

Special Guest Commissioner's Corner



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

New York City's drinking water supply has understood the benefits of long-term planning for nearly two centuries. The engineers who designed

the reservoir system studied river valleys, precipitation trends, and population projections as they looked decades into the future of a growing city. Today, our DEP employees are looking 50–100 years into the future as we plan rehabilitation work on dams, upgrades to aqueducts, and modifications to treatment facilities. DEP must also account for the changes that nature and time will bring to our watershed and reservoirs.

That's why the City funded a three-year study by the U.S. Geological Survey (USGS) that examined how sediment deposition has affected storage capacity in our six reservoirs in the Catskill Mountains. The study, which was published this month, found that natural erosion of watershed mountains and



streams has reduced total storage capacity in the reservoirs by approximately 2.4 percent. The new storage numbers are the first comprehensive data collected by scientists and engineers since the reservoirs were constructed from 1913–1964.

The results come as no surprise. Rain and melting snow are slowly eroding the Catskill Mountains and the fine sediments, pebbles and relatively large stones—collectively known as “bed load”—that were once picked up by mountainside streams and carried toward the ocean by larger rivers are now winding up in New York City's reservoirs, which act as huge catch basins.

The USGS study, which gathered data from 2013–2015, used sonar to measure the depths of the reservoirs. Guided by a GPS system, the boat used for the survey traveled almost 700 miles as it traced dozens of shore-to-shore cross sections at each reservoir. Overall, the capacity of the six reservoirs decreased from 489.66 billion gallons to 478.06 billion gallons. The decrease in storage capacity by percent at each reservoir varied from 9 percent at Schoharie Reservoir to 0.7 percent at Pepacton Reservoir. USGS is currently working on a similar study of reservoirs in the Croton System.

The findings come with some good news. The storage capacity lost in the reservoirs is relatively small, and it does not affect water supply operations or reliability. The study found that sediment is primarily collecting in areas that are deeper than the lowest intakes that send water to New York City, making them inaccessible for water-supply purposes. Com-

puter modeling using the new storage numbers found no impact on the system's safe yield—a measurement of the maximum amount of drinking water the reservoirs could provide under the most severe drought.

In short, the sediment that has collected in our reservoirs will not have an effect on the quantity or quality of water we provide to New York City. But that will not be true forever. DEP must continue the good habits of long-term research and planning that have always guided our water supply. Using these new storage data as a baseline, the Bureau of Water Supply (BWS) will seek to build expertise within its science and engineering staff to conduct similar studies more frequently in the future. This will allow us to understand the rate at which sediment collects in the reservoirs so that we can plan for action that might be needed decades or centuries from now.

Tracking reservoir storage is one of many scientific efforts that BWS has undertaken as we look into the distant future. We are gathering and analyzing similar data on the effects of climate change, numerous water quality parameters, and more.

We are fortunate to work on New York City's water supply for just a few decades. During that time it's our duty to keep this system of reservoirs and aqueducts in good condition by understanding all the forces that affect it now and perhaps longer into the future than we can imagine.

Full results from the Catskill study and a copy of the final USGS report can be found on the [DEP website](#).

Spotlight on Safety

Hand tools: What's the right size for you?

Did you know that according to the [Center for Construction Research and Training](#), there is a relationship between the measurements of your hands and the size of the hand tools you use regularly at work? You may be working with these tools for several hours per day, and ensuring you are using the right size handle can reduce fatigue and increase productivity, improve the quality of your work, and reduce the risk for hand and wrist problems.

Before using a hand tool, perform the following measurements:

- **length of your hand:** measure the distance from the fold in your wrist below your palm to the tip of your middle finger

- **grip:** 20 percent of your hand length equals your grip diameter
- **palm size:** measure the widest part of your palm

Select a tool that feels comfortable in your hand and is right for the work you are doing. Select a tool with a handle length longer than your palm size. A handle that is too short may cut into the base of your hand and cause discomfort and possible injury. A tool's grip should be as close to your own grip size as possible. The Center for Construction Research and Training also recommends that choosing the lightest-weight version of a tool may reduce the amount of effort and force needed to perform a task and reduce hand and wrist fatigue.

For more information, visit [choosehandsafety.org](#).

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.

February is Heart Health Month



A note from **Helene Abiola**, with the WorkWell NYC Program

February is Heart Health Month, and in order to protect our hearts—this month, and year round—it is crucial to have hypertension literacy. Hypertension, commonly referred to as high blood pressure, is when the force of the blood flowing throughout your blood vessels is consistently too high. The toll hypertension takes is immense and signifies a true public health crisis.

There are no warning signs or symptoms for hypertension. In fact, nearly 1 in 2 Americans have high blood pressure with many completely unaware. Measuring your blood pressure regularly is the only sure way to know if it is high. If you work at Lefrak,

I encourage you to regularly check your blood pressure at the new self-service blood pressure kiosk located on the 3rd floor next to the vending machines. The first 50 people who use the kiosk on Feb. 14 will get a WorkWell gift (save your printout for verification). If you work at one of our satellite work locations, I encourage you to get it checked at your doctor or local pharmacy.

Regardless of your current blood pressure level, everyone can benefit from behavior-changing interventions that reduce blood pressure. These interventions include losing weight if you are overweight or obese; limiting alcohol consumption; following a low fat and sodium diet; increasing intake of fruits, vegetables, and whole grains; exercising regularly and taking potassium supplements. At DEP, the new worksite wellness programs being introduced throughout 2018 include nutrition seminars, exercise classes, wellness documentaries, on-site farm shares, walking challenges and more—all designed to keep you, and your heart, healthy.

Read more [here](#).

BWT New Hires



Last week, 32 new BWT employees attended orientation and received an overview of the department from Director of Planning and Recruitment **Grace Pigott**. We hope everyone will join us in welcoming them to DEP!

Sewage Treatment Workers: **Daniel Alfano, Nicholas A. Borgia, John W. Eusini, Gregory M. Garcia, Daniel Gonzalez, Timothy Guarrasi, Mario Innella, Edward Kelly, Kam Yee Lau, Victor Lee, Ilya Levin, Dominick Livia, Vasant Maharaj, Algenis Martinez, Davanand Mathura, Thomas Murphy, Daniel Ortenberg, Vinod Pooran, Valeriy Poverin, Michael A. Prats, Edward Sadikov, Artem Shinkarev, Peter Sisca, Carl J. Stair, Taras Trach, Ivan Vintchel, Charles J. Waggelman and George L. Weston**; Stationary Engineers/Electric: **John C. Cavaliero, Mithu Joseph, Michael Vokes, and Erick Zuniga**.

Love Is In the Air at Newtown Creek



DEP's popular Valentine's Day tours of the Newtown Creek Wastewater Treatment Plant were once again offered this past weekend. The 350 available tour slots were filled in less than four hours on Jan. 30, when reservations first went online, setting a new record. BWT's Deputy Commissioner **Pam Elardo** and Plant Chief **Zainool Ali** gave a behind-the-scenes look at the largest of the City's 14 wastewater treatment plants. Following a presentation on how the complex plant operates, guests were then ushered to the top of the digester eggs—lit red for the first time ever—to take in the panoramic views of the city skyline from the 120-foot high observation deck. Many thanks to BPAC's **Sara Pecker, Eileen Alter, and Joe Sokolowski** for organizing the event and to our many volunteers from BPAC and BWT who made sure the tours went off without a hitch.

[Click here](#) to read a Los Angeles Times piece on the popular tour.

Welcome Aboard



Yesterday, 17 new employees attended orientation and received an overview of the department from Deputy Director of Human Resources Management **Herb Roth**, HR Specialist **Grace Franco**, and HR Generalist **Conor Bulger**. We hope everyone will join us in welcoming them to DEP!

Sivaranee R. Thambiah with BCS; **Leticia L. Currin** and **Tiffany J. Hill** with BEDC; **Kenneth L. Cooper, Sabath Luyando, Lucy Mancuso, Luis M. Perdomo** and **Eugene Sullivan** with BWS; **Veerasammy Chetana** and **Michael P. Shulman** with BWSO; **Nichole Robertson-Vaughn** with BWT; **Jin Seop Kim** with CFO/OEA; **Arthur J. Chen** and **Sandra Rhabb Campbell** with Legal Affairs; and **Sylvester C. Buccat, Mybell Hanna** and **Henry Zou** with Police & Security.

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