

Commissioner's Corner



New, critically important DEP facilities, such as the Catskill/Delaware Ultraviolet Treatment Plant, have come on-line over the last few years, and others, such as the Croton Filtration Plant, will soon enter service. This means that the amount of energy consumed by the department's operations will continue to grow, as will our carbon footprint. In order to meet the City's emissions reduction targets and improve air quality, we must look to mine the clean, renewable energy

opportunities available throughout our vast system.

DEP maintains a system of 19 protected reservoirs and three controlled lakes that impound 580 billion gallons of water at full capacity. Built in the Catskill mountains, the reservoirs in the West-of-Hudson watershed lie well above sea level. To reach New York City and the more than 70 upstate communities that draw from the system, water is conveyed from the reservoirs through aqueducts where it travels upwards of 100 miles by the power of gravity alone. Water is also regularly released from the reservoirs into rivers to support recreation, aquatic habitats, and maintain flow targets necessary for downstream water utilities.

The genius of the planners and engineers who designed these drinking water collection and gravity-driven delivery systems is not lost on anyone at DEP. Not only does it allow us to deliver more than 1 billion gallons of water each day without the use of pumps, it also offers multiple opportunities

to harness the inherent power produced by the water as it moves through the system.

After many years of study and planning, DEP recently received a license from the Federal Energy Regulatory Commission to build a hydroelectric facility at Cannonsville Reservoir, and construction of the plant could begin as early as 2016. The facility will comprise four hydroelectric turbines situated inside a 9,000-square-foot powerhouse that will generate an estimated 42,281 megawatt hours of electricity each year—enough to power roughly 6,000 homes. At the same time, it will avoid the emission of 25,620 metric tons of greenhouse gases—the equivalent of removing 5,400 vehicles from the road; and is also expected to generate approximately \$2 million in annual revenue, depending on demand and the market price of electricity.

The facility will also have a positive impact in the Delaware watershed that surrounds Cannonsville Reservoir, including helping to hold down electric costs by displacing an equivalent amount of generation from higher-cost, fossil-fuel fired sources. This not only reduces the emission of pollutants from burning fossil fuels, but also tends to reduce the overall wholesale market



price of energy. The project is also expected to create approximately 60 construction jobs and as many as five full-time green jobs for those who will operate the plant.

I'd like to thank **Anthony Fiore**, DEP's Director of Energy, as well as **Robie Craig** with the Bureau of Legal Affairs and **Rob Principe**, **Todd West** and **Tom DeJohn** with the Bureau of Water Supply who have done all the analysis and put together the successful application for this important project. For more information go [here](#).

Spotlight on Safety

The Unexpected Danger of Dirt

A cubic yard of dirt can weigh more than 3,000 pounds. According to the Bureau of Labor Statistics, the collapse of excavation sites resulted in an average of 35 worker deaths each year from 2000 to 2009. Excavations are necessary for the installation of underground utilities, including water mains and sewers, and since workers are between piles of dirt, excavations are considered one of the most hazardous construction operations. Further, because an excavation can collapse without any warning, workers must always be aware of the factors that can affect the

stability of the soil at work sites, including:

- The type and water content of the soil
- The site's proximity to previously backfilled excavations
- The location of heavy machinery and tools
- Vibrations from construction equipment

For more information go to: [DEP Policy: Excavation & Trenching and Safety and Health Topics | Trenching and Excavation](#).

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.



Focus on the Field



Some families are full of teachers, cops or firefighters. **Katie Mockler's** family is full of engineers. Her dad is an electrical engineer, her sister is a chemical engineer and her uncle is a mechanical engineer. It seems engineering is part of her DNA. Mockler, who joined DEP two years ago, is now an Engineering Assistant for Special Projects and Field Operations in the Bureau of Water and Sewer Operations (BWSO).

With an Irish father and an American mother, Mockler was born and raised in Dublin, Ireland and she and her family later moved to Rockland County. She attended Pearl River High School and then followed her sister and uncle to Manhattan College, where she earned a Bachelor's of Science degree in civil engineering with a concentration in environmental engineering. Many of her college classes studied DEP's infrastructure projects and she was immediately intrigued with the planning required for such large scale initiatives. After graduation, she applied for a job at DEP and, shortly thereafter, joined BWSO.

Mockler wasn't a month into her time at DEP when she got an up close look at the scale of the City's infrastructure. In June of 2012, an 11 foot-diameter sewer running 70 feet beneath 79th Street in Bay Ridge collapsed. The complicated repair would take months and provided Mockler with some important perspective on the challenges BWSO engineers could confront. Since then, she has helped to coordinate targeted stormwater solutions for different neighborhoods in southeast Queens. The first two projects have been completed and the third, in St. Albans, is expected to

be finished this fall. Mockler has also been involved with the accelerated upgrades of aging infrastructure that DEP is coordinating with Consolidated Edison and National Grid. This work is currently underway at three locations around the city.

"As a kid, I was always interested in how things worked," said Mockler. "I think that natural curiosity was probably enhanced by spending so much time around a family of engineers, and by the time I was ready to go to college, I had a pretty good sense of what I wanted to do for a living. I feel very lucky to now have the opportunity to contribute to the essential work that DEP does to keep New York City running."

In June, Mockler travelled to the American Water Works Association conference in Boston and, on behalf of DEP, presented a seminar on improving water distribution operations during heat waves. She has passed the Fundamentals of Engineering exam and is now accruing the experience necessary to sit for the Professional Engineers license.

"Katie has been a welcome addition to our team," said BWSO Director of Field Operations **Tasos Georgelis**. "She has a tremendous passion for her work and has done an excellent job with every assignment she's been given."

Outside of the office, Mockler recharges by spending time in the great outdoors and she takes every opportunity to travel to the Adirondacks where she can hike and kayak. She also tries to get home to Ireland to see family at least one time each year and she looks forward to more extensive travel in the future.

Dr. Oz Diagnoses Sanitary Wipes



Dr. Oz recently brought his show to the Newtown Creek Wastewater Treatment Plant to see first-hand the problems that improperly disposed of sanitary wipes are causing for treatment plants around the world. Click [here](#) and [here](#) to view the entire story.

Milestone for Watershed Protection



Last week, DEP [announced](#) a \$3.1 million upgrade to the City-owned wastewater treatment plant located in the hamlet of Mahopac that included the addition of ultraviolet (UV) technology. All six City-owned treatment plants in the watershed are now equipped with UV technology. In addition, DEP has invested more than \$400 million in upgrades to nearly 100 non-City-owned wastewater treatment plants. These critical investments help to protect the streams and rivers throughout the City's upstate watershed.



NOW OPEN

VISIT US IN THE LOW-RISE LOBBY AT LEFRAK. OPEN EVERY TUESDAY AND THURSDAY FROM NOON – 2:00PM.

WE ACCEPT PERSONAL CHECKS OR MONEY ORDERS ONLY. SORRY, NO CASH OR BANK CARDS.

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