

Hunts Point(s) To a Cleaner Harbor

Since 2002, DEP has invested more than \$10 billion in upgrades at our 14 wastewater treatment plants and related efforts to improve harbor water quality. An important component of this work was recently completed at the Hunts Points Wastewater Treatment Plant, which began operating in 1952 and is designed to treat up to 400 million gallons of wastewater a day from a 16,000 acre area with approximately 684,000 residents in the northeastern section of the Bronx. The \$280 million installation of new technology at the plant has reduced nitrogen discharges into the East River and Long Island Sound by approximately 45 percent.

This first phase of the work required significant upgrades to the plant's electrical substation, generators, aeration and sludge pumping systems and will add \$2 million to the annual cost of operating and maintaining the plant. This investment



New, more efficient main sewage pumps were installed. The 4,160-volt motors that power the pumps are controlled by Variable Frequency Drives, which consume substantially less electricity than standard resistors.

will ensure that the plant remains in a state of good repair for decades

(Continued on reverse side)

Spotlight on Safety

Safer Computing

While not inherently dangerous, computer equipment can be used in ways that are hazardous to human health. Many back, neck, eyestrain and musculo-skeletal problems are associated with improper computer use, and improving health and safety practices should be taken seriously. Here are a few tips everyone should follow:

- Laptops have smaller screens, keyboards, and pointing devices than a desktop, which make them more difficult to operate in an ergonomically correct manner. If you must use your laptop for a prolonged period of time, it is best to use a docking station.

- Surge protectors must always be plugged into a wall outlet. Plugging one surge protector into another creates an electrical hazard and is a violation of electrical safety standards.
- Make sure that computer cables are not placed in areas where people walk. If this cannot be avoided, tape the cables down or use a cord cover.
- Keep liquids away from computer equipment. Spilling liquids can cause an electrical fire, injure the user, and damage the equipment.

For more information on safe work stations click here [🔗](#)

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

Next week, the New York Water Environment Association (NYWEA) will hold its 85th Annual Meeting at the Marriot Marquis in Midtown Manhattan and over the course of the three day event there will be 22 presentations by DEP employees, an indication of the leadership role we play in the industry. The meeting also presents an important opportunity for us to learn from the experience of our partner agencies and from the private sector.

The strength of DEP is rooted in our employees and the list of impressive presentations below is indicative of the great work the department is doing. For more information on NYWEA and the Annual Meeting click here [🔗](#).

Kathryn Garcia will speak about DEP's preparedness, operations, and recovery efforts throughout Hurricane Sandy and **Angela Licata** will speak about climate change and DEP's contribution to a city-wide adaptation plan that is due to be published later this year.

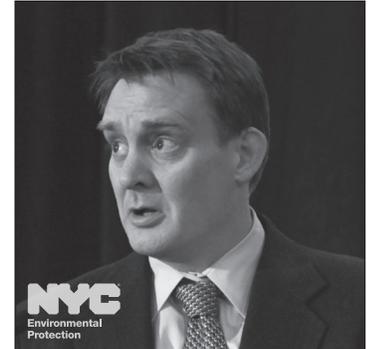
Allen Deur and **Keith Beckmann** will discuss the work to develop a three-dimensional fluid dynamics model for wastewater settling tanks, the anammox process, and nitrogen removal operations including froth control in anaerobic digesters, KDO experiments, methanol optimization, and interim glycerol addition

Keith Mahoney will make a presentation on computational fluid dynamics modeling of bypass flows.

Kenneth Moriarty and **Nat Federici** will discuss the centrifuge sludge thickening process at the Newtown Creek Wastewater Treatment Plant.

James Mueller will moderate a discussion on sustainability that will include a presentation on water efficiency by **Viada Kenniff** and **Grace Lee**. **Alan Cohn** and **Julie Stein** will discuss preliminary findings from DEP's two-year study on adaptation strategies to address the effects of climate change and population growth on the city's wastewater system.

Keith Mahoney and **Lily Lee** will discuss wet and dry weather water sampling for a waste load alloca-



tion on the Hutchinson River.

Julie Stein, **Margot Walker**, and **Srinivasan Rangarajan** will make a presentation on developing green infrastructure for New York City's Long Term Control Plan.

Jim Roberts and **Tasos Georgelis** will discuss how DEP's Capacity, Management, Operation, and Maintenance Program has helped target resources at problematic locations throughout the city's sewer system.

John Petito will moderate a session on utility management and **Beth Petrillo** will moderate a discussion on hydrofracking.

Alan Cohn and **Luis Carrio** will discuss a study of how climate change might impact DEP's wastewater operations in the future.

Anthony Fiore will talk about greenhouse gas emissions and a feasibility study on cogeneration at the North River Wastewater Treatment Plant.

Larry Beckhardt will take part in a discussion on Practical Guidance for Applying Climate Change Projections.

Magdi Farag and **Raymond Palmares** will detail DEP's implementation of the Green Infrastructure Plan.

John Petito will moderate a discussion on Urban Green Infrastructure including a presentation by Srinivasan Rangarajan on updating New York City's urban watershed models, **Robert Brauman** and **Dean Cavallaro** discussing the creation of a Bluebelt in the Bronx, and **Magdi Farag** and **Margot Walker** outlining the installation of green infrastructure at the Edenwald Houses.

Focus on the Field



Few people would guess that DEP has eyes in the sky, but we do, and they belong to Air Pollution Inspector **Eric Gregorius**.

Up to five times a week Gregorius can be found flying over the five boroughs in an NYPD helicopter, alongside his partners in the NYPD aviation unit, scanning the landscape for illegal sources of air pollution. A bird's eye view is often required

at Floyd Bennett Field where the U.S. Army Corps of Engineers is managing the more than 160,000 cubic yards of woody debris that was downed during the storm. Gregorius loves his job and is proud of the work he does and will soon be re-joining his partners at NYPD to patrol the five boroughs from above.

"During the past 20 years, Eric has been a reliable and impor-



to detect polluters whose activity would otherwise be hidden by the urban landscape.

If Gregorius comes across a potentially illegal emission source, he documents it with his camera and conducts follow up, on the ground inspections, which may lead to a Notice of Violation and a fine. NYPD relies heavily on the aviation unit for tactical support which means that Gregorius has been on some exciting rides over the years.

"I have been on routine patrols with NYPD that have quickly shifted into car chases on the BQE and following suspects fleeing on foot," said Gregorius.

Since Hurricane Sandy hit the region, Gregorius has been helping to monitor air quality and opacity levels on the ground

tant member of DEP's compliance team," said Supervisor **Joe Scafidi**. "The documentation he has provided from the aerial patrols has helped our enforcement efforts become more robust and brought us closer to our goal of having the best air quality of any large city in the country."



(Hunts Point(s) To a Cleaner Harbor... continued)



The nitrogen removal technology requires higher levels of dissolved oxygen to function, so new, higher capacity blowers were installed to feed more air into the wastewater treatment process. Credit Bernstein Associates

to come. The second \$8 million phase of the project will build on the earlier upgrades and add tanks and pumps to feed liquid carbon into the treatment process, which will accelerate the conversion of the nitrogen into an inert gas. These efforts will result in a total reduction of nitrogen discharges of 70 percent by 2016.

An additional \$770 million in nitrogen reduction measures are being installed at the Bowery Bay, Tallman Island and Wards Island Treatment Plants, all of which are located on the Upper East River, and \$500 million is being invested in similar upgrades to the Jamaica Bay and 26th Ward Treatment Plants located on Jamaica Bay.



New header pipe was installed to convey pressurized air from the new blowers to the aeration tanks. Credit Bernstein Associates



The new technology also requires a higher level of alkalinity than standard treatment and these new tanks will hold sodium hydroxide that will help meet that requirement. Credit Bernstein Associates

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