



PROGRESS REPORT 2012

A GREENER, GREATER NEW YORK



The City of New York
Mayor Michael R. Bloomberg



PROGRESS REPORT 2012

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A GREENER, GREATER NEW YORK

Introduction



SIMS recycling plant in Brooklyn to be opened in 2013

Five years ago, Mayor Michael R. Bloomberg launched PlaNYC, an ambitious agenda to create a greener, greater New York, even as our population grows to nine million people by 2030. Updated in 2011, PlaNYC contains 132 initiatives to improve New York City's physical infrastructure, environment, quality of life, and economy.

These initiatives are transforming our city—and the transformation has accelerated in the past year. From our **NYC Green Infrastructure Plan**, which is reshaping how we manage stormwater and protect our waterways, to our three-part **Waste Reduction Plan**, which will double our residential and institutional recycling rate to 30% by 2017, we are taking concrete actions to improve our city today and in the future.

In the past year we created or preserved over 15,700 units of affordable housing while over 8,000 large, privately-owned and 3,000 City-owned buildings benchmarked their energy usage in compliance with the **Greener, Greater Buildings Plan**. We passed the halfway point in our effort to plant a million trees through our **MillionTreesNYC** program and opened our 200th **Schoolyard to Playground** site, helping us bring over 240,000 additional New Yorkers within a 10-minute walk of a park. We reached a groundbreaking agreement with the State enabling us to invest \$187 million in green infrastructure over the next three years as part of the **NYC Green Infrastructure Plan**.

To expand sustainable transportation options, we launched the **East River Ferry** to connect Brooklyn and Queens with Manhattan, which served 350,000 passengers in the first four months of service. In addition, the State Legislature approved the **Five Borough Taxi Plan**, which will bring for-hail taxi service to all New Yorkers.

We also launched several efforts to harness public-private partnerships to meet our goals. We released a Request for Proposals for solar and wind power

facilities at Fresh Kills on Staten Island, which could result in up to 20 MW of renewable energy—more than doubling the city's current renewable energy capacity. The City also launched an effort to build a state-of-the-art facility to convert up to 450 tons per day of our waste to clean energy. Finally, we launched **NYC Clean Heat**—a partnership between building owners, utilities, and the City—to accelerate property owners' conversions to cleaner-burning heating fuels.

We have made great strides in the past twelve months, but much more remains to be done. And the need to achieve our goals is as important today as it was five years ago.

Population growth, if properly planned for, can be good for the city, bringing new jobs and ideas to our city. But if we don't plan for it, population growth can place further stresses on our infrastructure and neighborhoods. We use our infrastructure, which makes the city's economy and quality of life possible, heavily—stretching some to capacity. Our commitment to maintaining and expanding the city's physical infrastructure is a commitment to the fundamental bricks-and-mortar that our economy is built on. That is why investments such as our \$2.1 billion **Water for the Future** program to upgrade our water supply aqueducts are so critical. Enhancing the city's quality of life will also create economic opportunity, because talented employees and the companies they create can choose to be anywhere in the world. And climate change continues to be one of the greatest challenges we face, both in terms of our contributions to the causes of climate change and our readiness for its impacts.

Tracking our annual progress is a reaffirmation of our commitment to address the long-term challenges facing our city. The actions we are taking today will enhance quality of life for all New Yorkers and create a greener, greater New York for future generations.

Progress

Our goals for achieving a greener, greater New York



Housing and Neighborhoods

Create homes for almost a million more New Yorkers while making housing and neighborhoods more affordable and sustainable



Parks and Public Space

Ensure all New Yorkers live within a 10-minute walk of a park



Brownfields

Clean up all contaminated land in New York City



Waterways

Improve the quality of our waterways to increase opportunities for recreation and restore coastal ecosystems



Water Supply

Ensure the high quality and reliability of our water supply system



Transportation

Expand sustainable transportation choices and ensure the reliability and high quality of our transportation network



Energy

Reduce energy consumption and make our energy systems cleaner and more reliable



Air Quality

Achieve the cleanest air quality of any big U.S. city



Solid Waste

Divert 75% of our solid waste from landfills



Climate Change

Reduce greenhouse gas emissions by more than 30%

Increase the resilience of our communities, natural systems, and infrastructure to climate risks

PlaNYC is a set of integrated actions that cut across traditional bureaucratic boundaries and represent a collaboration of over 25 City agencies and countless external partners. Our green buildings initiatives exemplify this multi-disciplinary approach: the changes we have enacted in partnership with the City Council and the real estate community to “green” our construction codes will improve energy efficiency, water conservation, waste management, recycling, air quality, and public health. However, for ease of reading, this Progress Report is organized around the ten issue areas outlined in PlaNYC. They can be read in isolation, but they comprise a whole that is greater than its parts.



Housing and Neighborhoods

Despite continuing weakness in real estate markets nationwide, in the past year we continued to make steady progress toward our PlaNYC goal of accommodating a million more New Yorkers and making housing and neighborhoods more affordable and sustainable. The economic vitality of the city depends on a range of housing to accommodate a diverse population.

In the twelve months since the PlaNYC update in April 2011, several major projects have broken ground or have proceeded in the construction process, many of which were spurred by previous re-zonings. Several others reached milestones of financing and permit-readiness. Many are the result of the Mayor’s New Housing Marketplace Plan, launched in 2003 to finance 165,000 units of affordable housing by the close of 2014. In Fiscal Year (FY) 2011 alone, over 15,700 units of affordable housing were created or preserved in New York City.

Several sites are now under development as a result of efforts to re-zone underutilized land served by transit to spur more intensive use. A prime example is Hudson Yards, a redevelopment project that will create a new business and residential district of 26

million square feet on the far west side of Manhattan, which achieved several major milestones in the past year. Coach recently announced that it would move its corporate headquarters to become an anchor tenant in a tower on the Eastern Rail Yards site that will break ground in 2012. Construction on the Number 7 subway construction continued on pace for completion in 2013 and significant funding was secured to extend the High Line, an elevated park on an abandoned railroad freight spur, to the site. In June 2011, the City broke ground on Studio City, a mixed-use development within the Hudson Yards re-zoning area that will include 1,200 residential units—600 of which will be permanently affordable. The project will also include approximately 28,500 square feet of open space, 17,500 square feet of retail space, and a new school.

On the East River waterfront in Queens, construction on Hunter’s Point South commenced in December 2011. Work began on a 10-acre waterfront park and utility infrastructure is being upgraded to serve future residents. The first two buildings, encompassing 900 units, are expected to break ground before the end of 2012.

Transformation of Willets Point, a former underutilized industrial area in northeast Queens, progressed. In May 2011 we issued a Request for Proposals (RFP) seeking developers to redevelop the site, which will be awarded this year. We also broke ground on the initial phase of critical infrastructure work, including construction of a sanitary sewer main and reconstruction of a storm sewer. These investments will not only facilitate economic redevelopment of an area lacking in basic infrastructure, but will help to improve the quality of local water bodies.

Developers in New York are also raising the bar on green development, as exemplified by a project that opened in late 2011 in the South Bronx. The Via Verde project is a mixture of 202 affordable residential units and new retail and community spaces. The development is organized around a garden that begins at street level as a courtyard and plaza, spirals upward through a series of roof gardens, and concludes at a rooftop terrace. The gardens will be used for fruit and



Construction began on Studio City, an affordable housing development, in June 2011

vegetable cultivation, while simultaneously capturing stormwater and enhancing insulation. Many of the goals of PlaNYC are embodied in this development by the Jonathan Rose Companies and Phipps Houses. The building is estimated to be over 30% more energy efficient than a standard building, utilized over 20% recycled materials in construction, and recycled over 80% of its construction and demolition waste.

To facilitate more sustainability projects in the future, in late 2011 we launched “Zone Green,” a suite of proposed changes to the City’s zoning resolution which would, if approved by the City Council, make it easier for property owners to install roof gardens or renewable energy facilities or improved insulation. The zoning code, like the building code, is one of the places where PlaNYC will have pervasive, long-term influence, by shaping thousands of private sector development decisions that will get made in the decades ahead. By greening the codes now, we make it possible for property owners to make good choices in the years to come.

At the neighborhood scale, in the fall of 2011 we also launched two “Sustainable Communities” planning studies, one in Cypress Hills/East New York and the other around several Metro North regional passenger rail stations in the Bronx. Both of these efforts include significant engagement with the local communities about their aspirations for the area and the type of improvements or zoning changes that can help realize these visions, providing opportunities for, among other things, housing affordable at a range of incomes and improved public transportation access. These efforts represent a new approach to transit-oriented development planning because of the connections



A visioning forum for the Sustainable Communities East New York study

being made between city residents and other communities throughout the region in the planning process, through participation in a regional planning consortium that was awarded federal funding to undertake these studies. The potential mutual benefits could include improved access for Bronx residents to jobs in southwestern Connecticut, for example, or for residents of East New York to employment opportunities along the Long Island Rail Road.

Our PlaNYC activities to promote sustainable housing and neighborhoods include not only large new projects, but also grassroots initiatives to make New York greener and greater block by block, building by building. We have implemented initiatives to inform building owners and tenants what they can do to make their homes more sustainable. We exceeded our goal and conducted eleven “Green Owners Nights” throughout the city. We expanded the NYC Green House program—which educates small and medium sized building owners to increase energy efficiency, conserve water, use healthy materials and educate others about these practices—to incorporate social media platforms.

The conditions that drive the housing and neighborhoods objectives of PlaNYC—continuing population growth, a need for more housing to meet the needs of a diverse workforce—show no sign of abating, despite national turmoil in the real estate market. Our continued efforts will ensure greater affordability and more livable, sustainable neighborhoods and a stronger economic base for New Yorkers into the future.



On October 18, 2011 the City marked the planting of 500,000 trees since 2007

Credit: NYC Mayor's Office

Parks and Public Space

From a newly-animated half-acre patch of asphalt and concrete at the intersection of Fulton Street and Grand Avenue in Clinton Hill, Brooklyn to a 10,000 acre collection of wetlands, beaches and fields around Jamaica Bay, the past year has been one of continued progress toward the PlaNYC goal of ensuring that every New Yorker lives within a ten minute walk of a park. Approximately 76.5% of New Yorkers now have that level of access, up from 70% in 2007 and an increase of 240,815 people in the past year.

These open spaces—whether a plaza at a busy intersection or a natural area where marsh meets sea—are improving the city's existing physical assets and quality of life, across the range of outdoor experiences. The example at Fulton and Grand is typical of our work across the city. This long-neglected intersection along a major arterial was transformed into a lively 15,000 square foot pedestrian plaza in September 2011, featuring new vegetation, tables and chairs, benches, granite blocks for informal seating, enhanced lighting and an improved bus shelter as a

result of a partnership between our Plaza Program and the Fulton Area Business (FAB) Association. The new Putnam Triangle Plaza is a neighborhood scale example of what the iconic project at Times Square demonstrated on a global scale: that imagination, design, and creative investment can all come together when City agencies engage with each other and with adjoining businesses and the community to revitalize assets that are right under our noses but not utilized to their full potential. The Plaza Program is now in its fifth year of operations, accepting applications from nonprofits to enhance under-utilized public spaces and enliven the public realm throughout New York City.

While we continue to improve these smaller public spaces, this past year we have also commenced a bold effort on a much larger scale: to re-envision the potential of the 10,000 acres of public lands around Jamaica Bay in south Queens and Brooklyn. One of the most ecologically diverse estuaries on the Atlantic seaboard, Jamaica Bay is ringed by federal and City properties that over the years have been used for a variety of disjointed uses: landfills, ballfields, beaches, bathhouses, marinas, active and abandoned military installations, historic buildings, wildlife refuges, docks, and piers.



Campers at the Great Urban Campout at Gateway National Park in October 2011

Credit: NYC Dept. of Parks and Recreation



Redesigned Putnam Triangle Plaza, opened in September 2011

Credit: NYC Dept. of Transportation

With a cohesive vision and cooperation among agencies, these fragments could be assembled into the greatest maritime nature and recreation complex in any U.S. city. In October 2011, Mayor Bloomberg and U.S. Interior Secretary Ken Salazar signed a historic agreement committing the City and the National Parks Service, bolstered by philanthropic funding, to the joint planning for the cooperative management of all 10,000 acres of City and National Park Service owned-land around the Bay. That planning commenced in early 2012 and some of the initial options will be released for public comment later this year. We are actively cooperating with the National Parks Service in new ways already. In October 2011, we jointly hosted the Great Urban Campout, when 600 New York City children participated in tree stewardship training and planting run by MillionTreesNYC and NYC Service, and 150 youths and chaperones then camped overnight at Floyd Bennett Field.

We also achieved significant milestones in two signature PlaNYC initiatives. In November 2011, we opened the 200th underutilized schoolyard as a community playground as part of the Schoolyards to Playgrounds initiative, an effort launched under PlaNYC in 2007. The milestone was celebrated at PS 69 in Jackson Heights, Queens, a district in need of more parks. Like the previous 199 conversions, this playground is unique, the product of design collaboration with the Trust for Public Land, the teachers, students and surrounding neighborhood, including the Jackson Heights Beautification Group.

The past year also included a significant milestone for MillionTreesNYC, a program that will plant one million trees throughout the city by 2017—enhancing stormwater management, air quality, and our

streets and parks. Some are planted along streets, some in public parks, and some on private property. Like many of our other efforts, it is a collaborative partnership with a non-profit, in this case the New York Restoration Project (NYRP). In October 2011, Mayor Bloomberg joined NYRP leadership at St. Nicholas Park in Harlem to plant the 500,000th tree. Later that month approximately 2,000 New Yorkers volunteered to plant 20,000 additional trees at six sites across the five boroughs in conjunction with NYC Service and community-based volunteer groups. We are currently 20% ahead of our 2017 goal, putting us one year ahead of schedule.

As we plant trees, we know we also need to cultivate tree stewardship. Through MillionTreesNYC and NYC Service we partnered with a variety of community groups to hold an all day “Grow our Grassroots” event at Brooklyn Borough Hall in February. Hundreds of volunteers attended the event and were connected with other tree stewards and community organizations and trained to help care for the city’s expanding trees. Nearly 1,000 New Yorkers were trained by MillionTreesNYC at this and similar events in the past year.

Several iconic long-term capital projects also reached new stages of development in the past year. In June of 2011, in partnership with Friends of the High Line, we opened Phase II of the High Line, from West 20th to West 30th Streets. The new section, which signifies the overall project now being open for two-thirds of its length, met with acclaim for its design and has experienced heavy use. The City expects to acquire the northern-most section of the High Line by mid-2012 and is continuing the design process for this portion. Friends of the High Line and Mayor Bloomberg announced a fundraising drive to complete Phase III,



The first completed cleanup under NYC Brownfield Cleanup Program—in the Longwood section of the Bronx

subsequently receiving a \$20 million commitment from the Diller-von Furstenberg Family Foundation.

In November 2011, we started construction on Steeplechase Plaza, a public space that houses the century-old B&B Carousel and will be one gateway to the revitalized Coney Island amusement district. Renovations of the pool and year-round recreation center are now 95% complete at McCarren Pool and Play Center in Brooklyn; the Center will be open to the public in June and visitors can start enjoying the pool this coming summer, after a hiatus of almost 28 years. We also invested in new park infrastructure and opened Pier 15, which will house a non-profit educational maritime pavilion on the East River Waterfront Esplanade project in Lower Manhattan. Parks and paths along the East River got another boost in October 2011 when we reached an agreement with the United Nations on a financing framework to fill the last remaining major gap between 38th and 60th Streets, which will largely complete the 32 mile Manhattan Greenway.

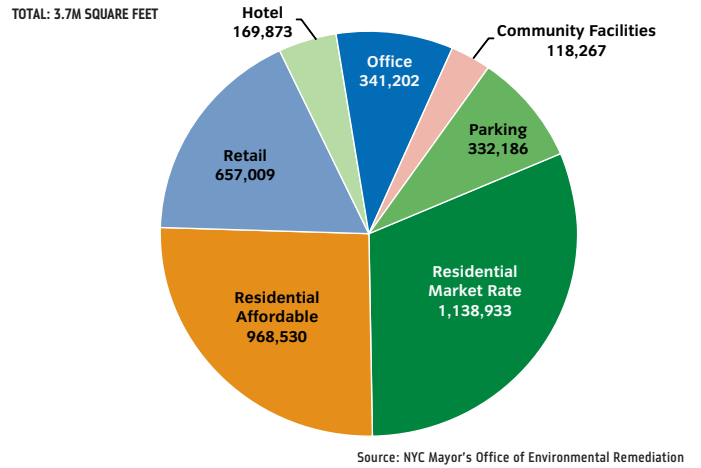
Despite a financial climate which poses budgetary challenges for the development, management and maintenance of parks and public spaces, we have made steady progress on our PlaNYC initiatives this

year. We are doing so by using the same principles that are succeeding in other areas of PlaNYC: by making connections between multiple objectives—like park access, stormwater management, and public health—and by working with local residents and community organizations that share our vision of and commitment to a greener, greater New York City.

Brownfields

In PlaNYC we committed to cleaning up all contaminated land in New York City. These sites—known as brownfields—are often vacant lots that have blighted neighborhoods for years and sometimes decades because of contamination from past uses like heavy manufacturing, light industrial, or chemical-oriented businesses. In the past year we continued progress toward our goal by providing technical assistance, liability protection, certification and grants to property owners, developers, and community organizations to help them remediate property, with an emphasis on serving low-income and underserved neighborhoods.

New York City Brownfield Cleanup Program
New Development in Square Feet, as of March 2012



Forty-five brownfields are now enrolled in the City's Brownfield Cleanup Program, which was launched in 2010, and have cleanup plans approved by the City, enabling developers to move forward with new projects. About half of these projects are currently under construction. Many of these properties have been vacant for 15 years or longer and about 73% of them are in low-income or underserved communities. Collectively, these projects will create over 2,100 new permanent jobs, 4,800 construction jobs, 500 units of affordable housing, and 3.9 million square feet of new residential, commercial and industrial space. In the past year the federal Environmental Protection Agency officially recognized our Brownfield Cleanup Program – a major milestone for the program - which now helps participants leverage federal grants.

We recently assisted in the clean-up of a large block in the Longwood neighborhood of the South Bronx, which was heavily contaminated from years of operation as a gas station. To unlock the potential of the property for redevelopment, we worked with the developer and with New York State to establish a comprehensive cleanup plan. Cleanup was finished last year and construction is now complete on a \$37 million, 110 unit, 128,000 square foot affordable housing complex with a shopping center and community space. To support this project the City provided a \$100,000 Brownfield Incentive Grant (BIG) and will issue governmental liability protection and a formal NYC Green Property Certification.

BIG grants have proven to be an effective tool in incentivizing developers to clean up and develop brownfields. To date BIG has awarded or earmarked \$3.5 million to projects that have enrolled in the cleanup program. For this comparatively small front-end investment, New York City will realize over \$300 million in new property, income and sales tax revenue over the next several decades.

The Sugar Hill redevelopment project in Washington Heights, rising on the site of a former parking garage with a history of automotive uses going back to the 1920s, is another recent example. A \$75 million mixed-use development is planned with cleanup and construction on the property scheduled to begin this spring. When finished, the community will gain 124 affordable apartments—70% targeted to very low-income households, with 20% dedicated to

homeless families and individuals—and the Sugar Hill Children's Museum of Art & Storytelling. By enrolling in the Brownfield Cleanup Program, the non-profit developer, Broadway Housing Communities, will earn grants for cleanup costs and receive government liability protection.

Community involvement is integral to our program. We work with neighbors and local community groups around the city to help identify and remediate brownfields. As part of our new Community Brownfield Assistance Program, which provides assistance to community based developers, community organizations and private citizens, the City will designate 20 areas with high concentrations of brownfields as Community Brownfield Planning Districts. This new designation will help community organizations gain access to grants and other resources for brownfield planning.

We understand that for community members access to information is key. To this end, all information about our cleanup program and enrolled projects is now posted online. In addition, our Cleaning Up NYC brownfield video collection, produced in the past year, helps property owners and community members learn about the brownfield cleanup process and how communities are protected at every stage. To overcome potential language barriers, we are translating our Community Protection Statement into seven languages. This Statement describes all of the community protection measures we require on every project to ensure there are no impacts to residents or on-site workers during cleanup activities. We are collaborating with the New York Public Libraries to make all of these documents available to community members in their local library branches.



New Yorkers at the beach at Coney Island

Credit: NYC Economic Development Corporation



Cleaning New York City's sewer system

Credit: NYC Dept. of Environmental Protection

While PlaNYC outlines long-term sustainability goals, we are already seeing dramatic results from our brownfield program today. By cleaning up neighborhood eyesores, we are developing safe new places to live, work, shop and play, and creating local jobs for New Yorkers, all while making our city greener and greater.

Waterways

For a city with 520 miles of shoreline, the waterways that surround and adjoin the five boroughs are among our greatest assets. Today, New York Harbor is the cleanest it has been in more than a century, thanks largely to the \$9 billion that the City has invested in water quality since 2002. In the past year, we have continued targeted investments while seeking to implement new ways of preventing pollution that can be even more cost-effective and make the city a better place to live.

The past year marked a significant paradigm shift in our approach, as we were able to achieve major milestones for implementing the NYC Green Infrastructure Plan, which will use vegetation and other features on buildings, roads, and parks to absorb and retain or detain stormwater while also providing shade, beautifying neighborhoods, and improving air quality. The plan includes a \$2.4 billion investment in these techniques over 20 years, plus targeted “grey” infrastructure and sewer cleaning, that together will reduce CSOs by 40%. In March 2012, these commitments were documented in a historic agreement with State DEC that includes measurable milestones every five years for using green

infrastructure to manage stormwater, leading up to our goal of managing one inch of rain on at least 10% of impervious surfaces in impaired priority combined sewer drainage areas by 2030. The agreement establishes a foundation to continue the NYC Green Infrastructure Plan into the future. To demonstrate our commitment even before the agreement was finalized with State DEC, the City built 10 right of way bioswales and five other green infrastructure installations, continued to collect monitoring data on our pilots, established an Office of Green Infrastructure at DEP, held inter-agency Green Infrastructure Task Force planning sessions, and developed a maintenance protocol and interagency agreement to ensure effective implementation citywide.

We are also promoting green infrastructure by enlisting communities and the private sector. In June 2011, we announced the winners of our first Green Infrastructure Grant Program and awarded more than \$3.8 million to community groups and citizens for on-site green infrastructure projects. In January 2012, after several years of development, we adopted a rule that requires enhanced on-site stormwater controls for new development and redevelopment. To help property owners comply with these regulations, we published a companion document, Guidelines for the Design and Construction of Stormwater Management Systems, offering guidance with the selection, planning, design, and construction of on-site stormwater management systems.

In the past year, we continued to invest in cost-effective grey infrastructure projects that will improve water quality and reduce combined sewer overflows or CSOs—a mix of stormwater and sanitary flow that is discharged during large rain events when the city's



City worker installing a streetside infiltration swale in Brooklyn

Credit: NYC Dept. of Environmental Protection



City-funded mini-wetland system in the parking lot of an MTA bus depot in Brooklyn

Credit: NYC Dept. of Environmental Protection

combined sewer system reaches capacity. In May 2011, we completed the Alley Creek and Paerdegat CSO detention facilities, together reducing the volume of CSOs by more than 1.4 billion gallons each year.

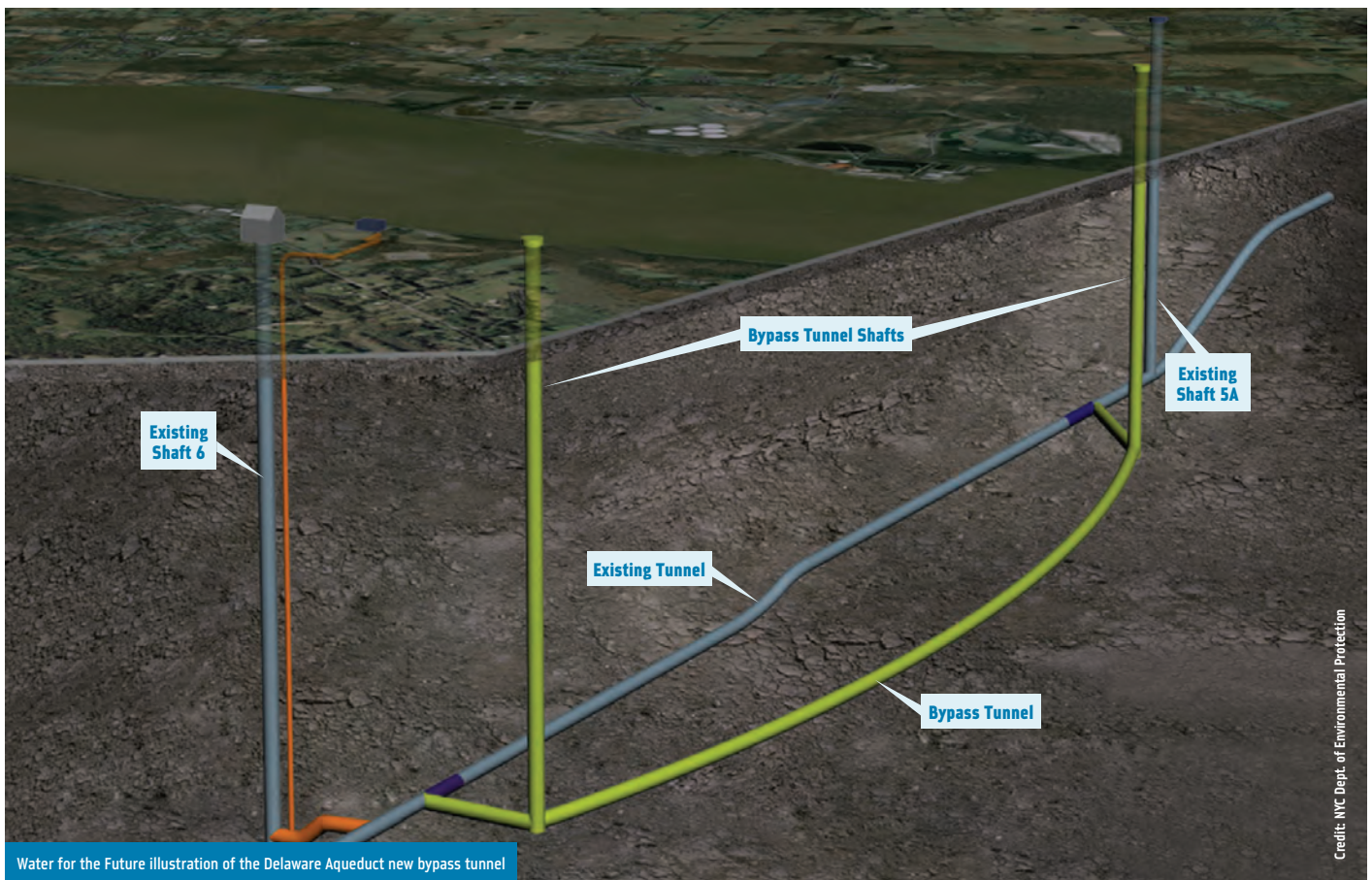
We are not just building large grey infrastructure facilities, but upgrading our operations to make the existing sewer system more effective. Over the past year we inspected all 281 tide gates in the Newtown Creek, Wards Island, Port Richmond, and Red Hook wastewater treatment plant drainage areas and repaired 243. We finished inspecting all 138 miles of interceptor sewers throughout the city and are on pace to inspect all 144,000 catch basins on a three-year schedule. Through the implementation of more efficient work practices, we expanded sewer cleaning operations using in-house staff from 244 miles in 2010 to over 600 miles in 2011. Reported sewer backups continued to decline last year for the fifth year in a row, and less than 0.7% of the street sewer segments in the city have recurring issues.

We have also continued to upgrade the City's wastewater treatment plants. Under the federal Clean Water Act, wastewater must be treated to remove at least 85% of certain pollutants before post-treated water can be discharged into surrounding waterways. In May 2011, we certified that the Newtown Creek Wastewater Treatment Plant met these standards two years ahead of schedule, as a result of a \$5 billion upgrade. This is the first time all 14 plants will be individually certified as meeting the Clean Water Act's secondary treatment standards since they were established in 1972. We also reached an agreement with the State DEC to invest an additional \$100 million

in nitrogen treatment systems at four wastewater treatment plants that discharge into Jamaica Bay. These investments, made in concert with \$95 million we had already committed for nitrogen control upgrades, will reduce the nitrogen discharged into Jamaica Bay by nearly 50% over the next 10 years.

In addition to reducing pollutants entering our waterways, we are also working to address severely contaminated sediments that leach pollutants deposited decades ago. In 2010, the U.S. Environmental Protection Agency (EPA) listed Newtown Creek and Gowanus Canal on the Superfund National Priorities List. Over the past year, we worked with the Newtown Creek Group, composed of a number of significant stakeholders, to launch an investigation into the degree of contamination in the Creek, as well as associated health and environmental risks. In 2011, EPA released both the draft Remedial Investigation and Feasibility Studies for the Gowanus Canal, and we continue to provide information to EPA about the sources of chemical contamination in the canal to support cost-effective cleanup that will address contaminated sediment. We will continue to work with EPA and State DEC to define our next steps as we work together to improve the water quality of these waterways.

These improvements to water quality will improve the health of coastal ecosystems, but we are also actively seeking to protect and restore wetlands and aquatic habitats. In January 2012, we released the draft New York City Wetlands Strategy to establish a goal to achieve no net loss of wetlands and maximize the ecological functions of the city's remaining wetlands.



In the past year, we have worked with State and federal partners to advance more than \$54 million of investments at 17 sites to restore and enhance over 58 acres of wetlands and adjacent habitat. This includes projects at Paerdegat Basin and Marine Park in Brooklyn; at Meadow Lake and the Jamaica Bay salt marsh islands in Queens; at Freshkills Park in Staten Island; and at Pugsley Creek, Soundview Park, and further upstream along the Bronx River in the Bronx. In 2011 we also expanded the award winning Staten Island Bluebelt into other parts of Staten Island and Queens at Oakland Lake Park. We have encouraged the ecological rehabilitation of species in Jamaica Bay by constructing a pilot project in August 2011 to encourage the natural expansion of ribbed mussels and implementing the fourth phase of our eelgrass pilot by installing an additional 8,000 plants near Breezy Point in December 2011.

Cleaner waterways will provide additional recreational opportunities and support the public access provided by our waterfront parks. And a healthy harbor will provide benefits not just for the people enjoying nature, but also for the other species that call New York City home.

Water Supply

New York City has some of the best drinking water in the world, a competitive advantage due to past leader's collective foresight in planning and building a vast water supply system. Maintaining this tremendous natural resource and infrastructure is critical for public health and our city's long-term prosperity. Ensuring high quality and reliability requires investing in protecting the source waters of our upstate reservoirs, as well as completing important capital projects to ensure that the system remains viable for generations to come.

In the past year, we have made significant progress on protecting the Catskill and Delaware watersheds that surround our upstate water supply reservoirs. Thanks to a new 15-year Water Supply Permit for New York City that was issued by the State DEC in December 2010, we will continue to buy land around our watershed to protect our drinking water at its source. In 2011, we solicited 60,000 acres from watershed landowners and closed on 7,037 acres in fee or easement. This met the requirements of our Land Acquisition Program, a mandated component of the Filtration Avoidance Determination from the EPA that waives the default

requirement to build a costly and unnecessary filtration plant for these two water supplies. Since the inception of the Land Acquisition Program, New York City has protected more than 120,000 acres of watershed land—including more than 78,000 since 2002—in the Catskill, Delaware, and Croton watersheds.

Since most of the Catskill and Delaware watershed lands are not owned by the City, our drinking water faces threats from development activities such as extracting natural gas through a process of hydraulic fracturing, or hydrofracking. In the past year, we have worked to ensure that New York State’s policy on natural gas development will not in any way affect the watershed’s natural ability to filter and protect New York City and upstate consumer drinking water. In 2011, the New York State DEC proposed regulations that would ban hydrofracking in the watershed. However, these proposed regulations would allow drilling activities in the vicinity of our tunnels, dams, and other water supply infrastructure. In response, we hired geotechnical experts to more fully evaluate the risk to our infrastructure from induced seismicity. We included the results from this analysis in a detailed letter and technical report submitted to State DEC during the public comment period on the proposed regulations in January 2012, and we will continue to seek protection for our water supply system into the future.

To ensure reliable delivery of clean and safe drinking water to New York City for decades to come, we have embarked on the Water for the Future program. This \$2.1 billion initiative will address leaks in the Delaware Aqueduct by building a two-and-a-half mile bypass tunnel around a portion of the aqueduct that is leaking in the Roseton area of the Town of Newburgh, and repairing leaks in the Town of Wawarsing from inside the existing tunnel. We will break ground on the bypass tunnel shafts in 2013, and expect to begin the bypass connection in 2020. In December 2011, we released a Draft Environmental Impact Statement which determined that construction of the tunnel would not result in significant, long-term adverse impacts. In August 2011, we also issued an RFP for consulting services to develop designs for cost-effective groundwater treatment facilities to augment the City’s supply while the Delaware Aqueduct will be temporarily shut down to establish the bypass connection.



We have also enhanced dams throughout the water supply system. In June 2011, we started the major construction phase to upgrade the Gilboa Dam in Schoharie County. The total cost of the project is approximately \$350 million and is scheduled to be completed by 2016. In November 2011, we completed \$96 million in reconstruction work on five dams in the Croton watershed. These upgrades have extended the useful life of each dam and bring all of them into compliance with State DEC’s Dam Safety Guidelines, including the capacity to safely release water in the event of an emergency.

Within the city, we are making progress on major water distribution infrastructure projects. Construction of City Water Tunnel No. 3—underway since 1970 but funded as a top priority under this administration—has continued, with the construction of trunk water main projects that are required to integrate into the city’s existing water network. In 2013, we will complete all critical water main work necessary to support activation of City Water Tunnel No. 3 Stage 2 in Manhattan. We also began to construct a backup water supply tunnel to Staten Island in partnership with the Port Authority of New York and New Jersey.

We are also increasing the efficiency of our existing system to simultaneously reduce demand and increase supply, thus making the system more affordable and effective for residents. As of March 2012, we have installed Automated Meter Reading (AMR) devices for 94% of our customers. AMR technology allows customers to track their water use by sending accurate meter readings to a computerized billing system up to four times a day. AMR is one of our most important customer service initiatives, almost single-handedly changing the way customers view, understand, and



The new East River Ferry launched service in June 2011

Credit: New York City Economic Development Corporation



Tunnel boring machine is positioned during Second Avenue Subway construction

Credit: Ben Heckscher/The Launch Box

pay their water and sewer bills. As a companion to AMR we developed the Leak Notification Program, which can alert customers to costly leaks when there is a deviation detected from typical consumption patterns. Since starting the program in March 2011, more than 12,000 customers have saved an estimated \$10 million in otherwise wasted water or damaging leaks.

These initiatives are part of an era of renewed investment to ensure the high quality and reliability of our water supply system. Together, these efforts will ensure that our award-winning, world-class drinking water remains so for future generations of New Yorkers.

Transportation

PlaNYC's goal is to provide New Yorkers more sustainable transportation options and ensure the reliability and high quality of our transportation network. We continue to make good progress on the assets the City controls directly, such as streets and bridges, and applaud recent steps at the state level to stabilize transit funding.

For many years, one of the biggest challenges for transportation in New York City has been securing sufficient long-term funding for repairs and upgrades to our infrastructure—in particular public transit, which is funded through the Metropolitan Transportation Authority (MTA), an entity of New York State. In recent weeks, Governor Cuomo and the State Legislature have worked with the MTA to make progress on this issue. We support their efforts, and in the meantime, have continued our focus on providing new transportation

options, making our streets safer, and taking care of our municipal infrastructure.

Building on the success of Select Bus Service lines on Fordham Road/Pelham Parkway in the Bronx and on First Avenue/Second Avenue in Manhattan, we worked with the MTA to expand the network to 34th Street. The changes to both street design and operations that SBS brought about cut travel times by 20% for tens of thousands of bus passengers each day. More SBS lines are in store. We developed plans for SBS routes on Hylan Boulevard on Staten Island and Nostrand Avenue/Rogers Avenue in Brooklyn, and began planning for new SBS lines to serve Webster Avenue in the Bronx and LaGuardia Airport.

In mid-2011, we also launched a three-year pilot of the East River Ferry to connect Brooklyn and Queens with Manhattan and Governors Island. The service proved very popular, and 350,000 passengers rode the ferry in the first four months—twice as many as we had expected. Almost one year into the pilot, we continue to monitor the ferry's performance to determine whether it can become a permanent feature of the city's transportation network.

Hailing a cab in the street is also about to become less of a problem for many New Yorkers, thanks to recent collaboration between State and City leaders. Several months ago, we reached an agreement with Governor Cuomo and the State Legislature to license legal for-hail livery service outside Manhattan and the airports—where over 97% of legal street hails occur—in areas that are now under-served by yellow cabs. Over the next three years, we will be able to issue up to 18,000 new livery licenses to benefit those New Yorkers who were not well-served by the previous licensing system.



Trying out the upcoming bike share system at a demonstration in Brooklyn

Credit: Doug Gordon, BrooklynSpoke.com

Bicycling continued to grow more popular, and by the end of 2011 we had doubled bike commuting in New York City over 2007 levels—meeting our 2013 milestone two years early. We also moved significantly closer to launching a bike share program. In September 2011, we selected Alta Bike Share, a private operator of bike share networks, to operate the city’s first bike share program. Once negotiations are complete, Alta will operate up to 10,000 bikes, relying on user fees and sponsorships. Sixty demonstration and outreach events have been held in neighborhoods throughout the city to tell the public about the program and determine the best locations for stations. The program is on schedule to commence service this summer.

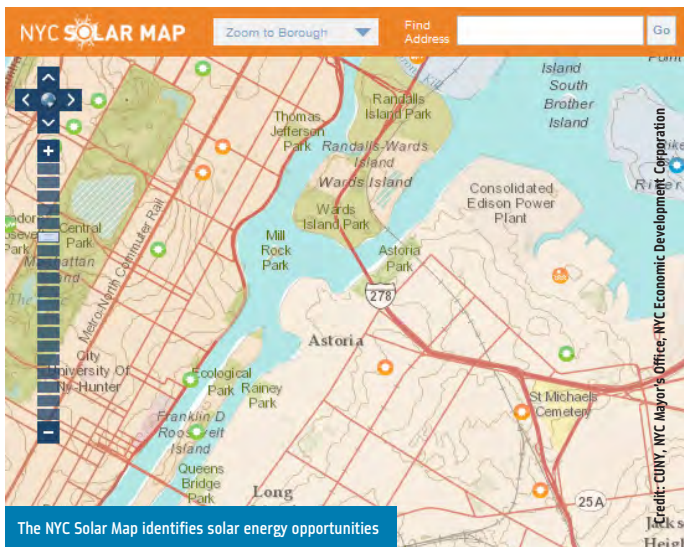
Our streets have become safer for all, regardless of what mode of transportation they use. In November 2011, we introduced the first-ever 20 mph neighborhood slow zone, in the Claremont section of the Bronx, with new signage and speed reducers, and announced a process that other neighborhoods can use to apply for these safety improvements. We also made a series of improvements to Grand Army Plaza in Brooklyn that made the complex intersection dramatically safer. We installed 1,500 “countdown” signals for pedestrians all over the city. And in November 2011, we launched the Walk Ways program

to help teachers encourage students to walk to school. Later this year, the “Safe Streets for Seniors” program will make street improvements in Rego Park, Jamaica Hills, East Flatbush, and Washington Heights.

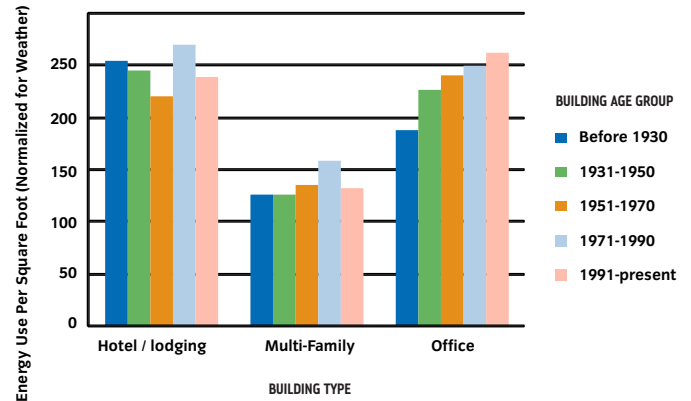
We continued education and enforcement campaigns to make sure that all road users—car drivers, bicyclists, and pedestrians alike—obey traffic laws. Re-designing streets, improving signage and technology, and stepping up enforcement may seem simple, but these measures save lives. Last year, the city had the fewest traffic fatalities since 1910.

We dealt with congestion through technical innovation that manages capacity. In July 2011, we launched “Midtown in Motion,” a system that monitors traffic conditions in real time and allows remote operators to adjust signals before jams occur. We also published the NYC Street Works Manual, a guide that privately-owned electricity, gas, and steam utilities and construction companies agreed to use to coordinate their sub-surface work schedules with other road work the City is doing. As a result, streets will be torn up less often.

We are also innovating with technology to manage parking. In the Bronx, we launched a pilot that uses in-ground sensors to determine where parking is available. We also released a study of public parking in



Average Energy Use for Large Buildings (50,000+ sq. ft.) Benchmarked in 2011



Source: NYC Mayor's Office, Constantine E. Kontokosta, New York University

the Manhattan Core that outlines potential measures to align our current off-street parking regulations with market conditions and policy goals.

As we worked to give New Yorkers more transportation options, make the streets safer, and reduce congestion, we still invested most of our dollars into our physical infrastructure—the steel, concrete, and asphalt of the city's streets and bridges. On the Brooklyn Bridge, for example, we are painting the bridge, repaving the road surfaces, replacing steel decks and ramps, and rehabilitating historic arch blocks, railings, and masonry structures. This work continued in the past year and is scheduled to be completed by 2014 with minimal disruption to drivers, pedestrians, and cyclists. We are also renovating the Manhattan Bridge, where we will replace all the suspending cables, re-wrap the main cables, and install better lighting by June 2013.

Our infrastructure—particularly public transit—is in comparatively better shape than it has been in many years. These assets are the foundation of our economy. But long-term operational and capital funding remains a challenge. All New Yorkers—and all Americans—should be concerned about the economic threat posed by past under-investment in transportation. The MTA provides a Herculean service every day, and maintaining and improving it will depend on the Governor and Legislature continuing their recent efforts to provide financial support for capital improvements and on-going operations and maintenance. We will continue to work with our federal delegation as well to urge Congress to fund transportation appropriately. Job growth and economic growth depend on it. With funding to maintain and upgrade our infrastructure, the transportation system will continue to play a large role in bringing about a greener, greater New York.

Energy

In the past year we made significant strides toward our goal of reducing energy consumption and making our energy system cleaner and more reliable.

Since 75% of our greenhouse gas emissions stem from energy use in buildings, we have continued PlaNYC's focus on promoting efficiency in our largest buildings. In 2009 we enacted a suite of laws, known as the Greener Greater Buildings Plan, that require transparency in the reporting of energy use and cost-effective efficiency measures. Through the enactment of one of those laws, beginning in 2011, privately owned buildings over 50,000 square feet were required to submit reports of energy performance measurements in a process called "benchmarking." Though buildings of this size represent just 2% of the total number of buildings in the city, they are responsible for approximately 45% of total energy consumption, making this law both targeted and high-impact.

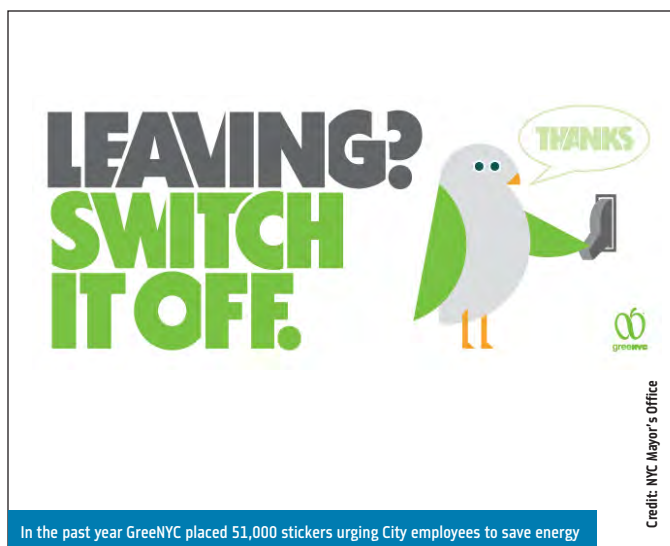
After the City Council passed the bill in 2009, we worked continuously with the real estate industry, EPA, Urban Green Council and utilities to educate building owners about these new requirements. In cooperation with the City University of New York (CUNY) we established a benchmarking hotline that assisted property owners by handling over 1,700 calls. As a result, the first year of benchmarking yielded a 75% compliance rate, covering over 1.6 billion square feet of real estate. New York City now leads the nation on data collection about building energy usage.

In conjunction with New York University and University of Pennsylvania, we commenced the statistical analysis of energy data to assess and determine trends. This information will reveal where the most energy savings can be found and target programs to help property owners conserve energy. Benchmarking data for large non-residential buildings will be made public in September 2012, followed next year with the release of large residential building data.

Improved data on energy usage will encourage private investment in projects that will yield savings through improved efficiency. In 2011, we launched the New York Energy Efficiency Corporation (NYCEEC) with \$37 million in initial capital from federal stimulus funds to catalyze the marketplace for energy efficiency retrofit financing. Late in 2011, NYCEEC completed its first transaction, leveraging private capital with public funds at a 9-to-1 ratio to enable the retrofit of an inefficient mid-century commercial condominium in Lower Manhattan. NYCEEC is currently negotiating a number of other projects and is developing a comprehensive financing program for boiler retrofits as part of the NYC Clean Heat program.

We have also worked to adopt enhancements to other building codes and regulations to ensure that all building projects are energy efficient. In February 2012, we passed the two-year anniversary of the Green Codes Task Force recommendations, 29 of which have now been enacted, including 11 which impact energy.

Because government should serve as a model for the practices it asks of others, we have committed to reduce municipal greenhouse gas emissions by 30% by 2017, more than a decade sooner than our citywide goal of a 30% reduction by 2030. We have benchmarked over 2,730 City-owned buildings and in late 2011, published our first report analyzing the data. The City uses this information to prioritize City buildings for energy audits and retrofits. To achieve this goal, the City allocated 10% of its \$800 million energy budget—roughly \$80 million a year—to reduce energy consumption in City buildings, and invest in clean distributed generation and renewables. To date, we have completed 130 energy retrofit projects, saving the City about \$5 million a year on energy costs. In 2011, the City kicked off approximately 100 energy audits.



Reliability of the energy system is critical to ensuring the continued operation of vital facilities such as wastewater treatment plants and hospitals and to protect our population, particularly its most vulnerable members. Last summer's historic peak load day on July 22nd and Tropical Storm Irene in August placed severe strains on our local energy infrastructure. To help Con Edison better manage electric system peak load events, early this year we issued a Request for Proposals (RFP) to enhance capabilities of City-owned buildings to shed load during peak periods.

We have also worked with private investors and State and federal entities to foster the development of new generation assets and transmission lines. We supported the Astoria Generating Company's application to build its new highly-efficient 550 megawatt power plant, which opened in July 2011 and will reduce the carbon content of the city's energy supply by replacing an older oil-fired plant. We also supported the new Bayonne Energy Center, a 512 MW block of highly efficient gas turbines in Bayonne, NJ that will serve Brooklyn, and the Hudson Transmission Partners (HTP) transmission line—both now under construction—that will improve the reliability of the city's energy supplies.

To further ensure the reliability of our bulk electricity supply system, we worked closely with relevant stakeholders to analyze the impact of a potential closure of the Indian Point Energy Center (IPEC), which supplies up to 30% of New York City's electricity. Our study found that a premature closure of the two IPEC reactors would lead to reliability problems as early as 2016, increase wholesale electricity prices 5 to 10%, increase CO₂ emissions by up to 15% and increase NO_x



The City installed cost- and energy-saving lighting upgrades at two Staten Island D5NY garages in September 2011

Credit: NYC Dept. of Citywide Administrative Services

emissions by 7 to 8%. For these reasons, we continue to support the safe operation of Indian Point.

Our initiatives to create clean energy on City property have also moved closer to fruition. Construction is underway on a 15 megawatt co-generation plant at Rikers Island. We issued a request for proposals to install solar panels on rooftops of City buildings, using the partnership model of a Power Purchase Agreement, and released a solicitation for the placement of utility scale renewable energy sources on the site of the former landfill at Fresh Kills in Staten Island. The City has now completed ten solar PV installations using federal stimulus grant funds, and has six solar thermal projects under design. We supported the New York Power Authority, Con Edison, and the Long Island Power Authority in the application for a federal lease necessary to site an off-shore wind project 13 miles from the Rockaway shores. At a size of up to 700 MW, this project presents one of the best opportunities to harness large scale renewable power near the city.

We also took steps to enable private property owners to install renewable energy systems on their buildings. The Planning Commission recently approved the “Zone

Green” proposal to amend the City’s zoning resolution to more flexibly allow rooftop solar and wind facilities as well as better insulation. In partnership with the CUNY, we launched the NYC Solar Map, which enables New Yorkers to determine the technical and economic feasibility of generating solar energy on their rooftops. Also in conjunction with CUNY, we were awarded the U.S. Department of Energy’s “Sun Shot” Rooftop Solar Challenge to develop a one-stop online permit tracking system and other programs that will help reduce the costs of installing solar energy.

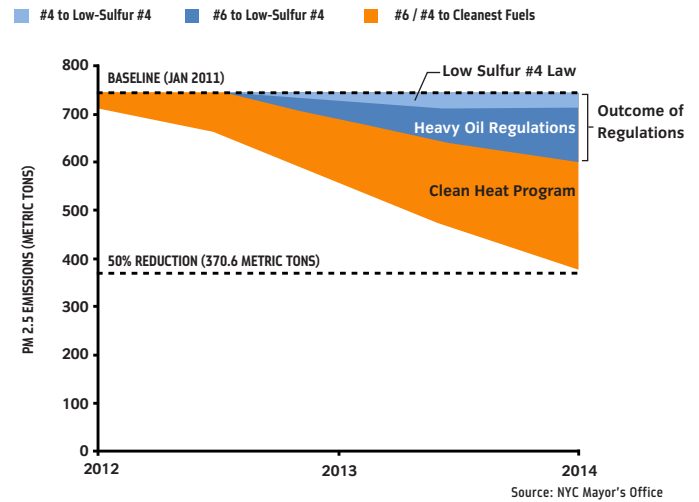
Finally, we are supporting much needed investments in our natural gas infrastructure. We are working with National Grid to harvest methane gas from our largest sewage treatment plant, Newtown Creek, and then purify and inject it into the natural gas network. This system, which will be one of the nation’s first examples of adding gas from wastewater treatment process into a utility gas network, is expected to become operational in 2013. We also testified in Congress and advocated in regulatory proceedings in favor of two new natural gas pipelines that will bring the city its first new major sources of gas transmission in some 40 years. And we are working closely with Con Edison and National Grid to encourage investments in their gas



NYC Service volunteers talk to residents about the NYC Clean Heat program

Credit: NYC Mayor's Office/Steve Caputo

Sources of Emissions Reductions to Achieve 50% Goal by End of 2013



distribution systems that will help accelerate the phase out of highly polluting heavy heating oils in buildings across the city as part of the NYC Clean Heat program.

In all of these matters, the City has acted as a vigorous advocate for businesses and individual consumers in New York, increasing the reliability and diversity of the critical energy supplies that support our economy and quality of life. Our advocacy also saves New Yorkers money: for example, in the past year we worked with Governor Cuomo and the Legislature to change the City's property tax treatment on "peaker" plants in ways that will save money for ratepayers.

With many efforts underway and more to come, we are putting foundations in place to reduce our energy consumption and move toward cleaner and more reliable energy sources.

Air Quality

PlaNYC set the goal of achieving the cleanest air of any major U.S. city. In 2011, we took a significant step toward this goal by adopting regulations to phase out the dirtiest heating fuels used in buildings in the city—Numbers 4 and 6 heating oil. Studies completed as part of the New York City Community Air Survey (NYCCAS), another PlaNYC initiative, show that neighborhoods in close proximity to buildings burning Numbers 4 and 6 heating oil have annual average particulate matter 2.5 (PM_{2.5}) levels that are 30% higher than areas with fewer buildings burning those dirty fuels. (PM_{2.5} is fine particulate matter, more commonly called soot, which embeds in our lungs, causing asthma and other respiratory problems. It is a byproduct of burning fuel

in cars, trucks, buses, buildings, and power plants.) The two forms of heavy heating oil are burned to heat only 1% of the buildings in New York. However, this relative handful of buildings emits more soot than all of the cars and trucks in the city combined. Under the City's regulations, Number 6 heating oil will be phased out by 2015 and Number 4 heating oil by 2030.

To accelerate the conversion of buildings to cleaner heating fuels, we joined with the Environmental Defense Fund, National Grid, and Consolidated Edison to launch NYC Clean Heat, a multi-faceted program that provides technical assistance to property owners and encourages them to convert to cleaner fuels at a faster pace than required by the regulations. More than 300 heavy oil conversions were completed in 2011, 94% of which were to the cleanest fuels (natural gas or Number 2 oil), rather than Number 4 oil. This amounted to 31 metric tons of PM_{2.5} reduction.

The City is working to provide financial assistance for low-income buildings wanting to convert in 2012 and is working with banks to offer financing for conversions. With the financing component of the Clean Heat program, the City has set a goal of reducing PM_{2.5} emissions from the use of heavy heating oil by 50% by the end of 2013. Achieving this goal will save 120 lives annually and result in 200 fewer emergency room visits by reducing the number and severity of asthma attacks, among other respiratory problems.

To reduce emissions from transportation sources, we added 70 additional electric vehicles to the City's fleet in the past year, bringing the total to 430. Coupled with 5,973 alternative fuel vehicles, New York has the largest municipal clean fleet in the nation. We also launched Drive Electric NYC, a website providing users with facts about electric cars. The site includes a map



A Police Department electric vehicle patrol car; this year the City added 70 new electric vehicles to its fleet

of public charging stations in the city, a cost calculator link to help potential owners understand the total cost of an electric vehicle versus a conventional vehicle—including fuel costs—and describes how electric cars work in everyday use. We are also collaborating with Boston and Philadelphia as part of the Northeast Regional Electric Vehicle Partnership to improve conditions for electric vehicles and alleviate barriers to early electric vehicle adoption through low-cost, high-impact actions.

Working with the New York City Council, we also took steps to improve indoor air quality. Recently adopted laws will reduce harmful emissions from carpets, filter soot from incoming air, and reduce red tape for asbestos removal. These laws are among the 111 recommendations of the NYC Green Codes Task Force which address a variety of issues, including carbon emissions, public health and safety, and resource conservation.

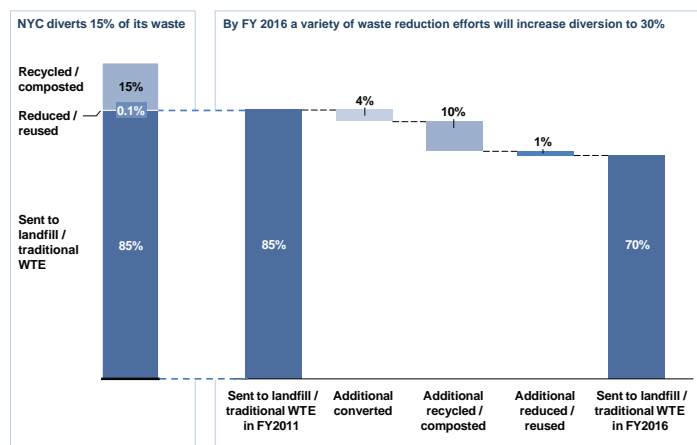
We are also improving air quality along the waterfront. The City signed an agreement with the Port Authority of New York and New Jersey, New York Power Authority, and Princess Cruises and Cunard Line, allowing cruise ships to turn off their engines and plug into the City's electrical grid while in port at the Brooklyn Cruise

Terminal rather than using auxiliary engines powered by diesel fuel. The partnership will bring first-of-its-kind green port technology to New York City. Enabling ships to plug into the land-side power grid at the port rather than burning oil on the ships to produce electricity will eliminate nearly 1,500 tons of carbon dioxide, 95 tons of nitrous oxide and 6.5 tons of diesel particulate matter annually—the equivalent of removing 5,000 cars per year from the road annually. Shore power capabilities at the Red Hook Cruise Terminal will be completed in 2012.

To ensure that our air quality efforts are targeted at the biggest sources of local emissions, NYCCAS has continued to measure PM_{2.5}, nitrous oxide (NO_x), sulfur dioxide (SO₂), and ozone (O₃) at 100 locations citywide and was expanded to collect data on other common air pollutants, including benzene and formaldehyde. A report based on the first round of sampling for these new pollutants will be released later this year.

Cities have long been associated with dirty air, but this does not have to be the case. The City is not only leading by example, but is working with business and industry to adopt the most cost effective technologies to significantly reduce air pollution. The results will be wide-spread and permanently raise our standards of the quality of urban life.

Projected Reductions in Solid Waste Sent to Landfills



Source: NYC Mayor's Office



New York City public recycling containers

Credit: NYC Dept. of Sanitation

Solid Waste

The 2011 PlaNYC update included an ambitious new goal: divert 75% of the city's solid waste from landfills by 2030. In his January 2012 State of the City address, Mayor Bloomberg committed the City to double the diversion rate for residential and institutional waste by 2017. To achieve these goals, the City has already begun to implement the three-part Waste Reduction Plan, which will be the subject of further announcements this year and builds upon the City's Comprehensive Solid Waste Management Plan (SWMP), approved by the City Council in 2006.

To help achieve our goals, we kicked off a clothing and apparel recycling program in 2011 in partnership with Housing Works, called re-fashionNYC. This partnership increases reuse while helping Housing Works achieve its mission by funding their services for homeless and low income New Yorkers affected by HIV/AIDs. Under the program, collection bins are placed in participating apartment buildings at no cost to the building's owner or taxpayers. Joining the program only requires a landlord, building manager or superintendent to monitor the bin and notify Housing Works when the bin is full. The program has already collected an estimated 350 tons at over 150 locations, and will continue to expand through 2012. Ultimately the program will branch out to businesses, non-profits, and public spaces.

Educating residents about the importance of recycling is a significant task, and focusing on our 1.1 million school children is an excellent place to start. In 2010, in cooperation with the City Council we mandated that all

public schools designate a Sustainability Coordinator, and now nearly every school has appointed one. The Sustainability Coordinator is responsible for developing and implementing a site specific sustainability plan which must identify goals and action items on recycling, waste reduction, and energy conservation, and create a school green team that includes the principal, teachers, custodians, students, and parents.

To increase community composting, we awarded composting grants to participants in the web-based Change By Us NYC platform.

Important progress has also been made on the City's SWMP commitment to shift the transport and disposal of our waste from long-haul trucks to rail and barge. This shift will help improve air quality, decrease the noise and other impacts caused by long-haul trucks, and decrease GHG emissions. Currently, approximately 32% of City collected waste is transported out of the city by rail, 20% by City collection truck, and 47% by long-haul truck. Two new marine transfer stations (Hamilton Avenue and North Shore) are under construction and are expected to be operational in 2013, and construction of another, at East 91st Street in Manhattan, will begin later this year. A recycling processing facility at the South Brooklyn Marine Terminal will open next year, which will enhance the transport of recyclables by barge and rail. These major long-term investments are transforming the City's approach to waste management.

Several other efforts are underway to increase recycling. The City is exploring the expansion of designated plastics for our curbside recycling program to include additional rigid plastics. We are introducing legislation to amend the City's building code to require recycling areas in new multi-family residential buildings.



The year ahead will include a significant acceleration of waste diversion efforts as part of the Mayor’s three-part Waste Reduction Plan. First, the City is investing in its infrastructure, including a new recycling processing facility on the Brooklyn waterfront, which will allow the City to expand the range of plastics that will be accepted at curbside. Second, new and expanded programs will offer New Yorkers more opportunities to reuse, recycle and compost. For example, the public will soon see more recycling bins on city streets, and we will increase the number of Greenmarkets accepting food scraps and textiles. And third, the City will launch new campaigns to engage the public to increase the diversion rate.

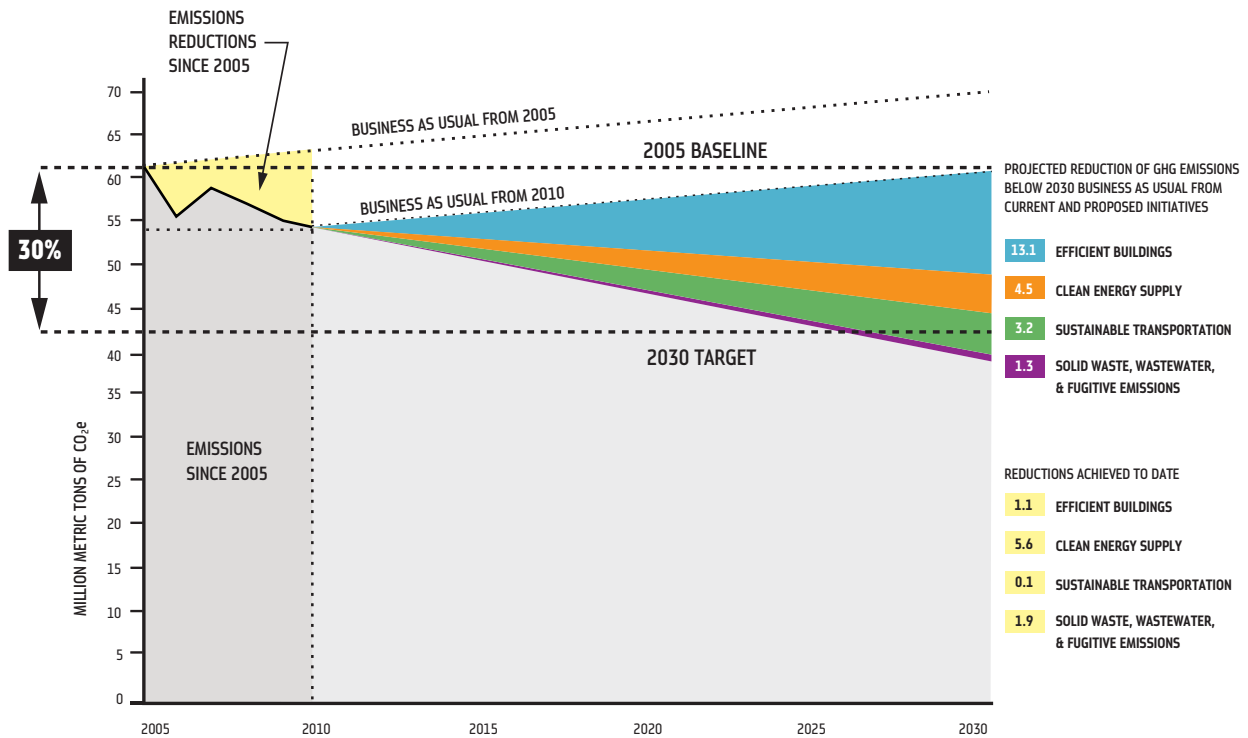
In March 2012, the City released a request for proposals for the development of a new and emerging solid waste management technology facility at a site in or within an 80 mile radius of the city. The requests for proposals builds upon several studies that identify new and emerging waste technologies—such as anaerobic digestion and thermal processing—that are already being used widely in Europe and Japan, as well as on a pilot scale in the U.S. Our research found that

these conversion technologies could offer significant economic and environmental benefits. For example, due to the pre-processing requirements for many of the technologies, these facilities could increase diversion by pulling out valuable materials for recycling. We believe these waste conversion technologies could be the future of cleaner, less costly solid waste treatment.

The pilot facility will accept up to 450 tons per day of residential and institutional waste collected by the City, and convert the waste into a source of energy. In conjunction with the City’s expanded recycling and composting efforts, this innovation has great potential to reduce the amount of waste we send to distant landfills.

One year ago, PlaNYC included a solid waste reduction goal for the very first time, and in January 2012 the Mayor used his State of the City address to emphasize several of the means of reaching that goal. In the past several months, we worked to launch new and expanded efforts which will dramatically alter the course of waste reduction in New York City and lead us to a greener, greater future.

Projected Impacts of our Greenhouse Gas Reduction Strategies



Source: NYC Mayor's Office and M.J. Beck Consulting, LLC

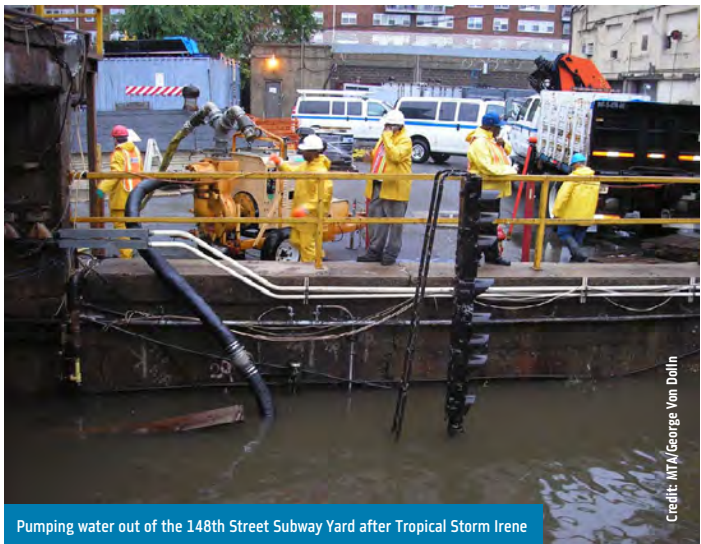
Climate Change

New Yorkers experienced a series of extreme weather events in the past year, including Tropical Storm Irene and the July 2011 heat wave, which set peak energy usage records in the city. While individual events cannot be attributed to climate change, scientists predict that these types of events will get more frequent and intense as a result of a changing climate.

The City is taking aggressive actions to reduce our contributions to climate change while simultaneously preparing for its inevitable impacts. We have reduced citywide greenhouse gas (GHG) emissions 12% below 2005 levels and are on track to achieve our goals of a 30% reduction in citywide emissions by 2030 and a 30% reduction in City government emissions below fiscal year 2006 levels by 2017. But even the most extraordinary GHG mitigation measures cannot prevent some of the impacts of climate change from affecting us. In addition to reducing our emissions, we have a responsibility to increase the resilience of our communities, natural systems and infrastructure to climate risks, such as increasing temperatures, more frequent heat waves, heavy rain storms, and rising sea levels.

Several actions have contributed to GHG reductions and put us on track to meet our long-term goal. The New York City Green Codes Task Force, convened by the Urban Green Council at the request of Mayor Bloomberg and City Council Speaker Christine Quinn, developed 111 recommendations to “green” the City’s construction codes, 50 of which focused on increasing energy efficiency in buildings. To date, 29 of the Task Force’s recommendations have been enacted and are projected to reduce the citywide GHG emissions by 5% by 2030.

The Intergovernmental Panel on Climate Change (IPCC) has determined that global GHG emissions need to be reduced by 60 to 80% below 1990 levels by 2050 to avoid the catastrophic effects of climate change. Reducing 80% of New York City’s GHG emissions by 2050 will require an altogether new framework, one that leap-frogs over an expansion of current efforts to massive change. Recognizing the scope of this challenge, we won a \$1,000,000 grant from the New York State Energy Research and Development Authority to develop a roadmap to reduce citywide greenhouse gas emissions 80% by 2050. The roadmap will prioritize those actions that have the greatest potential to stimulate economic growth and identify



Pumping water out of the 148th Street Subway Yard after Tropical Storm Irene

Credit: MTA/George Von Dolin



At a Ready New York event, OEM provides information on how to stay safe

Credit: NYC Office of Emergency Management

near-term actions, particularly regulatory or policy changes needed to put us on a pathway to achieve dramatic carbon reductions.

To prepare for the impacts of climate change, we reconvened the New York City Climate Change Adaptation Task Force to build upon initial risk assessments completed in 2010. The Task Force is composed of 41 City, State, and federal agencies; public authorities; and private companies that operate, maintain, or control critical infrastructure in New York City. Task Force members are working to quantify the impacts of climate change on the city's critical infrastructure and develop coordinated strategies to adapt our roads, bridges, and tunnels; mass-transit network; water and sewer systems; electric, gas, and steam production and distribution systems; telecommunication networks; open space and natural areas; and other critical infrastructure to become more resilient to climate risks.

As we begin to make our infrastructure more resilient, which helps protect our economy and public health, we are also taking a closer look at some important current climate health risks that are likely to increase, including high temperatures, summer ozone concentrations, coastal storms, and power outages. Over the next year, we will release the results of these assessments and continue to work to improve public health readiness for climate change.

We also launched an effort to work with the Federal Emergency Management Agency (FEMA) to update the city's FEMA Flood Insurance Rate Maps, which have not been substantially updated since 1983. The updated maps will be based on more precise elevation data and will reflect changes in our shoreline, built environment and sea level, which has already risen

three inches since the 1980s. New maps being developed by the City, including projected sea level rise, will help government agencies, property owners, and communities better understand their current and future flood risks and plan for climate change. We are also evaluating and developing an inventory of coastal protection strategies, from wave attenuators and soft edges to storm surge barriers, to identify how and where each could play a role in the city's extensive and varied waterfront, which spans over 520 miles.

Sea level rise and intensifying storms as a result of climate change have major implications for the design of our buildings and streets as well. New residential buildings currently must elevate occupied space above the FEMA-designated flood level (the base flood elevation). Significantly lower federal flood insurance rates are available to buildings that further raise this space by one or two feet—an approach known as freeboard. The need to comply with FEMA regulations and better manage flood risks will require changes in the design of buildings. To ensure that new buildings support an active street life and vibrant communities, we have launched a study of the design implications of freeboard, which will identify best practices for the design of flood-resilient buildings.

There is no doubt that climate change will affect life in New York. We have a responsibility to both reduce our GHG emissions that contribute to climate change and to increase our ability to prepare for, withstand and respond to future environmental conditions. By bringing a science-driven, risk-based approach to our climate change activities, we are able to target our efforts and resources to the actions that have the biggest impacts toward meeting our emissions reduction and climate resilience goals.

Conclusion



We continue to make progress toward our PlaNYC goals. Concrete efforts are underway to achieve the 404 milestones to be met by December 31 2013—over 14% of which were completed in the past year. Activities to meet 8% of the milestones have not been started, but will launch within the next year. We remain committed to meeting the near-term milestones in PlaNYC and keeping the city on a pathway to achieving our long-term goals.

PlaNYC is reshaping how we build, operate, and maintain our city. From zoning code changes to permit more solar installations, to brownfield cleanups turning blight into opportunity, we are improving the quality of life for New Yorkers in every corner of the city. But while this progress report emphasizes the hundreds of things that the City government is doing to create a greener, greater New York, we recognize this is not a job the City government can accomplish alone. We are joined by citywide partners like the New York Restoration Project, which is helping us meet the ambitious goals of the MillionTreesNYC program, and by the local business associations who make the Public Plaza program come to life. We work with other levels of government like the Federal Emergency Management Administration to prepare the city for climate risks, and regional authorities like the State-managed MTA to improve the convenience of bus service. These partnerships are essential to the success of PlaNYC.

Individual New Yorkers play a decisive role too. During the past year, NYC Service continued to inspire volunteers to coat rooftops through the NYC°CoolRoofs program, practice tree stewardship and canvass neighborhoods to encourage property owners to convert their boilers to clean fuels. GreenNYC, the public engagement arm of PlaNYC,

continued to educate, engage and mobilize New Yorkers to live a more sustainable lifestyle. GreenNYC recently redesigned its web site, which subsequently saw a 425% increase in traffic. GreenNYC's mascot Birdie conveyed key messages throughout the year: in the summer Birdie mounted an education campaign to urge New Yorkers to drink New York City tap water to stay cool, and in the winter he promoted Mulchfest to encourage recycling at the holidays. GreenNYC also distributed 51,000 light switch stickers to motivate energy conservation in City buildings, with Birdie reminding people to "switch it off."

We also work cities around the world through the C40 Climate Leadership Group, which Mayor Bloomberg chairs, to share best practices and advocate for the needs of cities to national and international entities. In 2011, the C40 held its biannual summit, with over 800 participants from around the world. The C40 and World Bank signed a new agreement to improve financing to cities investing in their infrastructure. C40 and other international organizations also worked to standardize the reporting protocol for greenhouse gas emissions. More recently, C40 launched working groups on infrastructure and economic development, in which the City will participate.

Our long-term goals are ambitious but achievable, with sustained action and commitment. This year's Progress Report, while marking what we have achieved to date, also makes clear how much remains to be done. We will succeed by using the methods that have brought us this far: bold ideas to overcome intractable challenges, clarity of long-term purpose, specificity of short-term action, continual measurement, and strong partnerships. Working together, we can achieve a greener, greater New York.

Sustainability Indicators

We track 30 Sustainability Indicators to monitor current conditions and relate them to our long-term goals. These indicators are designed to provide quantifiable metrics for each PlaNYC goal, so that one can tell if we are achieving one part of a goal but not another.

The Indicators, part of our on-going commitment to transparency and accountability, help us assess whether changes to the plan are needed. They are a subset of the New York City Department of Health and Mental Hygiene's Environmental Public Health Tracking Portal.

In an effort to better integrate the City's various disclosure documents, other City reports will also help illuminate progress toward PlaNYC goals. In September 2012, the annual Mayor's Management Report, which tracks municipal agency performance, will for the first time cross-reference how the City's own organizational actions relate to PlaNYC. This cross-reference will help City employees as well as the public see more clearly how municipal management practice is tied to sustainability goals.

| CATEGORY | METRIC | 2030 TARGET | FIGURE FOR MOST RECENT YEAR | TREND SINCE BASE YEAR |
|---|--|------------------|-----------------------------|-----------------------|
| HOUSING AND NEIGHBORHOODS | Create homes for almost a million more New Yorkers while making housing and neighborhoods more affordable and sustainable | | | |
| | Increase in new housing units since January, 2007 | 314,000 | 122,969 ₁ | ↗ |
| | Total units of housing in NYC | INCREASE | 3,352,041 ₁ | ↗ |
| | % of housing affordable to median-income NYC household | INCREASE | 60.0% ₁ | ↘ |
| | Vacancy rate of least expensive rental apartments | INCREASE | 1.0% ₁ | ↗ |
| | % of new units within a 1/2 mile of transit | >70% | 85.5% ₁ | NEUTRAL |
| | Residential building energy use per capita (source MMBTU) (3 yr rolling avg) | DECREASE | 49.3 ₂ | NEUTRAL |
| PARKS AND PUBLIC SPACE | Ensure all New Yorkers live within a 10-minute walk of a park | | | |
| | % of New Yorkers that live within a 1/4 mile of a park | 85% | 75.6% ₁ | ↗ |
| BROWNFIELDS | Clean up all contaminated land in New York City | | | |
| | Number of vacant tax lots presumed to be contaminated | DECREASE | 1,500 – 2,000 ₁ | NEUTRAL |
| WATERWAYS | Improve the quality of our waterways to increase opportunities for recreation and restore coastal ecosystems | | | |
| | Fecal coliform rates in New York Harbor (Cells/100mL) (5 yr rolling avg) | DECREASE | 35.3 ₁ | ↗ |
| | Dissolved oxygen rates in New York Harbor (mg/L) (5 yr rolling avg) | INCREASE | 6.6 ₁ | NEUTRAL |
| WATER SUPPLY | Ensure the high quality and reliability of our water supply system | | | |
| | Number of drinking water analyses below maximum contaminant level | INCREASE | 99.9% ₁ | ↗ |
| TRANSPORTATION | Expand sustainable transportation choices and ensure the reliability and high quality of our transportation network | | | |
| | Sustainable transportation mode share (Manhattan CBD bound commute) | INCREASE | 73.6% ₂ | NEUTRAL |
| | Change in transit volume minus change in auto traffic volume since 2007 | POSITIVE | 0.9% ₂ | ↗ |
| | Vehicle revenue miles (Miles transit vehicles travel in revenue service) | INCREASE | 924,589,268 ₂ | ↗ |
| | % of bridges meeting a state of good repair (FY) | 100% | 41% ₁ | NEUTRAL |
| | % of roads meeting a state of good repair (FY) | 100% | 72% ₁ | ↗ |
| ENERGY | Reduce energy consumption and make our energy systems cleaner and more reliable | | | |
| | Greenhouse gas emissions per unit of electrical power (lbs CO ₂ e/MWh) | DECREASE | 696.9 ₂ | ↘ |
| | System reliability: CAIDI (Customer Average Interruption Duration Index) | DECREASE | 2.71 ₁ | ↗ |
| | System reliability: SAIFI (System Average Interruption Frequency Index) | DECREASE | 147.0 ₁ | ↘ |
| AIR QUALITY | Achieve the cleanest air quality of any big U.S. city | | | |
| | City ranking in average PM 2.5 (3 yr rolling avg) | #1 (LEAST) | 6.7 ₂ | ↘ |
| SOLID WASTE | Divert 75% of our solid waste from landfills | | | |
| | Percentage of waste diverted from landfills (includes fill) | 75% | 56% ₂ | ↗ |
| CLIMATE CHANGE | Reduce greenhouse gas emissions by more than 30% | | | |
| | Increase the resilience of our communities, natural systems, and infrastructure to climate risks | | | |
| | Greenhouse gas emissions (MTCO ₂ e) | DECREASE 30% | 54,348,841 ₂ | ↘ |
| | Greenhouse gas emissions (100% = 2005 GHG emissions) | 70% | 88% ₂ | ↘ |
| | Greenhouse gas emissions (MTCO ₂ e) per GCP (\$M) | DECREASE | 97.4 ₂ | ↘ |
| Greenhouse gas emissions (MTCO ₂ e) per capita | DECREASE 30% | 6.7 ₂ | ↘ | |

1 Results are for FY or CY 2011

2 Results are for FY or CY 2010; data is only available with a lag

Implementation

While PlaNYC addresses long-term challenges, there are many things we need to do today to create a greener, greater New York. Each of the 132 initiatives in PlaNYC has multiple milestones to be achieved by December 31, 2013, which will put us on a pathway to achieve our long-term goals. This combination of long-term vision and short-term action is critical to our success.

Implementing PlaNYC requires the collective involvement of multiple City agencies and the City Council, plus cooperation and resources from state and federal agencies, regional authorities, private businesses, community organizations, and individual New Yorkers. The following pages outline the responsibilities, milestones, and actions—collectively termed “Milestones”—that we committed to achieve in 2011 and our progress toward meeting our goals.

| PROGRESS SINCE APRIL 2011 | MILESTONES TO COMPLETE BY DECEMBER 31, 2013 | STATUS |
|--|--|-------------|
| CREATE CAPACITY FOR NEW HOUSING | | |
| 1 Continue transit-oriented rezonings | | |
| <p>In 2011, the City Planning Commission approved rezonings for West Clinton in Manhattan, Sunnyside-Woodside in Queens, Williamsbridge/Baychester in the Bronx, and Boerum Hill in Brooklyn to allow for growth opportunities near transit. In West Clinton and Sunnyside-Woodside, affordable housing will be encouraged through the Inclusionary Housing Program. In February 2012, the City Planning Commission certified into ULURP the Woodhaven-Richmond Hill rezoning, which would direct new residential and mixed-use development opportunities toward transit corridors while preserving the character of sidestreets with contextual zoning districts.</p> | Continue to create opportunities for denser development in transit-accessible areas, in large rezonings including Sunnyside/Woodside, Bedford-Stuyvesant North, West Harlem, West Clinton, and East Fordham Road | In progress |
| | Continue to apply Inclusionary Housing Program in rezonings that encourage substantial new housing development | In progress |
| 2 Explore additional areas for new development | | |
| <p>We released the North Shore 2030 final report and Action Agenda for the Staten Island North Shore. In March 2012, The MTA and EDC issued an RFP for reuse of seven MTA properties that are no longer needed for the transit network. In 2011, the City began the environmental review process for the Seward Park sites in Lower Manhattan. In March 2012, the City Planning Commission certified the ULURP applications for this site to begin public review. The City launched the study of Metro-North station areas in the Bronx, and held visioning sessions for the University Heights and Melrose station areas in March 2012. In November 2011, Coach Inc. announced that it would locate its headquarters at Hudson Yards. We have reduced government leased or owned space by over 293,00 square feet, bringing the total amount reduced to over 450,000 square feet.</p> | Advance development and open space plans for the Staten Island North Shore | In progress |
| | Identify additional potential infill opportunities on NYCHA grounds citywide | In progress |
| | Explore opportunities for transit-oriented development and related improvements around Metro-North stations in the Bronx | In progress |
| | Explore opportunities for the use of underutilized MTA properties to create housing, economic development, open space, or other opportunities to enhance surrounding communities | In progress |
| | Implement improvements in Hudson Yards to catalyze development | In progress |
| | Unlock development potential of underutilized Seward Park sites | In progress |
| | Reduce City government leased or owned space by 1.2M square feet | In progress |
| 3 Enable new and expanded housing models to serve evolving population needs | | |
| <p>The City convened a multi-agency working group to identify opportunities to expand the range of safe, sustainable housing types available to smaller households.</p> | Explore regulatory and legislative changes to allow the creation of safe and legal additional units in existing housing | In progress |
| | Explore new housing models to promote smart growth and serve smaller households | In progress |
| FINANCE AND FACILITATE NEW HOUSING | | |
| 4 Develop new neighborhoods on underutilized sites | | |
| <p>In December 2011, the City broke ground on off-site construction of infrastructure at Willet's Point. The City also selected a developer to begin construction on 900 units of housing at Hunter's Point South. We completed construction of over 1,000 units in Arvene, Queens and over 350 units in Gateway, Brooklyn.</p> | Begin construction on 900 units of housing in Hunter's Point South, Queens | In progress |
| | Begin infrastructure construction and remediation for Willets Point Phase I, a mixed-use development including 400 housing units | In progress |
| | Complete construction on 1,300 units and begin construction on 900 units in Arvene, Queens; Complete construction on 400 units and start construction on 80 units in Gateway, Brooklyn | In progress |
| 5 Create new units in existing neighborhoods | | |
| <p>We developed 4,055 units of new construction under the New Housing Marketplace Plan in FY11, including over 2,000 units of housing in the Melrose Commons Urban Renewal Area, all of which are affordable units. NYCHA completed construction on 670 units and began construction on 235 units in underutilized sites.</p> | Develop 20,000 new units by 2014 under the New Housing Marketplace Plan | In progress |
| | Complete construction of over 3,000 units in Melrose Commons Urban Renewal Area | In progress |
| | Complete construction on 1,640 units and begin and finish construction on 1,800 affordable units in NYCHA sites | In progress |
| | Explore modification of parking requirements for affordable housing to lower construction costs and facilitate housing creation | In progress |
| 6 Develop new housing units in existing City properties | | |
| <p>We approved financing for the renovation of PS109 in East Harlem, which will create 90 units of affordable housing for artists.</p> | Start construction of housing units in the former PS 109 in East Harlem | In progress |
| | Start construction of affordable housing on underutilized DSNY facility on West 20th Street in Manhattan | Not started |
| ENCOURAGE SUSTAINABLE NEIGHBORHOODS | | |
| 7 Foster the creation of Greener, Greater Communities | | |
| <p>The City launched Change By Us, an on-line engagement platform, in July 2011 to foster the creation of greener, greater communities. Over 290 projects in 69 neighborhoods have been launched on the site. The City awarded over \$20,000 in grants to 19 community groups to support compost and park projects and garden and tree stewardship. In 2012, the City held the "Grow Our Grassroots" summit in conjunction with MillionTreesNYC to connect volunteers and provide training on tree care, composting, and park and garden stewardship. The City also launched the Sustainable East New York study and has conducted over 20 outreach meetings and workshops with Community Boards (CB), community-based organizations and elected officials as part of this HUD-funded project.</p> | Launch Greener, Greater Communities pilot | Completed |
| | Conduct Sustainable East New York study, incorporating community sustainability in addition to land use objectives | In progress |

HOUSING AND NEIGHBORHOODS

| | PROGRESS SINCE APRIL 2011 | MILESTONES TO COMPLETE BY DECEMBER 31, 2013 | STATUS |
|--|--|---|-------------|
| HOUSING AND NEIGHBORHOODS | 8 Increase the sustainability of City-financed and public housing | | |
| | We began the Enterprise Green Communities certification process for over 20 projects, conducted eleven Green Owners Nights, and launched a social media platform for the NYC Green House education initiative. HPD provided financing for over 2,000 units with energy efficiency requirements in FY11. NYCHA has continued to conduct outreach to increase the number of Green Teams, finalized six Green Physical Needs Assessment pilot projects and is reassessing the Energy Performance Contracting Program with HUD. NYCHA also completed a stormwater pilot project at the Bronx River Houses. | Certify 40 affordable housing projects with Enterprise Green Communities every year | In progress |
| | | Provide financing for over 30,000 units with energy efficiency and sustainability requirements by 2014 | In progress |
| | | Promote and expand NYC Green House education initiative to encourage multifamily building owners to retrofit their buildings | In progress |
| | | Conduct six Green Owners Nights annually for small and medium-sized building owners on best practices on green energy, water, materials, and community issues | In progress |
| | | Create multi-phase Energy Performance Contracting Program to scale up energy efficiency measures | In progress |
| | | Perform a pilot Green Physical Needs Assessment on a NYCHA property | Completed |
| | | Increase the amount of NYCHA Resident Green Teams from 37 to 43 and better connect them with surrounding communities | In progress |
| | | Explore incorporating more stormwater retention efforts into NYCHA sites | In progress |
| | 9 Promote walkable destinations for retail and other services | | |
| | In November 2011, the Special Fourth Avenue Enhanced Commercial District in Brooklyn Cbs 2, 6, and 7 was adopted. In January 2012, the City began the public review process for the Upper West Side Neighborhood Retail Streets Enhanced Commercial District. In 2011, the City passed a zoning text amendment to expand the FRESH program areas in Queens CB 12. EDC, in conjunction with the Queens Economic Development Corporation, served 154 clients at E-Space; La Marqueta expanded its services to 44 clients in 2011. | Promote neighborhood shopping districts | In progress |
| Facilitate the creation of 300 more healthy food retail options in targeted underserved neighborhoods | | In progress | |
| Identify additional amendments to zoning to facilitate grocery stores in communities with food access needs | | In progress | |
| Facilitate food retail and production opportunities on City-owned spaces in underserved areas by graduating a total of 40 new clients in La Marqueta and 25 new clients in E-Space | | Completed | |
| 10 Preserve and upgrade existing affordable housing | | | |
| We preserved 11,680 units of housing under the New Housing Marketplace Plan in FY11. We provided legal advice and counsel to over 3,000 New Yorkers and assisted over 1,700 individuals in getting mortgage modifications. In addition, we performed 150 capital rehabilitations in 125 NYCHA developments. | Preserve 34,000 affordable units by 2014 under the New Housing Marketplace Plan | In progress | |
| | Perform 148 capital rehabilitations in 189 NYCHA developments | In progress | |
| | Provide legal advice and counsel to over 2,000 New Yorkers and assist 1,800 individuals in getting mortgage modifications in order to avoid foreclosure of their homes through CNYCN | In progress | |
| 11 Proactively protect the quality of neighborhoods and housing | | | |
| We surveyed 548 buildings particularly at risk of distress or decline. | Proactively conduct field studies in 1,000 buildings at risk for distress or decline | In progress | |
| TARGET HIGH IMPACT PROJECTS IN NEIGHBORHOODS UNDERSERVED BY PARKS | | | |
| 1 Create tools to identify parks and public space priority areas | | | |
| DPR began a project in Staten Island to pilot the use a matrix based on scorecard information, demographic data, environmental factors, physical condition and community need and support to identify high priority areas. | Develop matrix assessment and mapping tools to assist in targeting high priority areas | In progress | |
| 2 Open underutilized spaces as playgrounds or part-time public spaces | | | |
| The City completed construction on the 200th schoolyards to playgrounds site in November 2011 and has completed 210 sites to date. We conducted three Summer Streets in August of 2011, closing Park Avenue in Manhattan from the Brooklyn Bridge to 72nd Street. The City conducted a total of 13 Community Playstreets and permitted 11 new schools with access to Playstreets. | Complete construction and open for community use an additional 53 schoolyards to playgrounds sites bringing the total number open for public use to 230 | In progress | |
| | Conduct Summer Streets for three Saturdays each year | In progress | |
| | Conduct Weekend Walks at 20 locations annually | In progress | |
| | Expand the number of schools with access to Play Streets by 40 | In progress | |
| | Conduct 15 Community Play Streets each year | In progress | |
| 3 Facilitate urban agriculture and community gardening | | | |
| In March 2012, the City Planning Commission voted to approve the Zone Green text amendment, which includes provisions enabling rooftop agriculture. NYCHA established 40 new community gardens on NYCHA sites in 2011 and finalized funding and a MOU to create one urban farm on a NYCHA site. We launched an effort to inventory and map City-owned vacant lots to identify potential urban agriculture or community garden sites and added four farmers markets at community garden sites. The City held 40 workshops for Greenthumb gardeners, conducted the 28th annual GreenThumb GrowTogether conference that attracted over 1,000 volunteers, and developed a streamlined registration system to more accurately track community volunteers. We also started 24 new community gardens, increased public access to community gardens in Queens, and conducted workshops in Brooklyn and the Bronx to expand support for community gardens. The Grow to Learn program registered over 130 gardens and retained 80% of registered school gardens. | Launch study to identify potential urban agriculture or community garden sites on City-owned properties unsuitable for other development | In progress | |
| | Plant 129 new community gardens on NYCHA sites | In progress | |
| | Create one urban farm on a NYCHA site | In progress | |

| PROGRESS SINCE APRIL 2011 | MILESTONES TO COMPLETE BY DECEMBER 31, 2013 | STATUS |
|--|--|-------------|
| | Establish five additional farmers markets at community garden sites | In progress |
| | Increase number of community volunteers registered with GreenThumb by 25% | In progress |
| | Expand support for community gardens into new underserved neighborhoods | In progress |
| | Register 25 new school gardens with Grow to Learn NYC per year, and retain at least 75% of registered school gardens year to year | In progress |
| | Reduce impediments to agriculture in relevant laws and regulations | In progress |
| 4 Continue to expand usable hours at existing sites | | |
| The City completed construction on the 26th multi-purpose field and 10 new lighting installations. | Complete 26 multi-purpose fields | Completed |
| | Complete 19 new lighting installations | In progress |
| CREATE DESTINATION-LEVEL SPACES FOR ALL TYPES OF RECREATION | | |
| 5 Create and upgrade flagship parks | | |
| <p>The City completed construction of High Line Section 2 and the land acquisition process for Section 3. Jane's Carousel in Brooklyn Bridge Park opened. We completed sand replacement at Orchard Beach and completed 95% of the planned renovations at McCarren Park. The City opened Pier 15 on the East River Park Esplanade; and began construction on the park's seawall and esplanade. Construction continued at Transmitter Park, Highland Park, Calvert Vaux Park, Rockaway Park, Bushwick Inlet Park, Hunter's Point and Steeplechase Park. Demolition began at Stapleton Park. Procurement has been completed at Highbridge Park. The City initiated the procurement and design processes for Soundview Park and Phase I of construction of Fort Washington Park. Parks awarded a permit to develop the pier in the Anable Basin in Long Island City. Major capital construction began in January 2012 at Governor's Island with marine infrastructure underway and new park construction kicking off in spring 2012. The City also vacated Pier 97 in March 2011 so that the Hudson River Park Trust could begin reconstruction.</p> | Highland Park: Complete renovations including reservoir perimeter lighting, path restoration, and new entry points | In progress |
| | McCarren Park: Complete construction of pool and year-round recreation center | In progress |
| | Ocean Breeze Park: Complete 2,500-seat field house | In progress |
| | Highbridge Park: Restore bridge and add new entry points for wheelchair users to improve connectivity between Northern Manhattan and the Bronx | In progress |
| | The High Line: Construct Section 2 (20th to 30th streets) and pursue acquisition of Section 3 | Completed |
| | Calvert Vaux Park: Construct new sports fields, lighting, and pedestrian paths as part of phase 1 construction | In progress |
| | Fort Washington Park: Complete phase I construction | In progress |
| | Soundview Park: Complete construction of Metcalf Playground, Rosedale Amphitheater, and Metcalf Track & Field | In progress |
| | Rockaway Park: Complete construction of phase I | In progress |
| | Brooklyn Bridge Park: Complete Pier 5, reopen Empire Fulton Ferry Park and Squibb Bridge | In progress |
| | Transmitter Park: Construct 1.5-acre site, including a playground, benches, and trees | In progress |
| | East River Park Esplanade: Substantially complete park elements | In progress |
| | East River Park: Complete reconstruction of seawall and esplanade | In progress |
| | Governors Island: Commence parkland and infrastructure development | In progress |
| | Hunter's Point: Complete construction of a new five-acre park | In progress |
| | Bushwick Inlet Park: Continue phased acquisition, remediation, and development of parks | In progress |
| | Stapleton: Begin construction of six-acre waterfront esplanade | In progress |
| | Steeplechase Park: Complete construction of Steeplechase plaza and restoration of carousel | In progress |
| | Orchard Beach: Replenish with clean sand, and expand the South Jetty | Completed |
| | Anable Basin: Complete design and reconstruction of pier | In progress |
| Hudson River Park: Construct an upland esplanade in Tribeca, reconstruct Pier 97 | In progress | |
| Bush Terminal: Complete remediation of open space and advance phase I of park | In progress | |

| PROGRESS SINCE APRIL 2011 | MILESTONES TO COMPLETE BY DECEMBER 31, 2013 | STATUS |
|--|--|-------------|
| 6 Convert former landfills into public space and parkland | | |
| The City completed construction at Schmul Park, received approvals for North Park and Greenway and began design of the East Park at Freshkills Park. We are working to open Pelham Landfill to the public. The City completed construction of one section of the Ferry Point Park. | Freshkills Park: Develop the first public access areas overlooking Main Creek and continue capping and closing of east and west mounds | In progress |
| | Pelham Landfill: Open to the public | In progress |
| | Ferry Point Park: Complete Community Park | Completed |
| 7 Increase opportunities for water-based recreation | | |
| The City completed preliminary design of Hunts-Point Riverside Park and started construction of a full service waterfront restaurant at the Dyckman Street Marina. EDC released an RFP for a berthing operator at West Harlem Piers Park. We launched an interagency group to coordinate issues related to public water access, including installing real-time monitoring devices to measure and monitor combined sewer overflow discharges, ensuring that water quality considerations are linked to public access investments, opening new City-funded access points in appropriate locations, and implementing systems to improve public information about in-water conditions. | Develop multi-agency task force to assess opportunities for expanding the blue network across the city for water-based recreation | Completed |
| | Complete expansion of launch platform at Hunts Point-Riverside Park | In progress |
| | Complete repair and replacement of floating docks at Dyckman Street Marina | In progress |
| | Activate West Harlem Piers Park's excursion boat pier and ferry barge | In progress |
| RE-IMAGINE THE PUBLIC REALM | | |
| 8 Activate the streetscape | | |
| In December 2011, the City debuted the Urban Umbrella at 100 Broadway, the winner of the urbanSHED Design Competition and outlined the acceptance criteria for urbanSHED. In November of 2011, we began installing the first CityBenches. In May 2011, a zoning text amendment to the Special Lower Manhattan District was adopted, allowing tables and chairs in existing privately owned, publicly accessible arcades along and near Water Street. The City continued to facilitate discussions on streamlining the permitting process for sidewalk cafes. In addition, we opened three new pop up cafes in the summer of 2011. | Complete construction of 13 plazas | In progress |
| | Install 500 benches throughout the city | In progress |
| | Approve the urbanSHED Design Competition winning design and work with City agencies, buildings owners, contractors, and professionals on adoption of the new design | Completed |
| | Release recommendations to further streamline the permitting process for sidewalk cafes | In progress |
| | Amend zoning to facilitate revitalization of underutilized arcades in Lower Manhattan with new active uses | Completed |
| | Open four new pop-up cafes | In progress |
| 9 Improve collaboration between City, state, and federal partners | | |
| In partnership with the National Parks Service we kicked off the Jamaica Bay Master Plan process to determine design and programming for the 10,000 acres of parklands around Jamaica Bay. We worked with the NYC Urban Field Station to complete a draft white paper on vegetation change in the city and prepared a final report on LiDAR derived land cover data and Urban Tree Canopy Assessment. | Conduct five joint research projects via the NYC Urban Field Station | In progress |
| | Align pathways, hours of operation, and bicycling rules on neighboring park sites | In progress |
| 10 Create a network of green corridors | | |
| We completed Soundview Greenway and continued construction on the Queens East River Trail and the Staten Island South Shore Greenway project. The City developed a draft update to the Streets Design Manual. | Continue to build and expand greenway waterfront network including Brooklyn Waterfront Trail, Queens East River Trail, Soundview Greenway, South Bronx Greenway, Staten Island South Shore Greenway, and Manhattan Waterfront Greenway | In progress |
| | Release update to Streets Design Manual that contains guidance on landscaping and the use of other sustainable elements | In progress |
| PROMOTE AND PROTECT NATURE | | |
| 11 Plant one million trees | | |
| We planted 109,434 trees, bringing the total number of trees planted to over 560,000. The City continued to collect data on New York City's urban forest. | Plant a total of 650,000 trees | In progress |
| | Explore methods to ensure long-term survival of existing urban forest | In progress |
| 12 Conserve natural areas | | |
| We completed a business plan for the formation of a natural area conservancy and are seeking philanthropic support for the endeavor. | Explore the establishment of a natural area conservancy to preserve the city's remaining wild lands | In progress |
| 13 Support ecological connectivity | | |
| The City completed 63 greenstreets. We are collecting data on 10 green roofs and investigating funding options to conduct a best practices study on green roofs. We determined project scope and priorities for the parkway improvement program and have used the Sustainable Urban Site Design Manual to inform site development and renovation of City projects. | Complete 80 greenstreets per year | In progress |
| | Conduct a study to determine best practices for promoting biodiversity in green roof design and construction | In progress |
| | Restore parkway landscapes to improve landscape connectivity | In progress |
| | Develop a framework to comprehensively address landscape issues on buildings sites in City codes and regulations | In progress |

| PROGRESS SINCE APRIL 2011 | | MILESTONES TO COMPLETE BY DECEMBER 31, 2013 | STATUS |
|---|--|---|-------------|
| PARKS AND PUBLIC SPACE | | Create green standards for City government building site development and renovations | In progress |
| | ENSURE THE LONG-TERM HEALTH OF PARKS AND PUBLIC SPACE | | |
| | 14 Support and encourage stewardship | | |
| | The City held over 200 tree care workshops and hosted the first annual Grow Our Grassroots summit in February 2012. We developed a plan for increasing partner knowledge around Catalyst Parks and created a programming package for each park. We also implemented Park Network meetings in each borough to bring together community stakeholders to support a local park through regular, joint coordination and planning. | Expand access to free tree care workshops and tool kits to stewardship groups across the five boroughs | In progress |
| | | Institute DPR's network meetings for four parks in every borough | Completed |
| | | Increase training activities and networking forums at catalyst parks | In progress |
| | | Increase attendance at programming to more than 15,000 across all catalyst parks annually | In progress |
| | 15 Incorporate sustainability through the design and maintenance of all public space | | |
| | The City developed and refined a digital tracking library, which now includes past projects. We created a sustainable design checklist and built it into tracking software. We developed indicators to measure new and existing sustainability initiatives and released the first version of the Sustainable Parks Plan in July 2012. | Develop digital library tracking system for cataloging sustainable aspects of capital projects | Completed |
| | | Develop sustainable design checklist to be used with all DPR capital projects that complies with national Sustainable Sites standards | In progress |
| Develop indicators to measure existing and new sustainability initiatives at DPR related to water, material resources, energy, fuel, and partnerships | | Completed | |
| Release first version of the Sustainable Parks Plan to promote accomplishments, train and educate DPR staff in best practices, and improve sustainability initiatives across the agency | | Completed | |
| BROWNFIELDS | DEVELOP PROGRAMS TO ACCELERATE BROWNFIELD CLEANUP AND REDEVELOPMENT | | |
| | 1 Increase participation in the NYC Brownfield Cleanup Program by partnering with lenders and insurers | | |
| | We continue to work with lending institutions and insurers to identify opportunities for public-private collaboration. We continue to identify unique products and services that will incentivize brownfield redevelopment through increased lending and delivery of preferred insurance policies for properties in the NYC Brownfield Cleanup Program (BCP). | Establish programs for financial institutions to increase lending for properties in the NYC BCP | In progress |
| | | Establish programs with the insurance industry to deliver preferred insurance policies for properties in the NYC BCP | In progress |
| | 2 Increase the capacity of small businesses and small- and mid-size developers to conduct brownfield cleanup and redevelopment | | |
| | We have used the NYC BCP to offer landowners flexibility in managing their brownfield properties and we have promoted brownfield cleanup and redevelopment through SPEED, our real estate and environmental search engine. We will continue to develop web-based tools to make the cleanup process more predictable and efficient. | Establish a brownfield <i>pro bono</i> referral program to provide inexperienced developers with advice on how to conduct investigations and cleanups | Completed |
| | 3 Enable the identification, cleanup, and redevelopment of brownfields | | |
| | We worked with the New York City Brownfields Partnership to establish a brownfield <i>pro bono</i> referral program, which provides inexperienced developers advice on how to conduct investigations and cleanups. | Establish flexible NYC BCP provisions to allow for land preparation for resale | Completed |
| | | Perform market outreach to improve the SPEED real estate search engine to promote brownfield cleanup and redevelopment | Completed |
| | | Collaborate with community development corporations to advance the cleanup and redevelopment of property across the city | In progress |
| | | Establish a web-based application that automates and streamlines the navigation of City cleanup programs | In progress |
| | | In partnership with the EPA, implement approaches and improve Triad tools to accelerate property investigation and cleanup | In progress |
| | | Encourage cleanup and redevelopment of waterfront sites by proposing amendments to the Zoning Resolution that would allow greater flexibility for non-residential uses and floor area | In progress |
| | 4 Build upon existing state and federal collaborations to improve the City's brownfield programs | | |
| | We obtained a statement of acknowledgment of the NYC BCP from the US EPA allowing the city to use Federal brownfield grants to fund projects in the City's cleanup program. | Develop stronger liability protection at the state level | In progress |
| | | Develop stronger liability protection at the federal level | Completed |
| Develop a pilot program for environmental lien forgiveness | | In progress | |
| STRENGTHEN INCENTIVES FOR BROWNFIELD CLEANUP AND REDEVELOPMENT | | | |
| 5 Study the economic value of brownfield redevelopment in New York City | | | |
| The first 45 projects in the NYC BCP will leverage \$1.2 billion in private investment and will result in the creation of 4,800 construction and 2,100 permanent jobs and over a 30 year period will return over \$340 million in property, sales and income taxes to the city. | Assess the fiscal and employment benefits of brownfield redevelopment in New York City | In progress | |
| 6 Leverage the NYC Brownfield Cleanup Program to establish funding and other incentives for cleanup and redevelopment | | | |
| To align incentives for brownfield cleanup, we began work on the development of a web-based, brownfield financial assistance search tool. | Develop programs that align incentives for neighborhood housing or infrastructure revitalization with brownfield incentives | In progress | |

| PROGRESS SINCE APRIL 2011 | | MILESTONES TO COMPLETE BY DECEMBER 31, 2013 | STATUS |
|---|---|--|-------------|
| BROWNFIELDS | | Establish brownfield redevelopment financial counseling program | In progress |
| | | Develop a web-based brownfield financial assistance search tool | In progress |
| | DEEPEN OUR COMMITMENT TO COMMUNITIES FOR COMMUNITY BROWNFIELD PLANNING, EDUCATION, AND SERVICE | | |
| | 7 Support community-led planning efforts | | |
| | We provided City grants to nine community organizations to assist with their on-going planning efforts, and we are finalizing a program to allow for more direct assistance from the City. | Establish 25 NYC Community Brownfield Planning Districts (CBPDs) | In progress |
| | | Provide focused City assistance and services to designated CBPDs for brownfield and sustainability planning | In progress |
| | | Pilot incorporation of brownfield planning into early stages of redevelopment planning with East New York Sustainable Communities project | In progress |
| | | Identify 8-12 new Brownfield Opportunity Area (BOA) projects in neighborhoods disproportionately impacted by clusters of brownfields | In progress |
| | 8 Support local and area-wide community brownfield planning efforts | | |
| | We continue to work with lending institutions and insurers to identify opportunities for public-private collaboration. We continue to identify unique products and services that will incentivize brownfield redevelopment through increased lending and delivery of preferred insurance policies for properties in the NYC Brownfield Cleanup Program (BCP). | Conduct a study to identify best management practices for community planners undertaking community brownfield planning efforts | Completed |
| | | Establish training and other programs to build the capacity of community-based organizations in brownfield redevelopment, planning, and implementation | In progress |
| | | Develop online community planning portal to provide cutting edge tools to community brownfield planners | In progress |
| | | Support pilot program established by New York State Department of State for area-wide community brownfield planning and cross-government collaboration | In progress |
| | 9 Increase the transparency and accessibility of brownfield cleanup plans | | |
| | We created an online document repository for all NYC BCP projects. We also translated an important community notification document into seven languages and produced four videos that New Yorkers can view to understand how brownfield cleanup works. | Establish an online document repository for NYC BCP project information | Completed |
| | | Establish advanced methods for the communication of brownfield project information to New York City communities | In progress |
| | | Develop web-based educational tools to help all stakeholders understand brownfield cleanup and redevelopment processes | In progress |
| | Expand the NYC BrownfieldWORKS! training program | In progress | |
| EXPAND THE USE OF GREEN REMEDIATION | | | |
| 10 Promote green remediation in the NYC Brownfield Cleanup Program | | | |
| We are currently implementing the Sustainability Statement in all NYC BCP cleanup plans to help developers to reduce the environmental footprint of their cleanups. | Establish the Sustainability Statement in all cleanup plans | Completed | |
| | Accelerate adoption of green remediation practices by establishing a program for green remediation audits of cleanup plans under the NYC BCP | In progress | |
| | Encourage the use of recycled concrete aggregate (RCA) as substitute for conventional backfill material | Completed | |
| | Develop tree-based phytoremediation approach for end-of-cleanup polishing, also promoting the MillionTreesNYC program | In progress | |
| | Establish green remediation stormwater management approaches on remedial sites and expand green infrastructure implementation as part of redevelopment | In progress | |
| 11 Promote green space on remediated brownfield properties | | | |
| We have identified five potential sites for revitalization for green space uses. | Create three Pocket Parks in collaboration with community planning organizations | In progress | |
| | Create design for state-of-the-art community gardens on remediated brownfields | In progress | |
| CONTINUE IMPLEMENTING GREY INFRASTRUCTURE UPGRADES | | | |
| 1 Upgrade wastewater treatment plants to achieve secondary treatment standards | | | |
| In May 2011, the City certified that the Newtown Creek Wastewater Treatment Plant meets federal Clean Water Act (CWA) standards for secondary treatment two years ahead of schedule. All 14 of the City's wastewater treatment plants now meet CWA secondary treatment standards. | Certify that the Newtown Creek WWTP meets secondary treatment standards | Completed | |
| 2 Upgrade treatment plants to reduce nitrogen discharges | | | |
| In June 2011, the City signed an agreement with the DEC to invest in heightened nitrogen treatment systems at four New York City wastewater treatment plants (WWTP) that discharge into the Bay, at an estimated cost of \$100 million. In February 2012, the City completed construction of a carbon addition facility at the 26th Ward WWTP that will reduce the amount of nitrogen discharged into Jamaica Bay by more than 3,000 pounds per day, or nearly 10% of total nitrogen discharges to the bay. | Complete upgrades at the Wards Island WWTP | In progress | |
| | Complete upgrades at the Tallman Island WWTP | In progress | |
| | Complete upgrades at the Bowery Bay WWTP | In progress | |
| WATERWAYS | | | |
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| PROGRESS SINCE APRIL 2011 | MILESTONES TO COMPLETE BY DECEMBER 31, 2013 | STATUS |
|---|--|-------------|
| 3 Complete cost-effective grey infrastructure projects to reduce CSOs and improve water quality | | |
| <p>In May 2011, the City completed the \$404 million Paerdegat Basin CSO Facility in Brooklyn, which will prevent up to 50 million gallons of CSOs during heavy rain from being discharged into Paerdegat Basin, a channel connected to Jamaica Bay. Also in May 2011, the City opened the \$130 million Alley Creek CSO Facility in Bayside, Queens, which will collect up to five million gallons of CSO that was previously discharged into Alley Creek and Little Neck Bay. In February 2012, the City completed the \$3.5 million Shellbank Basin Destratification Facility in Queens, which will improve water quality and help curb odors.</p> | Complete Paerdegat Basin CSO Facility | Completed |
| | Complete Alley Creek CSO Facility | Completed |
| | Complete Avenue V Pumping Station | In progress |
| | Complete upgrades to the Gowanus Canal Pumping Station | In progress |
| | Complete upgrades to the Gowanus Canal Flushing Tunnel | In progress |
| | Construct an aeration system for Lower English Kills in Newtown Creek | Not Started |
| | Complete a destratification facility at Shellbank Creek | Completed |
| 4 Expand the sewer network | | |
| <p>In 2011, the City completed an amended drainage plan for the rezoned area of Jamaica, Queens and completed high level storm sewer drainage plans for Laurelton in Queens and for the Gowanus area in Brooklyn. We also completed new sanitary sewers at Albee Avenue and Seguine Avenue on Staten Island and a \$62.8 million reconstruction project at 99th Avenue and 110th Avenue in Queens.</p> | Complete 60 miles of new or rehabilitated sewers | In progress |
| 5 Optimize the existing sewer system | | |
| <p>Through implementation of more efficient work practices, the City expanded sewer cleaning operations using in-house staff from 244 miles in 2010 to over 600 miles in 2011, and we are on pace to inspect all 144,000 catch basins on a three-year schedule. In 2011, the City finished inspecting all 138 miles of interceptor sewers throughout the city. We finished cleaning the interceptor sewers leading to the Jamaica and Tallman Island wastewater treatment plants, removing 4,959 cubic yards of material. Over the past year we inspected all 550 tide gates in the city. Approximately 60 gates required extensive repairs that need a contractor or require complete replacement. Replacement and repair of those tide gates is underway.</p> | Inspect all tide gates in the city and repair as needed | In progress |
| | Clean 138 miles of interceptor sewers | In progress |
| USE GREEN INFRASTRUCTURE TO MANAGE STORMWATER | | |
| 6 Expand the Bluebelt program | | |
| <p>In July 2011, the City completed a \$2.5 million Bluebelt project to restore the 46-acre Oakland Lake Park in Bayside, Queens. The City also completed drainage plans for the Mid-Island portion of the Staten Island Bluebelt and published a Draft Environmental Impact Statement.</p> | Expand Bluebelt system into Queens | Completed |
| 7 Build public green infrastructure projects | | |
| <p>In March 2012, the City signed an agreement with DEC to achieve the NYC Green Infrastructure goal of managing one inch of rain on 10 percent of impervious surfaces in combined sewer drainage areas by 2030. In the past year we have built 10 right of way bioswales and five other green infrastructure installations. We also developed a maintenance protocol and interagency agreement to ensure effective implementation.</p> | Complete 30 green infrastructure pilot projects, collect monitoring data, and publish findings | In progress |
| | Capture the first inch of runoff from 70 additional acres of impervious surface | In progress |
| 8 Engage and enlist community stakeholders in sustainable stormwater management | | |
| <p>In June 2011, the City awarded more than \$3.8 million to community groups and citizens in the first Green Infrastructure Grant Program. The City held the second meeting of the NYC Green Infrastructure Citizens Group on November 1, 2011. The City also convened four meetings of the Green Infrastructure Steering Committee, a cross-section of organizations, institutions, and professionals who are experts in stormwater management-related issues in New York City.</p> | Implement a green infrastructure grant program | Completed |
| | Seek input through the Green Infrastructure Citizens Group | In progress |
| 9 Modify codes to increase the capture of stormwater | | |
| <p>In January 2012, we adopted a rule that requires enhanced on-site stormwater controls for new development and redevelopment. To help property owners comply with these regulations, we published a companion document, Guidelines for the Design and Construction of Stormwater Management Systems.</p> | Require greater on-site detention and infiltration for new development and redevelopment | Completed |
| | Require greater stormwater runoff controls from construction sites | In progress |
| | Study potential code changes to incorporate blue roofs on existing buildings | In progress |
| | Develop new design standards for sidewalks | In progress |
| | Study improved regulation of open industrial uses to reduce runoff | In progress |
| 10 Provide incentives for green infrastructure | | |
| <p>The City implemented a pilot wastewater charge for stormwater runoff generated by stand-alone parking lots with no existing water service. 267 parking lots with no water service are charged \$0.05 per square foot for wastewater services (\$669 annual average/lot). Simultaneously, we implemented a credit program to incentivize approvable green infrastructure technologies, by waiving charges for lots that demonstrate stormwater capture.</p> | Evaluate the feasibility of using price signals to reduce stormwater runoff | In progress |
| | Evaluate the efficacy of the green roof tax abatement | In progress |

WATERWAYS

| PROGRESS SINCE APRIL 2011 | MILESTONES TO COMPLETE BY DECEMBER 31, 2013 | STATUS |
|--|---|-------------|
| REMOVE INDUSTRIAL POLLUTION FROM WATERWAYS | | |
| 11 Actively participate in waterway clean-up efforts | | |
| <p>The City continued to provide information to EPA that illustrates the degree and sources of contamination in these waterbodies and best supports cleanup. In October 2011, the City completed a \$13 million dredging of Hendrix Creek, a tributary of Jamaica Bay in southern Brooklyn, to remove accumulated CSO sediment and reduce odor in the surrounding community.</p> | Participate in the Superfund investigation and feasibility study in the Gowanus Canal | In progress |
| | Participate in the Superfund investigation in Newtown Creek | In progress |
| | Submit application to dredge CSO mounds for Gowanus Canal and Fresh Creek | In progress |
| | Begin CSO dredging in Paerdegat Basin | Not started |
| | Complete dredging in Hendrix Creek | Completed |
| PROTECT AND RESTORE WETLANDS, AQUATIC SYSTEMS, AND ECOLOGICAL HABITAT | | |
| 12 Enhance wetlands protection | | |
| <p>In January 2012, we released the draft New York City Wetlands Strategy to establish a goal to achieve no net loss of wetlands and maximize the ecological functions of the city's remaining wetlands. In March 2012, the City released drafts for public comment for updates to the Waterfront Revitalization Program, which will designate additional sites of ecological importance and offer them greater regulatory protection. In October 2011, the City transferred 62 parcels to the DEP Bluebelt Program as recommended by the Wetland Transfer Task Force. In Fall 2011, the City installed Surface Elevation Tables at Pelham Bay Park in the Bronx and at Spring Creek in Queens to measure wetland accretion levels and monitor long-term trends such as the impacts from sea level rise.</p> | Transfer at least five City-owned wetlands to DPR | In progress |
| | Work with state and federal partners to update wetlands maps | In progress |
| | Modify the Waterfront Revitalization Program to designate additional sites of ecological importance | In progress |
| | Evaluate the vulnerability of salt marshes through additional monitoring | In progress |
| | Develop a comprehensive strategy for wetlands | In progress |
| 13 Restore and create wetlands | | |
| <p>In the past year, we worked with state and federal partners to advance over \$54 million of investments at 17 sites to restore and enhance over 58 acres of wetlands and adjacent habitat. Construction is underway at the Paerdegat Basin, Pugsley Creek Park, Soundview Park, and Drier Offerman Park restoration projects. Pre-construction planning and design is occurring for projects at Randall's Island, Meadow Lake, Freshkills Park, and along the Bronx River. In June 2011, the City reached an agreement with DEC to invest \$15 million in Jamaica Bay salt marsh restoration, a portion of which is partially funding the 42-acres restoration of the Yellow Bar Hassock Island that began in March 2012.</p> | Complete Paerdegat Basin restoration | In progress |
| | Complete Pugsley Creek Park restoration | In progress |
| | Complete Soundview Park restoration | In progress |
| | Complete Bronx River restoration | In progress |
| | Complete Randall's Island shoreline restoration | In progress |
| | Complete Calvert Vaux Park restoration | In progress |
| | Complete Meadow Lake restoration | In progress |
| | Complete Freshkills North Park restoration | In progress |
| | Invest \$15 million in wetlands restoration in Jamaica Bay | In progress |
| 14 Improve wetlands mitigation | | |
| <p>In the past year, the City formed a working group with DEC and other key stakeholders to evaluate changes to mitigation policy and create clear, transparent, and scientifically-backed guidance. The New York City Wetlands Strategy established initiatives to improve mitigation and establish a mitigation banking or in-lieu fee mechanism for public projects.</p> | Establish a wetland mitigation banking or in-lieu fee program | In progress |
| 15 Improve habitat for aquatic species | | |
| <p>In August 2011, the City constructed a ribbed mussel ecological project to test the effectiveness and long-term viability of using ribbed mussels to remove nutrients and other pollutants from the waters of Fresh Creek, a tributary of Jamaica Bay. In October 2011, the City implemented the fourth phase of our eelgrass pilot by installing an additional 8,000 plants near Breezy Point in Queens. The City continues to monitor the oyster bed pilot constructed in Jamaica Bay in October 2010 to understand the potential for long-term oyster survival and water quality improvements.</p> | Expand oyster pilot project and conduct additional research | In progress |
| | Develop a strategy to advance restoration efforts | In progress |
| | Complete ribbed mussel bed pilot | In progress |
| | Complete eel grass pilot | In progress |

WATERWAYS

| PROGRESS SINCE APRIL 2011 | MILESTONES TO COMPLETE BY DECEMBER 31, 2013 | STATUS |
|---|---|-------------|
| ENSURE THE QUALITY OF OUR DRINKING WATER | | |
| 1 Continue the Watershed Protection Program | | |
| In 2011, we closed on a total of 7,037 acres in fee or easement, and met the requirements of the Land Acquisition Program, a mandated component of the Filtration Avoidance Determination (FAD). In December 2011, the City submitted its long-term FAD plan to regulators and included funding for FAD activities in the 10 Year Capital Plan. The City also launched a comprehensive Watershed Forest Management Plan that was developed in partnership with the United States Forest Service in December 2011. | Maintain the city's Filtration Avoidance Determination (FAD) | In progress |
| | Seek to acquire land by contacting the owners of at least 50,000 acres of land every year | In progress |
| 2 Protect the water supply from hydrofracking for natural gas | | |
| During 2011, City officials testified on the risks of natural gas drilling on the water supply at two New York City Council subcommittee hearings, a New York State Assembly hearing, and a public hearing on the State's Revised Draft Supplemental Generic Environmental Impact Statement. In January 2012, the City submitted to DEC a detailed letter and technical report. | Work with the State to secure the prohibition of hydrofracking within the city's watersheds | In progress |
| 3 Complete the Catskill/Delaware Ultraviolet (UV) Disinfection Facility | | |
| In the past year, the City continued to construct the \$1.6 billion Catskill/Delaware UV Disinfection Facility, the largest facility of its kind in the world. The current work includes disinfection of the facility, preliminary startup and checkout of installed equipment, and connection to the Catskill Aqueduct. | Complete construction | In progress |
| 4 Complete the Croton Water Filtration Plant | | |
| In the past year, the City continued to construct the \$3 billion Croton Water Filtration Plant in the Bronx, which will enable a supply of 290 million gallons of water a day from the east-of-Hudson watershed and remove seasonal variations in color, odor, and taste. | Complete construction | In progress |
| MAINTAIN AND ENHANCE THE INFRASTRUCTURE THAT DELIVERS WATER TO NEW YORK CITY | | |
| 5 Repair the Delaware Aqueduct | | |
| In August 2011, the City issued an RFP for consulting services to develop designs for cost-effective groundwater treatment facilities to augment the city's supply while the Delaware Aqueduct will be temporarily shut down to establish the bypass connection. In December 2011, the City released the Draft Environmental Impact Statement for the shaft and bypass tunnel construction elements of the Water for the Future program, a \$2.1 billion initiative to repair leaks in the Delaware Aqueduct and supplement the city's water supply during construction work on the tunnel. | Break ground on the aqueduct bypass | Not started |
| | Complete upgrades to the Cross River Pumping Station | In progress |
| | Complete design for the upgrades to the Croton Falls Pumping Station | Completed |
| | Complete rehabilitation of the New Croton Aqueduct | In progress |
| | Begin design for the upgrades to the Jamaica groundwater system | In progress |
| 6 Connect the Delaware and Catskill Aqueducts | | |
| In 2011, DEP continued designs for a connection between the two aqueducts that will allow water from the Delaware system to cross the Hudson River through the Catskill Aqueduct. In 2012, we will break ground on the Catskill-Delaware Interconnection at Shaft 4. | Start construction | Not started |
| 7 Pressurize the Catskill Aqueduct | | |
| In 2011, the City concluded that the repair of the Delaware Aqueduct is the highest capital priority to ensure a continued and uninterrupted delivery of water to our customers, and we have redirected capital resources to expedite this repair. Therefore, we will not pressurize the Catskill Aqueduct. The City will still be able to operate the Catskill/Delaware UV Disinfection Facility as expected. | NA | NA |
| 8 Maintain and upgrade dams | | |
| In June 2011, the City started the major construction phase to upgrade the Gilboa Dam, a \$350 million project scheduled for completion by 2016. In November 2011, the City completed \$96 million in reconstruction work on five dams in the Croton watershed. | Begin rehabilitation of the Gilboa Dam | In progress |
| | Begin engineering assessments for dams as required by the State | In progress |
| MODERNIZE IN-CITY DISTRIBUTION | | |
| 9 Complete City Water Tunnel No. 3 | | |
| In 2011, the City made substantial progress on a new series of trunk water main projects that are necessary to integrate the Manhattan portion of City Water Tunnel No. 3. Four projects are currently under construction, with an additional four sites currently moving through the final stages of the procurement process. | Activate Stage 2 in Manhattan | In progress |
| 10 Build a backup tunnel to Staten Island | | |
| In April 2012, the City began to construct a backup water supply tunnel to Staten Island in partnership with the Port Authority of New York and New Jersey. | Begin construction | In progress |
| 11 Upgrade water main infrastructure | | |
| In 2011, the City undertook large water main projects at Atlantic Yards and Pelham Parkway. Ongoing planning continues for water main upgrades in Coney Island, Jamaica Estates, and the Rockaways. | Replace 80 miles of water mains | In progress |

WATER SUPPLY

| | PROGRESS SINCE APRIL 2011 | MILESTONES TO COMPLETE BY DECEMBER 31, 2013 | STATUS |
|--|---|--|-------------|
| WATER SUPPLY | IMPROVE THE EFFICIENCY OF THE WATER SUPPLY SYSTEM | | |
| | 12 Increase operational efficiency with new technology | | |
| | As of March 2012, the City has installed Automated Meter Reading (AMR) devices for 94 percent of our customers. In February 2012, the City expanded the Leak Notification Program to proactively notify large building owners of potential leaks and enable the owners and managers to quickly respond to and fix them before they become a costly problem. Since starting the program in March 2011, more than 12,000 customers have saved an estimated \$10 million in otherwise wasted water or damaging leaks. In January 2012, the large meter replacement project was included as a part of DEP's OpX initiative, and DEP staff are currently identifying and replacing underperforming meters. | Complete the installation of AMR devices citywide | In progress |
| | | Replace 10,000 large water meters | In progress |
| | | Optimize delivery by integrating forecasting models into operations | In progress |
| | 13 Increase water conservation | | |
| | In August 2011, the City released Water Matters: A Design Manual for Water Conservation in Buildings to provide strategies for water conservation. The City is incorporating greywater reuse standards into revisions to the Plumbing Code which went to the City Council on March 14, 2012. | Release a design manual for water conservation in buildings | Completed |
| | | Pilot advanced strategies for water conservation in City buildings | In progress |
| | | Launch a process to replace all old, inefficient toilets in City buildings | In progress |
| | | Analyze the costs and benefits of widespread replacements of inefficient toilets and develop a strategy to achieve an optimal flow | In progress |
| Develop comprehensive greywater reuse standards | | In progress | |
| TRANSPORTATION | IMPROVE AND EXPAND SUSTAINABLE TRANSPORTATION INFRASTRUCTURE AND OPTIONS | | |
| | 1 Improve and expand bus service throughout the city | | |
| | In partnership with the MTA, we launched Select Bus Service on 34th St in Manhattan and continued planning for Hylan Blvd and Nostrand Ave/Rogers Ave SBS in Staten Island and Brooklyn. We also jointly improved bus priority of Ed Koch Queensboro Bridge and its approaches. MTA installed BusTime--information displays showing when the next bus will arrive--on all 31 bus routes in Staten Island and B63 in Brooklyn. | Launch Nostrand Ave., Brooklyn SBS Corridor | In progress |
| | | Launch 34th Street, Manhattan SBS Corridor | Completed |
| | | Launch Hylan Blvd., Staten Island SBS Corridor | Not started |
| | | Launch initial Woodhaven Blvd. and LaGuardia, Queens SBS corridors | Not started |
| | | Implement bus operations improvements, with transit signal prioritization, on eleven routes in five boroughs | In progress |
| | | Improve bus priority of Ed Koch Queensboro Bridge and approaches | Completed |
| | | Install Bus Time on all 31 bus routes in Staten Island and B63 in Brooklyn | Completed |
| | | 2 Improve and expand subway and commuter rail service | |
| | MTA completed a second tunnel-boring run on the Second Avenue Subway; the first phase of the project is on track for a 2016 launch. On the East Side Access project, interlocking tunnel structure and Plaza Substation construction was started in Queens and early fit-out construction work began on a portion of the new LIRR concourse in the lower level of Grand Central Terminal. Construction of the 7 Line extension continued and is on schedule for a 2013 completion. | Complete construction of 7 Line extension to the Hudson Yards area of far west Midtown | In progress |
| | | Continue construction of first phase of Second Avenue Subway (2015) | In progress |
| | | Continue construction of East Side Access, the LIRR's direct service to Grand Central Terminal | In progress |
| | | Complete analysis for North Shore Transportation Improvements, Staten Island | Completed |
| | 3 Expand for-hire vehicle service throughout our neighborhoods | | |
| | In December 2011, the City reached an agreement with the Governor and State Legislature to issue up to 18,000 licenses for livery cabs that will be allowed to pick up street hails outside of the Manhattan core and the airports. | License additional vehicles in those areas that are currently underserved | Completed |
| | 4 Promote car-sharing | | |
| DOT completed a pilot of City agency car share services with Zipcar last year. Citywide implementation with other agencies is on track to be launched this spring. | Assess car-sharing potential for City fleet vehicles | Not started | |
| 5 Expand and improve ferry service | | | |
| In June 2011, we launched a three-year East River Ferry pilot, which served over 365,000 passengers in the first four months of service. | Launch East River service pilot to support the continued redevelopment of the East River waterfronts | Completed | |
| 6 Make bicycling safer and more convenient | | | |
| In September 2011, we selected Alta Bicycles, a private operator of bike share networks, to operate a 600-station, 10,000-bike bike share system to be launched in the summer of 2012. | Double bike commuting from 2007 levels | Completed | |
| | Establish pilot bike-sharing program with third-party operator | In progress | |
| | Install bike racks near 15 subway stations | In progress | |

| PROGRESS SINCE APRIL 2011 | MILESTONES TO COMPLETE BY DECEMBER 31, 2013 | STATUS |
|--|---|-------------|
| 7 Enhance pedestrian access and safety | | |
| <p>In 2011, we installed 1,500 new countdown signals throughout the city, introduced the first-ever 20 mph neighborhood slow zone in the Claremont section of the Bronx, announced a process that other neighborhoods can use to apply for slow zones, and redesigned Grand Army Plaza to improve pedestrian safety.</p> | Install countdown pedestrian signals at 1,500 intersections | Completed |
| | Adopt new guidelines for public parking garages that promote pedestrian safety | Not started |
| | Continue to implement Safe Routes to Transit projects, including nine "Bus Stops Under the EIs" | In progress |
| | Implement 32 Safe Routes to School projects | In progress |
| | Design a standardized, consistent pedestrian wayfinding system | Not started |
| REDUCE CONGESTION ON OUR ROADS, BRIDGES, AND AT OUR AIRPORTS | | |
| 8 Pilot technology and pricing-based mechanisms to reduce traffic congestion | | |
| <p>We launched Midtown in Motion Intelligent Transportation System in the summer of 2011. We also installed 3,237 additional Muni-Meters throughout the city.</p> | Expand ParkSmart program to three new neighborhoods | Not started |
| | Install 4,500 Muni-Meters | In progress |
| | Install Intelligent Transportation Systems (ITS) approach to reducing congestion in selected areas | Completed |
| 9 Modify parking regulations to balance the needs of neighborhoods | | |
| <p>We completed a study of Manhattan Core parking regulations in December 2011 and are evaluating the study results.</p> | Explore modifications to Manhattan Core parking regulations | In progress |
| | Explore revisions to off-street parking requirements in areas close to the Manhattan Core | In progress |
| 10 Reduce truck congestion on city streets | | |
| <p>We implemented a new delivery window for trucks along Church Ave in Brooklyn. We began monitoring traffic on Goethals Bridge as part of a project to improve direct truck access to New York Container Terminal.</p> | Implement new peak and off-peak delivery windows in congested areas | In progress |
| | Implement commercial paid parking at high-demand loading zones citywide | Not started |
| | Improve landside access to the New York Container Terminal | In progress |
| 11 Improve freight movement | | |
| <p>South Brooklyn Marine Terminal's rail connection was completed in late 2011, and part of the facility was leased to Axis Group, an auto processor that will operate an international and domestic rail and port facility under a 15-year lease with the City. Axis started hiring workers and installing equipment in anticipation of the first ship arriving in the third quarter of 2012.</p> | Study the Sheridan Corridor in the Bronx | In progress |
| | Launch a study of New York City's food distribution pathways | In progress |
| | Accommodate more inbound freight trains at Hunts Point | In progress |
| | Establish new rail transfer hubs in Brooklyn and Staten Island | In progress |
| | Increase rail and waterborne freight deliveries to the South Brooklyn Marine Terminal | In progress |
| 12 Improve our gateways to the nation and the world | | |
| <p>Our federal delegation won a reallocation of high-speed rail funds to upgrade the Northeast Corridor's Harold Interlocking in Sunnyside, Queens. We also launched a study of the JFK air cargo industry to understand what can be done to improve the existing conditions.</p> | Advocate for federal investment in NE Corridor passenger rail and improved aviation traffic control | In progress |
| | Launch study of JFK air cargo industry | Completed |
| | Improve truck access to JFK Airport | In progress |
| MAINTAIN AND IMPROVE THE PHYSICAL CONDITION OF OUR ROADS AND TRANSIT SYSTEM | | |
| 13 Seek funding to maintain and improve our mass transit network | | |
| <p>Through our federal and state legislative delegations, we continued to advocate for improved funding for mass transit.</p> | Fund MTA Capital Program beyond 2011 | In progress |
| 14 Maintain and improve our roads and bridges | | |
| <p>The City completed a substantial part of upgrade work on the Brooklyn and Manhattan bridges.</p> | Seek opportunities to improve bridge conditions | In progress |
| | Seek opportunities to improve the state of repair of the city's streets | In progress |
| | Seek legislation for joint bidding of public works projects | In progress |

| PROGRESS SINCE APRIL 2011 | MILESTONES TO COMPLETE BY DECEMBER 31, 2013 | STATUS |
|---|--|-------------|
| IMPROVE ENERGY PLANNING | | |
| 1 Increase planning and coordination to promote clean, reliable, and affordable energy | | |
| The City reconvened its Energy Policy Task Force, which will meet on a biannual basis to drive collaboration among the public and private entities to achieve PlaNYC goals. | Work with multiple energy stakeholders to encourage clean energy supply investments, effective incentive programs, shared data collection and management, and coordinated energy forecasting | In progress |
| INCREASE OUR ENERGY EFFICIENCY | | |
| 2 Implement the Greener, Greater Buildings Plan | | |
| To help building owners in benchmarking compliance, the City, in partnership with CUNY, launched the Benchmarking Help Center in March 2011. Following the City's benchmarking report for City-owned buildings in September 2011, the City will release its first annual report on benchmarking results this spring. Draft regulations were issued in February 2012 related to the audit and retrocommissioning components of the Greener, Greater Buildings Plan for comment. | Complete the development of rules and guidelines and fully enforce the Greener, Greater Buildings Plan | In progress |
| | Complete an annual analysis and report on benchmarking results | Completed |
| 3 Improve our codes and regulations to increase the sustainability of our buildings | | |
| The City enacted several Green Codes Task Force recommendations, including: Reduce Summer Heat with Cool Roofs, Allow Large Solar Rooftop Installations, Phase Out Dirty Boiler Fuels, Encourage Innovative Stormwater Practices, Treat Corrosive Concrete Wastewater, Filter Soot from Incoming Air, Use Recycled Asphalt, Reduce Stormwater Runoff from New Developments, Send Rainwater to Waterways, Limit Harmful Emissions from Carpets, Maintain Site-Based Stormwater Detention Systems. In March 2012, The City Planning Commission voted to approve the Zone Green text amendment, which includes provisions encouraging rooftop agriculture and other sustainability practices. | Complete the incorporation of the Green Codes Task Force proposals into law | In progress |
| | Propose amendments to the Zoning Resolution and City codes to remove the barriers to energy-efficient building envelopes and the siting of clean energy on buildings | Completed |
| | Work with the International Code Council and ASHRAE to bring New York City's codes and the model codes into greater alignment | In progress |
| 4 Improve compliance with the energy code and track green building improvements citywide | | |
| The City commissioned an Energy Code Compliance Study (ECCS) in order to: evaluate current Energy Code enforcement policies, assess the current state of energy code knowledge and compliance in New York City, develop training materials for industry and relevant staff members, and develop recommendations to improve the rates of compliance. The results of the study have assisted the City in the creation of a plan to achieve 90% compliance with the Energy Code by 2017. | Aim to achieve compliance by 2017 | In progress |
| | Develop a "green report card" and an online tracking tool for green building improvements | In progress |
| 5 Improve energy efficiency in smaller buildings | | |
| The City anticipates beginning the development of a strategy to increase energy efficiency in smaller buildings in mid-2012. A study is underway with Columbia University to benchmark neighborhood challenge programs in other cities. | Develop a strategy to increase the energy efficiency of smaller buildings | Not started |
| | Execute GreenNYC public education campaigns to encourage New Yorkers to reduce energy consumption at home | Not started |
| | Launch an energy efficiency competition between residential neighborhoods throughout the five boroughs | In progress |
| 6 Improve energy efficiency in historic buildings | | |
| In January 2012, the Municipal Art Society of New York and Landmark Preservation Commission selected an architecture group and environmental consulting firm to develop "Greening New York City's Landmarks: A Guide for Property Owners," providing guidance on improving energy efficiency in historic buildings. | Work with historic preservation societies and energy code councils to reconcile the energy codes with preservation requirements | Not started |
| | Partner to create a handbook of energy efficiency strategies for historic buildings | In progress |
| 7 Provide energy efficiency financing and information | | |
| The City established NYCEEC in October 2010, and commenced operations in mid-2011. It closed its first retrofit financing transaction at 125 Maiden Lane in November 2011. | Create a not-for-profit corporation, the New York City Energy Efficiency Corporation (NYCEEC), to provide energy efficiency financing | Completed |
| | Create an information center to provide comprehensive, updated information on energy efficiency funding and tax incentives | In progress |
| 8 Create a 21st century energy efficiency workforce | | |
| Green Light New York (GLNY) is on track to build a new energy efficient resource center in Lowe Manhattan, having received substantial contributions from the Kresge Foundation and NYSERDA, and key commitments from the City and the New York Power Authority. The City worked with U.S. Department of Energy to gather national support for a standardized certification program for building professionals. The City implemented a sustainable contractor recognition program for licensed plumbers, electricians and general contractors for 1, 2, and 3 family homes. These licensees can be designated as sustainable by providing DOB with the appropriate proof of green certifications/trainings. | Work with Amalgamated Green to ensure that we have a qualified workforce to implement our sustainability policy | In progress |
| | Partner to launch Green Light New York, an energy efficiency education center for building professionals | In progress |
| | Incorporate Energy Code training into licensing and continuing education requirements for electricians | Not started |
| | Adopt national standards for energy efficiency professionals | In progress |
| | Develop and implement a sustainable contractors designation program for electricians, plumbers, and general contractors | Completed |
| 9 Make New York City a knowledge center for energy efficiency and emerging energy strategies | | |
| The City developed a proposal for a department of energy efficiency and building science to be housed at a local academic institution. The City worked with the U.S. Department of Energy to develop a national energy data system. | Work with an academic partner to create a world-class energy efficiency engineering and building science program | In progress |
| | Partner with an academic institution to develop a standardized energy database and make this data widely available | In progress |
| | Partner with our cultural institutions to showcase the best new building strategies | Not started |

| PROGRESS SINCE APRIL 2011 | MILESTONES TO COMPLETE BY DECEMBER 31, 2013 | STATUS |
|---|--|-------------|
| 10 Provide energy efficiency leadership in City government buildings and operations | | |
| In April 2012, the City hired a full-time grant-funded outreach coordinator to promote the energy-aligned lease language in commercial buildings and is incorporating this language into new City leases. The City has also used the language in applicable leases where it is a tenant. | Pursue a variety of procurement mechanisms for 30 x 17, including Energy Savings Performance Contracting | In progress |
| | Incentivize City agencies to reduce energy consumption by improving operations and maintenance | In progress |
| | Create standards and a handbook for high performance, green renovations of typical space types | Not started |
| | Create a board to review new technologies and pilot them in City buildings | Not started |
| | Incorporate energy-aligned lease language in City government leases, and promote energy-aligned leases in the private sector | In progress |
| | New York City government to pilot a net-zero school, a Passive House project, and a deep energy retrofit project | In progress |
| 11 Expand the Mayor's Carbon Challenge to new sectors | | |
| In February 2012, the City hired a full-time, grant-funded Mayor's Carbon Challenge Coordinator to manage support for existing challenge and launch new challenges with commercial tenants and co-op and condos. Carbon emission inventories and climate action plans were collected from current participants. The commercial sector was evaluated to design the Commercial Tenant Challenge. | Continue to support the University and Hospital Challenges, and develop "stretch goals" | In progress |
| | Launch at least two new Mayor's Carbon Challenges | In progress |
| PROVIDE CLEANER, MORE RELIABLE, AND AFFORDABLE ENERGY | | |
| 12 Support cost-effective repowering or replacement of our most inefficient and costly in-city power plants | | |
| We initiated a study to examine the opportunities of repowering the city's generating assets. The City also played a key role in bringing the efficient Astoria Energy II generation plant online, displacing less efficient generation. | Advocate for a wholesale energy market design that does not discourage sensible repowering and new generation projects | In progress |
| 13 Encourage the development of clean distributed generation | | |
| The City completed feasibility studies for clean DG at several sites. We also broke ground on a cogeneration project at Riker's Island, while other projects such as the new Police Academy cogeneration plant and solar photovoltaics at other City facilities are in design. | Examine the feasibility of developing clean DG at various City-owned sites and assets | Completed |
| | Work with utilities and project developers to streamline permitting and interconnection processes and to improve coordination of electric and gas distribution planning | In progress |
| | Advocate for cost-effective ratepayer-funded incentives to catalyze clean DG development | In progress |
| 14 Foster the market for renewable energy in New York City | | |
| The City reached its goal of 8.1 MW of solar PV capacity three years early. The City also played key roles in both the implementation of a NYSERDA downstate solar PV incentive program and the initial stages towards an off-shore wind collaborative. In March 2012, the City released a Request for Proposals to design, construct, install and operate solar and wind power facilities at Fresh Kills on Staten Island. Approximately 75 acres of land are available for lease and have the potential to be developed into large-scale facilities that could generate up to 20 megawatts of renewable energy—enough to power roughly 6,000 homes. | Work with stakeholders to explore ways to pool consumer purchasing power and demand for locally produced renewable energy | Not started |
| | Work with Energy Service Companies to conduct greenhouse gas accounting for local purchases of Renewable Energy Credits | Not started |
| | Develop an online solar map and a solar PV performance monitoring network to promote market growth and improve integration with utility planning | In progress |
| | Work with Con Edison and other parties to explore the development of a one-stop, centralized website for permit application and tracking | In progress |
| | Install small-scale solar PV and solar thermal projects at City-owned sites | In progress |
| | Explore public-private partnerships to develop utility-scale solar energy projects at capped municipal landfills | In progress |
| | Work with state and federal regulators to support cost-effective proposals for both public and private offshore wind projects that will benefit New York City | In progress |
| | Explore the feasibility of developing small scale hydroelectric projects at upstate reservoirs and in water and wastewater distribution systems in a cost-effective and environmentally sensitive manner | In progress |
| | Undertake waste-gas-to-grid and cogeneration projects at City-owned buildings and infrastructure sites | In progress |
| Reuse as an energy resource 60% of anaerobic digester gas produced in our wastewater system by 2017 | In progress | |
| MODERNIZE OUR TRANSMISSION AND DISTRIBUTION SYSTEM | | |
| 15 Increase natural gas transmission and distribution capacity to improve reliability and encourage conversion from highly polluting fuels | | |
| The City played key roles in the advancement of new gas transmission lines entering the city, including the BQI Rockaways Lateral and Spectra pipelines. The City also worked with the utilities to build out the distribution networks for future growth. | Work with pipeline developers, regulators, and community stakeholders to facilitate the permitting and development of appropriately sited natural gas transmission lines | In progress |
| | Work with utilities, regulators, and stakeholders to accelerate natural gas distribution upgrades in the areas where they can have the most impact in reducing residual fuel usage and improving air quality | In progress |
| | Advocate for improved regulations and safety standards for natural gas production and transmission nationwide | In progress |

| | PROGRESS SINCE APRIL 2011 | MILESTONES TO COMPLETE BY DECEMBER 31, 2013 | STATUS |
|---|---|--|-------------|
| ENERGY | 16 Ensure the reliability of New York City power delivery | | |
| | The City was an active participant in State negotiations on the Indian Point Energy Center. The City also was involved in the siting and construction of new bulk transmission lines into the city. | Support the continued safe operation and relicensing of the Indian Point Energy Center | In progress |
| | | Explore more robust interconnection with neighboring power systems such as the Pennsylvania-New Jersey-Maryland (PJM) grid | In progress |
| | | Continue to evaluate the costs, benefits, and feasibility of other transmission line proposals that could deliver cleaner energy to New York City | In progress |
| | | Increase ability of City buildings to shed load during peak demand periods and emergency events to 50 MW | In progress |
| | 17 Develop a smarter and cleaner electric utility grid for New York City | | |
| | The City received final recommendations on Energy Enterprise Metering Systems (EEMS) in thousands of City-owned buildings. This will help measure where and when efforts are needed on energy saving initiatives. | Lay the foundation for a smarter grid by deploying an Energy Enterprise Metering System (EEMS) in thousands of City-owned buildings | In progress |
| | | Explore opportunities to leverage city wireless communication assets to assist utilities in conducting automated meter reading for power and gas customers | In progress |
| | | Partner with utilities, the private sector, and academic institutions to demonstrate the viability of "virtual generation" to allow buildings to sell energy curtailment services on wholesale electricity markets | In progress |
| | | Support Con Edison's efforts to capitalize on lessons learned in smart-grid demonstration projects and to scale up cost-effective technologies that will help reduce consumption or improve grid reliability | In progress |
| Work with regulators, utilities, building owners, and energy companies to encourage deeper participation by commercial and industrial consumers in market-based programs to reduce peak demand | | In progress | |
| UNDERSTAND THE SCOPE OF THE CHALLENGE | | | |
| 1 Monitor and model neighborhood-level air quality | | | |
| The City expanded the NYC Community Air Survey (NYCCAS), which was launched in 2008 to measure street-level air pollution, to include the carcinogens benzene and formaldehyde. A report on the findings will be released later this year. In January 2012, the Department of Health and Mental Hygiene also launched a study to measure changes in air quality in Morningside Heights before and after boiler conversions to cleaner heating fuels. | Maintain a street-level air monitoring network to track neighborhood air quality differences over time | In progress | |
| | Expand the methods and pollutants measured to look more closely at specific types of emission sources and exposure settings | Completed | |
| REDUCE TRANSPORTATION EMISSIONS | | | |
| 2 Reduce, replace, retrofit, and refuel vehicles | | | |
| The City is on track to reduce its fleet by another 500 light duty vehicles, or about 2%, and launch a citywide Fleet Share program by the end of the fiscal year. We also added 70 electric vehicles to the City's fleet as part of the Clean Fleet Transition Plan, which requires that each agency vehicle purchased be more fuel efficient than the vehicle it replaces, and installed 113 electric vehicle charging units at City-owned facilities and garages. In addition, we expanded the use of lower-emission fuels in the City's fleet by requiring the use of a 5% biodiesel blend (B5) for all City diesel equipment. In January 2012, using Federal Congestion Mitigation and Air Quality funding, we launched the Hunts Point Clean Truck Program, which offers rebate incentives to truck owners in the South Bronx to replace their vehicles with newer cleaner trucks and provides funds for vehicle scrappage and exhaust retrofit technologies. We also retrofitted approximately 290 private school buses with Diesel Particulate Filters, which reduce particulate matter emissions from these buses by at least 85%. | Reduce the City's fleet by at least 5% | In progress | |
| | Implement the Clean Fleet Transition Plan | In progress | |
| | Install over 60 electric vehicle charging units at City-owned facilities and garages | Completed | |
| | Expand the use of biodiesel in the City's fleet | In progress | |
| | Complete upgrades of 400 vehicles through existing Congestion Mitigation and Air Quality (CMAQ) and other funding sources | In progress | |
| | Install Diesel Particulate Filters (DPFs) on 685 buses | In progress | |
| 3 Facilitate the adoption of electric vehicles | | | |
| The City worked with Con Edison to improve the process for installing home EV chargers. We also removed barriers that prevent drivers from taking advantage of cheaper off-peak electricity rates for charging electric vehicles. In February 2012, the City and its partners launched a program to train up to 500 parking garage attendants at over 20 parking garages across the city in this new technology. We also launched Drive Electric NYC, a website providing users with the facts about electric cars and a map of public charging stations in the city. | Work with Con Edison and auto manufacturers to streamline the installation process for home EV chargers | Completed | |
| | Work with parking garage owners, co-op boards, consumers, and Con Edison to ensure that each group understands the technical and consumer needs associated with EV chargers | In progress | |
| | Work with private and non-profit parties to inform New Yorkers about the benefits and use of EVs | In progress | |
| 4 Reduce emissions from taxis, black cars, and for-hire vehicles | | | |
| In March 2011, the Green Taxis Act of 2011 was introduced in Congress, which would give local governments authority to regulate fuel economy and emissions standards for taxi cabs. Current federal law limits City action. The City will also launch an electric taxi pilot in the summer of 2012 in partnership with Nissan. | Work with Congress to pass legislation to explicitly allow state and local governments to incentivize fuel-efficient vehicles | In progress | |
| | Launch an electric vehicle taxi pilot program | In progress | |
| 5 Reduce illegal idling | | | |
| The City continues to enforce anti-idling laws and seek opportunities to educate New Yorkers about the law and the public health impacts of idling. | Improve compliance of existing anti-idling laws through targeted enforcement and education | Not started | |
| 6 Retrofit ferries and promote the use of cleaner fuels | | | |
| The City upgraded engines on six Staten Island ferries and installed Diesel Oxidation Catalysts on 32 private ferries. We are in the process of repowering eight private ferries and upgrading two Staten Island ferries, which will be completed before the end of the year. | Complete engine upgrades on four Staten Island ferries | Completed | |
| | Retrofit 20 private ferry boats with Diesel Oxidation Catalysts (DOCs) and repower nine additional vessels to improve fuel efficiency | In progress | |

| PROGRESS SINCE APRIL 2011 | | MILESTONES TO COMPLETE BY DECEMBER 31, 2013 | STATUS |
|--|--|--|-------------|
| AIR QUALITY | | Work with the State to repeal the exemption on Petroleum Business Tax for bunker fuel | Not started |
| | 7 Work with the Port Authority to implement the Clean Air Strategy for the Port of New York and New Jersey | | |
| | The City signed an agreement with the Port Authority of New York and New Jersey, New York Power Authority, and Princess Cruises and Cunard Line that will allow cruise ships to plug into the city's electrical grid while in port at the Brooklyn Cruise Terminal, rather than generating on-board electricity by burning oil. Shore power capabilities at the Brooklyn Cruise Terminal will be completed in 2012. | Work with the Port Authority and other partners to implement the actions outlined in the Clean Air Strategy for the Port of New York and New Jersey | In progress |
| | | Install shore-power capability at the Brooklyn Cruise Terminal | In progress |
| | | Look for additional opportunities at other facilities to connect ships to the city's grid | Not started |
| | REDUCE EMISSIONS FROM BUILDINGS | | |
| | 8 Promote the use of cleaner-burning heating fuels | | |
| | The City launched the NYC Clean Heat Program, which provides technical and financial assistance to property owners to convert to cleaner fuels at a faster pace than required by regulation. Based on these activities, we set a new goal to reduce fine particulate matter emissions (PM _{2.5}) from the use of heavy heating oil by 50% by the end of 2013. We also released a Request for Proposal for an energy performance contract for City schools and are finalizing five Energy Service Company (ESCO) contracts for K-12 schools. We completed conversion of boilers from Number 6 to Number 4 heating oil at 19 schools. Another 15 schools will be converted to cleaner fuels before the end of June 2012. | Launch a program to encourage and support the early phase-out of Numbers 4 and 6 heating oil | Completed |
| | | Release Requests for Proposals to enter into energy performance contracts for City schools | Completed |
| | | Complete boiler conversions at 15 schools | Completed |
| UPDATE CODES AND STANDARDS | | | |
| 9 Update our codes and regulations to improve indoor air quality | | | |
| The City Council passed and the Mayor signed two bills to improve indoor air quality. Local Law 72 mandates minimum filtration requirements for mechanical ventilation systems in buildings. Local Law 2 will establish limits on volatile organic compounds in carpet and carpet cushion in the city. We also adopted changes to Title 15 of the NYC Rules to remove obstacles to asbestos removal. | Propose regulations to reduce exposure to toxins released by building materials | In progress | |
| 10 Update our air quality code | | | |
| The City completed a draft update of the Air Code and engaged stakeholders to discuss the potential changes to the Code, which will be completed by the end of 2013. | Update the NYC Air Code | In progress | |
| SOLID WASTE | REDUCE WASTE BY NOT GENERATING IT | | |
| | 1 Promote waste prevention opportunities | | |
| | The City launched a GreenNYC public education campaign in the summer of 2011 to encourage use of tap water and minimize use of disposable bottles. | Install redesigned drinking fountains in public spaces and parks to encourage adoption of reusable water bottles | In progress |
| | | Implement public education campaigns to reduce litter, encourage switching to reusable bags and reusable water bottles for tap water, and to encourage New Yorkers to reduce paper consumption | In progress |
| | 2 Increase the reuse of materials | | |
| | The City allocated funding for expansion of Stop N' Swap events from 20 per year to 59 per year by 2015, or approximately one in every community board, beginning in the spring of 2012. | Implement public education campaign and leverage online platforms to encourage and increase reuse of materials | In progress |
| | | Encourage businesses, institutions, and individuals to reuse materials | In progress |
| | INCREASE THE RECOVERY OF RESOURCES FROM THE WASTE STREAM | | |
| | 3 Incentivize recycling | | |
| | The City explored mechanisms to improve access to residential waste generation and diversion rate data in conjunction with launching community competitions. We also conducted research on incentives for businesses to recycle and use recyclable materials. | Encourage businesses to recycle, and use recyclable and recycled materials through corporate challenges, partnerships, or recognition programs | In progress |
| Improve access to residential waste generation and diversion rate data | | In progress | |
| Implement new residential recycling penalties | | In progress | |
| 4 Improve the convenience and ease of recycling | | | |
| The City increased the number of public space recycling bins in parks and near City-managed buildings to more than 650 bins. We developed regulations to require new residential buildings to provide space for recycling and identified additional funding for expanded recycling education programs, which will launch this spring. | Increase recycling in public spaces and parks | In progress | |
| | Require new residential buildings to provide space for recycling | In progress | |
| | Expand recycling education programs | In progress | |
| 5 Revise City codes and regulations to reduce construction and demolition waste | | | |
| The City enacted Local Law 71 of 2011, based on a Green Codes Task Force recommendation, that requires the use of a minimum of recycled content in asphalt, diverting construction and demolition waste from landfills. | Require use of recycled content in building materials | In progress | |
| | Require recycling of building materials | In progress | |

| PROGRESS SINCE APRIL 2011 | | MILESTONES TO COMPLETE BY DECEMBER 31, 2013 | STATUS |
|---|--|---|-------------|
| SOLID WASTE | 6 Create additional opportunities to recover organic material | | |
| | The City launched a public-private textile collection program in conjunction with Housing Works and will expand textile collection and food scrap collection at Greenmarkets throughout the city in the spring of 2012. We selected a vendor to beneficially reuse biosolids from wastewater treatment plants and continued to research cost-effective and sustainable methods to divert food scraps from the commercial waste stream. | Expand opportunities for communities to compost food waste | In progress |
| | | Expand leaf and yard waste composting | Not started |
| | | Complete the curbside organics feasibility study | In progress |
| | | Implement a public-private textiles recycling program in every borough | In progress |
| | | Encourage use of new technologies to increase recovery of commercial food waste | In progress |
| | | Pursue on-site food recovery facility at the Hunts Point Food Distribution Center | In progress |
| | | Encourage in-city opportunities to recover yellow grease and convert it to biofuel | In progress |
| | | Pursue opportunities to recover energy from biosolids | In progress |
| | 7 Identify additional markets for recycled materials | | |
| | The City is actively exploring the expansion of designated plastics for our curbside recycling program. | Explore expansion of designated plastics | In progress |
| | | Promote beneficial use of dredge and road renovation spoils | In progress |
| | 8 Pilot conversion technologies | | |
| | The City released a Request for Proposals for New and Emerging Conversion Technology in March 2012. | Solicit proposals to develop conversion technology facilities to dispose of waste | Completed |
| | IMPROVE THE EFFICIENCY OF THE WASTE MANAGEMENT SYSTEM | | |
| | 9 Reduce the impact of the waste system on communities | | |
| | The Hamilton Avenue and North Shore MTSs are now 50% complete. Litigation was resolved in the City's favor, enabling us to release bid documents for construction of the 91st Street MTS in Manhattan. The Sims recycling facility at the South Brooklyn Marine Terminal is now approximately 50% complete. | Achieve significant progress toward completion of the Hamilton (Brooklyn) and North Shore (Queens) Marine Transfer Stations | In progress |
| | | Open the Sims recycling facility | In progress |
| | | Promote export of commercial waste by barge and rail | Not started |
| | 10 Improve commercial solid waste management data | | |
| | The City completed research for the Comprehensive Commercial Waste System Study. | Complete the Comprehensive Commercial Waste System Study and implement recommendations | In progress |
| | | Improve access to commercial carter information and disposal practices | Not started |
| | 11 Remove toxic materials from the general waste stream | | |
| The City planned Household Hazardous Waste collection events to be held in all five boroughs in 2012. | Expand Household Hazardous Waste collection program | In progress | |
| | Enhance the public's access to information about and participation in the NYS e-waste program | In progress | |
| | Promote product stewardship programs for high toxicity products | In progress | |
| REDUCE THE CITY GOVERNMENT'S SOLID WASTE FOOTPRINT | | | |
| 12 Revise City government procurement practices | | | |
| The City continued to research procurement best practices to reduce solid waste. | Develop best practices that address solid waste reduction for procurement and incorporate into Environmentally Preferable Purchasing | In progress | |
| | Incentivize city vendors to recover and reuse products | Not started | |
| 13 Improve the City government's diversion rate | | | |
| More than 95% of DOE schools created a recycling plan and appointed a Sustainability Coordinator to implement recycling and energy conservation initiatives. We launched a competition in City buildings to increase and measure diversion rates. | Improve quality of and access to City government solid waste generation data | Not started | |
| | Develop pilot at targeted City buildings to measure diversion rate | In progress | |
| | Ensure all DOE schools have sustainability plans (including recycling) and designate a sustainability coordinator | In progress | |
| | Sponsor packaging contest with design schools and corporate sponsors for products with high city agency consumption | Not started | |

| PROGRESS SINCE APRIL 2011 | MILESTONES TO COMPLETE BY DECEMBER 31, 2013 | STATUS |
|--|--|-------------|
| REDUCE AND TRACK GREENHOUSE GAS EMISSIONS | | |
| 1 Release an annual inventory of greenhouse gas emissions | | |
| In September 2011, the City released its fifth annual Inventory of New York City Greenhouse Gas Emissions, which reported a 1% reduction in GHG emissions over the previous year and a 12% reduction since 2005. The 2012 update to the annual inventory will include detailed neighborhood level analysis and reporting. | Expand GHG inventory to include neighborhood level analysis and reporting | In progress |
| 2 Assess opportunities to further reduce greenhouse gas emissions by 80% by 2050 | | |
| The City was awarded a \$1 million grant by the New York State Energy Research and Development Authority (NYSERDA) as part of NYSEDA's Cleaner, Greener Communities Regional Sustainability Planning Program. The grant will be used to develop a roadmap to achieve an 80% reduction in GHG emissions by 2050, and expand the City's current GHG inventory to report on neighborhood-level emissions and energy use. | Complete study to determine strategies to reduce citywide GHG emissions by 80% below 2005 levels by 2050 | In progress |
| ASSESS VULNERABILITIES AND RISKS FROM CLIMATE CHANGE | | |
| 3 Regularly assess climate change projections | | |
| The City continues to utilize the climate change projections developed by the NPCC in 2009, and work with scientists and academics to evaluate new and emerging information. | Institutionalize New York City Panel on Climate Change (NPCC) and establish process to regularly update its climate projections | In progress |
| 4 Partner with the Federal Emergency Management Agency (FEMA) to update Flood Insurance Rate Maps | | |
| The City entered into the Cooperating Technical Partners Program with FEMA to assist with outreach associated with the Digital Flood Insurance Rate Map (DFIRM) update process. Draft DFIRMs are anticipated to be released by FEMA for public comment in the first quarter of 2013. | Release draft updated Digital Flood Insurance Rate Maps (DFIRMs) for public comment | In progress |
| 5 Develop tools to measure the city's current and future climate exposure | | |
| The City is developing a climate risk assessment tool to quantify the current and future climate risks facing the city by hazard, sector, timeslice, and geography. The model will allow us to better target efforts to increase the city's climate resilience, develop cost-benefit estimates for specific adaptation strategies, and monitor our progress. As part of the FEMA Digital Flood Insurance Rate Map (DFIRM) update process, an updated digital elevation model is being created that will have applications across many agencies. The City also began an effort to leverage information being developed as part of the DFIRM update process to determine the future spatial extent of coastal flooding with sea level rise. | Develop a climate risk assessment tool | In progress |
| | Develop an updated digital elevation model using LIDAR data to promote more accurate sea level rise modeling | Completed |
| | Launch effort to develop publicly available projected flood maps that incorporate sea level rise projections for planning purposes | In progress |
| INCREASE THE RESILIENCE OF THE CITY'S BUILT AND NATURAL ENVIRONMENT | | |
| 6 Update regulations to increase the resilience of buildings | | |
| The City launched a study to determine the implications of increased freeboard for zoning compliance, building accessibility, urban design, and street vitality. The analysis will identify design strategies and potential changes to zoning or other regulations. We are also exploring amendments to the Building Code to require freeboard for a wider range of new buildings. To ensure that actions within the coastal zone are consistent with our resilience efforts, we are incorporating considerations of climate change into the City's Waterfront Revitalization Program. The proposed revisions, currently undergoing public review, will require projects to consider climate change projections for sea level rise, flooding, and storm surge. | Conduct study of the urban design implications of enhanced flood protection for buildings | In progress |
| | Pursue amendments to freeboard requirements to require freeboard for wider range of buildings to account for climate change projections | In progress |
| | Incorporate consideration of climate change within the policies of the City's Waterfront Revitalization Program (WRP) | In progress |
| | Launch study of effects of rising water tables, inland flooding, wind, and extreme heat events on buildings | Not started |
| 7 Work with the insurance industry to develop strategies to encourage the use of flood protections in buildings | | |
| The City is working with Columbia University to analyze flood insurance coverage and use across the city. These findings will inform our efforts to engage the insurance industry in encouraging better coverage, and the use of flood protections in existing buildings and buildings outside the current 100-year floodplain where such protections are not required. | Explore measures to promote flood protection in areas that may be subject to flooding based on climate forecasts | In progress |
| 8 Protect New York City's critical infrastructure | | |
| In February 2012, the City reconvened the NYC Climate Change Adaptation Task Force to quantify the impacts of climate change on critical infrastructure and develop coordinated strategies to increase the city's resilience. Using a grant from the U.S. Department of Housing and Urban Development, we developed a draft inventory of design specifications, reference standards, codes, and guidelines for critical infrastructure. | Complete Climate Change Adaptation Task Force assessment and report and begin to implement its recommendations | In progress |
| | Maintain the Climate Change Adaptation Task Force with an expanded focus on public health and safety services | In progress |
| | Assess the opportunities for the incorporation of climate change projections into design specifications and standards for critical infrastructure | In progress |
| 9 Identify and evaluate citywide coastal protective measures | | |
| The City received funding to develop and evaluate an inventory of coastal protection strategies, from wave attenuators and soft edges to storm surge barriers. The study will start in May 2012. The City completed a study with Columbia University to monitor the effectiveness of cool roofs in mitigating the urban heat island effect. We are also working with the U.S. Army Corps of Engineers to analyze the impacts of sea level rise on the Rockaways, and identify and evaluate strategies to address those impacts. | Develop an inventory of best practices for enhancing climate resilience in coastal areas | In progress |
| | Coordinate with academic institutions, scientists, engineers, and designers to develop pilot projects to test potential strategies and evaluate their costs and benefits | In progress |
| PROTECT PUBLIC HEALTH FROM THE EFFECTS OF CLIMATE CHANGE | | |
| 10 Mitigate the urban heat island effect | | |
| Through the NYC CoolRoofs, the City engaged 1,239 volunteers to cool 1.3 million square feet of roofs on 153 buildings. Since the program was launched in 2010, we have cooled 2,520,594 square feet on 288 buildings citywide. We also worked with New York City Council to pass Local Law 21, which requires that all new and replacement roofs on buildings with flat roofs have a cool coating. | Coat an additional two million square feet of cool roofs | In progress |
| | Pursue a cool roof requirement for existing buildings | Completed |
| | Work with neighborhoods most impacted by the urban heat island effect to develop and implement community-specific strategies | Not started |

CLIMATE CHANGE

| PROGRESS SINCE APRIL 2011 | MILESTONES TO COMPLETE BY DECEMBER 31, 2013 | STATUS |
|--|---|-------------|
| 11 Enhance our understanding of the impacts of climate change on public health | | |
| Using a grant from the U.S. Center for Disease Control, the City is assessing the potential health impacts of four major climate hazards in New York City – rising temperatures, increased summer ozone concentrations, increased frequency and severity of coastal storms/flooding, and increased likelihood of power outages. The results of the study will be released this year. | Complete study on the impact of climate change on public health | In progress |
| INCREASE CITY'S PREPAREDNESS FOR EXTREME CLIMATE EVENTS | | |
| 12 Integrate climate change projections into emergency management and preparedness | | |
| The City will launch a process to include climate change as a hazard under the 2014 Natural Hazard Mitigation Plan, when it begins updating the Plan next year. | Integrate climate change projections into the City's emergency management and preparedness plans and procedures | In progress |
| | Launch a process to include climate change as a hazard assessed under the Natural Hazard Mitigation Plan | Not started |
| CREATE RESILIENT COMMUNITIES THROUGH PUBLIC INFORMATION AND OUTREACH | | |
| 13 Work with communities to increase their climate resilience | | |
| Through the Ready New York Program, the City held more than 400 outreach events to inform New Yorkers on ways they can be prepared in the event of an emergency. This included 296 presentations focused on school children, seniors, special needs populations, and immigrant and low income communities. We are assessing opportunities to incorporate updated information on climate risks into the Program and to ensure that these outreach efforts are appropriately targeted. | Ensure that outreach efforts target appropriate communities and provide up-to-date climate risk information | In progress |
| | Improve the access to publicly available data on the locations of hazardous material storage in flood zones throughout the city | Not started |

The development of PlaNYC, and the implementation of its initiatives, resulted from an enormous collaborative effort by government agencies, civic organizations, academic specialists, community groups, consultants, fellows, interns, photographers, organized labor and the private sector, elected officials, and thousands of New Yorkers. Although it is impossible to acknowledge each individually, we thank all of those who have contributed their ideas, their time, their expertise, and above all their passion for New York City.

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For more information, please visit:
www.nyc.gov/planyc

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