

# IDEXX Tecta\* automated solution streamlines water monitoring in Georgia laboratory

Short-staffed and facing required compliance submission deadlines in 2015, Georgia's Fulton County Public Works Water Services was finding it more and more challenging to support the over 315,000 people depending on them for water quality.

"We had to sample on Fridays, which meant staff had to come in on Saturdays to read back results," said Patrick Person, Water Quality Manager.

To help alleviate staffing issues, Water Services began researching alternatives to their current water quality testing methods, including automated systems with electronic notification of results. With the IDEXX Tecta\* B16 Instrument, they found a solution that provided the same quality results they were getting with their current methods without the need to call in staff to read results.

## The Challenge: Testing limitations



Fulton County Water Services provides drinking water and wastewater services for cities in the Atlanta, Georgia, metro area. Their mission is to protect the health, safety, and welfare of citizens through the planning, construction, maintenance, and operation of water

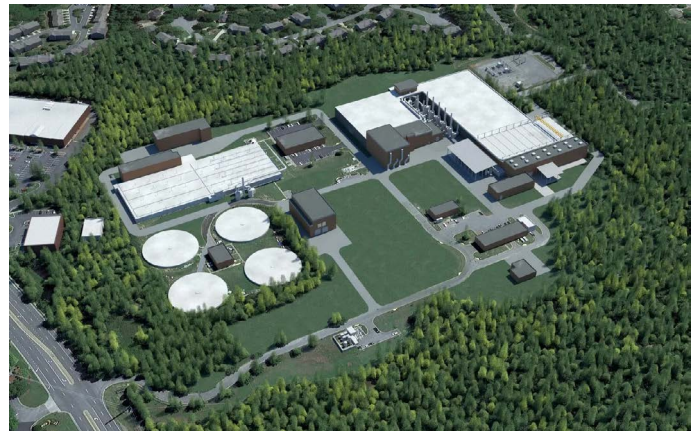
infrastructure in the most sustainable, efficient, and environmentally sound manner possible.

Fulton County samples about 180 sites each month from community distribution systems. The U.S. Environmental Protection Agency (EPA)

"The IDEXX Tecta allows quick, easy-to-read coliform and *E. coli* counts without having to be concerned about diluting the sample and getting 'good' countable colonies on a plate."

"That gives us fast, accurate information about possible sewer line breaks and spills."

Patrick Person  
Water Quality Manager  
Fulton County Public Works  
Water Services



requires samples to be tested for total coliforms to determine water treatment adequacy and distribution system integrity. In addition, the lab must test for *E. coli* to protect against potential fecal contamination.

For the 18- to 24-hour method in use until 2016, the technicians had to be present in the lab in order to read the test results. That meant they could only collect samples Monday through Thursday. Sampling on Fridays would mean weekend work, often incurring overtime costs.

## The Solution: A fully automated microbial detection platform

Fulton County Water Services needed an efficient approach to meet their testing needs. Influenced by the promise of the instrument's ease of use, rapid results, and electronic notification, they turned to the fully automated Tecta B16 Instrument to monitor their drinking water.

The IDEXX Tecta system was created in response to contamination events and global demand for faster and hands-off microbial detection solutions. Depending on throughput needs, the analyzer is available with 4 or 16 incubation chambers that work with easy-to-use cartridges that require no sample preparation. The instrument simultaneously detects total coliforms and *E. coli* within 18 hours without input or interpretation from a technician and is U.S. EPA-approved for the detection of *E. coli* and total coliforms in drinking water. There are also tests available for fecal coliforms and enterococci.

The IDEXX Tecta\* system uses the enzyme-substrate detection method combined with a patented polymer partition technology and spectrometer to provide accurate and timely test results. The instrument can detect a positive sample in as soon as two hours, triggering an email directly to technicians for a quick response to contamination protocols.

### The Results: Greater flexibility, quicker response, lower cost

The Water Services lab can now sample Monday through Friday, allowing an extra workday when needed. With results sent electronically, technicians no longer need to report to the lab on weekends for read-backs—which Person called the biggest benefit.

In addition, Person said he was highly impressed with the Tecta\* B16 Instrument's sensitivity at lower contaminant concentrations and its ability to count up to  $10^8$  organisms per 100 mL of sample. The instrument can also read and interpret the results of a sample with various levels of turbidity, critical when analyzing water from lakes, streams, and rivers.

Implementing the Tecta B16 Instrument keeps costs in check due to the lack of sample prep or overtime. Employing two instruments to handle all drinking water compliance work allows Fulton County to have the capacity to test 32 samples at once. Receiving results in real time frees lab technicians to perform other duties while still being confident they'll get results when needed for compliance.

“It is essential that we be proactive and innovative by using the latest and greatest technology available for any potential water contamination threat,” said Person.



The Tecta B16 Instrument lets laboratories automate water quality testing and receive results electronically.

“Keeping the citizens and environment of Fulton County safe and healthy is of paramount importance to us as public servants,” said Person.

**Learn more at [idexx.com/FultonCountyWater](https://www.idexx.com/FultonCountyWater).**

