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**DEP Announces New Agreement with National Weather Service  
to Provide Up to \$1M to Develop State-of-the-Art Streamflow Forecasts**  
*Upgraded Forecast System Will Provide Water Supply Operators with More Information*

Environmental Protection Commissioner Carter Strickland today announced a new agreement with the National Weather Service in which DEP will provide the Weather Service with up to \$1 million to help speed up the development state-of-the-art forecasts of water flows through streams in the watershed. Streamflow forecasts enable DEP water supply operators to better predict the amount of water that will enter reservoirs and as a result more accurately predict reservoir levels and water quality in the future. The enhanced streamflow forecasts will eventually be a part of DEP's Operations Support Tool (OST), a cutting-edge, \$5.2 million integrated monitoring and modeling system that collects real-time data on stream inflow, water quality, and reservoir storage levels, integrates forecasts of future inflows, and applies system operating rules to predict future conditions in the water supply system. OST helps DEP make more informed decisions about how to operate the system to ensure reliable, high quality supplies by retaining water in advance of dry conditions and to release water in advance of wet conditions. The agreement will allow the National Weather Service to speed the development and implementation of the Hydrologic Ensemble Forecast Service (HEFS), which will provide probabilistic forecasts to help water supply operators understand the range and likelihood of river levels and as a result help them assess risk.

"This is a win-win situation for both DEP and our partners, the National Weather Service," said Commissioner Strickland. "NWS gets additional funds to pilot its new forecasting system in a discrete region, which will facilitate their eventual nationwide rollout. And DEP gets the cutting-edge forecasts needed for the Operations Support Tool much sooner than if we had to wait for the nationwide rollout."

"Effective partnerships with state and local government play a big role in our vision for a Weather-Ready Nation, and our agreement with NYCDEP is a great example," said Jack Hayes Ph.D, director, National Weather Service. "With NYCDEP's help accelerating our schedule, we can improve our warnings for events that threaten lives and livelihoods and give sophisticated users, like DEP, the forecasts they need to optimize their water resources decisions based on their operating rules and risk tolerance."

The National Weather Service began experimental development of the ensemble forecasting capability several years ago and the nationwide implementation is scheduled for completion later in 2014. DEP's Operations Support Tool will be complete by 2013 and requires HEFS forecasts to provide the most use to system managers. NWS will use DEP funds to hire additional staff who will help speed the development of the system at the two offices that cover the New York City water supply region: the Middle-Atlantic River Forecast Center (MARFC) in State College, PA (covers Cannonsville, Pepacton, and Neversink Reservoirs) and the Northeast

River Forecast Center in Taunton, Mass. (covers Schoharie, Ashokan, Rondout, and all East-of-Hudson reservoirs).

The Hydrologic Ensemble Forecast Service will help water supply operators assess risk. For example, if a storm is forecast, HEFS will produce several different forecasts (an “ensemble”) of peak river levels that provide an objective estimate of the uncertainty in the river forecast. Operators can use this information along with knowledge of current water supply conditions to assess risk and make more informed operational decisions. Current NWS operations provide only a single peak forecast with no estimate of forecast uncertainty.

The Operations Support Tool enables DEP’s water supply operators to more accurately predict water storage levels in the city’s reservoirs so that DEP can better manage the movement of water throughout the reservoir system, and ultimately, to the nine million New Yorkers who rely on the city’s drinking water every day. It substantially increases DEP’s operational responsiveness and the ability to protect water quality and improve the aquatic habitat below the reservoirs.

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 more than 750 scientists, engineers, surveyors, watershed maintainers and others professionals in the upstate watershed. In addition to its \$49 million 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](http://www.nyc.gov/dep), like us on Facebook at [www.facebook.com/nycwater](https://www.facebook.com/nycwater), or follow us on Twitter at [www.twitter.com/nycwater](https://www.twitter.com/nycwater).

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