

Special Guest *Commissioner's Corner*



Pam Elardo, DEP's Deputy Commissioner for the Bureau of Wastewater Treatment, is a guest commentator this week.

Thanks to DEP's remarkable efforts, New York City's waterways are healthier than they have been in more than 100 years. Residents have been flocking to the city's waterfront to partake in recreational activities and marine life is making an unprecedented comeback. In recent years, at least seven species of whales, including humpbacks, have been spotted in the waters just off the city's Atlantic-facing shorelines. Whale watchers and fishermen have reported a significant rise in the number of these majestic mammals seen during trips traversing the New York Bight, an indent in the coastline that runs from Long Island to Cape May, NJ.

So, just how has the city's harbor made such an incredible transformation? The success can largely be attributed to the beginning of and continued investment in wastewater treatment. Not only do the billions of dollars invested in the pipes, pumps, tanks, equipment, and personnel keep our waters clean, an integral part of our success depends on monitoring and analysis. This is what the [Newtown Creek Microbiology Lab](#) is all about. The lab is a 2,000 square-foot, \$2.3 million Bureau of Wastewater Treatment facility in Greenpoint, Brooklyn, dedicated to ensuring we fulfill our mission to protect public health and the environment.

The lab's microbiologists work under the watchful eye of Section Chief **William Kelly**, handling bac-

teriological analyses for all 14 New York City wastewater treatment plants. Simply put, our treatment plants employ a series of physical and biological processes that take almost 2 billion gallons of human and industrial wastewater per day and treat it to very high clean water standards. Chief Kelly and his team constantly monitor the levels of vorticella, nematodes, rotifers, and "water bears," to name a few—all microscopic organisms that help break down waste during the biological activated sludge process. "Activated sludge" is not only a cool name, it is the core of today's modern treatment plants and works by creating optimal living conditions for a community of bacteria that "eat" organic wastes. Our processing tanks use a strategy of aeration, dissolved oxygen concentrations, geometry, flow rates, and timing to break down (oxidize) biological matter—complexes of carbon-based ammonia and nitrogen—to remove pathogens and nutrients, resulting in highly treated wastewater effluent, now clean water, released into the waterways surrounding New York City.



The biological process is a living process and requires constant care, feeding, and monitoring. This is the job of the Microbiology Lab team, which utilizes high-tech equipment such as incubators, sterilizers, purification systems, balances, conductivity meters, and colony counters. Microscopes are connected to computers and video displays to capture and magnify images, which allows microbiologists to examine protozoa and metazoa interacting in the treatment plant environment. All this is geared toward keeping a healthy and diverse microbial population containing the best "bugs" to treat our wastewater, and keeping out those that impede the treatment process.

In addition, the lab analyzes the water samples collected as part of the Harbor Survey Program, including routinely testing for fecal coliform, an indicator bacteria whose presence at certain levels indicates a potential threat to public health and aquatic ecosystems.

The work of Chief Kelly and his team is a critical component to the series

of checks and balances to ensure that all quality assurance and regulatory requirements are effectively met. To that end, the lab maintains impeccable quality standards, employs outstanding house-keeping practices, and keeps a meticulously detailed set of logs—both written and computerized. Safeguarding public health is the lab's number one priority and when Chief Kelly and his staff see something that may lead to treatment plant performance problems, he works directly with plant staff to guide them in changing operations to maintain our highest quality standards.

I want to personally thank Chief Kelly and all the professionals at the Microbiology lab, including **Naudet Joasil, Paris Malakkhani, Esmeraldo Castro, Hope McGibbon, Patrick Hoyes, Donovan Johnson, Puspha Naraine-Osawe, Manzura Kopusov, Danielle Korecki and Omid Khalpari**. Their tireless efforts help DEP accomplish its critical mission to protect public health and the environment.

Spotlight on Safety

The Right Tools for the Job

The right tools can help get a job done more easily and safely, and manufacturer specifications should be followed when using both hand and power tools. In addition, wearing personal protective equipment (PPE), using guards, and ensuring proper ventilation are important precautions. However, there are other precautions that may be overlooked. Improper use, for example, can damage the tool and weaken its integrity for future use. Improper use can also lead to accidents, putting yourself and those around you in danger. In work areas with

hand and power tools, floors should be kept clear and dry to prevent workers from slipping and falling. The Occupational Safety and Health Administration's basic safety rules to prevent hazards that are associated with tools include:

- Use the right tool for the job.
- Operate tools according to the manufacturers' instructions.
- Provide and use properly the right PPE.

For more information visit [OSHA's Hand and Power Tools website](#).

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.

Teamwork Gets the Job Done



Working with partners in Putnam and Westchester Counties, earlier this month DEP detected a rise in the water temperature of the [West Branch Croton River](#), which posed a risk to the cold water fisheries. Staff from the Bureau of Water Supply (BWS) responded immediately and were reinforced with in-city crews from the Bureau of Wastewater Treatment (BWT). Within 24 hours, three industrial Godwin hydraulic pumps were sending millions of gallons of colder water from Croton Falls Reservoir into the West Branch Croton River, and at the height of operations six Godwin pumps were being utilized. These quick efforts, with support from the Bureau of Engineering, Design and Construction, successfully brought water temperatures back down to their normal summertime ranges. A special thanks to everyone who worked around the clock at Croton, especially BWS staffers **Jim Keesler, Peter Ashaya, Kenny LeBarron, Anthony Pironti, Lori DeLorenzo, Stan Taylor, Charles Newman, David DeSilva, Anthony Tempestelli, Joseph Hillman, Tom Baudanza, John Vickers, Bobby Layman, Daniel Moore, Timothy Osterhout, Lee Osterhout, Thomas Brown, and Tina Johnstone;** and BWT staffers: **Mark Krasnopolski, Anthony Cantalino, Dexter Douglas, Anthony Martinez, Rodrigo Paris, Wayne Jeffers, Dominick Bonanno, Larry Merrell, Jeff Mallon, Mike Miele, Albert Romano, Jr., Sean Caldeira, Anthony Longo, Ian Herrera, Steve Koller, Matt Murtha, Roger Alava, Robert Ricchetti, Raymond Dotzler, Bindish Patel, Denish Prashaud, Edward Costa, Victor Basdeo, Irvin Moreno, Colvin Stephen, Brian Valdez, Antonio Corona, Stephen Asante, Robert Ortiz, Lloyd George, Paul Kiskorna and Chris Laudando.**



New Creek Bluebelt Takes Shape



Work is progressing on the \$22 million first phase of construction on Staten Island's [first Mid-Island Bluebelt](#) in the Midland Beach neighborhood. The project includes building two new wetlands along with a new, west branch of New Creek. These wetlands will slow the stormwater down after it empties from the sewer system and detain it, allowing it to be naturally filtered. The water will then slowly flow over weirs and into the new west branch of New Creek. The stream will be built to a width of 32 feet and will run southeast through City-owned property that, in later phases of the project, will be developed into freshwater wetlands. Culverts are being built (pictured) to allow the stream to pass under existing streets. Moving from upstream to downstream, the water will eventually empty into lower New York Harbor. Further wetland rehabilitation, including the removal of Phragmites and the addition of more diverse wetland plantings, and better flood management in the area will improve drainage for a watershed of 2,200 acres. The project also includes the installation of sanitary sewers, storm sewers, catch basins, and new water mains.

Fall 2016 Blood Drive Needs Donors

In remembrance of 9/11 and to continue our efforts to be partners in providing the gift of life, DEP is once again partnering with the New York Blood Centers to help maintain the community's blood supply. Blood drives will be taking place at the below locations and times. Donors with an O-negative blood type, or "universal donors," are especially urged to give because their blood can be transferred to anyone.

Lefrak: 6th Floor Training Room, 9/6, 9/7, and 9/8, 7:45am to 1:45pm; Grahamsville Region Area: Grahamsville Fire House, 10/1, 9:00am to 3:00pm; Downsville Region Area: Downsville Fire Hall, 9/14, 9:00am to 2:00pm; Kensico/Highland Regions-Sutton Park Area: Sutton Park, 2nd Floor, Large Training Room, 9/8, 8:30am to 2:30pm; Kingston/Catskill Area: 51 Albany Avenue, 9/12 and 9/19, both from 1:00 to 6:00pm.

New DEP Employee Lounge Now Open

The new Employee Lounge officially opened last week on the 3rd floor of the High Rise building in the same location as the old cafeteria space. The inviting space features tables and chairs for employees to relax and eat lunch, a television, and an adjacent pantry with a microwave, sink, and a water bottle filling station. The Employee Lounge is just one part of a comprehensive update to the 3rd Floor High Rise. New training rooms are currently under construction and are scheduled to open in early 2017.

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