collection system industry. ADS delivers value to its customers by providing industry-leading solutions for flow monitoring, data analysis, reporting, and field services.