



PHOTO INFO...

## Fall Foliage

Ashokan Reservoir - New York City Water Supply System

[SEARCH](#) [Advanced Search](#)[facebook](#)[flickr](#)[twitter](#)[Home](#)

### CUSTOMER SERVICES

[Ways to Pay Your Bill](#)[Account Information](#)[Customer Assistance](#)[Water Rates](#)[Property Managers and Trade Professionals](#)

### WATER UTILITIES

[Drinking Water](#)[Wastewater](#)[Stormwater](#)[Harbor Water](#)

### THE WATERSHED

[Watershed Protection](#)[Watershed Recreation](#)

### CITYWIDE INITIATIVES

[Regulatory Reform](#)[Environmental Education](#)[Conservation Programs](#)[Air Pollution Control](#)[Noise Codes & Complaints](#)

### BUSINESSES & PROFESSIONALS

[Forms & Permits](#)[Doing Business with DEP](#)[Asbestos Abatement](#)

FOR IMMEDIATE RELEASE

11-57

July 12, 2011

CONTACT:

Farrell Sklerov / Michael Saucier (718) 595-6600

## DEP Begins First Test Borings For Repair of the Delaware Aqueduct

### Significant Milestone Reached as First Step of Shaft Construction Begins in Newburgh

Environmental Protection Commissioner Cas Holloway today announced that the first geotechnical test borings are underway for the construction of an access shaft in the Town of Newburgh as part of DEP's *Water for the Future* program. The \$2.1 billion program will ensure clean, reliable and safe drinking water for nine million New Yorkers for decades to come by repairing leaks in the Delaware Aqueduct and supplementing the city's water supply during construction work on the tunnel. Similar test borings are scheduled to occur shortly in the Town of Wappinger. Construction of shafts in Newburgh and Wappinger will enable the construction of a bypass tunnel to address leaks in the Delaware Aqueduct near Roseton. This will be the first of several planned borings to obtain geophysical data for the design and construction of the bypass tunnel, which will be constructed to address the leaks. In addition to the bypass tunnel, the plan calls for repair of other areas of the tunnel, near Wawarsing, from within. Under the *Water for the Future* plan, DEP will break ground on the shafts for the bypass tunnel in 2013, and begin the bypass connection to the Delaware Aqueduct in 2019.

"We're moving full-steam ahead with our *Water for the Future* program," said Commissioner Holloway. "These test borings are an important milestone because they will tell us the geologic profile of one of the shaft site locations, which will help to ensure that the eventual construction work goes smoothly and safely for our workers and for local residents and businesses. We will continue to update the public on the progress of this historic project, which will help to ensure that New York City's drinking water system remains viable for the nine million New Yorkers who rely on it every day."

Geotechnical test borings are used to obtain geophysical data for the design and construction of the bypass tunnel. Specifically the information gathered provides a basic picture of the ground conditions to be encountered, which in turn, may dictate the design of the tunnel, the selection of

### MORE INFORMATION

NYC Department of  
Environmental Protection  
Communications &  
Intergovernmental Affairs

59-17 Junction Boulevard  
19th Floor  
Flushing, NY 11373

(718) 595 - 6600

## Construction, Demolition & Abatement

### ABOUT DEP

#### Inside DEP

#### News

DEP Featured In...

Stories from DEP

Press Releases

Public Notices

Testimony and Public Comments

#### Capital Projects

#### Job Opportunities

#### Environmental Reviews

#### A to Z Index

#### Contact Us

equipment, and the approach to be used to construct. A drill rig will bore a small diameter hole to a pre-determined depth from which a suite of tests will be performed and data gathered from within the borehole. The operation for each boring is expected to take two months.

The 85-mile aqueduct, completed in 1944, conveys approximately half of the city's drinking water—500 million gallons per day—from four upstate reservoirs to more than eight million people in New York City, and one million people in Ulster, Orange, Putnam and Westchester counties who also rely on the City's high quality drinking water. The aqueduct is a concrete-lined tunnel that varies in diameter from 13.5 to 19.5 feet and runs as deep as 2,000 feet beneath the ground. It was constructed by drilling and blasting, and, in most areas, lined with unreinforced concrete.

Last November, Commissioner Holloway outlined a design and timeline to address leaks in the Delaware Aqueduct by building a two-and-a-half mile bypass tunnel around a portion of the aqueduct that is leaking in Roseton in Orange County, and repairing other leaks in Wawarsing, in Ulster County, from inside the existing tunnel. The construction of the bypass tunnel and the repair of the lining will ensure that DEP can continue to deliver high quality drinking water every day for decades to come. Under the plan, DEP will break ground on the bypass tunnel in 2013, and complete the connection to the Delaware Aqueduct in 2019. The bypass tunnel and internal repairs will cost approximately \$1.2 billion, and water projects to supplement the City's supply during part of the construction period will cost approximately \$900 million. The tunnel repair and project is expected to create between 1,000 and 1,500 jobs. Preparation for the repair work is currently underway, including: installation of pumping system and site improvements to support construction; purchasing equipment for the repair; planning and design of the bypass tunnel; geotechnical investigations; discussions with local stakeholders; investigating augmentation projects; and assessments of environmental impacts of the project.

Last week, DEP also unveiled the second phase of a ground-breaking study to evaluate the effectiveness of mitigating leaks in the Delaware Aqueduct by adding lime to water in order to seal the cracks from within the tunnel. The \$4 million project, which entails building a small-scale water system that replicates full-scale water supply conditions, will help the city better determine if full-scale application of lime will be successful.

The plan to repair the Delaware Aqueduct is part of the Operations section outlined in *Strategy 2011-2014*, a far-reaching strategic plan that lays out 100 distinct initiatives to make DEP the safest, most efficient, cost-effective, and transparent water utility in the nation. The new plan, the product of nearly one year of analysis and outreach, builds on *PlaNYC*, Mayor Bloomberg's sustainability blueprint for New York City. The plan is available on DEP's website at [www.nyc.gov/dep](http://www.nyc.gov/dep).

DEP manages the city's water supply, providing more than one billion gallons of water each day to more than nine million residents, including eight million in New York City, and residents of Ulster, Orange, Putnam and Westchester counties. New York City's water is delivered from the Catskill, Delaware, and Croton watersheds that extend more than 125 miles from the City, and comprises 19 reservoirs, and three controlled lakes. The DEP police protect the watershed and its facilities, including seven wastewater

treatment plants. For more information, visit [www.nyc.gov/dep](http://www.nyc.gov/dep) or follow us on Facebook at [www.facebook.com/nycwater](http://www.facebook.com/nycwater).

- ▶ [View all press releases](#)
- ▶ [Sign up to receive DEP press releases by email](#)