

BACKFLOW PREVENTION: *Connection and Inspection are the Right Direction for Drinking Water Protection*

Protecting the quality of New York City's drinking water takes place from the watershed to the tap, and is made up of many components including watershed protection, water monitoring, sampling and well-maintained mains. So how do laundries, commercial car washes, breweries, canneries, dry cleaners, exterminators, slaughterhouses, supermarkets, schools, restaurants, barber shops and beauty salons fit in? Each is legally required to install a backflow prevention device (BPD) to prevent contaminated water or chemicals from flowing back into the public drinking water supply system. Backflow prevention devices, also known as cross connection controls, function by containing potential contamination within the premises of the user. For example, car washes with




strong recirculation pumps could inadvertently force contaminated water back into the distribution system if they did not have the proper backflow prevention devices on their water services.

In 2010, Deputy Commissioner **Jim Roberts**, Bureau of Water &

(Continued on reverse side)

Spotlight on Safety

Steps to Ladder Safety

Since a significant number of worker injuries involve falls, it seems fitting to take a few moments to review important safety practices for the use of portable ladders. The OSHA Standard  for portable ladders contains specific requirements designed to ensure worker safety on loads, angles, rungs, slipping and other requirements. Loads: Self-supporting portable ladders (which fold out) and non-self-supporting portable ladders (which must be able to lean) should support at least four times the maximum intended load. This excludes the extra-heavy-duty metal or plastic ladders that can sustain 3.3 times the maximum load. All ladders come with a load rating posted on the side. Angle: Non-self-supporting ladders, which

must lean against a wall or other support, are to be positioned at such an angle that the horizontal distance from the top support to the foot of the ladder is about 1/4 the working length of the ladder. Rungs: Ladder rungs, cleats, or steps must be parallel, level, and uniformly spaced when the ladder is in position for use. Rungs must be spaced between 10 and 14 inches apart. For extension trestle ladders, the spacing must be 8-18 inches for the base, and 6-12 inches on the extension section. Remember...if you see a ladder that is broken or otherwise compromised or does not meet these standards, it should be removed and tagged "out of service" until it is repaired, replaced or disposed of.

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. 

Special Guest *Commissioner's Corner*

Stephen Goldsmith, Deputy Mayor for Operations, is a guest commentator this week.



New York City faces unprecedented fiscal challenges—giant budget gaps largely driven by unfunded mandates—that are projected to last well into the future. At the same time, we must continue to deliver the world-class services that New Yorkers need and expect. Together, we can meet both of these challenges, but to do it, the old ways of doing business have to change. Over the last six months we have focused on ways the City can innovate to improve services and reduce costs at the same time. No idea is too big or too small in this effort, and DEP is critical to its success.

In fact, thanks to DEP's ingenuity, you are already making strides in the right direction. For example, the paperless billing option launched last fall: if just 10% of water customers sign up, it will save DEP approximately \$170,000 every year in printing and postage costs, and make it easier for our customers to pay their water bills. The NYC Green Infrastructure Plan is another example that **Mayor Bloomberg** pointed to in his State of the City speech. The plan has attracted national and international attention as a way for the City to address a water quality problem—combined sewer overflows—with a solution that does much more than simply capture stormwater. Green infrastructure improves air quality, reduces energy bills, and increases property values, benefits that accrue to all New Yorkers.

These initiatives are just the beginning. Working with **Commissioner**

Holloway, we will look at ways to make agency operations more efficient—from the way crews deploy in the field, to the energy DEP needs to deliver drinking water and treat wastewater. The best ideas will come from the people who know the City best, and for DEP, that's the nearly 6,000 employees who get the job done every day. To tap that potential, last week we launched the NYC Simplicity Idea Market, with DEP as a charter member. The Simplicity Idea Market is a new website created especially for city employees where you can post your ideas on how to make the city work better, or vote and comment on ideas developed by your colleagues from DEP and other agencies. Commissioner Holloway and I need to hear from you. Log in to www.nyc.gov/ideamarket today and start sharing your ideas for how to make New York City work better.

I look forward to the next great DEP innovation, and to working with you to implement it. Thank you for all of your hard work delivering exceptional service to the nine million people DEP counts as customers.

Milestones

Congratulations to **Michael Moran**, BCS, on 30 years of city service as of January 5.

Congratulations to **Ed Melendez**, BWS, and his wife **Nicholle** on the birth of their son **Drew** on January 14.

Congratulations to **Peter Gordon**, BWSO, and his wife **Michelle** on the birth of their son **Jason Thomas** on January 28.

Focus on the Field



As Chief Cross Connection Inspector in the Bureau of Water & Sewer Operations, **James Branch** inspects commercial and residential properties for any sign of a cross connection—an instance when a substance from outside the system backflows into the water supply network. Depending on the type of connection and hazard that the property poses, a backflow preventer may be mandated on properties to safeguard against this potential reverse flow of liquids. And James has more experience with cross connections than most. He started at DEP in 1996—giving him 15 years here—but before that he spent 25 years inspecting cross connections for the Jamaica Water Supply, giving him more than 40 years of overall experience.

The inspection team is prompted into the field for one of two reasons. First, Water & Sewer Operations maintains listings of likely

high hazard properties, such as auto body shops, dry cleaners, and medical facilities, to be inspected. In fact, James is a city planner currently overseeing a city backflow contract to inspect 11,000 high hazard locations throughout the city. Since beginning the contract, Water & Sewer Operations has discovered that more than 6,000 of these properties need backflow preventers and James is following up to make sure they get installed.

The other factor driving inspections is reports from the BWS Water Quality division documenting water quality issues in the distribution system. Such a report led to one of James' most challenging assignments on the job. Two years ago, he and other BWSO personnel inspected all of southeast Queens—a very tall task—in response to a water quality problem. The water quality issue, which was linked to a car wash, was fixed and James' findings contributed to new guidelines in cross connection control that will greatly aid in avoiding future problems.

When James—a Vietnam veteran who served in the Marine Corps—isn't at work, he enjoys hunting in Maine or fishing off Long Island. But most of all, he cherishes the time that he spends with his one and a half year old grandson named James.

Event Calendar:

February is African American Heritage Month/Black History Month.

The DEP Diversity Committee has put together an array of activities to mark this occasion. Click [here](#) for more information on planned activities as well as a calendar of citywide events.

Great Ideas Wanted



Please look for the "Great Ideas Wanted" Box in Weekly Pipeline in the upcoming weeks for news, tips, and information on Deputy Mayor Goldsmith's exciting new initiative! Tip: Please remember to look on the back of your employee ID badge for your employee ID number to create an account on Idea Market. Please contact OIT Helpdesk at [6](#) or at x4160

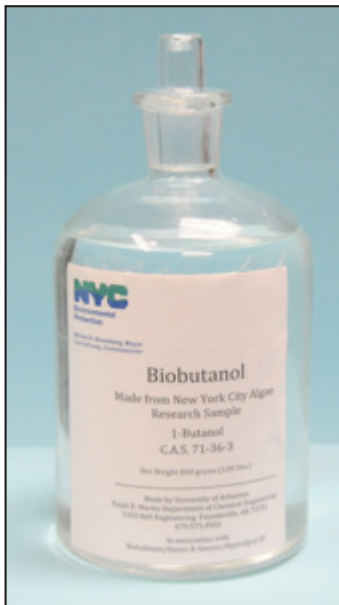
for any technical issues and start sharing your ideas today at www.nyc.gov/ideamarket/!

New York City Volunteer Language Bank

The Division of Human Resources is recruiting bilingual DEP employees interested in volunteering for service in New York City's Language Bank. The language bank assists limited English-speaking residents as they try to access services from city agencies.

For more information on the language bank, please click [here](#).

Kudos Corner



This is the first liter of butanol produced by the Algae Biofuel project, run by **John McLaughlin** and the rest of the team, including **Robert Will** from BEPA; **Peter May**, **Vince DeCapio** and **Michael Spina** from Biohabitats; **William Leo** and **Rob Orlando** from HDR/Hydroqual; **Sandeep Mehrotra** and **Tom Camastro** from Hazen & Sawyer; **Dr. Jamie Hestekin** from the University of Arkansas; and **Mark J. Zivojnovich**. In November, DEP unveiled the pilot project, which converts wastewater algae at the Rockaway Wastewater Treatment Plant into fuel. Wastewater contains nitrogen and phosphorous, which are the primary food source nutrients for plant growth. Through photosynthesis, algae grows on the Algal Turf Scrubber, which is then harvested and processed into butanol, a high quality fuel that can be put right into a gas tank.

(Backflow Prevention... continued)

Sewer Operations, launched a Backflow Prevention Enforcement Initiative following a thorough review of the risks associated with cross contamination. Since then, more than 16,000 property owners have been notified of the need to install a backflow preventer. Over the next four years, DEP plans to inspect more than 20,000 buildings based on the potential risk posed by the building or business to the water supply system. As many as 100,000 buildings in New York City may be required to install a backflow prevention device, and more than 22,000 buildings are from the 36 use groups such as canneries, breweries, and laundries that may pose a higher risk of contamination to the water supply system. Since 1987, all new buildings have been required to have backflow prevention devices unless DEP has granted them an exemption in order to qualify for a certificate of occupancy.

For the Chief for Permitting & Inspection **Jim Luke**, not only are cross connection controls an important part of protecting the public water supply, but they bolster DEP's extensive water quality testing and monitoring program to ensure the quality of water in the distribution system. Investigators go door-to-door and perform on-site assessments

to determine whether a property needs a BPD. About 50 percent of properties inspected by DEP staff have required installation of BPDs. If a device is needed, the property owner must retain an engineer or architect to design plans. When the plans are reviewed and approved, the device must be installed by a licensed plumber, and a device must be installed on all water service lines to the property. Appropriate devices can be identified by a Professional Engineer, Registered Architect or Licensed Master Plumber.

According to Luke, "most building owners quickly install a backflow prevention device once DEP has notified them of the need to do so," and they understand that they are part of the system. He finds that combining enforcement with extensive, targeted public outreach and education, results in greater compliance. DEP's Cross-Connection Brochure [6](#), and supporting forms and documentation are available online, and by mail from the city's non-emergency helpline, 311. The brochure is available in seven languages including Spanish, Russian and Korean. One thing is clear, no matter the language, keeping New York City's water the best in the world is a team effort and everyone needs to do their part.

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