SMARTCOVER®
WE'VE GOT IT COVERED™

GEORGIA'S CAPITAL CITY RELIES ON TECHNOLOGY FOR SMART SEWER® SYSTEM

BACKGROUND

Situated just south of Atlanta, GA, Clayton County is home to more than 270,000 residents as well as Atlanta Hartsfield International Airport, one of the busiest in the world.

Created in 1955, the Clayton County Water Authority (CCWA) serves six cities and over half a million residents and visitors.

CCWA manages five reservoirs, three treatment plants, three water reclaimation facilities, 1,500 miles of water pipeline and 1,100 miles of sewer mains. Over 500 miles of stormwater infrastructure also helps protect residential and business property from floods and sinkholes.

THE CHALLENGE

Despite diligently cleaning problem areas, sanitary sewer overflows (SSOs) were approaching the point where a consent decree was imminent.

CCWA took an aggressive stance on overflow prevention seeking a data-driven early warning system. CCWA was not only looking for a platform that would allow them to understand the operation of their sewer network in real-time, sensing changing levels in the system, and also would allow them to be proactive in responding to changing conditions and preventing potential overflows.
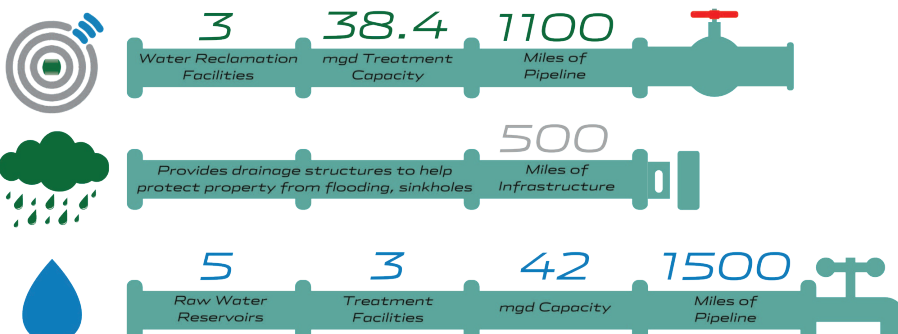
CCWA needed a readily deployable and robust system to prevent spills and reduce staff workload without requiring extensive system changes or integration efforts.

THE SOLUTION

CCWA deployed SmartCover wireless remote sensors in 14 locations. These remote field units use highly reliable satellite communications to provide real-time information to a central dashboard.

The robust communication network was of particular benefit to CCWA where weather events in the Atlanta area often can disrupt terrestrial communications.

SmartCover gave CCWA a powerful event management platform with integrated weather and flooding data to respond to potential issues before they became environmental, public health or financial hazards.

3	38.4	1100	
Water Reclamation Facilities	mgd Treatment Capacity	Miles of Pipeline	

	500	
Provides drainage structures to help protect property from flooding, sinkholes	Miles of Infrastructure	

5	3	42	1500
Raw Water Reservoirs	Treatment Facilities	mgd Capacity	Miles of Pipeline

RAIN DATA INTEGRATION PINPOINTS I&I, SAVING TIME AND MONEY

THE RESULTS

SmartCover has revolutionized CCWA's response times, allowing changes in conditions to be monitored in real-time and reducing uncertainty about conditions in the sewer network. Knowing the level trends in the sewers helps CCWA schedule maintenance when and where it is needed most. Their SmartCover strategy has been critical in the detection and prevention of 4-5 sewer overflow events each year.

"Our Innovation Team was tasked to identify technologies to help us manage our systems... SmartCover was top on the list."

- - Jeff Jones, Clayton County Water Authority

HIGHLIGHTED FEATURES

In addition to sewer level monitoring, SmartCover integrates local Doppler data to identify inflow and infiltration (I&I) conditios. This is instrumental for targeted capital improvement and abatement projects while addressing with regulatory oversight. For example, with rainfall data, CCWA was able to successfully rebut a potential non-performance claim from the Georgia Environmental Protection Division and Department of Transportation that could have cost $5,000 per day.

Featured benefits of the SmartCover patented design allows CCWA to remotely monitor and protect the integrity of the wastewater treatment process. The built-in entry detection immediately signaled staff when a manhole cover was lifted. The unauthorized entry was transmitted with an alert to staff, who caught a local business illegally dumping into the CCWA sewer saving thousands of dollars in treatment costs.
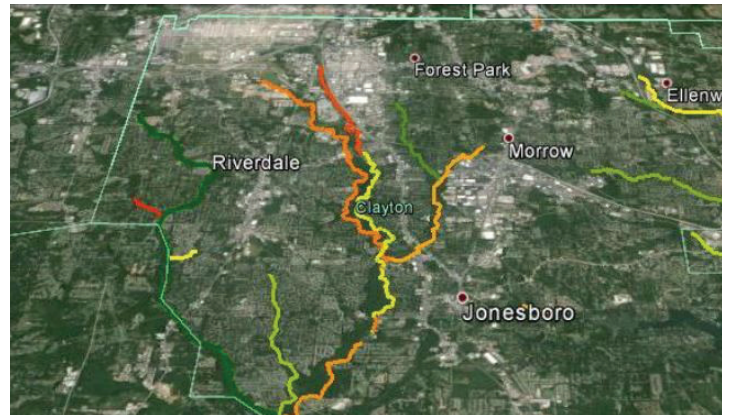
SUMMARY

CCWA found that remote sewer monitoring technology responds to the increasingly dynamic and demanding infrastructure environment. Using the solution in a variety of applications is fundamental to ensuring that they maximize sewer intelligence®, to safeguard human health, protect the environment and support economic viability of the communities they serve.

"With SmartCover, we can tell immediately what is happening in our systems, and where we are experiencing infiltration and inflow. This puts us on the front foot of responding to wet-weather events."

-- Clayton County Water Authority

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