NYC Environmental Protection
Michael R. Bloomberg, Mayor
Carter Strickland, Commissioner

WEEKLY PIPELINE

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At DEP, Watershed Vigilance Is No Passing FAD

Since DEP signed an historic Memorandum of Agreement with the state and federal government, watershed communities and environmental groups in 1997, New York has been one of only five large cities issued a Filtration Avoidance Determination (FAD) by the EPA. With a capacity of 580 billion gallons in 19 upstate storage reservoirs and three controlled lakes, a waiver from the federal filtration requirement is an enormous vote of confidence that brings with it tremendous responsibility—one of unparalleled scope for a system that provides more than one billion gallons of water daily.

In December 2011, DEP submitted its latest long-term watershed protection plan to the New York State Department of Health. The plan, which includes the city's proposed source water protection activities, will form the basis of the remaining five years of the 2007 10-year FAD. First and above all, the key to maintaining the city's FAD has been

the program's grounding in strong monitoring and scientific study. According to Assistant Commissioner **David Warne,** "The strength of our program is that it's science-based. The science and monitoring are there to support every action we take."

DEP has reached this key milestone through a combination of multi-faceted protection programs and cooperation with watershed com-

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Spotlight on Safety

Improving the Health Quality of Life: A New Mayoral Initiative

Building on the success of policies and programs implemented to improve child nutrition and reduce childhood obesity, **Mayor Bloomberg** recently announced the formation of a new Interagency Task Force to recommend initiatives targeted to improving the health of the city's workforce.

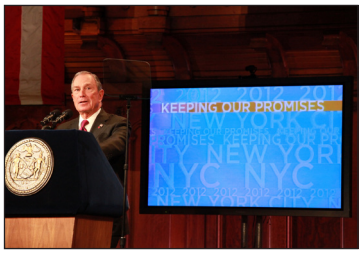
The task force is to comprise of ten commissioners and members from a variety of city agencies. They will consider initiatives such as increasing the use of public spaces for physical activity and urban agriculture, health and wellness opportunities for city employees, and reducing the consumption of items linked to obesity.

New standards for nutritional quality of food provided to city employees and stakeholders, by both city agencies and contractors, are currently being adopted and are scheduled to go into effect by October 2012. The new standards will apply to food sold in vending machines as well as food provided at DEP meetings and events. These are designed to limit calories, saturated fat, trans fat, sodium, sugar, and increase the availability of healthier options. In future months, more information will be provided to DEP meeting and event organizers, and DEP's Facilities Management will be reviewing options for vending machines. Have any additional ideas? Send them to EHS@dep.nyc.gov. For more information visit the following link.

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 Wednesday, DEP submitted comments to DEC on the draft environmental impact statement released by the state last September. In recent years, few topics have elicited more debate in New York State than the issue of hydraulic fracturing, or hydrofracking. The state is considering the environmental impacts of this method of energy exploration, and DEP submitted expert reports to DEC in 2009. As a result, DEC banned high volume hydrofracking within the watersheds of the state's two large unfiltered surface water systems, ensuring protection of the water systems that provides fresh, clean water to over half the population of the state of New York. We applaud the state for that decision, but we remained concerned that some of our critical infrastructure was still at risk.

It was out of this concern that DEP hired an expert in geophysics who helped us to refine our comments, specifically regarding the connection between hydrofracking and induced seismicity, small quakes that could threaten our tunnels. The fracking process involves drilling wells where fluids are injected, potentially inducing small earthquakes registering between one and three on the Richter scale if fluids lubricate existing faults. Though this might not be felt above ground, our unique deep-underground aqueducts could be affected from a quake or series of quakes, with the most probable impact being a partial collapse of the unreinforced concrete liner and a loss of capacity and leaks that could take years to repair and hundreds of millions of dollars. Our consultant concluded that the 1,000 foot protection currently proposed by the state is inadequate to prevent such damage. Read the full report here.

Accordingly, DEP's comments recommend a seven mile Infrastructure Exclusion Zone that would prohibit drilling around the Delaware and Catskill Aqueducts, our two most critical and irreplaceable tunnels. These two tunnels carry 100% of our supply, and a shutdown to repair even minor leaks would have a significant effect on our ability to meet demand in-city and upstate. Additionally, we recommended a two mile Infrastructure Exclusion Zone around all other tunnels (West Delaware Tunnel, East Delaware Tunnel and Neversink Tunnel) plus an Infrastructure Enhanced Protection Zone from two to seven miles around these tunnels requiring site specific review of all drilling applications within, which reflects the lesser consequences of shutdown for repair.

An easy-to-follow map of our proposed buffer zones can be seen here. All told, these buffer zones only reduce New York's available Marcellus Shale footprint by 1.5%. We understand the need for robust energy exploration and the economic potential that can accompany this industry. Nevertheless, we at DEP must do everything we can to ensure that our infrastructure remains secure and our reservoirs remain clean—nine million New Yorkers are counting on us. Read the Daily News' strong editorial in support of our position here.

On Thursday, I was honored to attend **Mayor Bloomberg's** State of the City Address at Morris High School in the Bronx. In his remarks, Mayor Bloomberg reaffirmed New York City's status as the "Capital of Innovation" in detailing the remarkable achievements of the past year—and put forth a bold agenda for the work that lies ahead. I was honored that Mayor Bloomberg mentioned our successful effort to transform the way New Yorkers heat their buildings—a major component of PlaNYC which will help bring a greener, greater New York to fruition. The Mayor also cited our Air Code revision, a vital undertaking to further clean the air we breathe every day. Looking ahead, Mayor Bloomberg cited our forthcoming agreement with National Grid that will convert digestor gas to renewable energy at the Newtown Creek Wastewater Treatment Plant, a groundbreaking strategy that will utilize wastewater to produce natural gas. There's no question that New York City is the capital of innovation, and we at DEP will continue to do our part.

Focus on the Field

Throughout the West-of-Hudson watershed, dedicated professionals like **Dennis Covello** go about their duties to ensure the preservation of perhaps DEP's most prized achievement: the Filtration Avoidance Determination (FAD). During his 12 years at the agency—where he serves as an Associate Project Manager in the Regulatory and Engineering Programs unit—Dennis has ensured that the upstate wastewater treatment plants (WWTP) maintain compliance with their State Pollution Discharge Elimination Systems (SPDES) permits, the lynchpin of the DEC regulatory regime.

SPDES permits allow treatment plants to discharge effluent into tributary streams, so the importance of maintaining them cannot be overstated. On an average day, Dennis arrives at the office and checks for reports of any spills or emergencies. If it's a day for a routine inspection, he arrives on scene with camera in tow and is immediately briefed by the plant's chief operator, as well as any pertinent mechanics or contractors on scene. All treatment plants are required to undergo inspection at least once per quarter, with upstate summer camps and other seasonal facilities being inspected monthly while in operation.

For Dennis, who worked as a performance technician at Con Ed prior to joining DEP, the performance level of today's plants is a far cry from where they were when he arrived in 1999. Having been involved in the upgrade of more than half the West-of-Hudson plants, he takes particular satisfaction in having brought these critical operations to a new level with the addition of microfiltration and phosphorous removal.

"It's nice to know where we started and now see how much we've progressed," Dennis said. "It's great to see these multi-million dollar plants now fully up and running."

Through his involvement in these important upgrades and seeing the effects of his work borne out 12 years later, it's safe to say Dennis has learned a few things along the way—not least of which what could pretty much sum up the DEP creed. In his own words: "Just putting in that extra effort…most times it really pays off."

Ask Carter

askcarter@dep.nyc.gov

Q. Green roofs, blue roofs, green infrastructure…what is the difference?

A. The term "green infrastructure" is a blanket term DEP is using to describe a variety of stormwater source controls, or installations that manage stormwater where it lands before being directed into the city's sewer system. Green roofs and blue roofs are two types of green infrastructure installations that manage roof runoff. Green roofs are installed over a building's roof membrane and consist of a layer of growing media (or lightweight soil) and vegetation. Some green roofs are only 2"-6" deep and others can be over 12" deep and sustain trees or other large plants as seen in rooftop gardens. Blue roofs refer to rooftop detention, which simply reduces the rate of flow from the roof drains, such as by installing controlled flow roof drains. DEP is testing other ways to achieve effective rooftop detention through a tray system and an intermediate weir system as seen at the DEP facility located at 1201 Metropolitan Ave. in Brooklyn. Other types of green infrastructure we are building include rain gardens, porous paving, and bioswales within sidewalks to manage curb runoff. Ultimately, the goal of DEP's green infrastructure program is to reduce the amount of stormwater entering the combined sewer system and reduce combined sewer overflow during wet weather. In addition to water quality benefits, green infrastructure can provide other critical environmental benefits to New York City in the way of urban greening, reduced urban heat island effect, and improved air quality.

COAT CHECK: Eighty coats were collected during the 2011 coat drive. Thank you to everyone who contributed to this worthy cause.

Event Calendar

NEW YORK WATER ENVIRONMENT ASSOCIATION – Young Professionals Committee Reception/Networking Event**:** 2/7, from 4:30 pm – 6:30 pm, Marriott Marquis Hotel. For more details, click here. All are welcome.

Milestones

Congratulations to the following employees on achieving 30 or more years of service: **Timothy Kelly, LouAnn Porcello, Anthony Parrinello, MaryBeth Gelb, Clara Bloom, Tony Giglio, Michael Moran** and **James A. Fox.**

(Watershed Vigilance Is No Passing FAD at DEP… continued)

munities. The three pillars of watershed protection are land acquisition, regulations governing certain activities in the watershed, and partnership programs. Essential to ensuring water quality protection and fostering economic opportunity in upstate communities are DEP's partnerships with the Catskill Watershed Corporation (CWC) and the Watershed Agricultural Council (WAC). DEP has provided CWC with a fund that has loaned millions of dollars to hundreds of watershed businesses to support manufacturing, tourism and hospitality, helping to provide economic opportunities, a key goal outlined in Strategy 2011-2014. This partnership has also led to the construction of new wastewater treatment plants in various communities, seen most recently in the completion of the Ashland Wastewater Treatment Plant last August. By working with WAC, DEP has helped protect clean drinking water through pollution control practices that support functioning agricultural landscapes. This includes construction of stream buffers and crossings for livestock, keeping bacteria and chemicals from entering tributary streams.

The city's comprehensive Land Acquisition Program has played a central role in protecting its unfiltered water supply. Through purchasing more than 118,000 acres of watershed land in the Catskill/Delaware region since 1997, DEP has undertaken an unprecedented effort to protect environmentally-sensitive watershed parcels from development and pollution. As DEP's land portfolio has grown, so has the responsibility for managing those lands for water quality preservation.

Stream management is another key element of watershed protection. Together with local Soil and Water Conservation Districts and the Cornell Cooperative Extension, DEP works with watershed towns and stream-side landowners to develop management plans to suit the individual needs of each tributary stream. These plans offer comprehensive blueprints for streams as well as floodplains, mitigating damage from weather events while also preserving the natural habitat for recreational public use.

Forested land provides one of the best natural filters for DEP reservoirs. WAC works with owners and managers of privately-owned forested properties on plans to maintain forest health and vigor. For city-owned land, DEP announced the launch in December of its first-ever Forest Management Plan. The plan, developed in conjunction with the US Forest Service, focuses on creating and maintaining diversity to promote resilience to natural disturbances; additionally, it will ensure best practices for maintaining tree health so that nutrients are absorbed from soil and prevented from flowing into reservoirs.

While four other large US cities operate with a FAD, there really are no analogies to draw to the New York City water supply. As described by Warne, "Most other unfiltered supplies don't have the same level of development and population that we have in our watershed." Given the various elements at play in providing water for more than nine million consumers, New York City has emerged as the national and international model for water quality protection. It remains without question that the city has honored its commitment to the FAD, and is prepared to meet its challenges for the next five years, 10 years—and beyond.

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