



GO

NEWSLETTER SIGN-UP EMAIL A FRIEND PRINTER FRIENDLY TRANSLATE THIS PAGE TEXT SIZE: **A** **A** **A**

Home

Customer Services

[Ways to Pay Your Bill](#)

[Account Information](#)

[Customer Assistance](#)

[Service Line Protection Program](#)

[Water Rates](#)

[Property Managers & Trade Professionals](#)

Water Utilities

[Drinking Water](#)

[Wastewater](#)

[Stormwater](#)

[Harbor Water](#)

[Long Term Control Plan](#)

The Watershed

[Watershed Protection](#)

[Watershed Recreation](#)

Citywide Initiatives

[Regulatory Reform](#)

[Environmental Education](#)

[Conservation Programs](#)

[Air Pollution Control](#)

[Noise Codes & Complaints](#)

Business and Professionals

[Forms & Permits](#)

[Economic Development Unit](#)

[Doing Business with DEP](#)

[Asbestos Abatement](#)

[Construction, Demolition & Abatement](#)

About DEP

[Inside DEP](#)

[News](#)

DEP Featured In...

Stories from DEP

Press Releases

Public Notices

Testimony & Public Comments



FOR IMMEDIATE RELEASE 14-99
December 16, 2014

Contact:
depressoffice@dep.nyc.gov, (845) 334-7868

Department of Environmental Protection Deploys New Technology to Monitor Water Quality in Reservoir During Winter Months

New Sensors are First Ever Deployed on a New York City Reservoir and Will Provide Near-Real-Time Water Quality Data under Thick Ice Cover at Ashokan Reservoir

Photos of the Deployment are Available on [DEP's Flickr Page](#)

The New York City Department of Environmental Protection (DEP) today announced the deployment of new technology at Ashokan Reservoir that will continually gather and transmit important water quality information below thick ice cover for the first time. The equipment – known as an under-ice water quality monitoring buoy – is the first of its kind to be installed on a New York City drinking water reservoir and will provide DEP with data in near-real time to ensure the highest quality drinking water is being sent to customers. A second buoy will soon be positioned at another site on Ashokan Reservoir, and more could be installed at key reservoirs in the water supply in the future.

“DEP is always looking at new technology to improve the operation of our world-class water supply system,” **DEP Commissioner Emily Lloyd** said. “While water quality is closely monitored at key points throughout the year, thick ice cover on our reservoirs in the Catskills during winter often made it difficult to obtain some of the same data that our scientists would gather in the spring, summer and fall. This buoy will provide that data, and help us understand how certain winter

More Information

NYC Department of
Environmental Protection
Public Affairs

59-17 Junction Boulevard
19th Floor
Flushing, NY 11373
(718) 595-6600

» [Capital Projects](#)


» [Careers at DEP](#)

» [Environmental Reviews](#)

» [Interagency MOUs](#)

» [A to Z Index](#)

» [Contact Us](#)



weather patterns affect the quality of water in our reservoirs.”

“The New York State Department of Health is pleased that NYC DEP has developed under-ice monitoring capability for its reservoirs,” said **Dr. Pamela Young, from the NYS DOH, Bureau of Water Supply and Protection**. “The data gathered will promote better understanding of under-ice flow dynamics and will help optimize water system operations. This new technology is an important complement to the extensive monitoring already in place to ensure safe drinking water.”

The under-ice buoy at Ashokan Reservoir will replace a robotic monitoring buoy that gathered and transmitted water-quality data throughout the year. The robotic monitoring buoys, which sit atop large rectangular platforms, are taken off the reservoirs each winter because they are prone to being damaged or carried away as ice forms, moves and breaks. By contrast, the under-ice buoy is 6 feet tall and slender, allowing it to move under the ice and pop back up as wind moves large chunks of ice in the spring.

The buoy carries a long, steel cable that is equipped with multiple sondes that measure water quality at different depths within the reservoir. Because water quality can vary at different depths within reservoirs, DEP will use the additional information gathered by the buoy and sondes to select the best water from Ashokan Reservoir to be conveyed by the Catskill Aqueduct to New York City. The buoy also carries inside a watertight container, a battery, cellular modem, and a data logger. An antenna transmits data back to DEP scientists. The under-ice buoy will monitor several parameters that are important to selecting the best drinking water at different depths within the reservoir, including temperature, turbidity and specific conductivity. In total, the equipment weighs 30 pounds and is held in place by a 70-pound anchor at the bottom of the reservoir.

The buoy will provide DEP with water quality data collected below the ice at frequent intervals allowing scientists to see the effects of storms, snowmelt and other events that produce runoff from the surrounding watershed earlier than before. Previously, these data could only be retrieved periodically in the winter by water-quality scientists who collected water samples by hand from an airboat.

The new data from Ashokan Reservoir will compliment an extensive set of water-quality information that is already collected throughout the year, including daily samples from key points, such as intakes at reservoirs, continuous monitoring inside the aqueducts that deliver water from the reservoirs to New York City, and tests at nearly 1,000 street-side sample stations throughout neighborhoods in the five boroughs. DEP’s water quality scientists each year collect more than 45,000 water samples that are analyzed more than 540,000 times to ensure New York City’s drinking is the cleanest and safest in the world.

DEP manages New York City’s water supply, providing more than one billion gallons of high quality water each day to more than 9 million New Yorkers. This includes more than 70 upstate communities and institutions in Ulster, Orange, Putnam and Westchester counties who consume an average of 110 million total gallons of drinking water daily from New York City’s water supply system. This water comes from the Catskill, Delaware, and Croton watersheds that extend more than 125 miles from the City, and the system comprises 19 reservoirs, three controlled lakes, and numerous tunnels and aqueducts. DEP has nearly 6,000 employees, including almost 1,000 scientists, engineers, surveyors, watershed maintainers and others professionals in the upstate watershed. In addition to its \$70 million payroll and \$157 million in annual taxes paid in upstate counties, DEP has invested more than \$1.7 billion in watershed protection programs—including partnership organizations such as the Catskill Watershed Corporation and the Watershed Agricultural Council—that support sustainable farming practices, environmentally sensitive economic development, and local economic opportunity. In addition, DEP has a robust capital program with nearly \$14 billion in investments planned over the next 10 years that will create up to 3,000 construction-related jobs per year. For more information, visit nyc.gov/dep, like us on Facebook at facebook.com/nycwater, or follow us on Twitter at