



**Environmental  
Protection**

Michael R. Bloomberg, Mayor  
Carter H. Strickland, Jr., Commissioner

# STRATEGY 2011-2014



## 2013 PROGRESS REPORT





Dear Friends:

In 2011, DEP released *Strategy 2011-2014* to set a clear benchmark for becoming the safest, most efficient, cost-effective, and transparent water utility in the nation. We set forth 29 broad goals and 100 specific, achievable initiatives that emphasize our mission, core values, and commitment to safety in everything we do.

The 2013 Progress Report reflects DEP's dedication to delivering high-quality services to New Yorkers. The report includes an overview of our achievements of strategic planning and performance, customer service, worker safety, capital and operations, and sustainability and hold DEP accountable to our ratepayers and other stakeholders. Since 2011, we have fully achieved 85 of the 100 initiatives, partially achieved 11, initiated two, and deferred two.

I am proud to share some of the most notable accomplishments of the past year, during which we:

- Activated Stage 2 of City Water Tunnel No. 3 to provide critical redundancy to our water supply and facilitate the vital inspection and repair of City Tunnel No. 1;
- Enhanced our customer service by increasing online permitting opportunities for business, engineers, and contractors and enrolling 53,000 customers in paperless billing and 100,000 in our Service Line Protection program;
- Implemented a robust Environmental Health and Safety orientation program for contractors and established an agency-wide forum to encourage open, frequent discussion of safety and compliance concerns;
- Broke ground on the Rondout-West Branch Bypass Tunnel for the Water for the Future project, a \$1.7 billion program to repair the aging Delaware Aqueduct, and broke ground on a \$21.2 million project to connect the Catskill and Delaware aqueducts;
- Improved water quality by rehabilitating the 1.3 mile Gowanus Canal Flushing Tunnel to bring oxygen-rich water from New York Harbor and upgraded the Gowanus Canal Pumping Station;
- Expanded the Staten Island Bluebelt in South Richmond and into Queens and the Bronx; and
- Accelerated meaningful regulatory reform to incorporate sustainability principles into clean water regulations.

Thanks to the dedication of our nearly 6,000 employees, DEP has accomplished nearly all of the initiatives set forth in *Strategy 2011-2014*. We will soon be releasing *Strategy 2014-2017* to communicate DEP's top priorities in the coming years and to articulate an innovative vision for achieving our goal to be the best water utility in the nation.

Sincerely,

A handwritten signature in black ink that reads "Carter H. Strickland, Jr." The signature is written in a cursive, slightly slanted style.

Carter H. Strickland, Jr.  
Commissioner



# INTRODUCTION

In February 2011, DEP released *Strategy 2011-2014*, a far-reaching plan that set forth 29 goals and 100 initiatives to make DEP the safest, most efficient, cost-effective, and transparent water utility in the nation. Each of these initiatives directly supports DEP’s mission:

*To protect public health and the environment by supplying clean drinking water, collecting and treating wastewater, and reducing air, noise, and hazardous materials pollution.*

Thanks to the dedication of our nearly 6,000 employees, we have made considerable progress in each of our four areas of focus: customer service, worker safety, operations, and sustainability.

The 2013 Progress Report demonstrates our progress towards our stated goals over the past three years. DEP has fully achieved 85 of the 100 initiatives, partially achieved 11, initiated two, and deferred two.

DEP has been working with staff throughout the agency since April 2013 to develop another plan for the period from 2014 to 2017. As of December 2013, we have directly engaged more than 3,000 employees in more than 40 town hall meetings, and have reached out to more than 500 external stakeholders to solicit their input about the next iteration of the plan. DEP employees have generated a substantial number of ideas in those town hall sessions and through survey responses, internet and email media, and a formal Employee Suggestion Program. DEP has immediately implemented some of

the best suggestions, such as additional training on installing electrical equipment. The strategic planning staff has consolidated and distilled these suggestions into a working list of approximately 25 goals and 100 strategies for consideration and intends to publish the next iteration of the strategic plan in early 2014.

	2011	2012	2013
Achieved and Ongoing	11	54	81
Achieved	3	3	4
Partially Achieved	49	30	11
Initiated	36	13	2
Deferred	1	0	2

Initiatives are:

- Achieved and Ongoing if they have met the milestones set forth in Strategy 2011-2014 and DEP has incorporated the initiative into ongoing operations.
- Achieved if they have met the milestones set forth in Strategy 2011-2014.
- Partially Achieved if they have met significant milestones and are on track to be completed on schedule.
- Initiated if they are still in the early stages of development but are still on track to be completed.
- Deferred if they have been significantly delayed by choice or mandate, or they will be achieved through a different strategy.



# STRATEGIC PLANNING

In 2011, DEP launched Operational Excellence, or OpX, to help us become the best water utility in the nation and to reduce operating expenses by optimizing asset maintenance, changing contract specifications, and improving management of the wastewater treatment process. DEP has already implemented a number of changes identified through OpX, resulting in enhanced revenue and a sustained annual reduction in operational expenditures of more than \$33 million by the end of December 2013. We have also identified nearly \$15 million more in annual savings that when fully implemented will have a projected impact of nearly \$60 million in recurring annual savings.

In DEP's Bureau of Wastewater Treatment, operators were able to reduce the amount of water in the biosolids or cake produced during the treatment process and subsequently decrease the amount of waste or biosolids trucked offsite by an outside vendor. In addition, DEP was able to decrease trucking and hauling costs by optimizing the use of the lowest cost vendors. DEP also trained existing employees to perform duties formerly contracted to outside vendors, such as the marine floatables control program, sewer inspection and analysis in the watershed, and small-scale water and sewer



repair work performed with mini-excavators. Where possible, DEP has turned to existing resources and employees to perform a range of duties that might have otherwise been bid to the market, generating substantial savings for the agency.



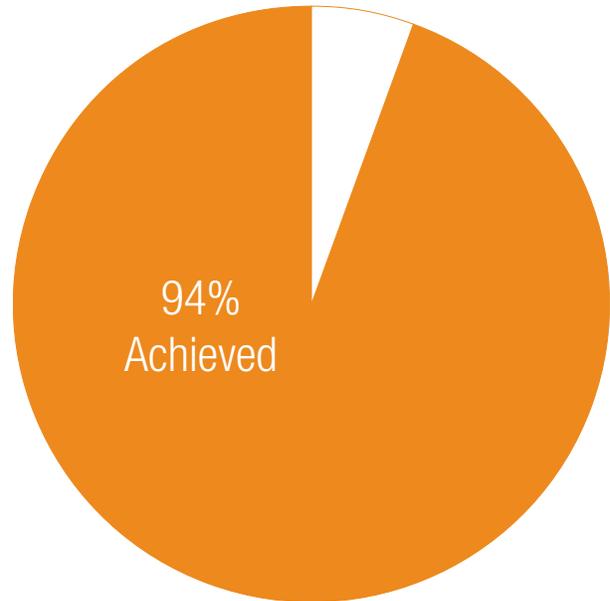
DEP employees collect floatable debris aboard the Shearwater as part of a new, in-house OpX program that will save DEP approximately \$500,000 in annual savings.

# CUSTOMER SERVICE

DEP is committed to providing transparent, high-quality, and efficient customer service to the 836,000 customers who pay for our services; the nine million people who use our water every day, including more than eight million residents of New York City and nearly one million people who live in Westchester, Putnam, Ulster and Orange counties; and the developers, engineers, construction companies, and plumbers that require DEP approvals and permits to sustain the city's growth.

In 2012, DEP substantially completed installation of Automatic Meter Reading (AMR) devices city-wide. The AMR devices are connected to individual water meters across the city and send water consumption data wirelessly to DEP four times a day. As a result of this \$220 million investment, DEP has significantly decreased the percentage of estimated bills, reduced billing disputes, and increased revenue collection. In addition, DEP has been able to offer several additional services to our customers based on data from the AMR devices, including online water consumption data.

In 2012, DEP launched the Automatic Leak Notification program that alerts customers when their water consumption substantially deviates from



their normal use. This program has saved customers more than \$40 million to date. In 2013, to shield homeowners from unexpected repair costs, DEP partnered with American Water Resources to offer our customers a Service Line Protection Program. There are more than 100,000 property owners enrolled to date and the program has already saved customers more than \$7 million in repair



At our Meter Test Facility, DEP employees carry out critical testing and upkeep to monitor the accuracy and coordinate necessary repairs of our water meters.

charges that would have otherwise been paid out of pocket.

Over the past three years, we have worked to ensure effective and fair revenue collection so that everyone pays their fair share for the water they consume. We have also launched new tools to make it easier to pay your bill, including the online “My DEP Account” application and paperless billing. More than 294,000 customers are enrolled in “My DEP Account” and more than 53,000 have signed up for paperless billing.

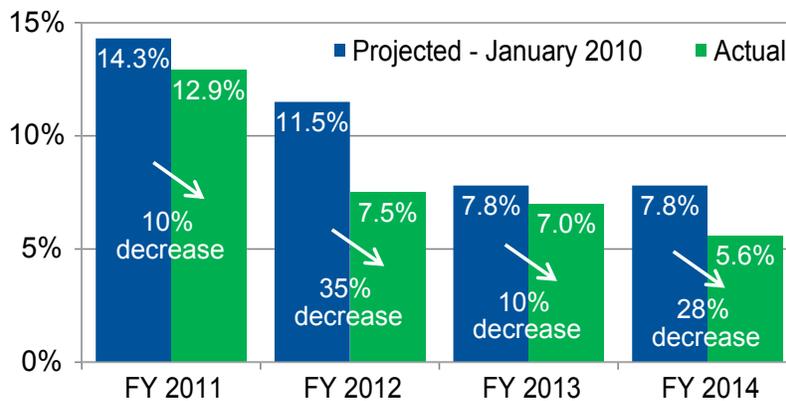
To encourage economic development, we have simplified and improved permitting processes across our operations. In 2011, we launched the online Water and Sewer Permitting System for plumbers and engineers. This system allows Licensed Master Plumbers to apply for and receive permit approvals without having to visit a DEP office, and has reduced wait times for some permits from a few days to a few hours. We have also collaborated with the Department of Buildings to streamline boiler conversion permits.

In 2012, we launched the Clean Air Tracking System to expedite boiler and equipment registrations and renewals, enable online payment of fees, and consolidate registration filings for building owners and property managers. New Yorkers can now register boilers and equipment online, saving paperwork and in-person visits to DEP offices while reducing the costs of complying with new boiler emissions standards and the New York City Air Code.

### 2013 Customer Service Highlights

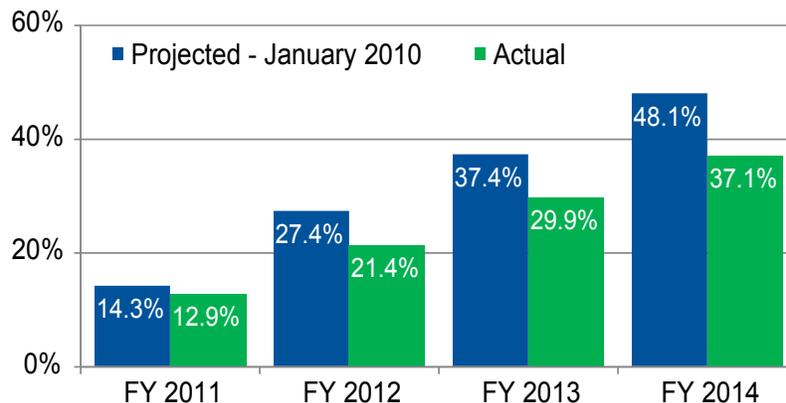
- Enrolled 53,000 customers in paperless billing and 100,000 in the Service Line Protection program
- Increased revenue collection with new collection tools
- Increased online permitting for businesses, engineers, and contractors
- Improved the air permitting database

Projected Annual and Cumulative Rate Increases, Fiscal Year 2011-2014



The top chart depicts projected and actual annual rate increases for fiscal years 2011 to 2014.

The bottom chart shows cumulative projected and actual rate increases over the same period. The cumulative projected rate increase over the four year period was 48.1%, while the cumulative actual rate increase was 37.1%. The cumulative actual rate increase was 22.9% less than the cumulative projected rate increase, as a result of rigorous operational management and financial planning.

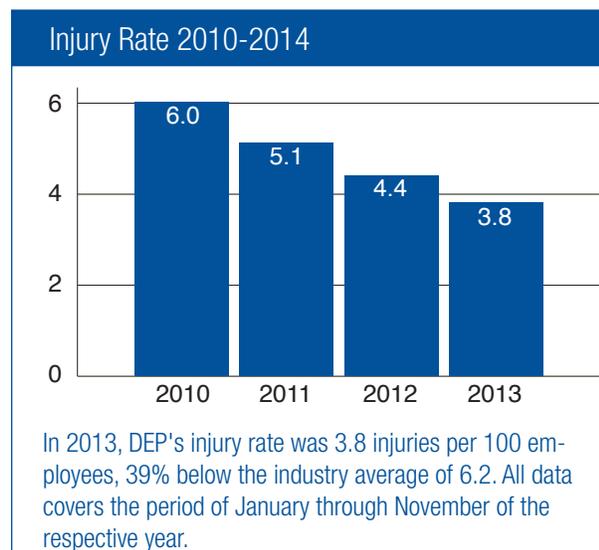


Over the four-year period, an average single-family homeowner would have paid \$3,810, given 2011 baseline water consumption and projected rate increase. The same homeowner actually paid \$3,622 over the same period, **a savings of \$188**. DEP will continue to pursue programs that keep rates low for property owners citywide.

# WORKER SAFETY

At DEP, safety is our first priority. It is imperative that our operations are safe for our nearly 6,000 employees, our contractors, and the nine million New Yorkers we serve. To meet that objective, we have implemented a robust Environmental Health and Safety (EHS) program that actively communicates safety risks, solicits feedback from our employees, and trains our workforce in the safest practices. Over the past three years, we have launched a series of EHS management systems to track our employees' training, including the Training Tracking and Reporting System. These types of management systems have allowed us to track EHS performance metrics and evaluate our compliance with regulations, provide risk assessments, and foster continuous safety improvements across the agency.

In 2013, we introduced a comprehensive contractor EHS orientation program, designed to provide in-depth training on environmental health and safety issues to contractors hired by DEP. Construction safety begins with clear safety contract requirements, and we have worked to make our contractors and subcontractors mindful of the potential risks and safety considerations that affect their performance. In October 2013, DEP coordinated a technical education series with presenters from the Department of Buildings to address a range of topics that included construction safety, elevators, boilers, scaffolding, and excavation.



We have also launched an EHS Forum to create a formal venue for all our employees to share their thoughts in open discussion.

To further promote safety in every aspect of our work, we have constructed a hands-on water and sewer operations training facility, complete with mock streets and live water mains, to teach our new employees how to safely and efficiently complete their tasks. In recognition of our efforts, DEP has won the American Water Works Association's Wendell LaDue Safety Award for Excellence twice in the past three years. The strength of DEP's EHS program and increased employee awareness has led to improved EHS audit performance, most notably in our operations.

## 2013 Worker Safety Highlights

- Launched contractor EHS orientation program
- Established agency-wide EHS forum to encourage open, frequent, and candid communication on EHS issues
- Awarded LaDue Safety Award for Excellence in 2012 and 2013
- Reduced injuries and illnesses by 51% since 2011

# OPERATIONS

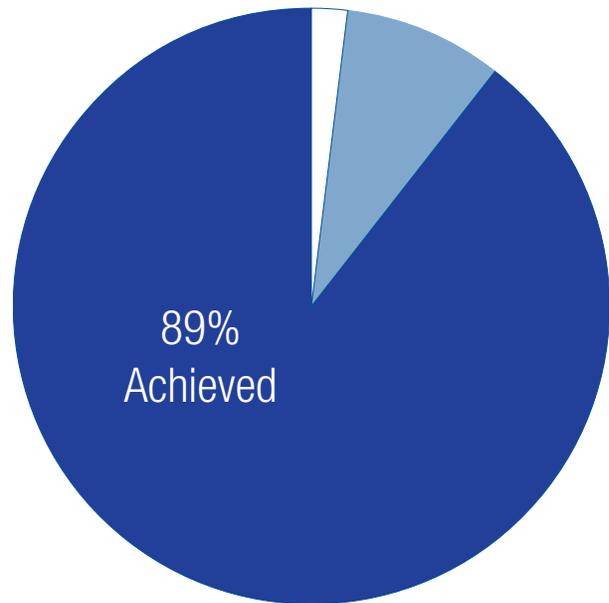
DEP manages a vast system comprised of 19 reservoirs, three controlled lakes, 368 miles of aqueducts and water tunnels, 6,600 miles of water mains, 7,500 miles of sewers, 965 water quality monitoring stations, 110,000 fire hydrants, 148,000 catch basins, and 14 in-city wastewater treatment plants.

DEP's ability to confront future operational challenges—both planned and unanticipated—is vital to the health, safety, and economic development of New York City and the upstate watersheds. Despite significant challenges to every aspect of our operations, including Hurricane Sandy, Tropical Storm Lee, a five-alarm fire at the North River Wastewater Treatment Plant, and the collapse of an 11-foot sewer 70 feet below ground, we have achieved many of the strategies set forth in *Strategy 2011-2014*.

## Water Supply

New York City's drinking water is impounded in three upstate systems – the Croton, Catskill, and Delaware –with a total storage capacity of approximately 580 billion gallons. Water from the Catskill and Delaware watersheds is unfiltered, under a Filtration Avoidance Determination (FAD) issued by the US Environmental Protection Agency (EPA) and a historic 1997 Memorandum of Understanding between New York City, New York State, EPA, and other stakeholders. Over the past three years, we have continued to strengthen our watershed protection programs to maintain the FAD.

In 2013, we commissioned the Catskill/Delaware Ultraviolet Disinfection Facility, where potentially harmful organisms are deactivated before the water is distributed. This \$1.2 billion facility is the largest of its kind in the world and ensures that New Yorkers continue to enjoy the highest quality drinking water in the nation. In 2013, DEP installed additional monitoring equipment at several dams to enhance our monitoring capacity during and after storms. Reconstruction of the Gilboa Dam and spillway is 80% complete and on track to finish in Fall 2014, two years ahead of schedule. DEP launched the reconstruction contract for New



Croton Dam in July 2013, and substantial completion is anticipated by January 2016 at a cost of \$13.5 million. The New Croton Dam is the last of the planned major dam reconstruction projects in the Croton Watershed.

At the core of our water source protection program is the belief that economic development can and must be compatible with water quality. DEP continues to work with our partners in the watershed to provide grants for responsible economic development initiatives and to help upstate communities recover from Hurricane Irene and Tropical Storm Lee. In 2008, DEP launched a pilot recreational boating program at Cannonsville Reservoir, which was subsequently expanded to the Pepacton, Neversink, and Schoharie reservoirs in 2012. DEP has expanded recreational access areas in the watershed, and approximately 115,000 acres are available for fishing, hiking, hunting, trapping, cross-country skiing, and other activities.

DEP is also committed to ensuring that activities in the watershed do not disturb the ability of natural ecosystems to filter and protect our drinking water supply. Hydrofracking, the process of capturing buried natural gas through the injection of large volumes of water, sand, and chemicals, can pose serious geological and chemical contamination

risks in the watershed. In November 2012, DEC released revised regulations for high-volume hydrofracking and DEP provided comments in January of this year. DEP has had several meetings and discussions with DEC and other stakeholders regarding DEP's position on hydrofracking and New York State's intended plan to issue revised rules and a final environmental review statement. We will regularly evaluate the strategic development of energy resources while protecting the welfare and public health of New Yorkers.

The long-term viability of New York City is founded upon a robust, secure, and cost-effective water supply. To safeguard our future, DEP has invested in fixing and maintaining our critical infrastructure and improving our operational efficiency with new technology. In 2011, DEP launched Water for the Future, a \$1.7 billion program to repair segments of the Delaware Aqueduct that are leaking between 15 and 35 million gallons per day. In 2013, DEP began construction on shafts in Wappinger and Newburgh in preparation for the construction of a bypass tunnel. This year, DEP also broke ground on a \$21.2 million project to connect the Catskill and Delaware aqueducts in Ulster County to provide greater flexibility in the operation of the system.

Meanwhile, in 2013 DEP began using an innovative, new computer system called the Operations Support Tool, which couples existing computer

models of reservoir operating rules and water quality with near real-time data, including stream flow, weather forecasts, water quality, and reservoir levels. The tool uses these data to forecast reservoir levels and water quality. These predictions allow water supply managers to draw the right amount of the highest quality water available based on the most current data and forecasts. The Operations Support Tool is the first of its kind in the world and will help ensure that New Yorkers have the most resilient water supply possible

## Water Distribution

From the city's northern border, drinking water is delivered to homes, schools, businesses, and fire hydrants through a complex distribution system. Over the past three years, DEP has completed several key infrastructure projects to improve the delivery of water to New Yorkers. In 2013, DEP activated the Manhattan leg of City Water Tunnel No. 3, one of the longest running public works projects in the city's history. This critical portion of our water infrastructure will deliver 350 million gallons per day to Lower Manhattan.

Since 2011, DEP has undertaken substantial water supply infrastructure upgrades in Atlantic Yards, Pelham Parkway, and Coney Island to support residential, commercial and industrial growth in those neighborhoods. DEP has also continued to



In 2013, DEP announced the completion of the Catskill/Delaware Ultraviolet Disinfection Facility, the largest such facility in the world.

build sewer and stormwater infrastructure to support economic growth, improve water quality in New York Harbor, and reduce flooding. DEP has an extensive capital plan to build sewers across the city. Since 2011, DEP has completed projects on the South Shore of Staten Island and southeast Queens. In 2012, DEP broke ground on the fourth phase of a comprehensive \$175 million upgrade of the sewer and water infrastructure in Springfield Gardens in southeast Queens.

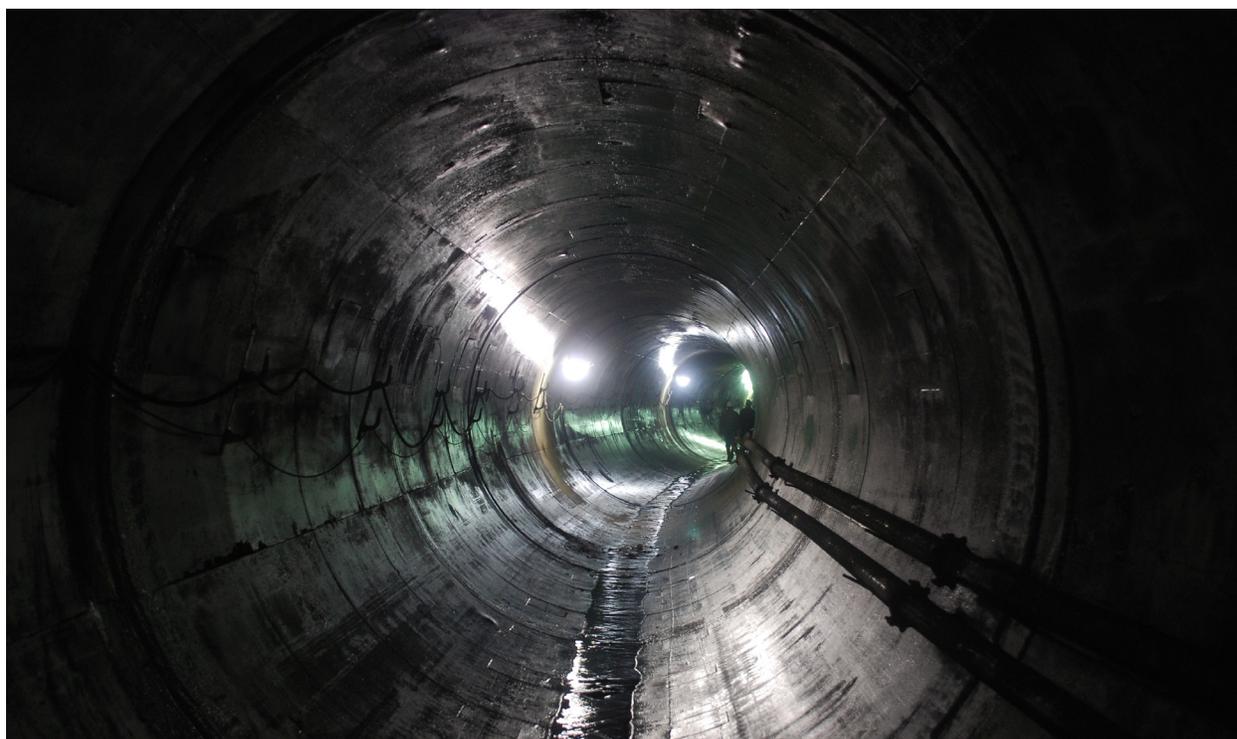
In 2011, DEP created a Valve and Regulator Repair Unit to enhance our preventive maintenance program for critical water distribution infrastructure. In 2013, we activated pressure regulators in parts of Staten Island that had not been regulated in the past. These measures have contributed to a 32% reduction in water main breaks citywide over the past five years. In addition, improvements in field crew productivity have reduced the average time to repair priority fire hydrants to 2.7 days in Fiscal Year 2013, a 40% reduction from the previous year.

To protect drinking water quality, DEP requires certain businesses to install backflow preventers, which keep contaminated water out of our distribution system. In 2011, DEP streamlined the

backflow prevention program to increase the pace and improve the quality of our inspections. Since 2011, we have completed more than 12,000 backflow prevention inspections.

DEP has launched a series of innovative programs to increase the efficiency of field crews and optimize the performance of the city's sewer system. We have leveraged targeted technical capabilities and focused maintenance efforts in areas of the city with the highest recurrences of backups and flooding. As a result, sewer backups have decreased 38% over the past five years. In Fiscal Year 2013, our field crews resolved sewer backup complaints in 4.4 hours, well below the seven-hour target resolution time.

Grease buildup in sewers causes more than 60% of all confirmed sewer backups citywide. DEP has worked with the Department of Buildings to update grease trap regulations in the Building Code and update the Plumbing Code to reflect sewer regulations. In addition, we have collaborated with the New York City Business Integrity Commission to ensure compliance with grease recycling regulations, and we launched a pilot program with the New York City Housing Authority to educate



In 2013, DEP activated the Manhattan leg of City Water Tunnel No. 3, one of the longest running civil works projects and the largest infrastructure project in the city's history.

residents about the need to recycle used cooking grease. In 2013, DEP launched a community-wide awareness campaign in Briarwood, Queens. As part of this program, outreach staff and volunteer groups conduct door-to-door outreach, handing out information about proper cooking grease disposal and plastic can covers that can be used to store used cooking grease for later disposal.

## Wastewater Treatment

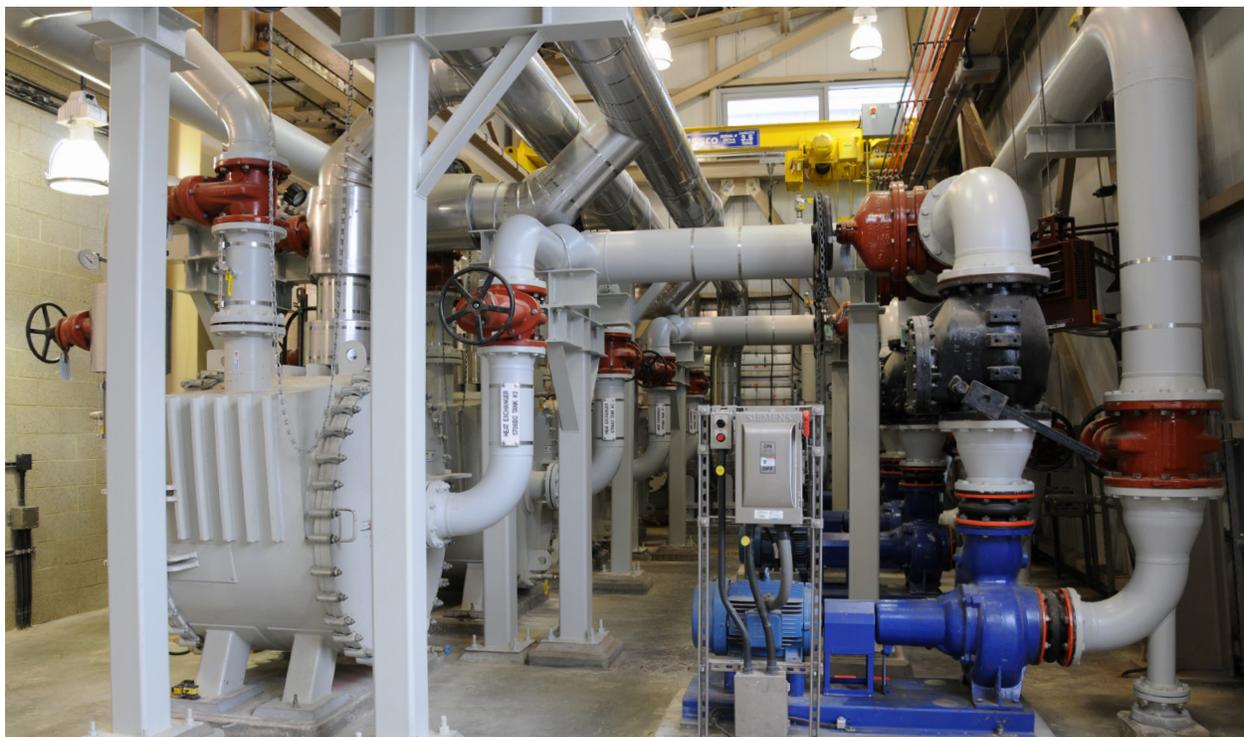
Every day, 1.3 billion gallons of wastewater from homes, schools, businesses, and catch basins flow into New York City's 7,500-mile sewer system and eventually to one of 14 wastewater treatment plants. Over the past decade, the City has invested more than \$10 billion to upgrade our wastewater treatment plants. In May 2011, DEP certified that the Newtown Creek Wastewater Treatment Plant, the city's largest plant, met Clean Water Act secondary treatment standards two years ahead of schedule as a result of a \$5 billion upgrade.

Due to the City's extensive investments in our wastewater treatment system, water quality in New York Harbor is the cleanest it has been in more than a century of testing. Since 2011, we have

continued to improve water quality in the harbor by inspecting and repairing all tide gates, inspecting and cleaning 138 miles of interceptor sewers, and installing inflatable dams to decrease the quantity of combined sewer overflows. To reduce the nitrogen content of the effluent, DEP completed construction of the Stable High Ammonia Removal Over Nitrite process at the Wards Island Wastewater Treatment Plant in September 2012 and has piloted Anammox process at 26th Ward Wastewater Treatment Plant.

To achieve both goals of better harbor water quality and the most cost-effective operations, DEP consulted with the New York State Department of Environmental Conservation to terminate the Ammonia Removal Process contract in favor of construction of a glycerol facility at the Jamaica Bay Wastewater Treatment Plant. This alternative will meet requirements of the Jamaica Bay Agreement and will remove 3,000 pounds of ammonia per day from the effluent discharged into Jamaica Bay.

To optimize the efficiency and reliability of wastewater treatment operations, DEP completed the installation of the Computerized Maintenance



DEP completed construction of the Stable High Ammonia Removal Over Nitrite process at the Wards Island Wastewater Treatment Plant in September 2012.

Management and Inventory Control System at all 14 wastewater treatment plants and all 96 pump stations in 2012 to keep a near real-time inventory of materials. This system includes wireless barcode scanners to track parts so that plant operators can locate common, shareable parts at any DEP location instead of ordering new stock. In addition, we installed the Citywide Collection Facilities Integrated Supervisory Controls and Data Acquisition System at 108 regulators, 96 pumping stations, influent gates at 14 wastewater treatment plants, five combined sewer overflow facilities, and at three in-line throttling gates to constantly monitor pump stations and other infrastructure.

## Capital

DEP has the largest capital budget of any municipal agency in New York City, and our Ten-Year Capital Plan includes \$12.4 billion in additional projects. To deliver quality projects on time and on budget we have implemented a series of strong capital project controls. In 2010, DEP created a Program Controls Division to expand project control systems and support project teams with enhanced schedule and budget management. We have developed in-house design and construction management teams to improve capital project delivery. In 2012, we expanded the Project Management Information System to include automated workflows for project initiation, scope changes, and project baseline approvals to enhance visibility of scope, cost, and schedule across the agency. To improve public transparency regarding DEP capital projects, we began publishing information on bid results, plan holders lists, and upcoming bids on our website. In 2013, we also launched [nyc.gov/waterforthefuture](http://nyc.gov/waterforthefuture) to provide all stakeholders with current information on Water for the Future's progress.

DEP's Asset Management Program ensures that the right capital investments are made at the right time and stores essential information on DEP's water supply and wastewater treatment facilities. To date, we have scored more than 28,000 vertical assets and have used that information to prioritize more than 400 repair and replacement projects. In 2012, DEP launched an asset database tool to track the age, condition, performance, and replacement cost of various assets.

In 2013, DEP released the *NYC Wastewater Resiliency Plan*, which evaluated the damage wrecked

by Hurricane Sandy and presented a comprehensive proposal for strengthening the resilience of our wastewater collection and treatment system. The study includes a thorough assessment of storm surge risks to 14 treatment plants and 58 pumping stations, and details cost-effective, protective measures within a portfolio of strategies to bolster vulnerable infrastructure. DEP has developed and incorporated new design criteria for resiliency into infrastructural planning with updated FEMA 100-year flood maps; projects that are currently in the design or construction process will be analyzed to identify all necessary upgrades. DEP also considers the 'triple-bottom line' of its facilities through a rating system called Envision, which was developed in collaboration with the Harvard Graduate School of Design and launched at DEP in March 2010. Through this rating system, DEP is able to assess the sustainability of its various assets and civil infrastructure and identify opportunities for improvement.

To become the owner of choice in the regional and national design and construction community, DEP worked with the Law Department to improve the standard construction contract language in early 2013. DEP has also continued to strengthen outreach to Minority- and Women-Owned Business.

Enterprises to encourage their participation in DEP projects. Since 2011, DEP has significantly increased the share of our businesses with these vendors. In Fiscal Year 2013, DEP purchased \$230 million worth of goods and services from minority- and women-owned businesses and more than 30% of our contracts were with minority- and women-owned businesses.

## 2013 Operations Highlights

- Commissioned the Catskill/Delaware Ultraviolet Light Disinfection Facility
- Broke ground on the shaft sites for Water for the Future, a plan to repair the Delaware Aqueduct
- Activated Stage 2 of City Water Tunnel No. 3

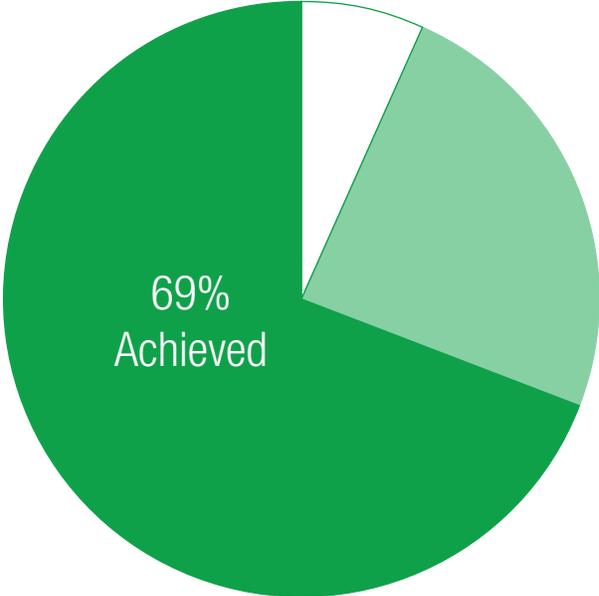
# SUSTAINABILITY

DEP promotes public health, economic development, and quality of life in New York City by developing sustainable environmental policies and enforcing regulations designed to reduce air, noise, and hazardous materials pollution.

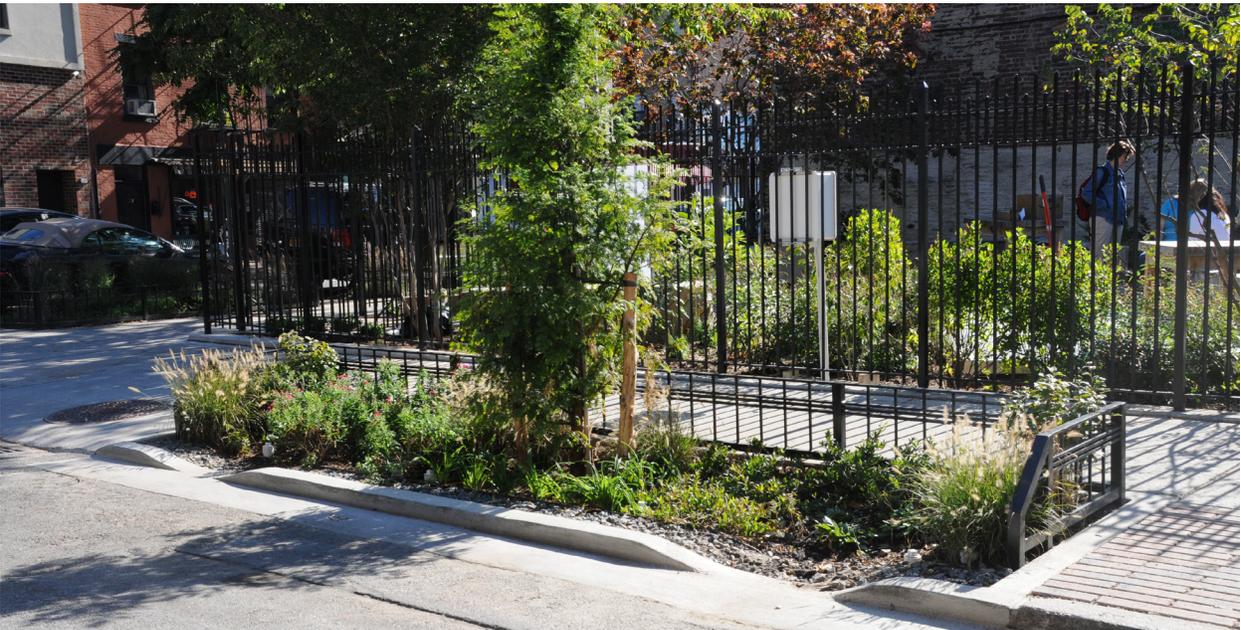
## Regulatory Relationships and Policy

Over the past three years, DEP has engaged state and federal regulators to incorporate sustainability principles into clean water regulations and initiatives. DEP has successfully achieved several regulatory reforms, including a deferral and reexamination of the rule that could require a \$1.6 billion concrete cap on Hillview Reservoir. DEP's study of demographics, incomes, and the cost of living in New York City has started a collaborative effort with the US Conference of Mayors to revisit EPA's Affordability Criteria, which could lead DEP to raise water rates to 4.5% of median household income.

On March 8, 2012, the New York State Department of Environmental Conservation (DEC) and DEP signed a groundbreaking agreement to reduce



combined sewer overflows (CSO) using both green and grey infrastructure. As part of this agreement, DEP will develop ten waterbody-specific Long-Term Control Plans and one citywide plan to reduce overflows and improve water quality in New York City's waterways. Also in 2012, DEP worked



Under the *NYC Green Infrastructure Plan*, DEP has built bioswales like this one in Brooklyn to collect and absorb stormwater as part of an increasing network of green infrastructure installations.



The Gil Hodges Community Garden was a beneficiary of DEP's Green Infrastructure Grant Program, to which DEP has allocated over \$11.5 million to support cost-effective and green stormwater control projects.

with our regulators to reduce the level of fluoride we add to drinking water and to permit the electronic delivery of consumer confidence reports.

DEP has continued to be an active advocate for regulatory reform, seeking to promote prioritization of investments based on sound science and cost/benefit calculations. We are working with our state and federal regulators, other New York State utilities, and groups such as the New York Water Environment Association to prioritize the most cost-effective and beneficial regulations that take into account local economic and environmental considerations.

Over the past year, we have commented on proposed Congressional cuts to the Clean Water and Drinking Water State Revolving Fund, developed a proposal for a new New York State Pure Water's Program, and submitted public comments on the US Environmental Protection Agency's (EPA) National Enforcement Initiatives for Fiscal Years 2014-2016.

Another promising development is EPA's new Integrated Planning Framework, a policy that would allow communities to prioritize clean water investment and defer investments that have less of an impact on water quality. With industry and trade association partners, DEP is undertaking research

into the cost-effectiveness of our watershed protection programs, and has been meeting with EPA and DEC to develop an integrated plan to achieve our various Clean Water Act obligations.

## Harbor Water Quality

In September 2010, the City released the *NYC Green Infrastructure Plan*, which presents an alternative and innovative approach to improving water quality and managing urban stormwater runoff. The plan integrates "green infrastructure," such as rain gardens and green roofs, with investments to optimize the existing system and build targeted, cost-effective "grey" or infrastructure. Since its release, we have constructed more than 175 green infrastructure installations in the public right-of-way that absorb approximately 29 million gallons of stormwater per year. We have also initiated area-wide green infrastructure design contracts in 17 priority CSO tributary areas, and awarded construction contracts in three priority CSO tributary areas.

In 2011, DEP launched the Green Infrastructure Grant Program to support the development of community-based green infrastructure projects around the city. We have since committed \$11.5 million to 29 projects across the city, including a rooftop farm at Brooklyn Navy Yard and a rain garden at the New



New York Harbor is the cleanest it has been in more than a century of testing, and more New Yorkers now can kayak through our waterways than ever before.

York Restoration Project's Gil Hodges Community Garden. In 2012, DEP adopted standards that require new and significantly redeveloped properties to include additional stormwater management in building and site designs.

Natural systems such as wetlands and ponds can also reduce pollution while providing recreational opportunities and benefits to habitat and climate adaptation. Since 2011, DEP has worked with the US Army Corps of Engineers to restore 76 eroded acres of salt marshes in Jamaica Bay. In addition, we have piloted programs that have successfully increased oyster and ribbed mussel populations in the bay.

DEP has also expanded the Bluebelt program in Staten Island and into Queens and the Bronx. Comprised of streams, ponds, and other wetland areas, the Bluebelt preserves the ability of wetland systems to convey, store, and filter stormwater before it reaches the harbor, thus saving tens of millions of dollars in infrastructure costs over conventional storm sewers while providing comparable results. In 2013, DEP further developed the Springfield Gardens Bluebelt in southeast Queens and completed a critical milestone for the Mid-Island Bluebelt by completing the Final Generic Environmental Impact Statement.

## Energy

DEP is the third largest municipal consumer of energy and the second largest greenhouse gas emitter. Even as federal mandates have required the construction of new water and sewer infrastructure that have increased our annual energy consumption, DEP has been implementing innovative strategies to achieve the GHG emissions reductions set forth in PlaNYC.

In 2010, we predicted that energy consumption would increase 53% by 2014 as we brought our newest facilities online. DEP will continue to implement energy efficiency measures and demand-side management practices, such as optimizing the operation of blowers at wastewater treatment plants to reduce our energy use. Our latest projections indicate that the increase in consumption is now 27%, nearly half the projection from 2010.

Over the past three years, we have also facilitated the introduction of new natural gas transmission projects to New York City. In May 2012, the Federal Energy Regulatory Commission approved the Spectra Energy bid to move forward with construction of a natural gas pipeline from New Jersey to the West Side of Manhattan. New York City also gave the Williams project in Brooklyn a declaration of no negative environmental consequences. The

project received congressional approval and President Obama signed HR 2606 – the New York City Natural Gas Supply Enhancement Act on November 27, 2012.

In addition, DEP continues to explore and invest in cost-effective clean energy projects. In 2013, the City installed solar panels on the rooftop of the Port Richmond Wastewater Treatment Plant. Once completed, this project will rank as one of the largest rooftop solar installations in New York City and provide 1.2 MW of renewable power to the plant. We have also worked with the Federal Energy Regulatory Commission to secure a license to allow DEP to begin design and construction of a 14 MW hydroelectric system at the Cannonsville Reservoir.

### [Air, Noise, and Hazardous Materials](#)

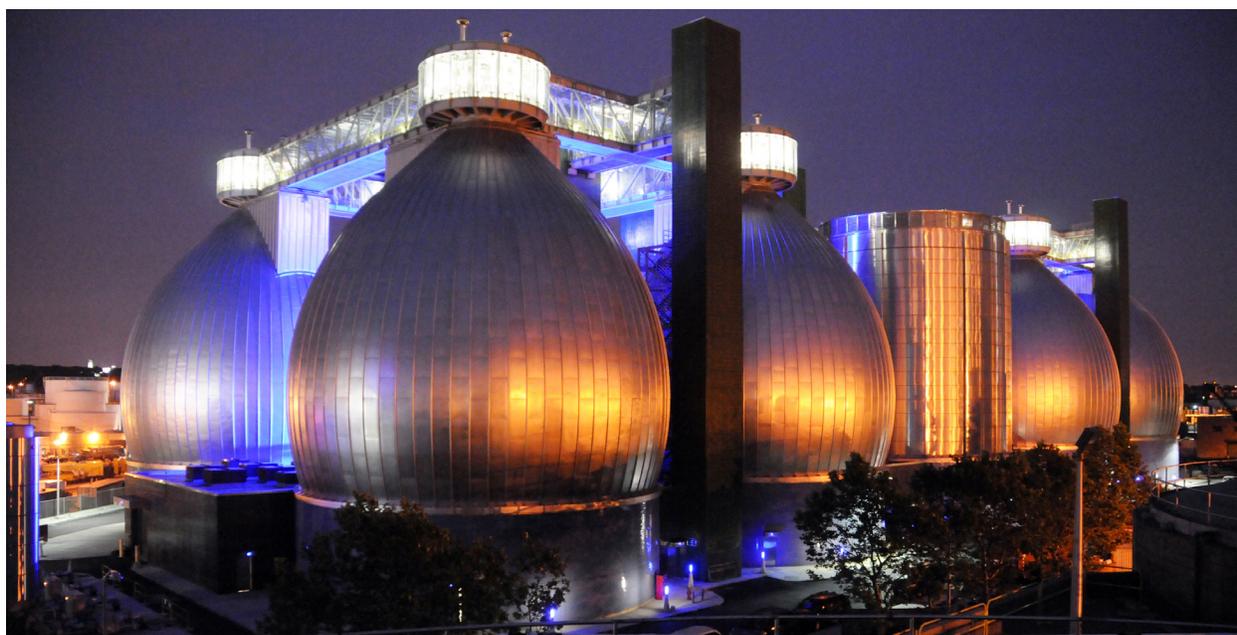
In addition to supplying drinking water and collecting wastewater, DEP is responsible for reducing air, noise, and hazardous materials pollution. Since the launch of PlaNYC, air quality in New York City has greatly improved, in part due to a number of policies and programs that DEP has implemented. Today, New York's air quality is the cleanest it has been in more than 50 years. This dramatic reduction in pollution has prevented 800 deaths, and 2000 emergency room visits and hospitalizations

from heart and lung diseases each year compared to 2008.

Decreases in sulfur dioxide and soot pollution can be largely attributed to the phasing out of heavy heating oils, as Numbers 4 and 6 heating oil emit dangerous pollutants such as PM 2.5, sulfur dioxide, and nickel. Effective July 1, 2012, all boilers using No. 6 fuel oil are required to switch to low sulfur No. 4 heating oil or an equivalent cleaner fuel upon their expiration date. By 2030, this rule will result in a reduction of approximately 740 tons of total PM 2.5 emissions from No. 4 and No. 6 heating oil once these units have moved to at least No. 2 fuel oil emission standards.

In 2012, DEP also launched enhancements to the Clean Air Tracking System to expedite boiler and equipment registrations and renewals, enable online payment of fees, and consolidate registration filings for building owners and property managers.

DEP's outreach and educational initiatives on air quality have actively engaged both community and New York City agency partners. Over the past three years, DEP has conducted no-idling outreach at schools across the city to warn parents and bus drivers about the dangers of emissions from idling vehicles. We have also worked with the New York



In 2013, DEP announced a partnership with National Grid to purify anaerobic digester gas from Newtown Creek Wastewater Treatment Plant and inject it into the natural gas grid, which will allow the plant to beneficially use 100% of the gas it produces.

City Department of Health and Mental Hygiene to expand and refine local air emission inventories.

Since 2011, DEP has worked with EPA, DEC, and other stakeholders to improve water quality at the Superfund sites Newtown Creek and Gowanus Canal in a scientifically sound manner. In the Gowanus Canal, DEP completed a rehabilitation of the 1.3 mile Gowanus Canal Flushing Tunnel in 2013, which brings oxygenated water from New York Harbor to the head of the canal. Though DEP disagrees that combined sewer overflows are a significant contributor to hazardous substances targeted in the Superfund remediation, the influx of oxygenated water will go a long way toward improving water quality in the Canal.

Over the past three years, DEP has completed a number of initiatives to ensure the proper management of hazardous materials, including asbestos. In 2011, DEP developed an iPad interface to streamline complaint response and notification inspections, and equipped all asbestos enforcement staff with iPads in the field. In 2011, this project was named Best Wireless Project by the New York City Department of Information Technology and Telecommunications at their annual Excellence in Technology Awards. That same year, DEP also implemented a new hazardous materials

inspection system, which has streamlined the online filing process and made it significantly easier for businesses to complete their annual filings.

### 2013 Sustainability Highlights

- Implemented the *NYC Green Infrastructure Plan*
- Expanded the Staten Island Bluebelt
- Implemented energy conservation measures at wastewater treatment plants, such as optimizing the operation of blowers to reduce energy use
- Accelerated meaningful regulatory reform



In December 2013, DEP completed a rehabilitation of the 1.3 mile Gowanus Canal Flushing Tunnel, which brings oxygenated water from New York Harbor to the head of the canal.

# SUMMARY OF STRATEGIES

## STRATEGIC PLANNING AND PERFORMANCE

Strategy	2011 Progress	2012 Progress	2013 Progress
1 Launch H2OStat to ensure the efficient and cost-effective operation of the water system and the entire agency	◆◆◆+	◆◆◆+	◆◆◆+
2 Innovate and implement best practices through active engagement with our partner water utilities and stakeholder organizations around the country and the world	◆◇◇	◆◆◆+	◆◆◆+

## CUSTOMER SERVICE

Strategy	2011 Progress	2012 Progress	2013 Progress
<b>Goal: Provide the highest service to nine million New Yorkers, including our 836,000 bill-paying customers.</b>			
3 Substantially complete the installation of Automated Meter Reading (AMR) devices citywide by January 2012 and continue to improve the online AMR tool	◆◆◇	◆◆◆	◆◆◆
4 Develop a leak detection system for customers who want to know when their water use deviates from normal consumption patterns	◆◆◆+	◆◆◆+	◆◆◆+
5 Reduce call response time to 30 seconds or less	◆◆◇	◆◇◇	◆◆◆+
6 Continue and expand programs for customers in financial distress	◆◇◇	◆◆◆+	◆◆◆+
7 Offer customers a service line protection plan	◆◆◇	◆◆◆+	◆◆◆+
8 Promote NYC Water by building partnerships with community organizations, businesses, and other city agencies	◆◇◇	◆◆◆+	◆◆◆+
<b>Goal: Ensure effective and fair revenue collection.</b>			
9 Replace the DEP customer information data system and convert to monthly account billing	◆◆◇	◆◆◇	◇◇◇
10 Converting customers to paperless billing and specific online payment methods	◆◇◇	◆◆◇	◆◆◆+
11 Increase revenue collection with new collection tools and by targeting specific customer segments	◆◆◇	◆◆◇	◆◆◆+
12 Renew and expand DEP's lien sale authority	◆◆◆+	◆◆◆+	◆◆◆+
13 Replace approximately 30,000 large meters on industry-recommended cycles over the next 10 years	◆◇◇	◆◇◇	◆◆◆+
14 Evaluate new water rate structures	◆◇◇	◆◆◇	◆◆◆+
<b>Goal: Encourage economic development by simplifying and improving permitting processes.</b>			
15 Increase online permitting for businesses, engineers, and contractors	◆◆◇	◆◆◇	◆◆◆+
16 Consolidate permitting functions to simplify customer interactions with DEP	◆◇◇	◆◆◆+	◆◆◆+

◇◇◇ Deferred    ◆◇◇ Initiated    ◆◆◇ Partially Achieved    ◆◆◆ Achieved    ◆◆◆+ Achieved and Ongoing

17	Update and improve DEP's air permitting database	◆◆◆	◆◆◆	◆◆◆+
18	Publish an annual regulatory agenda	◆◆◆+	◆◆◆+	◆◆◆+
19	Publish regulatory guidance manuals	◆◆◆	◆◆◆+	◆◆◆+
20	Simplify the reporting process for businesses and other entities that are required to report their hazardous substances to DEP	◆◆◆	◆◆◆+	◆◆◆+

## WORKER SAFETY, PUBLIC HEALTH, AND ENVIRONMENTAL PROTECTION

Strategy	2011 Progress	2012 Progress	2013 Progress	
21	Measure EHS performance and demand success	◆◆◆	◆◆◆+	◆◆◆+
22	Integrate EHS compliance into every aspect of DEP operations and construction	◆◆◆	◆◆◆+	◆◆◆+
23	Ensure effective EHS training and education for all employees	◆◆◆	◆◆◆	◆◆◆+
24	Encourage open, frequent, and candid communication about EHS issues	◆◆◆	◆◆◆+	◆◆◆+

## OPERATIONS

### Water Supply

Strategy	2011 Progress	2012 Progress	2013 Progress	
<b>Goal: Supply high-quality drinking water.</b>				
25	Maintain the city's Filtration Avoidance Determination (FAD)	◆◆◆	◆◆◆+	◆◆◆+
26	Purchase watershed lands that protect water quality	◆◆◆	◆◆◆+	◆◆◆+
27	Complete and operate the Catskill/Delaware Ultraviolet (UV) Disinfection Facility to comply with the federal mandate for secondary disinfection of the Catskill and Delaware water supplies	◆◆◆	◆◆◆+	◆◆◆+
28	Complete and operate the Croton Water Filtration Plant by 2013	◆◆◆	◆◆◆	◆◆◆
<b>Goal: Protect New York City's Watershed</b>				
29	Protect the water supply from hydrofracking for natural gas in the New York City watershed	◆◆◆	◆◆◆	◆◆◆+
30	Support economic development compatible with watershed protection	◆◆◆+	◆◆◆+	◆◆◆+
31	Expand recreational opportunities in the city's watershed	◆◆◆+	◆◆◆+	◆◆◆+
<b>Maintain robust, secure, and cost-effective water supply infrastructure and improve operational efficiency with new technology.</b>				
32	Develop and implement a plan to repair the Delaware Aqueduct	◆◆◆	◆◆◆	◆◆◆+
33	Pressurize the Catskill Aqueduct	◆◆◆	◆◆◆	◆◆◆
34	Connect the Delaware and Catskill aqueducts	◆◆◆	◆◆◆	◆◆◆
35	Develop cost-effective groundwater and other supplemental water supply alternatives	◆◆◆	◆◆◆	◆◆◆+

◆◆◆ Deferred   ◆◆◆ Initiated   ◆◆◆ Partially Achieved   ◆◆◆ Achieved   ◆◆◆+ Achieved and Ongoing

36	Operate and maintain DEP's network of dams	◆◆◆◇	◆◆◆◇	◆◆◆◆+
37	Optimize water delivery by integrating next-generation forecasting models into daily operations	◆◆◆◇	◆◆◆◆+	◆◆◆◆+
38	Continue to protect the NYC watershed and water infrastructure	◆◆◆◇	◆◆◆◆+	◆◆◆◆+

## Water Distribution

Strategy	2011 Progress	2012 Progress	2013 Progress
<b>Goal: Complete key infrastructure projects to improve delivery of water to New Yorkers.</b>			
39	Activate Stage 2 of City Water Tunnel No. 3	◆◆◆◇	◆◆◆◆+
40	Build the Staten Island Siphon	◆◆◆◇	◆◆◆◆
41	Build out and replace critical water supply infrastructure to support residential, commercial, and industrial growth throughout the City	◆◆◆◇	◆◆◆◆+
<b>Goal: Build out sewer and stormwater infrastructure to improve water quality in New York Harbor, reduce flooding, and support economic growth.</b>			
42	Build out and upgrade the sewer network in southeast Queens, Staten Island, and other neighborhoods that need additional capacity	◆◆◆◇	◆◆◆◆+
43	Complete a comprehensive drainage investment strategy for the city	◆◆◆◇	◆◆◆◆
<b>Goal: Increase the efficiency of field crews to optimize the maintenance and performance of the water and sewer networks.</b>			
44	Decrease water main breaks and sewer backups and improve response time	◆◆◆◇	◆◆◆◆+
45	Expand catch basin cleanings and rehabilitation to prevent flooding and protect water quality	◆◆◆◇	◆◆◆◆+
46	Expand the preventive maintenance program of critical water infrastructure	◆◆◆◆+	◆◆◆◆+
47	Improve hydrant repair response time	◆◆◆◇	◆◆◆◆+
48	Increase field crew productivity to increase maintenance and improve system performance	◆◆◆◇	◆◆◆◆+
<b>Goal: Protect public health and water and sewer infrastructure by promoting and enforcing the installation of backflow preventers, grease traps, and other critical equipment.</b>			
49	Increase backflow prevention inspections	◆◆◆◇	◆◆◆◆+
50	Update grease trap regulations, increase inspections, and educate the business and development communities about compliance	◆◆◆◇	◆◆◆◆+
51	Promote and incentivize yellow grease recycling for use as a biodiesel fuel	◆◆◆◇	◆◆◆◆+

## Wastewater Treatment

Strategy	2011 Progress	2012 Progress	2013 Progress
<b>Goal: Certify compliance with Clean Water Act standards for secondary wastewater treatment.</b>			
52	Certify that the Newtown Creek Wastewater Treatment Plant meets secondary treatment standards by June 2011	◆◆◆◆	◆◆◆◆

◆◆◆◇ Deferred    ◆◆◆◇ Initiated    ◆◆◆◇ Partially Achieved    ◆◆◆◆ Achieved    ◆◆◆◆+ Achieved and Ongoing

53	Complete \$2.6 billion in upgrades underway at six wastewater treatment plants			
<b>Goal: Continue to improve water quality in New York Harbor to facilitate new development and increased waterfront access for all New Yorkers.</b>				
54	Implement the NYC Green Infrastructure Plan			
55	Activate the SHARON and ARP treatment technologies to remove oxygen-depleting nitrogen from wastewater			
<b>Goal: Optimize the efficiency and reliability of wastewater treatment operations.</b>				
56	Pilot contracting competition between city workers and private contractors			
57	Improve inventory management and planning			
58	Use new technology to constantly monitor pump stations and other infrastructure and reduce staff inspections			
<b>Goal: Evaluate the economic, ecological, and social effects of DEP's capital investments and wastewater treatment operations.</b>				
59	Develop and implement a long-term citywide sludge management program			
60	Expand and strengthen DEP community partnerships throughout the five boroughs			

## Capital

Strategy	2011 Progress	2012 Progress	2013 Progress
<b>Goal: Implement strong capital project controls to deliver projects on time and on budget.</b>			
61	Implement new project controls business processes		
62	Create a Project Controls Division		
63	Create a New Capital Management Information System		
64	Provide public transparency into DEP capital projects		
<b>Goal: Achieve \$100 million in savings through value engineering and by deferring projects.</b>			
65	Implement an Asset Management Program to make the right decisions at the right time		
66	Develop a 10-year capital plan that prioritizes funding for critical assets and minimizes the need for future water rate increases		
<b>Goal: Strengthen technical expertise in design and construction management.</b>			
67	Enhance expertise through reduced dependency on consultant support		
68	Recruit top engineering talent to pave the way for future success		
69	Implement a workforce development program		
<b>Goal: Become the owner of choice in the regional and national design and construction community.</b>			
70	Improve DEP's standard construction contract language and processes		
71	Strengthen outreach to design and construction industry partners and expand minority- and women-owned business participation		

Deferred  
 Initiated  
 Partially Achieved  
 Achieved  
 Achieved and Ongoing

## SUSTAINABILITY

### Regulatory Relationships and Policy

Strategy		2011 Progress	2012 Progress	2013 Progress
<b>Goal: Enlist stakeholders to development investment priorities and help secure funding for water and wastewater infrastructure.</b>				
72	Form a clean water and clean air partnership with civic groups, customers, regulators, and other stakeholders			
73	Advocate for federal funding for water and wastewater infrastructure			
<b>Goal: Engage state and federal regulators in proactive regulatory review and reform to incorporate sustainability principles into clean water regulations and initiatives.</b>				
74	Accelerate meaningful regulatory reform			
75	Advocate for flexible new state and federal regulations that accommodate local conditions			
76	Seek affordability criteria that make sense for urban areas			
77	Press for state and federal adoption of a watershed management approach to environmental compliance			
78	Develop adaptable risk-based criteria to guide dissolved oxygen and pathogen compliance based on best use designations within the framework of the Long Term Control Plans and other water quality improvement programs			

### Harbor Water Quality

Strategy		2011 Progress	2012 Progress	2013 Progress
<b>Goal: Maximize the use of green infrastructure and other source controls to improve water quality.</b>				
79	Reduce runoff from new and existing development by capturing one inch of rainfall on 10% of the impervious areas in CSO watersheds over the next 20 years			
80	Expand the number of water-quality parameters and testing sites in the New York Harbor Survey			
81	Measure CSO volumes			
<b>Goal: Restore natural systems that can reduce pollution while providing recreational, habitat, and climate adaptation benefits,</b>				
82	Restore wetlands habitat in and around Jamaica Bay			
83	Expand the Staten Island Bluebelt			

### Energy

Strategy		2011 Progress	2012 Progress	2013 Progress
<b>Goal: Reduce DEP's carbon footprint.</b>				
84	Implement strategy to reduce DEP GHG emissions by 30% from 2006 levels to meet PlaNYC goals			

Deferred  
 Initiated  
 Partially Achieved  
 Achieved  
 Achieved and Ongoing

<b>Goal: Reduce electricity demand.</b>				
85	Ensure the reliability of our power supply			
86	Implement aggressive demand-side management practices to mitigate projected 53% increase in electricity demand over the next five years			
87	Facilitate new gas transmission projects into NYC to lower gas and power prices, increase the reliability of power and gas supply, and decrease fuel oil consumption			
<b>Goal: Explore and invest in cost-effective clean energy projects.</b>				
88	Develop 30-50 megawatts of clean energy supply at DEP facilities to ensure the reliability of our core operations and to reduce the net consumption, energy costs, and emissions across the agency.			
89	Work with regulators to promote competitive energy markets and efficient and fair energy incentives for NYC			

### Hazardous Materials

Strategy	2011 Progress	2012 Progress	2013 Progress	
<b>Goal: Prevent public and ecosystem exposure to contaminated sediments and soils, return water to providing ecological services, and reuse clean soils and sediments.</b>				
90	Continue to work with EPA to clean up Superfund-designated sites			
91	Secure the repeal of GASB Standard 49			
92	Promote beneficial use determinations (BUDs)			
<b>Goal: Ensure proper management of hazardous materials.</b>				
93	Continue to meet all of the requirements of the Construction, Demolition, and Abatement (CDA) laws and improve asbestos compliance			
94	Improve and refine hazardous material management systems			
95	Improve responses to emergencies			

### Air and Noise Pollution

Strategy	2011 Progress	2012 Progress	2013 Progress	
<b>Goal: Improve air quality and public health in New York City by controlling local sources of air pollution.</b>				
96	Reduce air emissions from idling			
97	Reduce local air emissions from the use of residual heating oil			
98	Update the New York City Air Code for the first time since 1970			
99	Expand and refine local air emission inventories with DOHMH and relevant stakeholders			
<b>Goal: Reduce noise by targeted enforcement and code changes.</b>				
100	Enhance the 2005 Noise Code			

\* This strategy was listed as partially achieved in 2011. After review, DEP has recategorized our progress as initiated.

\*\* This strategy was listed as achieved in 2011 and 2012. After review, DEP has recategorized our progress as deferred.

Deferred   Initiated   Partially Achieved   Achieved   Achieved and Ongoing

# STRATEGIES IN PROGRESS

Strategy		2013 Status	Progress to Date
9	Replace the DEP customer information data system and convert to monthly account billing	Deferred	DEP partnered with IBM to improve the financial reporting capabilities and address material defects of the department's customer information system. In October 2013, IBM's contract with DEP ended, and DEP obtained the code that had been developed by IBM. DEP is evaluating which components of IBM's work can be used and what level of additional work is required to achieve the project's goals.
28	Complete and operate the Croton Water Filtration Plant by 2013	Partially Achieved	DEP will complete and begin operating the plant in 2014.
33	Pressurize the Catskill Aqueduct	Partially Achieved	In 2013, DEP analyzed various options to pressurize the aqueduct, including no action, baseline pressurization, enhanced pressurization, construction of pump stations, and new tunnel construction.
34	Connect the Delaware and Catskill aqueducts	Partially Achieved	In 2013, DEP broke ground on the Shaft 4 connection of the Delaware and Catskill Aqueducts and expects to complete construction in 2016.
40	Build the Staten Island Siphon	Partially Achieved	In 2012, in partnership with the Port Authority of New York and New Jersey and the New York City Economic Development Corporation, DEP launched tunneling operations for construction of the Staten Island Siphon. During Hurricane Sandy, the Staten Island shaft site was inundated with water and the tunnel boring machine was damaged, delaying the project for approximately one year. DEP expects to complete construction of the siphon in 2015.
43	Complete a comprehensive drainage investment strategy for the city	Partially Achieved	In 2011, DEP finalized drainage plans for the Mid-Island Bluebelt on Staten Island and completed an amended drainage plan for the rezoned area of Jamaica, Queens. In 2012, DEP formed a dedicated modeling group to quickly analyze drainage issues and evaluate alternatives, leading to faster solutions. In addition, DEP expanded drainage plan development capabilities through the addition of dedicated contract resources. We will continue to complete new drainage plans to support economic growth and development and to identify and implement innovative solutions for parts of the city that experience flooding.
72	Form a clean water and clean air partnership with civic groups, customers, regulators, and other stakeholders	Partially Achieved	<p>In 2013, DEP held public meetings where environmental and community stakeholders attended to provide feedback and participate in the development of waterbody-specific and citywide long term control plans. In addition, DEP held three Green Infrastructure Steering Committee meetings and in November 2013, DEP expanded the scope of the Green Infrastructure Steering Committee to include other stormwater and water quality initiatives, such as the Municipal Separate Storm Sewer System permit and resiliency planning.</p> <p>In addition to coordination with federal, state, and local elected officials and agencies on Catskill turbidity control issues, DEP participates in the Ashokan Releases Working Group, a forum for discussion of topics of interest to lower Esopus Creek stakeholders. Nearly every month in 2013, the Ashokan Releases Working Group heard presentations and provided feedback on the quantity, timing and quality of releases from the Ashokan Reservoir, and discussed impacts of those releases on the lower Esopus corridor.</p>

78	Develop adaptable risk-based criteria to guide dissolved oxygen and pathogen compliance based on best use designations within the framework of the Long Term Control Plans and other water quality improvement programs	Initiated	Long-Term Control Plans (LTCP) under the 2012 Combined Sewer Overflow Consent Order will include Use Attainability Analyses (UAA) where existing water quality standards do not meet the Fishable/Swimmable goals of the Clean Water Act, or where the proposed controls in the LTCP will not attain existing water quality standards or the Fishable/Swimmable goals. UAAs will identify alternative water quality scenarios and provide the waterbody's "highest attainable use."
84	Implement strategy to reduce DEP GHG emissions by 30% from 2006 levels to meet PlaNYC goals	Partially Achieved	Current estimates indicate that we are expected reduce our greenhouse gas emissions by 21%. We are in the process of analyzing and developing business cases for energy conservation measures to meet the goal of a 30% reduction by 2017.
85	Ensure the reliability of our power supply	Partially Achieved	DEP has developed more frequent communications with electrical utilities to review project planning, reliability issues, and protocols during power emergencies.
88	Develop 30-50 megawatts of clean energy supply at DEP facilities to ensure the reliability of our core operations and to reduce the net consumption, energy costs, and emissions across the agency	Partially Achieved	DEP is currently in the process of developing clean energy projects such as upstate hydropower, and aims to use solar power at Port Richmond by spring of 2014 and cogeneration at the North River Wastewater Treatment Plant by 2019. In the next few years, we expect to generate a total of 27.2 MW of power from these clean energy sources.
91	Secure the repeal of GASB Standard 49	Deferred	In 2011, New York State adopted legislation permanently enabling the city to continue using capital funds for remediation costs incurred as a component of larger capital projects. However, even under this waiver, much of the remediation work at the two Superfund sites will not be capital eligible.
92	Promote beneficial use determinations (BUDs)	Initiated	In April 2013, DEP received DEC concurrence for DEP's Pre-Determined Beneficial Use Determination (BUD) Representative Sampling Protocols, which further clarify current regulatory requirements for Pre-Determined BUDs. We are now applying that consistent approach to requirements for all construction contracts handled by our Bureau of Environmental Design and Compliance. In addition, DEP has developed a draft DEP Omnibus BUD Program that is currently under internal review, and hopes to have a viable program in place by early 2015, dependent on DEC approval.
98	Update the New York City Air Code for the first time since 1970	Partially Achieved	In preparation for revising the Air Code, DEP met with more than twenty stakeholders including environmental groups, trade associations, the filing community, and organizations representing the oil and building industries. DEP and the City Law Department finalized the proposed revision to the Air Code in 2013. The Code was submitted to City Council in September and a hearing was held in November. After the hearing, DEP worked with the Council, Law Department and Legislative Affairs to modify language and provisions to resolve remaining stakeholder concerns. City Council did not pass the revised Code in 2013.
100	Enhance the 2005 Noise Code	Partially Achieved	The Noise Code update was put on hold in order to prioritize and focus efforts on the Air Code revision.



**Environmental  
Protection**

New York City Department of Environmental Protection  
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