

Subject: DEP Completes Modernization Project at Port Jervis Wastewater Treatment Plant



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Replacement of Aging Structures at Facility Will Protect Neversink River Water Quality

Environmental Protection Commissioner Carter Strickland today announced the completion of a \$12.5 million project to modernize a New York City-owned wastewater treatment plant located on the Neversink River at Port Jervis in Orange County. Modernization work will help protect the water quality of both the Neversink River and the Delaware River immediately downstream. The Delaware River serves as a drinking water source for several communities in New Jersey and Pennsylvania, including the City of Philadelphia. With a permitted capacity of 2.5 million gallons a day and serving nearly 9,400 residents and businesses, the Port Jervis plant is the largest of the seven wastewater treatment plants owned and operated by DEP in upstate New York. Although Port Jervis is not in the New York City watershed, the city constructed and operates the plant in accordance with terms of the Delaware River Supreme Court Decree which allows the city to divert water from the Cannonsville, Neversink, and Pepacton reservoirs to the city's drinking water supply. In return for upstream withdrawals from the Delaware River tributaries, New York City built the plant in the 1950s to provide water quality protection for the Neversink River, downstream at Port Jervis, where it joins the Delaware River.

“Modernizing the Port Jervis Wastewater Treatment Plant is part of our effort to maximize the efficiency and reliability of wastewater operations throughout all of our in-city and upstate facilities,” said Commissioner Strickland. “Our upstate reservoirs and the rivers and streams that supply them not only provide water to nine million New Yorkers, but also serve as the source of water for parts of Pennsylvania and New Jersey. This project will help the communities within those states that rely on the Delaware River for drinking water to get the best water possible.”

After more than 60 years of continuous operation, several major components of the Port Jervis Wastewater Treatment Plant were in need of replacement, including outdated and aging sewage treatment tanks and sludge drying beds; construction of a new pump building and two primary settling tanks; and the installation of two new sludge thickener tanks, a sludge holding tank, and an odor control system. New electrical systems were added as well as an emergency back-up generator. Previously in 2007, three pumping stations and their electrical systems were upgraded.

Wastewater treatment includes physical, chemical, and biological processes that remove pollutants and disease-causing pathogens from wastewater. Each step of wastewater treatment removes pollutants and impurities. The first step of the process at the Port Jervis Wastewater Treatment Plant is preliminary treatment, which occurs in the North Street pump station, one of the three pump stations near the plant. Here a series of grates called bar screens remove solid objects—such as rags and household debris found in wastewater. Smaller inorganic material called grit is also removed. Pumps then raise the wastewater to a series of settling tanks for primary treatment, another physical process in which the flow is reduced to allow heavy waste to settle to the bottom and lighter waste to rise to the top. Slow-moving bars skim the waste from the top and bottom. Suspended material, which neither sinks nor floats, moves to “trickling filters” for secondary treatment. Much like bacteria breaks down food during digestion in a human body, in this process good bacteria consume the suspended material in an oxygen-rich environment. The wastewater then flows to another series of tanks, called secondary settling tanks for removal of remaining solids. The water leaving the secondary settling tanks is almost solids free, where at least 85% of the original suspended solids have been removed. At this stage the treated wastewater, or effluent, goes through disinfection where it is subjected to chlorination to kill remaining pathogens and then discharged to the Neversink River just before it joins the Delaware River crossing into New Jersey and Pennsylvania.

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. 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 employs nearly 6,000 employees, including almost 1,000 scientists, engineers, surveyors, watershed maintainers and others professionals in the upstate watershed. In addition to its \$49 million upstate payroll and \$132 million in annual taxes paid in upstate counties, DEP has invested more than \$1.5 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 a planned \$13.2 billion in investments over the next 10 years that creates up to 3,000 construction-related jobs per year. For more information, visit www.nyc.gov/dep, like us on Facebook at www.facebook.com/nycwater, or follow us on Twitter at www.twitter.com/nycwater.