

Commissioner's Corner



This week we will mark a significant milestone for one of the largest infrastructure projects in city history. Wednesday, I will join **Mayor Bloomberg, Deputy Mayor Holloway**, and more than 100 DEP employees and representatives of the sandhogs union to announce the completion of City Water Tunnel No. 3 in Manhattan. This is the first time in more than 15 years a section of the tunnel has been activated, and it will provide a critical redundancy to Tunnel No. 1, which has been in continuous use since 1917. While I will save the details of the announcement for tomorrow's celebration, this milestone is a great opportunity to reflect on the history of New York City's water supply.

We are not the first generation of New Yorkers to understand the importance of clean drinking water to the survival of the city. In fact, in 1658, Peter Stuyvesant, then director general of New Netherlands, ordered the first public wells be dug at Bowling Green. As the city grew and became denser, waterborne diseases and fire prompted the creation of a modern public water supply. Outbreaks of cholera and typhoid fever were not uncommon, and in 1789, yellow fever killed 2,000 people. The Great Fire of 1835 destroyed nearly half of the buildings in the city—more than 700 structures in a 17-block area of Lower Manhattan.

Planners looked to the north for water that was healthy to drink and could be delivered under pressure to fight fires. The Croton system was the first to deliver water to New York City from outside the five boroughs. Located in Westchester and Putnam counties, it was developed in stages from the 1840s to the early 1900s and involved the construction of the highest dam in the world at the time. Many of the original elements of the Croton System are still part of the City's landscape, including the High Bridge, connecting Manhattan and the Bronx, once carried the old Croton Aqueduct. Today it is being upgraded to serve as a park and a bridge for cyclists and pedestrians.

The Croton system was not enough to quench the thirst of the city's growing population, which welcomed more than one million new residents during the last decade of the 19th Century. Planners and engineers looked across the Hudson River to the Catskill Mountains for clean drinking water, and in 1928 workers completed the Catskill system, which today delivers about half of the city's drinking water.

But even that could not keep up with the pace of growth in the city. Planners then looked west to the abundant water supply in the Delaware River watershed. Although it was delayed by the Great Depression and World War II, in 1944 the Delaware Aqueduct began supplying New York City with clean drinking water. At 85

miles long, it is still the longest continuous tunnel in the world.

Today, the Cat/Del Systems are the largest unfiltered surface water supply in the United States and one of the largest in the world. To avoid the expense and disruption of blasting and tearing up streets, our predecessors chose to dig deep tunnels through the bedrock under our city. City Water Tunnels No. 1 and 2 went into service in 1917 and 1936 respectively, and have been supplying water ever since. In the 1950s engineers began preliminary planning for City Water Tunnel No. 3 to provide critical redundancy to the system.

In 1970, the City broke ground on the first stage of the tunnel. Unfortunately, the Fiscal Crisis of the 1970's halted work on the project. Work resumed in 1983 thanks to years of advocacy by those who believed in the future of the city and also recognized that infrastructure investments provide jobs in the present.

Tunneling for Stage 2 of the Manhattan leg began in October 2003, and was substantially completed in May 2010. Since then we have been building shafts from the tunnel to the surface distribution system. Tunnel No. 3 is the newest part of the world-class system that supplies one billion gallons of high-quality drinking water to more than eight million New York City residents and millions of tourists and commuters. Today, we can all be proud that, like the generations before us, we are building the infrastructure necessary to support a growing city.

Spotlight on Safety

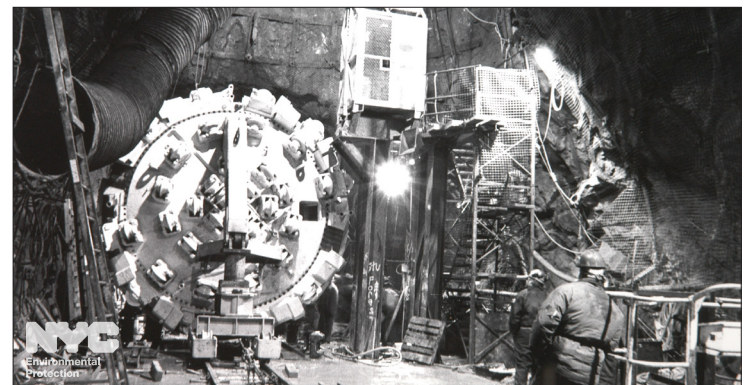
Emergency Planning

Emergencies such as fires, natural disasters, and chemical releases can create a variety of hazards and a high level of uncertainty. Preparation, therefore, is vital to ensuring that DEP workers know what to do, where to go, and how to stay safe when an emergency does occur. Part of this preparation includes training and evacuation drills—which help employees become familiar

with how to properly and safely evacuate during an emergency. DEP has also revised its Emergency Planning Policy, which provides criteria on planning for emergency situations including the establishment of response plans for some operations, the testing and maintenance of alarms, and how to account for personnel after an evacuation. For more information please see the revised [Emergency Planning Policy](#).

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. 



Focus on the Field



Josh Jones is finding that every broken pipe is an opportunity to save money. Jones, a Supervisor of Watershed Maintainers with the Bureau of Water Supply, has worked with DEP since 1997. He and a new team search for cracks, clogs, and other problems along the vast network of subterranean wastewater lines that New York City owns and operates in the up-state watersheds.

The pipes deliver wastewater from homes and businesses to five treatment plants and one community septic system—all owned by the City—that serve small towns across the Catskills. These wastewater facilities were built nearly two decades ago to help protect the quality of New York City's drinking water supply at its source, and to allow the City to continue to operate an unfiltered west of Hudson system.

Over that time, some of the lines have become clogged or broken, often allowing vast amounts of rainwater to enter the system. Known as inflow or infiltration, the additional volume of wastewater can stress the treatment plants or cause them to overflow. Jones and his crew are trying to pinpoint areas where rainwater is penetrating cracked or broken lines, which increases the City's costs

for chemicals, energy, and overtime to run the plants and treat the wastewater during large rainstorms. The number of problem areas has been surprising.

"We've gone out to do investigations for a week and found three weeks' worth of work," Jones said.

They are pinpointing these problem areas by using a variety of interesting techniques. In the small hamlet of Tannersville, for instance, Jones and his crew pumped smoke into the collection lines. Where pipes were cracked or broken, the smoke would rise like a warning sign.

"We had one area where the smoke began rising out of the middle of a big field," said Jones. "Apparently there used to be a house there and when they removed it they left the collection lines open ended." The team has also run video cameras through lines to locate any clogs or breaks. Each problem area is fixed once they find it, either by removing the blockage or excavating and replacing broken sections of pipe.

Jones estimates that he and his team have already traced 6 miles of the City-owned collection lines, and this work has already resulted in lower flow rates at the wastewater treatment plants.

International Diversity Day

With more than one-third of the population of New York City having been born outside of the United States, our neighbors and colleagues speak at least 200 different languages and represent more than 140 distinct national origins. DEP, with nearly 6,000 employees, represents the diversity of this great city and, in recognition of these strengths, recently celebrated International Diversity Day at Lefrak Headquarters as well as a number of offices in the watersheds. [Click here](#) to see photos of the celebrations.

Welcome Aboard



This morning, 11 new employees attended orientation and received an overview of the department from Chief Financial Officer **Steve Lawitts** and Deputy Director of Human Resources Management **Herb Roth**. We hope everyone will join us in welcoming them to DEP!

Naseruddin Chowdhury, Thomas Erdmann, and Jude St. Clair with BWSO; **Louis Csak** and **Adam Reaves** with BEDC; **Charles Kong** and **Brian Lauro** with OIT; **Rosa Perez** and **Marc Richardson** with Sustainability; **Andrew Payne** with BWS; and **Johnny T. Vasser Jr.** with Labor Relations.

Kudos Corner

Although it would be impossible to list the names of all the DEP employees who have contributed to the planning, design, construction, and activation of City Water Tunnel No. 3, the below are deserving of special recognition. Please join us in congratulating them for all of their hard work!

Bureau of Engineering, Design and Construction: Deputy Commissioner **Kathryn Mallon, Mike Borsykowsky, Mike Greenberg, Louis Huang, Glen Vogel, Ted Dowey, Walter Fitzpatrick, John Weiberg, Bob Gaffoglio, Burjor Kharivala, and Neal Bierman.**

Bureau of Water and Sewer Operations: Deputy Commissioner **Jim Roberts, Ed Coleman, Mike Farnan, Paul Donnellan, and Tasos Georgelis.**

Bureau of Water Supply: Deputy Commissioner **Paul Rush, Rafe Hurwitz, Steve Schindler, and Salome Freud.**

The Employee Store



The Employee Store is taking a quick break while we wait for new merchandise to arrive. We had an incredible first season and sold out of many popular items.

The Employee Store will reopen at the beginning of November—just in time for the holiday gifting season! There will be plenty of merchandise in all sizes, as well as some exciting new items for you and your family.

We will keep you posted via Pipeline, the Source, and posters around your facility. Thank you for a great first season. We'll see you soon!

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