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

WEEKLY PIPELINE

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Good Forestry Is at 'Root' of Clean Water

New York City owns approximately 120,000 acres of land throughout its 2,000-square mile watershed. Of this total, 65,000 acres were acquired for watershed protection as part of several Filtration Avoidance Determinations (FAD). Approximately 95,000 acres of this land are forested.

Forest cover in a watershed is beneficial because forests enhance natural filtration of precipitation by intercepting rainfall and increasing its infiltration into the ground. This reduces the potential for erosion and allows nutrients—such as nitrogen and phosphorous—that could otherwise pollute surface waters, to be absorbed by plants. Forests are more effective natural filters than other types of cover such as developed or open land. These benefits are maximized when

(Continued on reverse side)

Spotlight on Safety

Fall Protection

Each year, on average, between 150 and 200 workers are killed and more than 100,000 are injured as a result of falls at construction sites.

The OSHA standard for fall protection deals with both the human and equipment-related issues in protecting workers from fall hazards. Fall protection standards exist for general industry and, more importantly, construction.

Fall protection methods are as varied as the situations that warrant them. The construction standard sets a uniform threshold of six feet and employees must be protected from falling into holes, excavations, pits, areas with dangerous equipment, as well as falling from roof areas (both low slope and steep), other walking-working platforms, or through wall openings. One of the most common fall protection devices is a guardrail system. There are specific criteria for guardrails, including the height (42 inches), presence of a mid-rail and the capability to withstand a force of 200 pounds without deflecting. Other methods of fall protection include personal fall arrest systems (e.g. safety harness), safety nets, warning line systems or just something as simple as a hole cover! Especially in construction, it is important all working surfaces or platforms be designed and/or assessed to ensure they have structural integrity to safely support workers. DEP facilities and BEDC capital construction sites are audited and/or inspected regularly to ensure that proper fall protection measures are in place.

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

The season for budget and water rates is now upon us. Most of us at DEP consider 2011 a remarkable year because of a few key events: a massive water main break on Jerome Avenue, a four-alarm fire at the North River Wastewater Treatment Plant, and Hurricane Irene. All of these events tested our ability to handle a crisis. In many ways our ability to manage these events was equaled by our ability to do it without compromising our budget priorities now and in the future. That fact is something we, and our 836,000 customers who pay the bills, should be just as proud of.

Earlier today, I testified, along with Chief Financial Officer **Steven Lawitts,** Deputy Commissioner **Joe Singleton** and Assistant Commissioner for Budget **Joseph Murin,** before the New York City Council Committee on Environmental Protection, chaired by Council Member **James Gennaro,** concerning DEP's FY 2013 Preliminary Budget. The Preliminary Budget lays out our operational and capital priorities over the next four fiscal years.

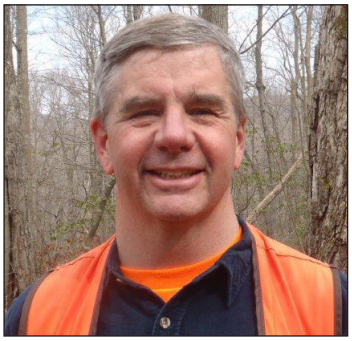
On the operational side, we are slightly reducing our expenses from $1.064 billion in FY12 to $1.02 billion in FY13. Of the total expense budget, the majority accounts for personnel services, including upcoming new needs to staff our Croton Water Filtration Plant, coming online in 2013, and Ultraviolet Disinfection Facility, starting up this year. Another $144 million, or 14% of operational costs, is used to pay taxes on upstate land. Though a considerable amount of money, it pales in comparison to what it would cost us to filter Catskill-Delaware if we did not actively purchase and protect land upstate from being over-developed. One final significant cost is energy, which accounts for roughly $103 million a year. This expense underscores our push for aggressive energy management, including replacing equipment with energy-efficient alternatives—a step taken in concert with PlaNYC's goal to reduce greenhouse gas emissions.

We have some great news on the capital side. In the past, the majority of our construction costs were dictated by federal mandates that came without funding. That trend has started to turn – in large part because of our continued advocacy. Over the next four years, 80% of our capital spending will be determined by DEP based on what we evaluate to be the needs of the system; in 2007 it was less than 11%. That is because construction at some of our largest mandates—Croton, UV plant and Newtown Creek WWTP—is winding down. Instead, our money is now being directed to what we consider our top priorities. Our single most important priority over the next decade is the Water for the Future program to ensure the integrity of our water supply. For it we have allocated $1.3 billion over the next four years. Similarly, we have set aside $324 million to fully activate the Manhattan leg of City Water Tunnel No. 3 next year. And not to be outdone, $645 million has been targeted to implement the NYC Green Infrastructure plan, including both modern green technologies and cost-effective grey ones to improve New York Harbor.

Though not as splashy as some of our larger-scale projects, the money we invest in upgrading and installing new water mains and sewer lines can often be the most consequential for local communities. Over the next four years we will invest $179 million for new sewers in Queens, $232 million for sewers in Staten Island, $58 million for upgraded water mains in the Bronx, and $73 million is for sewer and water main work in the Coney Island area. To read my full testimony, please click here.

Though we are still actively working on the final FY13 water rate proposal, I can say that we are aiming to continue our recent trend of bringing in water rate increases well below earlier projections. I will report back on our effort to minimize the impact on our customers next week.

Focus on the Field



Seven years ago when **Fred Gliesing** started working at DEP as a Senior Forester, he brought to the agency solid forestry and watershed management experience. His 27-year track record included stints in the federal, state, local, and private sectors and assignments in New York, Florida, Ohio, and Connecticut. As a forester, he sees his role as "an adaptable generalist, addressing technical needs of the forest while considering a host of other areas such as wetlands management, wildlife, threatened and endangered species and contract management."

Along with four other DEP foresters, Fred is responsible for forest management on almost 100,000 acres of forested water supply lands scattered over the 1,971 square mile watershed. "I like applying the art and science of forestry to an ever changing landscape while collaborating with other professionals," said Fred.

Collaboration with other natural resources professionals, both within DEP and other natural resource agencies like DEC and US Forest Service, is becoming more critical, especially around landscape level issues. Fred was involved in the coordination of more than 120 technical and administrative people from the US Forest Service and DEP in the design and implementation of the first complete forest inventory of all DEP forest lands and the development of the first comprehensive forest management plan. For him "it was great to see the collaboration develop and grow and for DEP to have a watershed forest management plan after decades of forest ownership by the city."

Fred was educated at Syracuse where he earned a degree at SUNY Environmental Science and Forestry. He has a life-long passion for the outdoors and enjoys spending quality time with his wife Sue and twin daughters Julie and Kelsey. He is a master swimmer, and during his spare time he also participates in open water racing; bicycling; kayaking; and hiking. He was also a proud member of the Syracuse Rowing team when it won its national title in 1978.

Word of the Week

Detention Time – The theoretical time required for a given flow of wastewater to pass through a tank.

Did You Know

…that age is not typically the sole cause of a water main break? Other factors could include freezing of pipes in severe cold weather, leakage from the pipe joints or pipe valves, or undermining due to many other causes such as potholes, vibrations due to heavy equipment in the vicinity of water pipes, or contractors damaging the pipe.

DEP staff take a sample of the failed pipe and study it both visually and under a microscope to ascertain the material such as gray cast iron, ductile iron or any other material. Failure location and visual examination of the pipe will reveal if the cause of failure was damage from any hard object, or pitting and corrosion in an isolated area or large portion of the pipe. Age alone is never a cause of failure; there must be other contributing reasons for the failure of the pipe such as corrosion, stress risers—wooden blocks, other pipes, electric or other utilities' cables, cement conduits, boulders or other underground objects.

One great piece of news is that water main breaks are at an all-time low—and are on a pace to be the lowest number of occurrences ever.

(Good Forestry Is at 'Root' of Clean Water… continued)

forests are managed to promote vigorous tree growth and diversity in composition. Responsible management of forests requires knowledge and careful planning. DEP's forestry unit's responsibilities include providing forestry project reviews for conservation easements, and providing project review and technical forestry support and advice for the bureau of water supply.

In partnership with the USDA Forest Service, DEP recently developed its first-ever Forest Management Plan to guide activities on city-owned watershed forest land. The plan assesses current conditions while also promoting diverse and vigorous growth to enhance water quality protection. It also incorporates a process for planning and implementing management actions, and standards for the protection of natural and human resources developed by DEP. The plan was finalized and delivered to the New York State Department of Health as a FAD deliverable in November 2011.

"The FMP now provides baseline data and recommendations for us to work towards the forest's desired condition, one which is optimal for long-term water quality protection," said Natural Resources Section Chief **Paul Lenz.** The plan was developed by the forestry unit under the direction of **Fred Gliesing,** with the assistance of foresters **Amanda Locke, Seth LaPierre, Todd Baldwin** and **Nathan Hart.** Many other staff within the Watershed Protection Programs also provided support.

In developing the plan, an inventory of all city-owned watershed forest land was conducted. Data was gathered about the types, numbers, sizes, ages and condition of the trees in the forest, and also about the impact of other factors, such as invasive species and deer, on the forest as a whole. Forest Service staff visited more than 9,100 sampling plots in the forest acreage. Analysis of the inventory showed that more than 60% of the forest is older and almost half is denser than is ideal for water quality protection. Approximately 42,000 acres—45% of the city's watershed forest—were identified as targets of action within the next decade. The goal of the plan is to perform forest improvement projects on approximately 1,000 acres per year to promote rapid tree growth.

To effectively implement the plan, DEP developed a strategy that incorporates staff and financial resource considerations, as well as agency and program priorities. It also takes into account on-the-ground realities (access, local ordinances, deer impacts, etc.). The strategy provides a two-year planning window and will be updated every two years to address changing conditions and priorities. Most actions will be conducted through competitively-bid timber sales designed and overseen by DEP foresters and supervisors that will improve forest conditions and also generate revenue. Through this plan, DEP can also support local economies by utilizing local labor and selling wood products, while acting on the recommendations in the Plan to improve the condition of the city's watershed forests.

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