

Special Guest *Commissioner's Corner*



Paul Rush, Deputy Commissioner for the Bureau of Water Supply, is a guest commentator this week.

On a typical day, New York City draws nearly half of its drinking water from reservoirs that are located on the headwaters of the Delaware River. The City's access to that vital source of water is based on decades of

court decisions, regulations, and interstate agreements.

One of those complex agreements was renewed and revised last month when New York City and the states of Delaware, New Jersey, New York and Pennsylvania signed a long-term pact that governs the quantity and timing of water that's released from the City's reservoirs to the rivers downstream. The new agreement seeks to balance the needs of water suppliers with myriad interests that are connected to the Delaware River.

The 10-year agreement, known as the Flexible Flow Management Program 2017 (FFMP 2017), was signed by the five parties on Oct. 21. Changes in programs governing releases of water from the City's three reservoirs—Cannonville, Neversink and Pepacton—

and drinking water diversions out of the Delaware River Basin are only possible through the unanimous consent of the five parties, which were subject to a 1954 U.S. Supreme Court decision that settled a dispute over how the river's water could be used. Among other provisions, that ruling and one that preceded it allowed New York City to build the three reservoirs and draw a maximum daily average of 800 million gallons.

But while our Delaware System reservoirs were built to provide high-quality water and protect the public health of New York City, they contribute to many other goals throughout the Delaware River Basin.

That's why the FFMP 2017 includes several new provisions to enhance flood attenuation, and support the outdoor recreation economy of the upper Delaware River through the protection of its natural ecology and wild trout fishery. The agreement includes the following:

- New York City will aim to meet a storage objective of 85 percent at its three reservoirs between Nov. 1 and Feb. 1 of each water year. That storage objective was previously set at 90 percent. The new objective will enhance the flood attenuation already provided by the reservoirs without affecting water supply reliability.

- The agreement also creates several "banks" of water that are set aside for specific purposes. One bank, known as a thermal bank, will be used to make extra releases when high temperatures threaten the wild trout fishery of the upper Delaware River. Another bank will be used to smoothen drastic fluctuations in releases that New York City is directed to make to meet a flow target in the river at Montague, New Jersey. During especially dry times, the City is required to make large releases to meet the target of 1,750 cubic feet per second. But a rainstorm within the basin can cut those releases suddenly within just a few hours. The new bank will allow those flows to be ramped over days, rather than hours, to lessen the severity of the changes and their potential impact on river ecology.

- The parties also agreed to conduct studies that will examine a number of outstanding issues within the basin. These studies will analyze the impact of New Jersey water-supply diversions during drought conditions, the potential for increased water storage in the lower part of the basin, and the calculation of water that's available to be released downstream of the City's reservoirs. The parties will also pursue a study on salinity

Spotlight on Safety

Driving at Night & Drowsy Driving

Driving at night is more dangerous than any other time of day. According to National Safety Council (NSC) research, the risk of a fatal crash is three times greater at night. There are several factors that affect a driver's ability to drive in the dark such as fatigue, insufficient light, bad vision, distraction, and other impaired drivers.

Since DEP is a 24/7 operation, some employees are required to operate vehicles at night. To minimize the risk of night driving, vehicle operators must:

- Inspect vehicles to ensure all lighting systems are functional and headlights are clean

- Dim dashboards
- Look away from oncoming lights
- Get a quality sleep/rest prior to starting the shift
- Ensure vision and visibility is not compromised (e.g., better headlights, clean wind shields, anti-reflective glasses)
- Be patient and follow traffic patterns, especially in unfamiliar areas
- Avoid distractions in and around the vehicle

For more information on safe driving at night, visit the [National Sleep Foundation's](#) and [NSC's](#) websites.

At DEP, everyone is responsible for safety. If you or anyone on your team is concerned about your working conditions, it's okay to ask your supervisor or your bureau's EHS liaison how they can help. If you've still got questions, you can call the EHS Employee Concerns Hotline. It's DEP's responsibility to acknowledge and fix unsafe situations, procedures, and practices. With your help, we'll not only get the job done, we'll make it safer for ourselves, our coworkers, our families, and our city. CALL (800) 897-9677 OR SEND A MESSAGE THROUGH [PIPELINE](#). HELP IS ON THE WAY.



intrusion into the lower Delaware River. That issue focuses on the northward push of salt water from the ocean. As it moves up the Delaware River, the salt line could conceivably affect the drinking-water intakes for Philadelphia and NJ American Water. Currently, New York City bears the sole responsibility of releasing water from its reservoirs to push the salt water back toward the ocean. Modeling suggests that climate change and its associated sea-level rise might create future conditions that make it difficult to repel salt water with releases from the City's reservoirs. The parties will examine this issue and other methods for repelling the salt front.

Importantly, the new agreement ends an impasse that began in June when the five parties did not unanimously agree to extend the previous FFMP. When that version of the program expired on June 1, the Delaware River became subject to a program that was designed in 1983, without the benefit of modern science and modeling. The City, however, voluntarily released additional quantities of water from its reservoirs over the summer to prevent a large drop in river flows, and the ecological and economic harm it could have caused.

The new program was built upon a considerable body of scientific

data and modeling. Much of that work was done by highly skilled staff who work within the Bureau of Water Supply (BWS). Our scientists built the foundation of the new agreement by tapping into decades of historic data, modeling the program's provisions, and helping the parties to understand its effects on the reservoirs and the river. Our colleagues' work was verified by their peers at the Delaware River Basin Commission and later adopted as the scientific underpinnings of the agreement.

Looking ahead, BWS scientists will continue to play a key role in the studies that are required by the agreement. Researchers within BWS have developed climate change models that will help to inform the analysis of sea-level rise, the position of the salt front on the Delaware River during times of drought, and the most effective ways to mitigate those concerns. I want to thank all our scientists in BWS who worked on the current agreement, and those who will help with the important work that lies ahead.

While these issues may seem geographically far from New York City, our interstate negotiations and scientific analyses on the Delaware River are central to providing the reliable supply of water that allows the City to survive and thrive.

Brooklyn Church Gets New GI



DEP joined the Church of St. Luke & St. Matthew, located in Brooklyn's Clinton Hill neighborhood, to celebrate the recently completed installation of a rain garden and permeable pavement project that captures runoff from nearly 10,000 square feet of impervious surfaces. This project was made possible by a \$443,000 grant through DEP's Green Infrastructure Grant program and the installation will collect and absorb 470,250 gallons of stormwater per year, keeping it out of the City's combined sewer system and helping to reduce overflows into the East River. For more information, go [here](#).

Watershed Protection



Proper collection and treatment of wastewater from our watershed is among the most important actions New York City can take to protect the quality of drinking water in its reservoirs. Last week, DEP announced completion of work on a \$2.2 million sewer line extension project in the Town of Shandaken which will provide centralized wastewater collection and treatment to additional homes and businesses that currently rely on individual septic systems. This project is part of a broader effort by DEP to expand existing wastewater collection systems in the watershed over the past 20 years. Since 1997, the City has spent more than \$18 million on new infrastructure to connect more than 200 watershed homes and businesses to wastewater treatment plants.

Fashion Your Seatbelt



Last week, DEP's 2017 Diversity Committee hosted the 5th Annual Diversity Celebration at Lefrak and Grahamsville with "Fashion Your Seatbelt," a multicultural fashion show which incorporated traditional attire from all over the world. Fellow colleagues paying homage to their culture provided all garments exhibited. Through celebrating our fashion heritage, we were also able to reflect on the diversity of our agency. The Diversity Committee at DEP fosters the opportunity to meet people from different countries, share traditional foods, enjoy music and art, take part in the camaraderie of sports, learn different languages, exhibit appreciation for our service members, support persons with disabilities—and so much more! For more information on how you can get involved in future events, please email the Diversity Committee at diversitycommittee@dep.nyc.gov.

We welcome your feedback! To submit an announcement or suggestion, please email us at: newsletter@dep.nyc.gov.