NYC Environmental Protection

Bill de Blasio, Mayor
Emily Lloyd, Commissioner

WEEKLY PIPELINE

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A Healthier East River

Last week, DEP announced the completion of a $230 million upgrade to the Tallman Island Wastewater Treatment Plant that will reduce the amount of nitrogen discharged from the plant into the Upper East River and Long Island Sound by more than 3,500 pounds per day, or nearly 1.3 million pounds each year. The upgrade will allow the plant to convert the organic nitrogen present in wastewater into inert nitrogen gas that can then be released harmlessly into the atmosphere before the treated water is released into the surrounding waterways. High levels of nitrogen can degrade the overall ecology of a waterway by reducing levels of dissolved oxygen and promoting excessive algae growth, especially in warm weather months. For more information click here, for photos visit Pipeline, or DEP's Flickr page.

Spotlight on Safety

Clean Air Month

May is Clean Air Month and its focus is to reduce pollution and improve air quality and health outcomes. Poor air quality has been linked to cardiovascular disease, heart attacks and strokes. New York City's Air Pollution Control Code has established emission regulations and enforcement mechanisms that have led to the cleanest air in New York City in the last 50 years. Currently, the department is working with the City Council to pass an update to the Air Code that will focus on emissions sources that currently have little or no regulation to further reduce pollution and save lives.

Individually, we can all contribute to cleaner air. Here are a few tips:

- Use public transportation, car pool, bike or walk when possible. DEP headquarters has a bike rack for employees on the roof top parking garage.
- Don't top off your gas tank – it can cause your vehicle to run poorly and produce higher than normal emissions.
- Look for the ENERGY STAR label when buying home or office equipment.

Learn more at: AirNow-Clean Air Tips and Air Quality Awareness

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.

Commissioner's Corner

Last week, the New York State Department of Health published its final revisions to New York City's Filtration Avoidance Determination (FAD), which allows us to deliver some of the best drinking water in the world from our Catskill and Delaware watersheds without the need for a costly and energy intensive filtration plant. This is an important stamp of approval for the award-winning programs that DEP has administered for 21 years to protect the source of high-quality, unfiltered drinking water that sustains nearly half the state's population. Since New York City received its first FAD in 1993, we have continued to adjust and expand our work through vital partnerships with local governments in the Catskills and Hudson Valley, along with nonprofit groups that help us safeguard creeks, streams, reservoirs and the lands that surround them.

Through these partnerships, New York City has protected drinking water at its source by restoring streams that run through local communities, funding infrastructure improvements at watershed farms, building new facilities to collect and treat wastewater, protecting thousands of acres of open space, and testing water quality in streams, reservoirs and streetside taps more than 500,000 times a year.

While the FAD revisions announced last week allow our protection programs to continue, they also recognize that our watersheds must be prepared for future threats such as severe storms and climate change. As a result, DEP will commit nearly $70 million towards projects to further address the potential impacts of flooding from large storms. In the aftermath of tropical storms Irene and Lee, these initiatives represent an important step to protect the water supply and our neighbors in the Catskills. As we move towards implementation of these projects and others outlined in the FAD, I also want to reiterate DEP's commitment to hearing input from watershed residents, elected officials and other stakeholders. By working together, we will continue to maintain the safety and reliability of the country's largest unfiltered water supply for the more than 9 million New Yorkers who depend on it every day.

New York City has invested approximately $1.5 billion in watershed protection programs that include land acquisition, a variety of partnership programs targeted to address specific threats to water quality, and environmentally appropriate economic development programs in the Catskills. The revised FAD will increase that commitment to $1.7 billion. Initiatives outlined in the FAD focus on source water protection, based on the principle that it is most efficient and effective to protect drinking water at its source in the watershed.

I would like to thank **Robin Levine** from our Bureau of Legal Affairs, **Susan McCormack**, **Jeff Graf**, **Steve Schindler**, and **Dave Warne** from our Bureau of Water Supply, as well as **Hilary Meltzer** from the Law Department for helping us reach this important milestone.

More information about our watershed protection programs can be found on the DEP website here.

Focus on the Field

The operation of New York City's upstate reservoirs can be a complicated task—driven by water demand, regulations, weather and many other factors. The considerations are vast. How much drinking water is needed, how much water is available to release downstream to support ecology and recreation, and how do we use dozens of data to make these decisions accurately?

Research scientist **Adao Matonse** has focused on these questions since he began working directly for DEP last August. Matonse has most recently been part of a multi-state technical group that's analyzing data on the historical flow of water in and around the Delaware System reservoirs. These data are eventually plugged into the city's Operations Support Tool, an $8 million modeling system that uses real-time runoff forecasts and other metrics to accurately predict how much water is coming into the reservoirs, and how much should be diverted or released.

There's only one problem: some of the historical data was culled by different groups at different times and places. For instance, a stream gauge that was used to measure flow 10 years ago might no longer exist. So Matonse and his technical peers are going over the data carefully to figure out which are the most accurate, and which will be plugged into the modeling system to make operating decisions.

"Sometimes there is no perfect answer, but there is an answer that everyone agrees is most accurate," Matonse said. "We always do the best we can with the information we have."

At the same time, Matonse has developed computer programs that help DEP's reservoir operators schedule releases and diversions to ensure that New York City is moving the right quantity of water at the right times.

"Adao has been an invaluable member of the team that's applying complicated science to enhance the operation of our reservoirs," said **Tina Johnstone**, director of operations for the Bureau of Water Supply. "His work is ensuring the balance is met between maintaining a reliable supply of drinking water for New York City and fulfilling our downstream commitments."

Matonse was born and raised in the east African Republic of Mozambique, where he learned three of the four languages he speaks fluently (English, French, German and his native language, Portuguese). As a young man, he played point guard for one of the professional basketball teams in Mozambique. He also played college basketball in Germany, where he earned bachelor's and master's degrees in physics at Dresden University of Technology. After returning to Mozambique as a college professor for 10 years, Matonse came to the United States as a Fulbright scholar and earned a second master's degree and doctorate degree in environmental resources engineering at the SUNY College of Environmental Science and Forestry.

Matonse was previously a post-doctorate fellow at the CUNY Institute for Sustainable Cities, where he worked with DEP on water-quality planning related to climate change. He and his wife live in Orange County, N.Y.

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

Where the Cows Don't Roam

The hills of the Catskill and Delaware watersheds are dotted with farms and, over the last 20 years, DEP has invested nearly $50 million on infrastructure upgrades at roughly 350 of these farms to help protect the source waters that feed our reservoirs. Sher-Brook Farm is located just west of the Village of Delhi and a brook that runs through it eventually empties into the West Branch of the Delaware River, and from there into the Cannonsville Reservoir. Last year, DEP funded a $134,000 pavilion-style cover to keep rain away from the area where the cows eat and a concrete floor with curb-like sides to prevent runoff to the brook. Exclusion fencing also prevents the cows from grazing near the brook. All of the projects aim to reduce the transport of nutrients, sediment and pesticides from the farms to nearby streams. For more photos visit Pipeline, or DEP's Flickr page.

▶ **Click here to view the New York City 2013 Drinking Water Supply and Quality Report**

Welcome Aboard!

Yesterday, 10 new employees attended orientation and received an overview of the department from Chief Financial Officer **Steve Lawitts**. We hope everyone will join us in welcoming them to DEP!

James H. Covell III, **Mario Gallo**, **Justin Kappel** and **Judith Sarkodee-Adoo** with BWS; **Timothy Callahan** and **Irina Milyavskaya** with BWT; **Geeta Persaud** and **Ynaliz Then** with BWSO; **Isabella Wechsler** with Executive; and **David M. Cohen** with Labor Relations.