

Repairing the Delaware Aqueduct

THE CROTON WATERSHED

Facts on the Croton System, the repair, and plans for the aqueduct shutdown

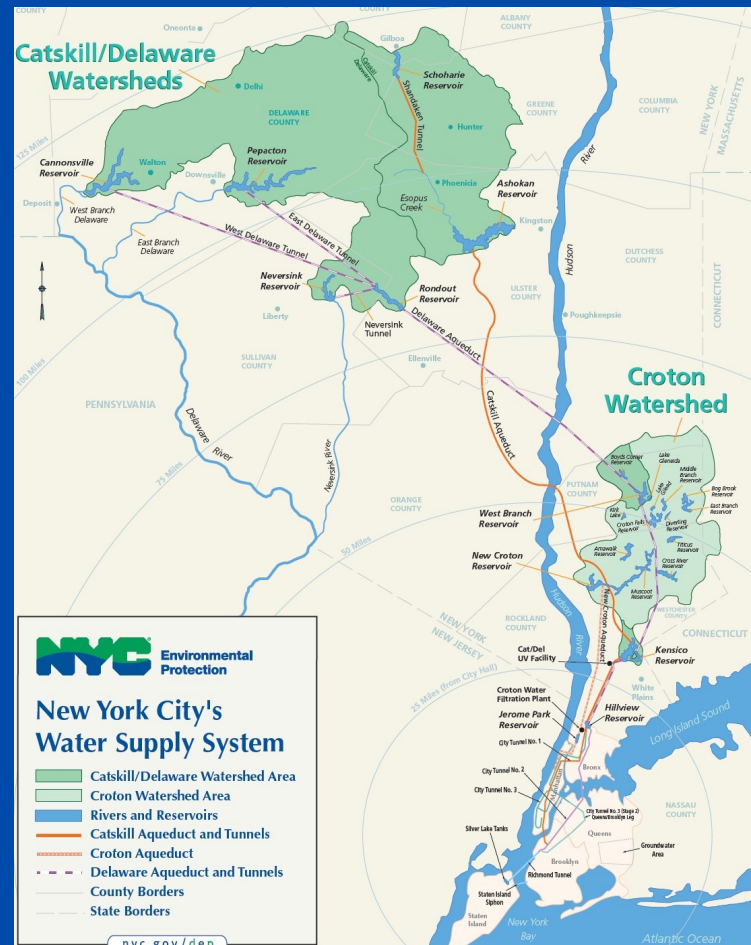


For more than a decade, the New York City Department of Environmental Protection (DEP) has been working on a large capital project to repair two leaks in the Delaware Aqueduct. It is the largest and most complex repair project in the 180-year history of New York City's water supply system. DEP will be taking the Delaware Aqueduct out of service for up to 8 months, starting in the autumn of 2024, to complete the repair.

The following is a brief summary of the project, and a description of how DEP will operate its Croton System reservoirs during the aqueduct shutdown.

This map shows New York City's reservoir systems. The Croton, made up of 12 reservoirs and 3 controlled lakes, is the oldest and smallest and typically accounts for less than 10% of the City's total supply.

- New York City's water supply comprises three separate reservoir systems – Croton, Catskill and Delaware.
- The systems provide 1.1 billion gallons of drinking water each day to nearly 10 million people, including those in New York City and more than 70 communities and institutions north of the city.
- It is the largest municipal water supply system in the United States.



About the Croton System

- The Croton System is one of three watershed systems working together to provide high-quality water to about half of New York State's population, including all of New York City. It is the oldest and smallest of the three systems.
- The Croton's 12 reservoirs and three controlled lakes in Westchester and Putnam counties typically provide less than 10 percent of the City's water supply. Unlike the far larger and unfiltered Delaware and Catskill systems further north and west, Croton System water is treated and filtered in the northern Bronx next to Van Cortland Park.

About the Delaware Aqueduct Repair Project

- The Delaware Aqueduct, which is leaking in two locations, is one of two major arteries from further upstate typically providing together 90 percent of the City's water supply. The Delaware Aqueduct has significant long-term leaks near the Hudson River north of Newburgh, and in the Ulster County Town of Wawarsing.
- DEP has been working for nearly two decades on the design and implementation of a repair project to fix both leaks. Construction work on the projects began about 10 years ago.
- The largest leak, in Newburgh, is being repaired through the construction of bypass tunnel that is now ready to connect to structurally sound portions of the existing Delaware Aqueduct and convey water around its leaking section.
- The Delaware Aqueduct Bypass Tunnel, finished in 2021, is 2.5 miles long and 600 feet below the Hudson River.
- DEP must shut down the Delaware Aqueduct for up to 8 months to connect the new bypass tunnel to the existing aqueduct on both sides of the Hudson River.
- The shutdown and connection is scheduled to begin in October 2024 and continue through the spring of 2025.
- DEP has performed capital projects on other parts of its water supply system, complex modeling, a full environmental review, and dozens of other tasks to ensure the system and the downstream communities are prepared for the Delaware Aqueduct shutdown.

Croton System operations during the aqueduct shutdown

- DEP will change the operations of its three reservoir systems leading up to and throughout the aqueduct shutdown.
- DEP expects to substantially draw down the Delaware System reservoirs leading into the shutdown and preserve water in the Croton and Catskill Systems which will be the City's primary water supply during the shutdown. Nearly 40 percent of the supply during the shutdown will come from the Croton System, and 60 percent from the Catskill.
- Surface levels of several reservoirs throughout the Croton System will significantly vary from an average year during the shutdown period.
 - ◇ The West Branch and Boyds Corner reservoirs in Putnam County will remain full to act as a reserve during the shutdown period.
 - ◇ The East Branch, Bog Brook, and Middle Branch reservoirs in Putnam; and the Cross River, Titicus and Amawalk in Westchester are expected to be drawn down more than average to augment the water supply.
- Releases of water into streams and rivers in the region will also vary significantly from an average year during the shutdown.
 - ◇ DEP shall maintain the minimum regulated releases from the New Croton Reservoir into the Croton River through fall and winter.
 - ◇ Releases from the Croton Falls, Croton Diverting and Cross River reservoirs are anticipated will be kept at the minimum regulated level.
- Recreational uses of the Croton System reservoirs are expected to vary, including ice fishing restrictions on several reservoirs and limited fishing opportunities where downstream releases from reservoirs have been significantly reduced. For up to date information on recreational activities in the watershed check the DEP website at <https://www.nyc.gov/site/dep/recreation/recreation.page>.
- DEP monitors for excessive waterfowl at southern Westchester reservoirs and uses motorboats and pyrotechnic noisemakers to disperse them to protect water quality. During the shutdown, these practices are anticipated to be expanded throughout the Croton System's water bodies, which may be noticeable in surrounding communities.
- DEP will enhance water quality monitoring and treat for nuisance algae that could impact the water's taste in the Croton System, but it should be noted that differing ecologies in the water systems may naturally result in subtle flavor variations in the overall water supply

Contact: DEP Director of Outreach John Milgrim; jmilgrim@dep.nyc.gov (845) 334-7868