PlaNYC

PROGRESS REPORT 2009

A GREENER, GREATER NEW YORK

The City of New York
Mayor Michael R. Bloomberg

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The City of New York
Mayor Michael R. Bloomberg

"Each of the individual initiatives I've just described will not only **strengthen our economic foundation and improve our quality of life**; *collectively, they will also form a* **frontal assault on the biggest challenge of all: global climate change."**

Mayor Michael R. Bloomberg
Earth Day, 2007

Introduction

On Earth Day 2007, we put forward PlaNYC, a long-term vision for a sustainable New York City. Each of its initiatives was based on our belief that sustainability isn't about being "green" because it's in fashion; rather, it's about making the right long-term decisions that will improve our economy, our environment, and our quality of life – all at the same time. I'm proud that PlaNYC has gained tremendous attention and has been acknowledged around the world as one of the most ambitious – and most pragmatic – sustainability plans anywhere.

But PlaNYC wasn't just a vision, or a report that has collected dust. **In just two years, we've made real progress toward our sustainability goals.** Since April 2007, we have greened more than 15% of the city's taxi fleet – improving our air quality and reducing our carbon footprint. Our city's children have 91 more places to play through our Schoolyards to Playgrounds initiative. We have planted nearly 200,000 trees across the five boroughs, starting in neighborhoods with high asthma rates like Far Rockaway and the South Bronx. We have increased the energy efficiency of dozens of city buildings and worked with New York's leading universities and theaters to help them do so as well. And we are working to ensure that all of New York's buildings are as energy efficient as they can be. We also continue to work with State and Federal officials to ensure that they do their parts – because, as PlaNYC noted, the City cannot do the job alone.

We have reached several major milestones this year. For instance, our Sustainable Stormwater Management Plan was the most comprehensive analysis of how we can use natural methods to keep our waterways clean – and we have already begun 20 pilot projects to test its recommendations. To ensure that the work we are doing becomes a permanent feature of municipal government, we worked with the City Council to pass a law officially establishing the Office of Long-Term Planning and Sustainability. The law also mandates progress reports like this one as well as the set of online sustainability indicators we will release today. We established our new Office of Environmental Remediation to manage brownfield policy. Our first annual greenhouse gas inventory showed a 2.5% reduction in citywide emissions, an encouraging start.


Credit: NYC Mayor's Office

Credit: NYC Mayor's office


Credit: NYC Department of Parks and Recreation


Credit: NYC Department of Transportation


Credit: NYC Department of Parks and Recreation

Credit: NYC Department of Transportation


Credit: Jennifer Miranda

When we have been confronted with obstacles, we have worked hard to overcome them. For instance, when a Federal judge determined that we did not have the legal authority to require taxis to be hybrid vehicles, we adopted an incentive-based approach. And this year, we will work to get Congress to change the law that stands in our way.

In today's economy, with today's budget challenges, we have also had to make some tough decisions, scaling some Initiatives or stretching out their timelines. But we also recognize that many PlaNYC initiatives will generate or save revenue in the long-run. Our energy efficiency investments, for instance, will more than pay for themselves, and are thus even more important in today's tough times. We are also using City resources efficiently, and capitalizing on New Yorkers' willingness to serve as volunteers. The U.S. Green Buildings Council has convened 170 volunteer experts to help us study how to green the city's various building codes, and thousands of individual New Yorkers have joined us to plant and care for the new trees we have planted through the MillionTreesNYC campaign. **Truly, PlaNYC has become a citywide effort.**

We have also made real progress in the critical area of transportation. The City has worked closely with the MTA to bring the new Select Bus Service to Fordham Road, which has improved travel times by 20% and increased ridership by 10% in just a few months. We have rapidly increased our citywide bicycle network and are planning significant improvements to the flow of traffic in Midtown. We are making use of our new capability to enforce block-the-box violations, thanks to a law first proposed as part of PlaNYC. With City funding, the MTA has begun drilling the tube for the 7 train extension to the Javits Center – a link that is critical to the tourist jobs that employ so many New Yorkers.

Despite the City's major transportation investments, **we have not yet seen any State solution to the long-term funding challenges facing the MTA.** We cannot forget that the single greatest threat to the City's long-term success would be a deteriorating transit system. PlaNYC began that conversation, proposing congestion pricing to reduce traffic, clean the air, and fund long-term transit investment. However, we still face a major funding gap, severe service cuts, and fare hikes that all riders will feel. New York needs a real solution to transit finance – not just a stopgap that keeps fares low but one that averts having to deal with another crisis a few months from now. The City's future depends on it.

Over the past two years since the launch of PlaNYC, we have seized opportunities to look forward and step forward for New York City's future. Now as that future presents us with new challenges, we are **creating a better and more sustainable city – one that will rise above the current economic turmoil and show the world how it is possible to come back stronger than ever.** All of this will depend on our ability to create jobs, invest in infrastructure, and improve our city's quality of life – all direct benefits of our PlaNYC initiatives. The City is committed to these goals, and together, I know we can build a greener, greater New York.

Mayor Michael R. Bloomberg

Top Achievements

Progress toward PlaNYC goals since April 2007

- 21 transit-oriented rezonings with inclusionary zoning approved or in pipeline
- 91 schoolyards opened or under renovation through Schoolyards to Playgrounds initiative
- 174,189 trees planted by March 2009
- NYC Office of Environmental Remediation opened
- 20 stormwater retention pilot projects launched
- Over 13,500 acres of land acquired to protect our upstate water supply
- 31 state-of-good repair projects begun, leveraging $261 million in Federal stimulus funding
- 141 miles of bike lanes and 2,011 new bike racks installed
- 76,751 City parking placards reduced
- 64 responses received to the City's renewable energy request for expressions of interest
- 224 energy efficiency projects on City government buildings begun
- 15% of the yellow taxi fleet converted to hybrid vehicles
- 327 tons of NOx per year saved due to retrofits to Staten Island Ferry fleet
- 56% initiated or proposed GHG reductions needed to reach citywide target
- 42% of Department of Environmental Protection methane emissions reduced

2009 MILESTONE UPDATES	PERCENT OF TOTAL
35 milestones complete	28%
50 milestones on time	39%
35 milestones delayed	28%
7 milestones redirected*	5%

* Redirected - 2009 Milestones not relevant as efforts redirected to achieve same or similar outcome


Credit: Associated Press

Credit: NYC Department of Parks and Recreation

PlaNYC A GREENER, GREATER NEW YORK

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

New York City's population is expected to grow from 8.36 million today to roughly 9.1 million in 2030. While this growth will offer benefits, including more jobs and an expanded tax base, it will also bring challenges. The primary challenge is to accommodate these new residents while decreasing the gap between housing supply and demand that has made housing less affordable in recent decades. To meet this goal, the City is working to create 265,000 new housing units above what was under construction in 2005. In the context of the economic downturn, we are modifying elements of our plan while remaining focused on our long term goal. In the short term, the City is adapting its affordable housing programs—many of which leverage the private housing market to create affordable housing units—to the reality of declining private housing production. In the long term, the City continues to expand opportunities for transit-accessible development so that when the housing market rebounds, we can direct growth to neighborhoods where additional population will not undermine the local quality of life.

Our plan for the future of housing includes the following initiatives:

Continue publicly-initiated rezonings

1 Pursue transit-oriented development
2 Reclaim underutilized waterfronts
3 Increase transit options to spur development

Create new housing on public land

4 Expand co-locations with government agencies
5 Adapt outdated buildings to new uses

Explore additional areas of opportunity

6 Develop underused areas to knit neighborhoods together
7 Capture the potential of transportation infrastructure investments
8 Deck over railyards, rail lines, and highways

Expand targeted affordability programs

9 Develop new financing strategies
10 Expand inclusionary zoning
11 Encourage homeownership
12 Preserve the existing stock of affordable housing throughout New York City

Housing

OUR PROGRESS

Approved transit-oriented rezonings for 125th Street in Manhattan, Dutch Kills in Queens, and St. George in Staten Island

The City is making significant progress towards creating homes for New Yorkers—issuing over 31,000 building permits between March 2008 and February 2009. From 2005 though 2008, housing production, which often fluctuates with the economy, actually outstripped the city's population growth, which tends to grow at a more consistent rate. Given present economic conditions, the City expects new construction to drop off significantly in 2009 as the market absorbs these new market-rate units. Despite this, we continue to plan for the future—to ensure that housing supply will once again expand when the economy revives. We continue to pursue rezonings that direct opportunities for housing to transit-accessible areas—over the long term, transit-oriented rezonings adopted since April 2008 may result in more than 5,000 new housing units. The City is also making significant progress toward creating and preserving 165,000 affordable housing units under the New Housing Marketplace Plan. In September 2008, the plan reached its halfway point, with more than 82,500 units funded. In addition, the City has unveiled several new initiatives, including the $240 million New York City Acquisition Fund, to maintain the plan's progress during the recession.


Credit: L. Raciopo/NYC Department of Housing Preservation & Development

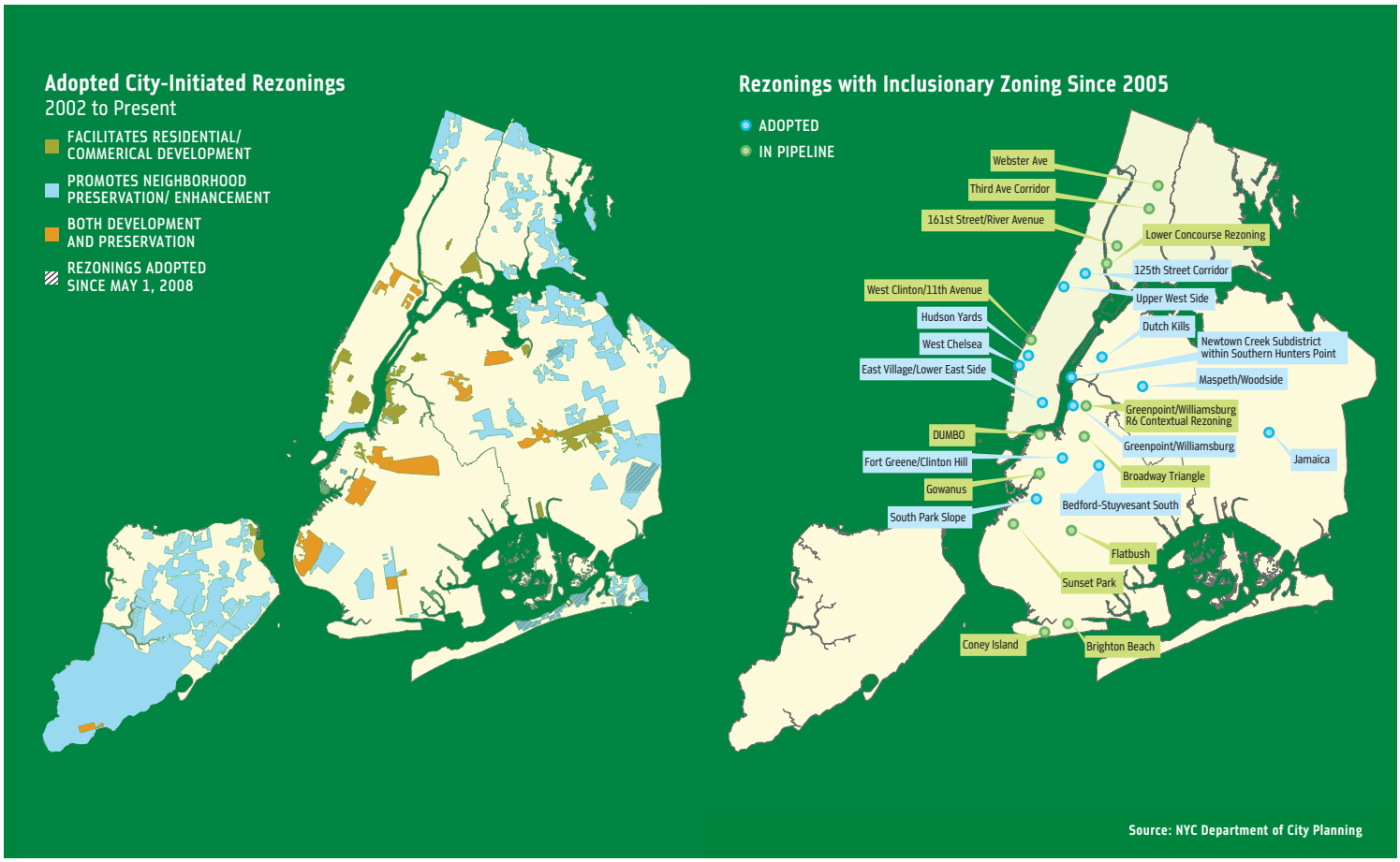
43 Herbert Street in Brooklyn: 14 affordable condos in a former police precinct

In the coming year, the City will continue to develop new approaches to expand and preserve affordable housing—supporting jobs in the construction industry in the process—and to take action to help New Yorkers stay in their homes.

Continue publicly initiated rezonings

The City is ensuring sustainable housing growth in the future by promoting transit-oriented development, which focuses growth near existing transit infrastructure. For example, in the past year the City rezoned the 125th Street corridor in Manhattan, promoting job creation and housing development in an area with easy access to 10 subway lines and numerous bus routes. The rezoning also seeks to strengthen the corridor's cultural heritage as the arts, entertainment, and retail center of Harlem and to protect the character of the area's historic brownstone blocks. The rezoning could potentially spur development of 2,050 housing units, of which 355 would be affordable to low-, moderate- and middle-income households through the Inclusionary Housing program.

In addition to 125th Street, in the last year the City adopted transit-oriented rezonings in Dutch Kills in Queens and St. George in Staten Island, and began public review for the rezoning of the Lower Concourse in the Bronx. Moving forward, we will continue to plan and consult with communities for rezonings of the Third Avenue Corridor and 161st/River Avenue



in the Bronx, Flatbush in Brooklyn, and Flushing Commons in Queens. The City has also begun to reclaim underutilized land for redevelopment along our waterfront, passing rezonings in Hunters Point South and Willets Point in Queens. The Hunters Point South project, *profiled on the next page,* will result in 5,000 new housing units, 60 percent of which will be affordable to middle income New Yorkers.

Create new housing on public land and expand co-locations with government agencies

We continue to develop surplus City buildings as additional housing sites. In June 2008, the City's Department of Housing Preservation and Development secured financing for 43 Herbert Street, a 14-unit affordable condominium project that is being developed through the New Foundations Program by non-profit sponsor North Brooklyn Development Corporation. Currently under construction, 43 Herbert Street is a gut rehabilitation of a landmarked former police precinct house in Greenpoint, Brooklyn.

We are exploring opportunities for co-locations of government services in new affordable housing developments. In 2008, the City released a Request for Proposals to develop three sites in the northern portion of Melrose Commons, an Urban Renewal Area in the South Bronx. The proposal calls for the development of a mixed-income housing and retail space, and will include an Administration for Children's Services-sponsored childcare facility.

Explore additional areas of opportunity

We are also pursuing development opportunities over rail lines, highways, and other infrastructure. The City completed an inventory of rail yards, rail lines, and highways that have the potential to be decked over and posted the inventory to the Department of City Planning website. In December, the City also completed the public approval process for a mixed-use development project in the Bronxchester section of the Bronx. The project, part of which will be built over a former New York Central Rail Road right-of-way, will provide for approximately 220 affordable residential units, commercial and community facilities, and more than 21,700 square feet of open space. The development, which will include a range of green design features, will apply for LEED Gold certification.

Expand targeted affordability programs

In the last year, we reached a major milestone in our New Housing Marketplace Plan (NHMP), New York City's $7.5 billion plan to build and preserve affordable housing for 500,000 New Yorkers. To date, the NHMP has funded more than 82,500 units—half of the plan's 165,000-unit goal. The City remains committed to implementing the remainder of the plan, although it will extend the timeline for completion by one year as the result of an across-the-board stretch out of the City's capital plan, driven by the recession.

The City is also adapting to the drop in private housing development which, over the short-term, will reduce the number of low- and moderate-income housing units created through Inclusionary Housing and other incentive programs. The City has created the $240 million New York City Acquisition Fund, which uses cutting-edge private finance tools to help developers committed to affordable housing. Since its inception, 21 projects across the city have received over $100 million in loans through the fund. The fund has received the prestigious "Innovations in American Government" Award from Harvard University's Ash Institute for Democratic Governance and Innovation. The City has also leveraged the $130 million New York City Housing Trust Fund, created in 2006, to help finance the development and preservation of over 2,100 affordable units and used the bonding authority of the NYC Housing Development Corporation to fund tens of thousand of affordable units.

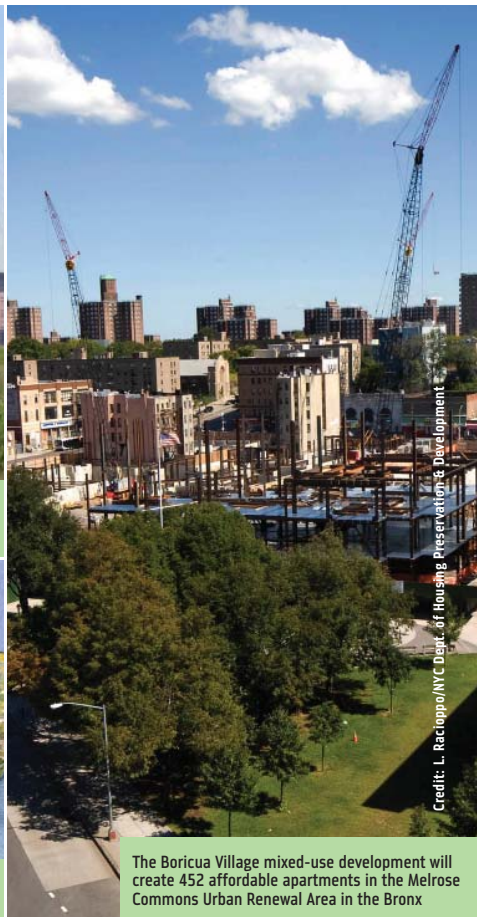
In response to rising foreclosures, the City launched the Center for NYC Neighborhoods (CNYCN) in December 2007 to provide assistance to at-risk homeowners. In its initial year, the center raised nearly $7 million in commitments

Credit: NYC Department of City Planning

The Hunters Point South waterfront views midtown Manhattan, as well as downtown Brooklyn

Credit: NYC Department of City Planning

Hunters Point South will be the City's largest affordable housing project in thirty years



Credit: L. Racioppo/NYC Dept. of Housing Preservation & Development

The Boricua Village mixed-use development will create 452 affordable apartments in the Melrose Commons Urban Renewal Area in the Bronx

CASE STUDY: HUNTERS POINT SOUTH

In November, the City adopted the Hunters Point South rezoning to facilitate New York City's largest development of permanently affordable housing targeted primarily to moderate- and middle-income families. The 30-acre site in southwestern Queens, with approximately one-half mile of East River shoreline, is directly across from Midtown Manhattan and is accessible to the E/V, G and No. 7 subway lines, and the LIRR. The site will be developed as a vibrant community with up to 5,000 new housing units, 10 acres of landscaped waterfront and inland parkland, local retail establishments, a new school, other community facilities, and parking. The rezoning could also potentially spur the development of up to 1,650 housing units on an adjacent, privately-owned site, 20 percent of which would be reserved for low-income families.

By requiring that 60 percent of the Hunters Point South housing units be affordable to middle income families, we aim to address a critical need for middle income housing. Most of the 27,000 new affordable units created since 2002 under the Mayor's New Housing Marketplace Plan focused on low-income households using a range of available housing subsidies targeted to these income levels. In the absence of Federal or State programs to support new housing for moderate and middle income households or to retain existing units, we have worked to identify innovative ways to provide middle income housing to maintain an economically diverse population and to attract and retain employees, many of whom perform essential city services as police officers, firemen, sanitation workers, teachers, and nurses. The 3,000 units of middle-income housing facilitated by the Hunter's Point South rezoning will help retain this population by providing affordable housing opportunities in this new planned community.

from public and private sources and has contracted with over 30 nonprofit organizations to provide foreclosure prevention assistance and related services. Since taking their first client referrals in July 2008, more than 3,400 individuals have received foreclosure prevention education and over 2,200 have received direct services. CNYCN anticipates serving an additional 6,000 homeowners through direct services by August 2009.

We continue to expand the application of the Inclusionary Housing program so that when the market recovers, affordable units will be created. In the past year, the City adopted rezonings with Inclusionary Housing in the East Village/Lower East Side and 125th Street in Manhattan and Dutch Kills and Hunters Point South in Queens. The East Village/Lower East Side rezoning, adopted by the City in November of 2008, creates opportunities for 455 affordable housing units through the Inclusionary Housing program. The *map on the previous page* shows adopted rezonings with Inclusionary Housing and those that are in the pipeline. Over the next year, the City will continue to move forward with inclusionary rezoning proposals for the Third Avenue Corridor in the Bronx, Gowanus in Brooklyn, and a number of other areas across the city. We have also formulated a proposal to upgrade the Inclusionary Housing program to include a permanently affordable

homeownership option, in order to broaden the range of affordable housing resources in communities where zoning changes encourage new development. The proposal was released for public review this February.

The State has also made important changes in this area. In February of 2008, the Governor signed legislation reforming the 421-a tax exemption program. The program's General Exclusion Area, which requires developers to include affordable housing when receiving 421-a tax benefits, was extended to cover the entire borough of Manhattan and greater portions of Brooklyn, Queens, and Staten Island.

Next Steps

In the coming year, the City will continue to build affordable housing while also planning for the future. To keep the NHMP on track, we will adapt our housing programs to new market conditions and develop new initiatives, like the New York City Acquisition Fund, so that we can continue to create new housing for low and moderate income New Yorkers. We will also continue to create a framework for future growth. In the next year, we plan to move forward with transit-oriented rezonings, including on the Third Avenue corridor in the Bronx and the Fourth Avenue corridor in Sunset Park so that when the city's economy revives, new housing is created for residents at all income levels.

Credit: NYC Department of City Planning

The 125th Street Corridor Rezoning will support the ongoing revitalization of Harlem's "Main Street"

Housing Progress

	INITIATIVE	PROGRESS SINCE APRIL 22, 2008	IMPLEMENTATION MILESTONE FOR DECEMBER 2009	2009 MILESTONE PROGRESS
1	**PURSUE TRANSIT-ORIENTED DEVELOPMENT**			
	Use upcoming rezonings to direct growth toward areas with strong transit access	Adopted rezonings: 125th Street and follow-up, Manhattan; Hunts Point, Bronx; St. George, S.I.; Dutch Kills, Queens. Referred for public review: Coney Island, Brooklyn; Lower Concourse and 161st St/River Ave, Bronx. Will launch public review in 2009: Flushing Commons/Macedonia Plaza, Queens; Third Ave Corridor, Bronx	Complete current Administration's agenda for rezonings and land use studies	On Time
2	**RECLAIM UNDERUTILIZED WATERFRONTS**			
	Continue restoring underused or vacant waterfront land across the city	Hunters Point South and Willets Point rezonings in Queens adopted in Fall 2008. Coney Island, Brooklyn, and Lower Concourse and 161st St/River Ave, Bronx rezonings referred for public review in Winter 2009. Will launch for public review in 2009: Gowanus, Brooklyn rezonings	Complete current Administration's agenda for rezonings and land use studies	On Time
3	**INCREASE TRANSIT OPTIONS TO SPUR DEVELOPMENT**			
	Use transit extensions to spark growth as the subways did more than a century ago	34th Street BRT Phase I implemented by DOT in Fall 2008. The Port Authority of NY and NJ's ARC project, referred for public review in January 2009, would ensure adequate transit capacity to support expected growth in Midtown Manhattan	Implement increased transit options including BRT to spur development	On Time
4	**EXPAND CO-LOCATIONS WITH GOVERNMENT AGENCIES**			
	Pursue partnerships with City and State agencies throughout the city	Issued 1951 Park Avenue RFP, a project comprising approx. 300 units on a former HRA site. Issued Melrose Commons RFP, to redevelop 5 Sites within the Melrose Commons Urban Renewal Area in the South Bronx. Both projects will include space for an ACS facility	Create database of City, State, and Federal land for co-location opportunities and housing	On Time
5	**ADAPT OUTDATED BUILDINGS TO NEW USES**			
	Seek to adapt unused schools, hospitals, and other outdated municipal sites for productive use as new housing	Closed 43 Herbert Street, a land marked former police precinct that will be rehabilitated to create 14 affordable condominium units	Use database to identify and execute on initial sites	On Time
6	**DEVELOP UNDERUSED AREAS TO KNIT NEIGHBORHOODS TOGETHER**			
	Continue to identify underutilized areas across the city that are well-served by transit and other infrastructure	Draft scope for the Gowanus, Brooklyn proposal issued in February 2009, and expected to be referred for public review in 2009. Flushing Commons/ Macedonia Plaza (Municipal Parking Lot 1 site) expected to be referred for public review in 2009	Complete current Administration's agenda for rezonings and land use studies	On Time
7	**CAPTURE THE POTENTIAL OF TRANSPORTATION AND INFRASTRUCTURE INVESTMENTS**			
	Examine the potential of major infrastructure expansions to spur growth in new neighborhoods	The Willets Point, Queens rezoning, adopted Fall 2008, will require substantial infrastructure improvements as part of private development. Discussions on environmental, design, and zoning issues concerning the Moynihan Station area are underway	Identify rezoning opportunities that emerge with the implementation of new transit projects[1]	On Time
8	**DECK OVER RAILYARDS, RAIL LINES, AND HIGHWAYS**			
	Explore opportunities to create new land by constructing decks over transportation infrastructure	Completed inventory of railyards, rail lines, and highways with deck over potential and posted the report to DCP website. Via Verde/ Green Way, Bronx rezoning adopted December 2008. Western Rail Yard proposal (aka Caemmerer Railyards) expected to be referred for public review in 2009	Identify railyards, rail lines, and highways that coincide with sustainable development and have the capacity for anticipated growth	Complete
9	**DEVELOP NEW FINANCING STRATEGIES**			
	Continue to pursue creative financing strategies to reach new income brackets	Reached halfway point of New Housing Market Plan: 82,500 units financed. Created $230 million New York City Acquisition Fund to assist affordable housing developers: 21 developments have received over $100M in loans through the fund	Complete the Mayor's New Housing Marketplace Plan to build 165,000 units of affordable housing	Delayed
10	**EXPAND INCLUSIONARY ZONING**			
	Seek opportunities to expand the use of inclusionary zoning (IZ), harnessing the private market to create economically integrated communities	IZ rezonings adopted: 125th St., Dutch Kills, East Village/LES. Referred for public review: Coney Island, Brighton Beach, DUMBO, Greenpoint/Williamsburg, Lower Concourse, 161st St/River Ave. Upcoming: Sunset Park, Gowanus, Webster Ave/Third Ave. IZ Text Amendment for homeownership option referred for public review in February 2009	Pursue inclusionary zoning in all appropriate rezonings initiated and reviewed by the City	On Time
11	**ENCOURAGE HOMEOWNERSHIP**			
	Continue to develop programs to encourage home ownership, emphasizing affordable apartments over single-family homes	Opened Center for New York City Neighborhoods and raised $7 million in commitments from public and private sources. CNYCN has contracted with over 30 nonprofit organizations to provide foreclosure prevention assistance. Provided foreclosure education to 3,400 residents since July 2008	Complete the Mayor's New Housing Marketplace Plan to build 165,000 units of affordable housing	Delayed
12	**PRESERVE THE EXISTING STOCK OF AFFORDABLE HOUSING THROUGHOUT NEW YORK CITY**			
	Continue to develop programs to preserve affordable housing that so many New Yorkers depend upon today	New York City received $24 million in federal financing to rehabilitate and resell 115 foreclosed homes in an effort to prevent vacant foreclosed properties from becoming a blight on hard hit neighborhoods	Complete the Mayor's New Housing Marketplace Plan to build 165,000 units of affordable housing	Delayed

[1] 2015 milestone set—no 2009 milestone

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

Since the launch of PlaNYC, the City has added 112 acres of new parkland, as well as improved access and amenities at existing parks and open spaces. But given the size of our city and the limited amount of available land, we cannot rely on new park construction alone to meet our open space needs. That is why we seek to make better use of underutilized open spaces—including schoolyards, streets, and parks—as publicly accessible areas for recreation. Our efforts to create more usable open space not only improve the quality of life of all New Yorkers, but also make the city a more attractive place for tourists to visit and for businesses and workers to locate.

Our plan for the future of open space includes the following initiatives:

Make existing sites available to more New Yorkers

1 Open schoolyards across the city as public playgrounds

2 Increase options for competitive athletics

3 Complete underdeveloped destination parks

Expand usable hours at existing sites

4 Provide more multi-purpose fields

5 Install new lighting

Re-imagine the public realm

6 Create or enhance a public plaza in every community

7 Green the cityscape

Open Space

OUR PROGRESS

Planted 174,189 trees and began construction on 16 playgrounds and on Calvert Vaux Park in Brooklyn

Over the last year, the City has made significant progress toward expanding the number of parks and acres of green space available to New Yorkers. We have planted over 100,000 trees, surpassing our annual planting target by 17 percent. By the end of this spring planting season, this will bring the number of total trees planted to 225,000. In the first year of the plan we built 93 new Greenstreet sites to enhance the New York streetscape—by the end of this spring we will have built 84 more. Planning for all eight regional parks is underway, and we have completed preliminary designs for six sites. Calvert Vaux Park in Brooklyn began construction in February of this year, and work will begin at the McCarren Park pool in Brooklyn this summer.

We are also leveraging our open space initiatives to create well-paying green jobs. The City hired 71 new tree maintenance staff, created a forestry and landscaping training program for young New Yorkers, and secured $2 million in federal funding to provide full time jobs to the program's graduates. *See case study*

Make existing sites available to more New Yorkers

In PlaNYC's first year we opened 69 schoolyards that were ready for use as public playgrounds; over the last year, we have begun planning for 185 more schoolyards that require capital improvements before opening to the public. These sites will be renovated to include features like new play equipment, benches, water fountains, and trees. Working with the Trust for Public Land (TPL) through a public-private partnership, the City has overseen the design of 123 schoolyard sites. Of the 185 total sites requiring capital improvements, six are now open to the public; 16 more will be completed by July 2009; and construction will start on an additional 50 by the end of 2009. The 254 playgrounds included in the program will provide additional needed play space for more than 360,000 children by 2030. Originally, the plan included a total of 290 sites, but due to budget constraints the City has reduced the program to 254 sites.

DPR works with students to create a design for a new playground at PS 69

Credit: NYC Department of Parks and Recreation

The City has made major progress on plans for eight new regional parks that will add or improve over 500 acres of park land. In the past year, we worked with local communities to complete preliminary designs for six of the eight regional parks projects, and we have set a goal of finalizing construction documents for all six by the end of 2009. Waterfront improvements began on Calvert Vaux Park in February and the site is scheduled for completion in 2011. We plan to begin the renovation of the historic McCarren Park pool this summer, with work scheduled to be completed by 2011. The City also expects to begin construction on Ocean Breeze Park in Staten Island this summer, which will include the Department of Parks and Recreation's (DPR) largest indoor track facility. Three regional parks: Far Rockaway Park in Queens, Fort Washington Park in Manhattan, and Soundview Park in the Bronx, have completed Phase I designs. The two parks under construction will create 452 construction jobs.

We are completing preliminary designs for the two remaining regional park sites. For the High Bridge, which connects parks in Manhattan and the Bronx, the City has selected a restoration specialist, who will develop a plan to restore the bridge as a pedestrian and bike path. Once restored, the bridge will provide easy access to Highbridge Park for residents of Mt. Eden and High Bridge in the Bronx, as

Credit: NYC Department of Parks and Recreation

Opened in 1936 and closed in 1984, McCarren Pool will be rebuilt beginning in summer 2009

Credit: NYC Department of Parks and Recreation

The MillionTreesNYC pilot training program is one of over 40 programs of the Mayor's Center for Economic Opportunity

well as provide stunning views of the Harlem River. The City has also initiated the preliminary design process for Highland Park in Queens.

Expand usable hours at existing sites

To meet growing demand, we are moving forward on our commitment to expand usable hours at our recreation facilities. In our original plan, the City pledged to install lighting at 36 fields by the end of 2009. Budget constraints have forced a reduction in the number of sites in the park lighting initiative by 11 fields. The City is currently installing lighting at 15 field sites citywide that will make possible evening use by local residents. In the coming months, we will complete final design on an additional 10 sites.

We are also making progress on converting asphalt play spaces into synthetic turf fields. Initially, the City pledged to construct 25 sites by the end of fiscal year 2009. Budget constraints have required us to reduce the number of sites and we will complete 21 fields by fiscal year 2013. The first site in the Bronx is under construction and should open later this year. Designs for 13 sites are complete and currently out for bidding. We expect to begin construction on those sites this summer. The remaining sites will have designs completed this spring.

Over the past year we have addressed concerns raised over the use of synthetic turf at certain fields. DPR, working closely with the Department of Health and Mental Hygiene, has eliminated recycled tire infill in favor of lighter-colored materials, added more misting stations, drinking fountains, and signage to address heat-related issues and developed new testing protocols to ensure that all synthetic turf fields meet the highest safety standards. We are confident that this initiative will help to directly meet our goals of expanding usable playing hours. In addition, it will address the growing demand for active recreation across the city with safe and high quality playing fields in place of hard asphalt surfaces.

Re-imagine the public realm

We are making progress toward greening our streets and creating new public spaces. Last summer, the City launched the New York City Plaza Program, which enables community organizations to apply to have underused streets transformed into vibrant, social public spaces, particularly in neighborhoods that lack open space. In the program's first year, the City received applications from 22 nonprofit organizations and selected nine projects to move forward. In 2009 the City will work with these nine groups to create plaza designs and construction will start in the fall of 2010. This spring the City will initiate a second round of the program for an additional two to three sites. We will also soon open a new street-end plaza on Manhattan Avenue in Brooklyn and are advancing designs for over 20 additional sites.

In addition to these long-term plans to create plazas, we are making quick improvements in the public realm. In Manhattan at Madison Square, along Broadway between West 35th and West 42nd Streets, and in the Bronx Hub, we have rolled out immediate plazas by reconfiguring streets and delineating pedestrian spaces with planters, benches, and paint.

In addition to the 177 Greenstreet sites either completed or under construction since the inception of PlaNYC, the City plans to construct 40 new Greenstreets per year going forward: 20 each spring and 20 each fall. This is a reduction from the original goal of 80 Greenstreets per year, which was scaled back due to budget constraints. We are also piloting Greenstreets designs that can capture stormwater runoff as a part of comprehensive strategy to reduce the severity of combined sewer overflows.

Finally, we have made tremendous progress toward our goal of planting one million new trees across the five boroughs. MillionTreesNYC is a citywide, public-private initiative launched

CASE STUDY: MILLIONTREESNYC TRAINING PROGRAM

The MillionTreesNYC Training Program is a seven-month job training program offering forestry and horticulture professional development to young adults disconnected from the school system. In its first year, the program is giving 27 participants "green collar" training in forestry, ecological restoration, and landscape design and installation. This pilot program, which runs through May 2009, is one of over 40 innovative programs of the Mayor's Center for Economic Opportunity (CEO) to reduce the number of New Yorkers living in poverty, and is generously supported by the Altman Foundation.

Since the first day of the program, the trainees have demonstrated strong commitment and eagerness to learn. The trainees are recognized monthly for motivation, attendance, and for being "unsung heroes."

Here is what one of the trainees had to say about the Program:

"My name is Theoné Adonis Ash and I am a proud trainee of the MillionTreesNYC Training Program in which if it wasn't for your great intentions and vast resources, my colleagues and I wouldn't have been employed as aspiring Tree Care Specialists—for that I say, 'Thank You.' When I put my uniform on for the first time, it dramatically raised my sense of purpose. It feels good to know that there are men and women that are rooting for me to succeed and fly high."

Through our partnership with the U.S. Forest Service we secured $2 million to help provide full time employment for the MillionTreesNYC trainees upon completion of the program.

Credit: NYC Department of Transportation

The Madison Square plaza breaks up the longest crosswalk in the city with 45,000 sq. ft. of public space

by the DPR and the New York Restoration Project (NYRP). By the end of Spring 2009, MillionTreesNYC will result in the planting of 225,000 trees, including over 100,000 planted in the past year. We are now ahead of schedule in meeting the one million tree goal. The City could not accomplish this without help from thousands of volunteers who help plant trees during the spring and fall planting seasons. With NYRP, we have also launched a MillionTreesNYC training program, *detailed in the sidebar on the previous page*, to provide youth, ages 18-24, who are not in school or on a well-defined career path, with job training in the fields of horticulture, tree pruning and climbing, and ecological restoration.

Next Steps

We are on track to meet our goal of creating over 800 acres of upgraded parkland and open space spread across the city. Barring additional cuts to the City's capital plan, in the next year of PlaNYC we will aim to complete construction documents for an additional four regional parks sites; build an additional 40 Greenstreets across the city; complete improvements on nearly 70 schoolyard-to-playground sites; launch community design efforts for 22 new public plazas; and continue to expand our tree-planting capacity to achieve the levels we will need to finish planting a million trees by 2017.

We will also continue to use these projects as an opportunity to train workers and create green jobs. With the support of our partners and city residents, we can achieve our goal of making a park only a walk away from each New Yorker.

Open Space Progress

	INITIATIVE	PROGRESS SINCE APRIL 22, 2008	IMPLEMENTATION MILESTONE FOR DECEMBER 2009	2009 MILESTONE PROGRESS
1	**OPEN SCHOOLYARDS ACROSS THE CITY AS PUBLIC PLAYGROUNDS**			
	Open schoolyards as playgrounds in every neighborhood	Opened 69 schoolyards as playgrounds, completing commitment to open all Category 1 sites. Renovation completed on six additional schoolyard sites that are now open to the public after school and on the weekends, with an additional 16 to complete construction by the end of Spring 2009. Community meetings and design complete for 123 schoolyard sites to be reconstructed between Summer 2009 and Summer 2010	Open all Category 1 sites not requiring capital improvements	Complete
2	**INCREASE OPTIONS FOR COMPETITIVE ATHLETICS**			
	Make high-quality competition fields available to teams across the city	Began process of evaluating appropriate sites for high-quality competition fields across the city	Open fields up for community use on 43 fields	Delayed
3	**COMPLETE UNDERDEVELOPED DESTINATION PARKS**			
	Fulfill the potential of at least one major undeveloped park site in every borough	Preliminary design and draft environmental reviews in process for six regional parks projects. Calvert Vaux Park has approved Master Plan and began construction in February. Master Plan for McCarren Park Bathhouse approved by Landmarks Preservation Commission and construction to start Summer 2009. Ocean Breeze received Master Plan approval from the Art Commission in April. Soundview, Ft. Washington, and Rockaway Beach plans all received Phase I Art Commission approval	Complete community outreach and designs for all regional parks	On Time
4	**PROVIDE MORE MULTI-PURPOSE FIELDS**			
	Convert asphalt into multi-use fields	In Spring 2009, construction on first field will be completed and we will begin construction on an additional 16 fields. Due to budget constrains we will now complete 21 fields and the remaining 4 sites will have design completed by the end of 2009	Complete development of all proposed multi-purpose fields	Delayed
5	**INSTALL NEW LIGHTING**			
	Maximize time on our existing turf fields by installing lights for nighttime use	City completed design for 18 new fields and started construction on 15 field lighting sites. City identified an additional seven sites to receive new field lighting and will begin design on these sites this summer. Due to budget constraints we will now complete 25 sites	Complete installation of all proposed field lights	Delayed
6	**CREATE A PUBLIC PLAZA IN EVERY COMMUNITY**			
	Create a new or enhance an existing public plaza in every community	Launched New York City Plaza Program: City working in partnership with nine nonprofit groups to create new plazas, particularly in neighborhoods that lack open space. Advancing designs for over 20 additional plaza sites. Making quick improvements in the public realm by reconfiguring streets with planters, benches, and paint. Created immediate plazas in Manhattan at Madison Square, along Broadway between West 35th and West 42nd Streets, and in the Bronx at the Bronx Hud	Continue development of identified plaza initiatives and develop a process for community identification of potential new plazas	On Time
7	**GREEN OUR CITYSPACE**			
	Fill every available street tree opportunity in New York City	City celebrated year two of MillionTreesNYC in partnership with NY Restoration Project and planted "Tree 111,111" in October 2008. By the end of Spring 2009, MillionTreesNYC will have planted over 225,000 trees; 30,499 of which are newly planted street trees as of print date. DPR initiated strategy of full block planting and is focusing efforts on areas of highest need	Plant 15,000 street trees a year	Complete
	Expand Greenstreets program	The Administration completed the design and construction of 137 new Greenstreet sites since Fall 2007. At present, the City is completing site surveys for the next 40 Greenstreet locations it will construct in Spring 2009	Complete 240 Greenstreets	Delayed

Clean up all contaminated land in New York City

In New York City, there are an estimated 7,600 acres of brownfield properties. Brownfields are vacant or underutilized properties that remain undeveloped because pollution from past land usage impedes redevelopment. Left unattended, these properties represent lost opportunities for urban revitalization, economic stimulation, job creation, and revenue generation, and in some cases may pose a threat to the environment or public health. Brownfields blight urban neighborhoods, often occurring in clusters that stifle community revitalization. We will ensure that our city's land can be tested, cleaned up, and used to its full potential.

Our plan for the future of brownfields includes the following initiatives:

Make existing brownfield programs faster and more efficient

1 Adopt on-site testing to streamline the cleanup process

2 Create remediation guidelines for New York City cleanups

3 Establish a City office to promote brownfield planning and redevelopment

Expand enrollment into streamlined programs

4 Expand participation in the current State Brownfield Cleanup Program (BCP)

5 Create a City program to oversee all additional cleanups

6 Provide incentives to lower costs of remediation

Encourage greater community involvement in brownfield redevelopment

7 Encourage the State to release community-based redevelopment grants

8 Provide incentives to participate in Brownfield Opportunity Area (BOA) planning

9 Launch outreach effort to educate communties about brownfield redevelopment

Identify remaining sites for cleanups

10 Create a database of historic uses across New York City to identify potential brownfields

11 Limit liability of property owners who seek to redevelop brownfields

Brownfields

OUR PROGRESS

Created Office of Environmental Remediation and designed the nation's first municipal brownfield cleanup program

In PlaNYC we recognized that New York City had to assert its influence to provide programs, tools, and resources to promote cleanup and redevelopment of its brownfield properties to enable sustainable growth. Given the recent economic downturn, our efforts to stimulate brownfield redevelopment establish an important avenue for economic recovery.

In June 2008, Mayor Bloomberg fulfilled a PlaNYC initiative by creating the New York City Office of Environmental Remediation (OER). Another primary brownfield initiative in PlaNYC was to design and implement a City-sponsored, local cleanup program. The NYC Brownfield Cleanup Program is expected to be fully operational by July 2009.

Make existing brownfield programs faster and more efficient

Through the newly-created Office of Environmental Remediation (OER) we have created the first municipal brownfield cleanup program (BCP) in the U.S. By integrating the municipal cleanup program into the City's administrative infrastructure and through collaboration with New York State Department of Environmental Conservation (NYSDEC), the City program will provide new pathways for cleanup and revitalization of brownfield properties. The BCP will assist property owners and developers who enter the program to navigate both City and State requirements. Our program will include sustainability as a cleanup criterion and promote the use of greening measures to be employed in each cleanup plan. OER's streamlined brownfield cleanup program aims to simplify the cleanup process, for example, through the use of templates for program milestone reports and work plans, while delivering high-quality remedies. Coordination of all cleanup activities under the BCP will eliminate duplicative efforts. A 'green team' of City experts will work with brownfield property owners and developers to expedite BCP projects.

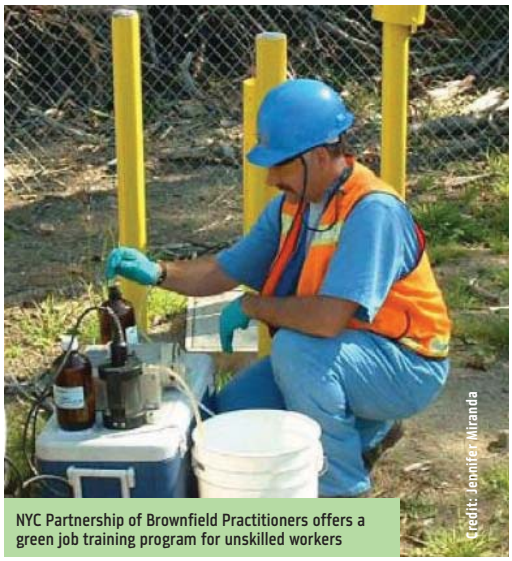
Credit: NYC Office of Environmental Remediation

Mayor Bloomberg with OER Director, Dan Walsh

Expand enrollment into streamlined programs

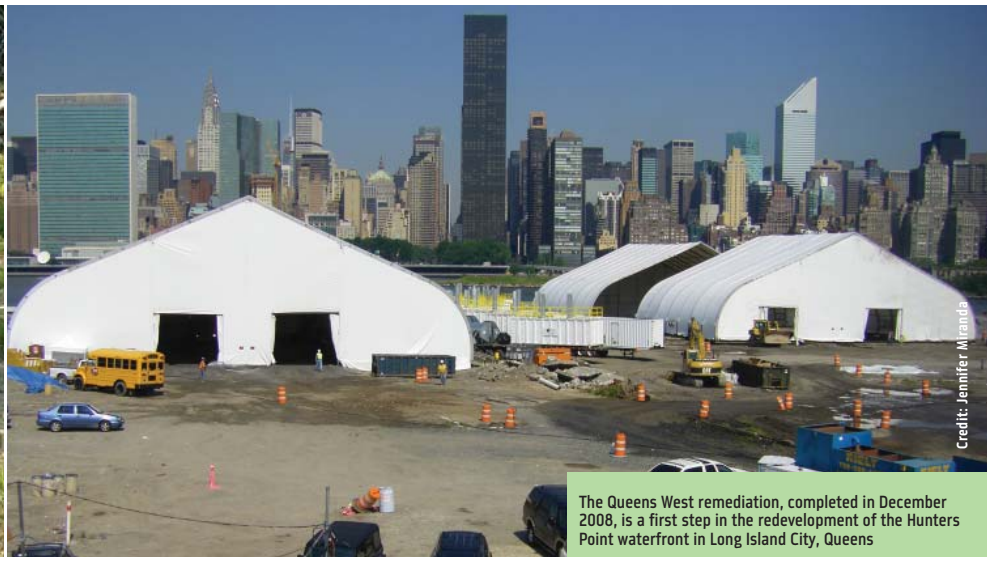
The new NYC BCP will oversee cleanup of brownfield properties with light to moderate levels of contamination, including historical fill sites. Working in partnership with State and Federal agencies, as well other City agencies, the BCP will offer a one-stop shop for cleanup and enable liability protection for landowners and developers who successfully clean properties under our City program. A cooperative interagency effort will ensure that all cleanups are identical to those achieved by State programs and are protective of both public health and the environment.

To promote economic development on brownfield properties, we have dedicated roughly $12 million over the next four years for a new brownfield financial incentive program. This small-grant program will stimulate brownfield work on properties at all stages, from pre-development through cleanup. Pre-development



NYC Partnership of Brownfield Practitioners offers a green job training program for unskilled workers

Credit: Jennifer Miranda



The Queens West remediation, completed in December 2008, is a first step in the redevelopment of the Hunters Point waterfront in Long Island City, Queens

Credit: Jennifer Miranda

CASE STUDY: NYC PARTNERSHIP OF BROWNFIELD PRACTITIONERS

There are many brownfield stakeholder organizations in NYC, including cleanup contractors, consultants, community-based and private developers, and community based organizations. Collectively, these organizations represent an enormous resource for NYC communities. Until recently, many of these resources had not been utilized. In late 2008, we fostered a partnership of brownfield stakeholders to harness and focus their potential to provide a variety of programs designed to bring tangible benefits to NYC communities. This association, known as the NYC Partnership of Brownfield Practitioners, is the first of its kind in the U.S. To date, more than 30 organizations have joined. The Partnership offers pro bono consultation to provide communities with free assistance in reviewing cleanup plans. It also offers a green job training program for unskilled workers. Community education and outreach programs are a central part of the Partnership's mission, including developing future environmental leaders by providing scholarships and internships for CUNY and NYC public high school students. The Partnership's annual brownfield awards program, which premiered in April 2009, celebrates the most successful and progressive brownfield projects in the city.

grants and remedial investigation grants will fund necessary early studies. Cleanup grants and pollution liability insurance grants will provide assistance later in the project timeline and give incentives to enter into our cleanup program. Over the last year we have applied for nearly $3 million in State and Federal grants, and we are now aggressively pursuing Federal stimulus funding to expand our financial resources for brownfield cleanup and redevelopment. This funding will serve as an engine for economic recovery, community revitalization, and job creation by stimulating new development.

Encourage greater community involvement in brownfield redevelopment

We are committed to engaging communities on brownfield issues. To promote transparency, we will require simple, easy-to-understand explanations of community protection efforts in all cleanup plans. Additionally, the Partnership of Brownfield Practitioners, which includes local cleanup experts, will provide communities with prompt and free consultation on cleanup plans. *(See case study.)*

We are educating the public on brownfields as well. In 2008, we initiated our Brownfields for Beginners workshop series, which provides education on brownfield cleanup and redevelopment. These workshops are aimed at non-profit community development corporations, Brownfield Opportunity Area (BOA) grantees, and small- and mid-size developers. The City is aggressively pursuing State and Federal funding to aid important programs like the BOA program. To date, there are 16 BOA grants in NYC accounting for nearly $4 million dollars.

Identify remaining sites for cleanups

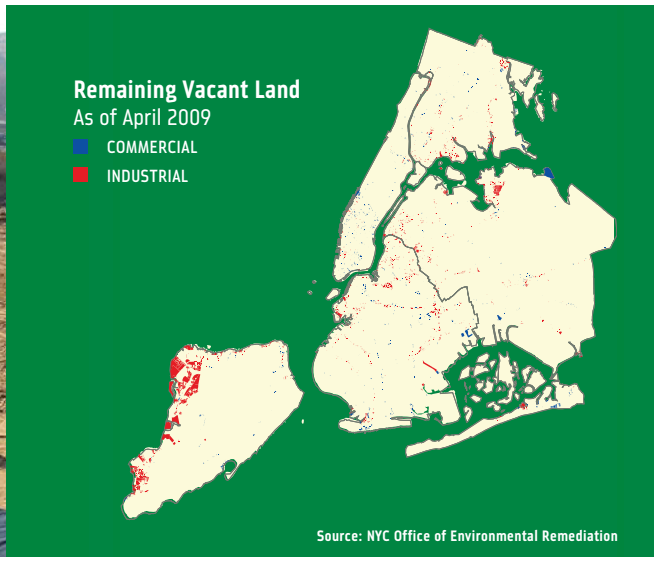
We are currently studying vacant commercial and industrial property in NYC to provide basic information to assist not-for-profit and for-profit developers interested in developing brownfield properties. This information, including historical land usage and a variety of environmental indicators, will be available through a map-based application on OER's website. *(See map.)*

Next steps

Over the next year we will expand on the significant strides that we have made in municipal brownfield management in NYC. We are advancing legislation through the City Council to provide authority for our brownfield programs, and in the State legislature that will provide State pollution liability relief to projects that complete our cleanup program. In the coming months we will be further encouraging cleanup and redevelopment by launching our incentive programs.

Credit: Jennifer Miranda

Workers install a vapor barrier at the East River Plaza remediation site



Brownfields Progress

	INITIATIVE	PROGRESS SINCE APRIL 22, 2008	IMPLEMENTATION MILESTONE FOR DECEMBER 2009	2009 MILESTONE PROGRESS
1	**ADOPT ON-SITE TESTING TO STREAMLINE THE CLEANUP PROCESS**			
	Pilot the "Triad" program on two sites	Two pilot sites underway: Melrose (Bronx) and former petroleum terminal (Brooklyn). Investigation on both projects is expected to be completed in 2009. $200,000 in USEPA Grants have been received by the City to advance the Melrose study	Conduct first two Triad pilots and evaluate their effectiveness in the city environment	On Time
2	**CREATE REMEDIATION GUIDELINES FOR NEW YORK CITY CLEANUPS**			
	Analyze New York City's soil and develop a set of standard cleanup remedies appropriate to the city	In partnership with New York State Department of Environmental Conservation, OER is developing presumptive remedies for NYC cleanups. Presumptive remedies are standardized cleanup approaches that will streamline decision-making and accelerate cleanups	Complete urban soil study; city-specific remediation guidelines under development	Redirected
3	**ESTABLISH A CITY OFFICE TO PROMOTE BROWNFIELDS PLANNING AND REDEVELOPMENT**			
	Create a new City office to increase resources dedicated to brownfields planning, testing and cleanups	The Mayor's Office of Environmental Remediation (OER) was established in June 2008 following the hire of its new director, Dr. Daniel Walsh.	Establish and fully staff office; regularly evaluate city applications and E-designated sites	Complete
4	**EXPAND PARTICIPATION IN CURRENT STATE BROWNFIELD CLEANUP PROGRAM**			
	Ask the State to redistribute BCP tax credits to relieve budgetary pressures, and begin covering New York City-specific contamination	OER actively and successfully advocated for reform of NYS Brownfield legislation resulting in an improved State tax credit structure	Enact recommended changes to State law	Complete
5	**CREATE A CITY PROGRAM TO OVERSEE ALL ADDITIONAL CLEANUPS**			
	Create a City-sponsored program to provide oversight of cleanups for any sites not enrolled in other programs	A bill has been advanced by OER to City Council. The bill gives OER authority to manage the newly established NYC Brownfield Cleanup Program (NYC BCP). OER has developed a streamlined program including Guidance Templates for projects entering the program	Establish City BCP; oversee all voluntary clean ups and E-designated (Council legislation, State DEC approval, and regulations promulgated)	On Time
6	**PROVIDE INCENTIVES TO LOWER COSTS OF REMEDIATION**			
	Dedicate $15 million to capitalize a fund to support brownfields redevelopment	OER is creating a local Brownfield Grant Program and an NYC Clean Property Certification program. We are also seeking supplemental funds from State, Federal and third party sources	Establish a revolving loan fund; issue first loan for City remediation project	On Time
7	**ENCOURAGE STATE TO RELEASE COMMUNITY-BASED REDEVELOPMENT GRANTS**			
	Advocate for State to reform the Brownfields Opportunity Area (BOA) program and release planning grant funds to community groups	A memorandum of understanding (MOU) was signed between the State legislature and the governor for the release of Brownfield Opportunity Area (BOA) funds in 2007. The MOU makes State tax credits available for NYC BOA projects	Allocate funds to all previous BOA awardees; advocate for a new process to streamline State grants to BOAs	Complete
8	**PROVIDE INCENTIVES TO PARTICIPATE IN BROWNFIELDS OPPORTUNITY AREA (BOA) PLANNING**			
	Advocate for financial incentives for developments constructed in coordination with a BOA	OER will offer fee-waivers to BOA properties, sponsor and assist in brownfield cluster studies to identify new BOAs, and pursue funding for a dedicated staff member for BOA projects. BOA properties will receive preferred status in OER's Grant Programs	Enact State tax incentives for private developers working in coordination with BOA applications	Complete
9	**LAUNCH OUTREACH EFFORTS TO EDUCATE COMMUNITIES ABOUT BROWNFIELDS REDEVELOPMENT**			
	Educate, outreach, and provide technical assistance to communities, private developers, and City agencies to promote brownfields redevelopment	Launched website and "Brownfields for Beginners" workshop series. OER fostered establishment of the NYC Partnership of Brownfield Practitioners, a stakeholder association providing community benefits including pro bono community counseling and green job training for unskilled workers	Begin outreach campaigns and liaison services to private developers and nonprofit organizations	Complete
10	**CREATE A DATABASE OF HISTORIC USES ACROSS NEW YORK CITY TO IDENTIFY POTENTIAL BROWNFIELDS**			
	Conduct a historic use assessment for all city sites in order to measure long-term progress toward goal	OER is developing an environmental database of vacant properties in NYC. The database will be available in late 2009	Launch study to aggregate all relevant data for a City environmental database	On Time
11	**LIMIT LIABILITY OF PROPERTY OWNERS WHO SEEK TO REDEVELOP BROWNFIELDS**			
	Create an insurance program and legal protections to limit the liability of developers willing to clean up land they did not pollute	We continue to work with State lawmakers on NYS legislation to provide liability release to successful BCP projects. The City Council bill also contains liability protection provisions. Additionally, we are pursuing MOUs on liability issues with NYSDEC and the U.S. Environmental Protection Agency	Design and launch a market-feasible supplemental insurance policy	On Time

Open 90% of our waterways to recreation by preserving natural areas and reducing pollution

Water quality in New York Harbor is cleaner than it has been in over 100 years, due to billions of dollars that we have invested in our sewer system and water treatment plants. Still, excessive levels of stormwater overwhelm our combined sewers and cause combined sewer overflows (CSOs) that discharge pollutants to New York City waters. To improve public access to our tributaries from 48 percent today to 90 percent by 2030, we will continue to enhance our infrastructure to capture CSOs and treat greater quantities of combined sewage and stormwater flow. At the same time, we will also protect wetlands and design our buildings, open spaces, and street network with techniques that mimic pre-development conditions and retain or detain water on-site. By eliminating runoff through infiltration and plant uptake, or holding it back until storm surges pass, we can help our sewer upgrades reduce CSOs.

Our plan for the future of water quality includes the following initiatives:

Continue implementing infrastructure upgrades

1 Develop and implement Long-Term Control Plans

2 Expand wet weather capacity at treatment plants

Pursue proven solutions to prevent stormwater from entering the system

3 Increase use of High Level Storm Sewers (HLSS)

4 Capture the benefits of our open space plan

5 Expand the Bluebelt program

Expand, track, and anaylze new Best Management Practices (BMPs) on a broad scale

6 Form an interagency BMP Task Force

7 Pilot promising BMPs

8 Require greening of parking lots

9 Provide incentives for green roofs

10 Protect wetlands

Water Quality

OUR PROGRESS

Released Sustainable Stormwater Management Plan, launched 20 pilot projects, and constructed CSO detention tanks

To improve water quality, the City continues to implement policies to reduce pollution, green the built environment, and protect natural areas. We have committed billions of dollars to enhance New York City's wastewater treatment system to process larger volumes of stormwater and to capture greater quantities of CSOs. We have made strides in the past year through construction of CSO detention holding tanks and planning future stormwater infrastructure projects. At the same time, we are taking steps to add water quality improvement efforts to sustainable land use and design installations that will green the city and capture stormwater at its source. These installations are known by various terms—source controls, green infrastructure, low impact development, or best management practices (BMPs). In the past year, we implemented a green roof tax abatement; required the greening of new parking lots; and improved stormwater capture by adding Greenstreets and implementing MillionTrees NYC. We also released the Sustainable Stormwater Management Plan, created design guidelines for public projects, and issued a report on filling the gaps in wetlands protection. In the next year, we will test these sustainable stormwater management techniques in NYC conditions, seek funding sources to pay for construction and maintenance, and develop consensus with State regulators and other stakeholders. These efforts will allow us to further our goal of reclaiming our waters for recreational use.

Continue implementing infrastructure upgrades

The City is making substantial investments to control the amount of pollution that enters our waterways through CSOs and other discharges. We are already increasing our capture of CSOs by building detention tanks that store combined flows of stormwater and sewage for gradual release to wastewater treatment plants after storms have abated. In the Flushing Creek watershed in Queens, we recently completed construction of a 43 million gallon CSO retention tank, an investment of over $300 million. In the Alley Creek watershed in Northeast Queens, construction is 45 percent complete on a five million gallon tank and sewer upgrades that represent a $131 million investment. The City also continued work on a 50 million gallon storage facility at Paerdegat Basin in Brooklyn that will cost $318 million when construction is complete in 2011. These water quality improvement projects represent an investment in our environment, local jobs, and our city's economy. *(See case study.)*

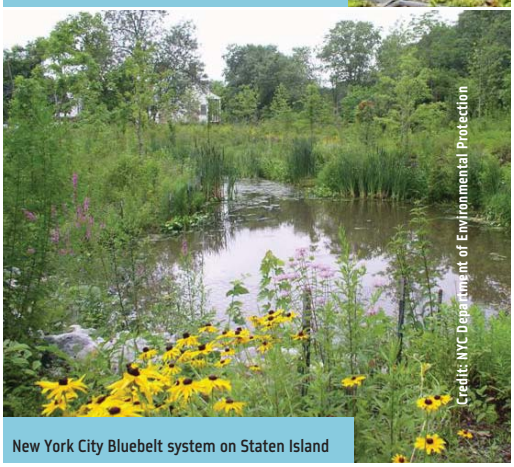
The City continues to work with the New York State Department of Environmental Conservation (NYSDEC) on the creation of 18 Waterbody/Watershed Plans that will form the basis for the 2017 citywide Long Term Control Plan. We have budgeted over $1.9 billion over the next 10 years for other facility upgrades, dredging efforts, floatables control projects, pumping improvements, and aeration projects for the following water bodies: Newtown Creek, Gowanus Canal, Jamaica Bay, Bronx River, Flushing Bay, and Westchester Creek. With all of these investments, the City is projected to increase capture of CSOs by an additional five billion gallons per year, reduce floatables, and improve overall water quality.

New Greenstreet at 110th Street and Amsterdam Avenue

Credit: NYC Department of Parks and Recreation

Green roof pilot on DPR's Five Borough Building

Credit: NYC Department of Parks and Recreation



New York City Bluebelt system on Staten Island

Credit: NYC Department of Environmental Protection

Pursue proven solutions to prevent stormwater from entering the system

The City is working to incorporate sustainable stormwater designs in its own facilities through the creation of new guidelines. The Department of Transportation's (DOT) Street Design Manual will encourage stormwater-capturing strategies such as landscaped medians, expanded sidewalk "bulbouts," and roadside swales and will also include options for the use of permeable materials. The Department of Design and Construction's (DDC) Sustainable Urban Site Design Manual will offer strategies to maximize vegetation and manage stormwater, while their Water Conservation Manual will promote potable water use reduction to lessen the strain on the City's sewer system. Together, these guidelines will help establish New York City as a leader in water management.

By summer 2009, we will release the Department of Parks and Recreation's (DPR) Park Design for the 21st Century to build on our efforts to incorporate sustainable practices into the City's open space initiatives. We have increased the number of Greenstreets in the past two years and we will construct an additional 40 new installations per year. Due to budget constraints, this is a reduction from the original goal of 80 per year. About half of the Greenstreets built in the past year were designed to absorb greater amounts of stormwater from the surrounding streets, thereby diverting it from the sewer system and decreasing CSOs. To determine the viability of these designs, we are monitoring plant health, measuring runoff capture, and documenting any savings from reduced water truck trips.

These efforts complement our Bluebelt system on Staten Island, an integrated solution that preserves open space while controlling pollution and flooding. One of the largest municipal systems of stormwater BMPs in the country, the Bluebelt is a network of 50 completed BMPs that control urban stormwater flow from storm sewers to streams, ponds, wetlands, and other natural drainage systems. There are 40 additional BMPs planned, designed, or under construction, including extended detention wetlands, outlet stilling basins, sand filters, and pocket wetlands. So far the City has invested $60 million dollars in Bluebelt land acquisition and an additional $330 million in the South Shore Bluebelt buildouts, creating over 1,500 local infrastructure jobs. Over the last year, the City took steps to acquire 70 additional acres for the Bluebelt system. Although current economic conditions and budgets have slowed the rate of expansion, we were able to expand the Bluebelt program from the South Shore of Staten Island to Mid Island and Queens in an effort to combat historically flood-prone areas.

In addition, the City passed a green roof tax abatement and adopted regulations that will encourage the private sector to adopt that technology at existing buildings.

Expand, track, and analyze new Best Management Practices (BMPs) on a broad scale

In December 2008, we released the Sustainable Stormwater Management Plan, a comprehensive study of the costs and benefits of adopting citywide source control scenarios in the right of way, private and public buildings, and open space. It is the first comprehensive plan in the country to analyze the location and feasibility of source controls in a dense, ultra-urban environment on a citywide basis, specifically targeting impermeable surfaces such as rooftops, roadways, and sidewalks. After a rigorous analysis of capital and maintenance costs and adoption rates, the Stormwater Plan concluded that some but not all source control measures compared favorably to traditional large infrastructure such as storage tanks when measured by potential CSO reductions and costs.

The Stormwater Plan was the culmination of a year of work by the staff of 13 agencies gathered together in an Interagency Best Management Practices Task Force led by the Mayor's Office. The City consulted extensively with the U.S. Environmental Protection Agency, other


Credit: NYC Department of Environmental Protection

Paerdegat Basin CSO Facility in Brooklyn


Credit: NYC Department of Environmental Protection

DEP giving away rain barrels in Queens

CASE STUDY: PAERDEGAT BASIN CSO FACILITY

Once a meandering, natural stream known as Bedford Creek, Paerdegat Basin was created in the 1930s by dredging and bulkheading the creek into a dead-end channel as part of a large-scale effort to bring commercial shipping to Jamaica Bay. Today, the only source of water to Paerdegat Basin are CSOs and stormwater discharges. In response, DEP has begun construction of the Paerdegat Basin Water Quality Facility. This project will house a 20 million gallon off-line CSO storage tank at the head end of the basin. An additional 30 million gallons of in-line storage of CSO within the existing collection system will be pumped back to the Coney Island wastewater treatment plant after a storm event for full secondary treatment. When completed in 2011, the tank is projected to capture 1.7 billion gallons per year and enable the water body to achieve a greater than 90 percent attainment of existing dissolved oxygen standards and 100 percent attainment of existing pathogen standards.

The Paerdegat Basin CSO Facility will also provide amenities beyond stormwater capture. One planned restoration project includes converting approximately 177 acres of Paerdegat Basin shoreline and submerged land to a Natural Area Park and Ecology Park. The proposed park will provide multiple benefits by restoring significant coastal habitat, promoting natural stormwater infiltration through native landscaping and preserved shoreline, and providing educational and recreational opportunities to the local community.

cities across the country, and outside experts. The City also collected insights from the general public and local environmental and civic groups through five public stakeholder meetings, numerous inindividual meetings, and an interactive wiki site.

The Stormwater Plan calls for implementing the most cost-effective and feasible controls first, resolving the feasibility of promising stormwater management techniques, and exploring funding options. The most important immediate recommendation is to develop a performance standard for new construction that will require additional on-site management of stormwater through rooftop detention and other proven techniques. By 2030, that measure alone has the potential to capture over one billion gallons of stormwater before it reaches the sewers. To assess the feasibility of other promising stormwater control technologies, we have launched 20 demonstration projects, which is a significant increase over the three BMP pilots originally called for in PlaNYC. *See table.* We are improving public notification of combined sewer overflow events through the creation of website notices and by posting newly-redesigned signs at all 433 outfall locations. We have also begun a study of our current water, sanitary sewer, and stormwater-related costs to explore funding options. Our study will analyze the fee structure of peer cities and consider alternative water, stormwater, and wastewater rates and credits.

We are also taking many steps to protect wetlands, which treat pollutants from stormwater runoff, harbor important wildlife species, provide flood protection, sequester carbon, and offer public recreational opportunities. The City has already protected nearly 5,000 acres of wetlands—over 4,500 acres protected in the DPR system and over 500 acres protected in the Staten Island Bluebelt system. We recently acquired South Brother Island with the help of Congressman Jose Serrano. The City remains committed to transferring approximately 70 acres of salt marshes and submerged habitat in the Arlington Marsh complex on Staten Island to the DPR, and is actively conducting due diligence on 76 wetlands properties recommended for transfer to DEP for the Bluebelt system and on 82 properties recommended for transfer to DPR for protection in perpetuity. We also continued to implement the Jamaica Bay Watershed Protection Plan by installing eel grass and oyster bed restoration projects, planning a Bluebelt project around Springfield Lake, starting a work plan for the restoration of the salt marsh islands in Jamaica Bay, and holding a scientific symposium on the causes of salt marsh loss.

As called for in PlaNYC, we released a report assessing the vulnerabilities of existing wetlands and identifying additional policies to protect and manage them. In January 2009, we published New York City Wetlands: Regulatory Gaps and Other Threats, which found gaps in Federal and State regulations—particularly for small freshwater wetlands less than 12.4 acres, unmapped wetlands, and upland buffer areas—and recommended the exploration of policy options for the City to fill those gaps. To determine whether there are significant remaining freshwater wetlands, and their location, we secured funding from the New York State Department of State that will allow us to obtain satellite and aerial images of the remaining wetlands in the city.

Next Steps

Over the next year, we will continue constructing sewers and other infrastructure to reduce CSOs. As funding allows, we will acquire additional properties for the Bluebelt program and implement High Level Storm Sewers in areas of critical need. We will work towards completing the transfer of the Arlington Marsh and other wetlands sites to the DPR. We will also enhance the City's wetlands protection efforts in the next year by creating preliminary wetlands maps, study opportunities for mitigation banking, and

explore other methods for funding restoration efforts. In 2009, the City's Climate Change Adaptation Task Force report will issue a report on the adaptation of wetlands and other critical infrastructure to sea level rise.

We will implement the Stormwater Plan by proposing an upgraded on-site stormwater performance standard for new construction. We will construct or launch nearly 20 pilot programs, including stormwater-capturing tree pits, vegetated swales, blue roofs (rooftop detention) and green roofs. We will improve public notification by installing new signs near CSO outfalls and by broadening our outreach through the internet and the new Notify NYC system. We will work with NYSDEC to gain approval of the Waterbody/Watershed (WB/WS) plans and their expansion to complementary source control strategies. Finally, we will seek additional Federal stimulus funds for both green infrastructure and additional sewer and plant upgrades.

Sustainable Stormwater Ongoing or Planned Pilot Projects

PILOT	EXPECTED COMPLETION	DESCRIPTION
Green Roof/Blue Roof Pilot Study	2011	Construct different roof treatments on adjoining buildings, comparing results
Blue Roofs on Existing Buildings	2012	Construct 20,000 square feet of blue roofs on existing buildings
Rain Barrel Give-Away Pilot Study	2012	Distribute 1,000 rain barrels to homeowners in Queens
Parking Lot Pilot Study	2011	Retrofit two 1.5 acre parking lots in the Jamaica Bay watershed
NYCHA or HPD Property Retrofits	2012	Retrofit publicly-owned property with infiltration and detention source controls
Porous Pavement Pilot Study	2012	Install and monitor porous pavement on publicly-owned parking lots
Green Roofs on Five Borough Building	2010	Install 4,800 square feet of green roofs consisting of five different systems
Domestic Sewage Treatment Pilot Study	2012	Analyze the decentralization of sanitary wastewater treatment
Flushing and Gowanus BMP Grant Program	2013	Grant program for local stakeholders for effective stormwater management projects
DEP Tree Pit Pilot Study	2011	Install and monitor five street trees that have pits enhanced with subsurface detention
DPR Tree Pit Pilot Study	2010	Pilot to cut curbs around new and existing tree pits
Enhanced Greenstreets Pilot Study	2010	Evaluate 5 new Greenstreets designed to accept greater amounts of stormwater
Bronx Block Saturation Pilot Study	2013	Monitor expanded tree pits on 172nd Street during 6-8 storm events
Astor Place/Cooper Square Renovation	2012	Increase green space, porous pavements, infiltration swales, and tree trenches
Albert Road Reconstruction	2012	Install vegetated controls and other source controls where feasible to manage runoff
East Houston Street Reconstruction	2012	Widen center median, infiltrate sidewalk runoff, and install continuous tree trenches
Atlantic Avenue Reconstruction	2013	Plant native trees in structural soil and control the center median's runoff
Constructed Wetlands Pilot Study	2011	Construct wetlands to capture runoff from a roadway
Belt Parkway Bridges Roadside Swales	2014	Construct vegetated swales adjacent to roadways to capture stormwater
Streetside Infiltration Swales Pilot Study	2011	Install vegetated swales to capture stormwater runoff from smaller roads
Ballfield Source Controls Piot Study	2012	Install source controls within parks within the Bronx River watershed
Bronx River Pilot Study	2010	Install downspout disconnections, trench drains, and rain gardens, swales

Water Quality Progress

	INITIATIVE	PROGRESS SINCE APRIL 22, 2008	IMPLEMENTATION MILESTONE FOR DECEMBER 2009	2009 MILESTONE PROGRESS
1	**DEVELOP AND IMPLEMENT LONG-TERM CONTROL PLANS**			
	Complete Long-Term Control Plans for all 14 New York City watersheds, as required by law	All of the WB/WS Plans were submitted to DEC in June 2007. Comments from DEC have been received on most of the plans. DEP has submitted a final addendum for the Gowanus Canal WWFP and are close to submitting modified WWFPs for Alley Creek, Coney Island Creek, Flushing Creek, and Bronx River based on DEC comments	Submit WB/WS plans for 18 waterbodies to NYSDEC, detailing strategies for CSO reduction	Complete
2	**EXPAND WET WEATHER CAPACITY AT TREATMENT PLANTS**			
	Reduce Combined Sewage Overflow (CSO) discharges by more than 185 million gallons per day (mgd) during rainstorms	Newtown Creek wet weather expansion from 620 MGD to 700 MGD is nearing completion. 26th Ward wet weather expansion from 170 MGD to 220 MGD is delayed primarily due to budgetary and site constraints	Continue construction	On Time
3	**INCREASE USE OF HIGH LEVEL STORM SEWERS (HLSS)**			
	Convert combined sewers into HLSS and integrate HLSS into major new developments, as appropriate	DEP routinely recommends HLSS for large new developments and in association with capital construction projects in combined sewer areas. In the Laurelton area of South East Queens a HLSS drainage plan has been designed to reduce stormwater from entering the existing combined sewer system. DEP is also conducting HLSS drainage studies for the Gowanus area in Brooklyn, the Throgs Neck and Pennyfield areas of the Bronx, and Hudson Yards in Manhattan.	Create standardized process to analyze proposed sites for possible HLSS (process for HLSS will always be dictated by the unique characteristics of the site)	On Time
4	**CAPTURE THE BENEFITS OF OUR OPEN SPACE PLAN (SEE OPEN SPACE INITIATIVES, PAGE 12)**			
5	**EXPAND THE BLUEBELT PROGRAM**			
	Expand Bluebelt in Staten Island and other boroughs, where possible	Acquired eight additional acres for the New Creek Bluebelt, acquired 7 acres for the South Beach Bluebelt, and are on track for acquiring acreage required for Oakwood Bluebelt. BMP design for the Springfield Lake Bluebelt in Queens is progressing. Construction work on Oakland Ravine in NE Queens to begin in the fall of 2009	Begin expanding Bluebelt to other parts of Staten Island	Complete
6	**FORM AN INTERAGENCY BMP TASK FORCE**			
	Form an interagency BMP task force	The BMP Task Force concluded its work with the release of the Sustainable Stormwater Management Plan in December 2008. The Draft Sustainable Stormwater Management Plan was released in October 2008, which was followed by a public meeting and a 30-day public comment period	Complete comprehensive BMP plan and associated budget	Complete
7	**PILOT PROMISING BEST MANAGEMENT PRACTICES (BMPS)**			
	Reintroduce 20 cubic meters of ribbed mussel beds	Completed RFP process	Complete pilot and plan for additional mollusk habitats	Delayed
	Design five expanded tree pits and monitor impacts	Contract awarded and initiated design	Complete pilot	Delayed
	Pilot one swale to collect rainwater from roadways	Contract awarded and initiated design	Complete pilot and identify additional appropriate locations	Delayed
8	**REQUIRE GREENING OF PARKING LOTS**			
	Modify the zoning resolution to include design guidelines for off-street parking lots for commercial and community facilities	This initiative was completed when the City Planning Commission passed the green parking lot zoning amendment on November 28, 2007. The Department of City Planning continues to implement these requirements for new parking lots	Complete ULURP process; zoning requirement in effect	Complete
9	**PROVIDE INCENTIVES FOR GREEN ROOFS**			
	Encourage the installation of green roofs through a new incentive program	The New York State Assembly passed NYC's green roof tax abatement legislation on June 27 and Governor Paterson signed the law in August 2008. The Green Roof and Solar Electric Generating System Tax Abatement Rules were released in March 2009	Launch initiative	Complete
10	**PROTECT WETLANDS**			
	Assess the vulnerability of existing wetlands and identify additional policies to protect them	Released New York City Wetlands: Regulatory Gaps and Other Threats in January 2009 to recommend policy options for filling gaps. Continued efforts to protect 158 wetland properties through transfer to the Bluebelt system or to the Parks department. Received grant from NYSDOS to obtain satellite and images for survey	Complete wetlands study and draft policy	Complete

Develop critical backup systems for our aging water network to ensure long-term reliability

New York City's water supply system is a unique and valuable asset that was built by leaders who anticipated our city's growth. New York City's water is prized for its taste, purity, and abundance. Much of our system was constructed in the depths of the Great Depression, and our enormous investment at that time set the stage for the blossoming of New York City after World War II. We must continue to invest in the long-term sustainability of New York City's water network by protecting our source waters, constructing of major treatment facilities and Water Tunnel No. 3, and beginning the design for a solution to repair the Delaware Aqueduct.

Our plan for the future of our water network includes the following initiatives:

Ensure the quality of our drinking water

1 Continue the Watershed Protection Program

2 Construct an Ultraviolet Disinfection Facility for the Catskill and Delaware systems

3 Build the Croton Filtration Plant

Create redundancy for aqueducts to New York City

4 Launch a major new water conservation effort

5 Maximize existing facilities

6 Evaluate new water sources

Modernize in-city distribution

7 Complete Water Tunnel No. 3

8 Complete a backup tunnel to Staten Island

9 Accelerate upgrades to water main infrastructure

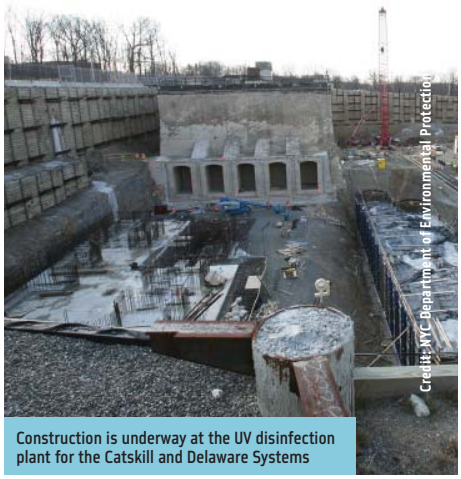
Water Network

OUR PROGRESS

Continued construction of a filtration plant for the Croton system, acquired over 8,500 acres of protected watershed lands, and started repairs on the Delaware Aqueduct

In PlaNYC we committed to develop the critical backup systems that will allow for repairs to New York City's aging water network. Our initiatives ensure that our system of watersheds, reservoirs, and tunnels continue to deliver the highest quality drinking water to New Yorkers. These are not investments to be made only during economic prosperity; our generation's investment in the future helps meet the challenges of today, creating jobs and protecting the reliability of our drinking water.

In the past year we have focused on several critical water network projects. Water Tunnel No. 3 has taken a generation to complete, but by 2013 the City will be able to rely on this link to allow for the inspection and repair of Water Tunnel No. 1. The City is fortifying its existing capacity with the construction of the Croton Filtration Plant, the Ultraviolet Disinfection Plant, the reconstruction of the Cross River and Croton Falls pumping stations, and the installation of a new automated water metering network. We are also planning for the repair of the Delaware Aqueduct, which connects New York City to 50% of the City's drinking water stored in the mountains of the Catskills. Our options to either build a parallel tunnel or develop alternative water sources each would require great attention and significant costs, but are critical to the city's future.



Credit: NYC Department of Environmental Protection

Construction is underway at the UV disinfection plant for the Catskill and Delaware Systems

Ensure the quality of our drinking water

The City is taking steps to improve the drinking water supply from each of our three watersheds—the Catskill, Delaware, and Croton. The Catskill and Delaware watersheds continue to exhibit excellent water quality, as recognized by the Filtration Avoidance Determination (FAD) that allows the City to avoid spending tens of billions of dollars on a filtration plant in exchange for protecting the natural filtration capability of our headwaters. To implement the FAD, in 2008 the City and its partners acquired more than 8,500 acres of land to increase the total amount of protected land to over 137,000 acres. More than 240 pollution control practices were installed on watershed farms at a cost of $1.9 million. In partnership with the Catskill Watershed Corporation, we funded the repair of 214 failing septic systems in the watershed and advanced projects to provide community wastewater solutions to four watershed hamlets. The City also funded a $4.5 million grant program to assist local municipalities with stormwater control projects in portions of the Catskill/Delaware system that are east of the Hudson River. Additionally, we entered into a contract with the U.S. Forest Service to develop a forest management plan for the City's watershed land holdings. In addition to safeguarding the high quality of the City's water supply, all of this work has resulted in the employment of several hundred people.

Rendering of the future Mosholu golf course above the Croton Filtration Plant

Installation of Automated Meter Reading system

To ensure continued compliance with U.S. Environmental Protection Agency (EPA) regulations and to improve the water quality from both the Catskill and Delaware watersheds, the Department of Environmental Protection (DEP) is supplementing its chlorine disinfection with construction of the largest UV Disinfection Plant in the northern hemisphere to treat over 2 billion gallons of drinking water a day. Since Earth Day 2008, we have installed the 12-foot diameter raw and finished water piping, prepared the connection to the Catskill Aqueduct, and begun placement of concrete for the energy dissipating valve chamber and forebay structures to connect to the Delaware Aqueduct. This work has created over 300 jobs.

To allow the Delaware Aqueduct to be shut down for repairs, we will have to rely more on the Catskill and Croton watersheds. The Croton system is the city's oldest and smallest system. To comply with EPA regulations we are investing in the Croton Filtration Plant in the Bronx. This plant will be capable of providing up to 30 percent of the city's water needs on an average day and will eliminate seasonal color, odor, and taste variations in our water. Since Earth Day 2008, the City completed boring the tunnels that will connect the facility to the New Croton Aqueduct and poured over 100,000 cubic yards of concrete for the structure. When complete in 2012, the Croton plant will be topped by the driving range of the Mosholu Golf Course, making this one of the largest green roofs in the world. Also as part of the project, more than $200 million generated from water and sewer revenue will be spent on improvements to more than 75 parks in the Bronx over the next five years. The Croton project has also greatly contributed to the City's economy by employing over 1,000 workers for the past year.

Create redundancy for aqueducts to New York City

The Delaware Aqueduct provides our only link to 320 billion gallons of drinking water stored in the Pepacton, Cannonsville, Neversink, and Rondout Reservoirs—averaging over 50 percent of our annual supply. Although it is stable, the tunnel itself is leaking 35 million gallons every day. In Fall 2008, the City continued repairs on the valves at the bottom of Shaft 6, a critical component. This on-going project is a vital first step towards the eventual repair of the Aqueduct.

In the past year, the City has also selected a contractor to design a parallel tunnel across the Hudson and an interconnection between the Delaware and Catskill Aqueducts. To meet the challenge of repairing a pressurized aqueduct that is 2,000 feet deep in places, the City is pursuing a multi-pronged strategy to plan for the building of a parallel tunnel, to develop alternative water sources, to expand conservation programs, and to consider a menu of other alternatives. Baseline projects under consideration for maximizing current suplly include increasing the capacity of the Catskill Aqueduct, sinking additional drinking water wells in Southeast Queens, and the electrification of the pump stations at Croton Falls and Cross River Reservoirs.

Modernize in-city distribution

We are also improving the distribution of water within the City. This year, the City continued lining Tunnel No. 3, and will begin construction of the next phase, installing piping and instrumentation in the shafts to allow their connection to the street distribution system. Completion of City Water Tunnel No. 3 will finally allow the City to inspect and repair City Water Tunnel No. 1, which has been in continuous use for over 90 years. These decade-long repair projects employed 250 workers at their peak in the specialized trades of tunneling and underground construction.

CASE STUDY: AUTOMATED METER READING

The City's new automatic meter reading (AMR) initiative is a critical step towards conserving water and saving money for citizens. The installation of this technology will provide real-time, web-based information about water consumption. It will offer property owners the tools to reduce water use and the ability to find and repair leaks before they result in unmanageable bills. The AMR system consists of small, low-power radio transmitters connected to individual water meters that send readings every six hours to a network of rooftop receivers throughout the City. The new wireless equipment will end the use of estimated water bills, giving homeowners and small businesses more accurate and timely records of usage. Modest reductions in water consumption could save New Yorkers more than $90 million annually. The savings could support the retention or creation of more than 550 jobs in New York City through increased economic activity from homeowner savings and increased available cash flow for businesses. The program will also provide savings for the City by increasing collection rates and eliminating the expense of paying for meters to be individually read. New York City will be the largest city in the world to use wireless water metering.

The free installation for property owners has begun at a rate of approximately 500 units per day in Brooklyn, the Bronx, Manhattan, and Queens. We will begin in Staten Island this summer. This rate is expected to ramp up later this year to approximately 1,200 per day with installation substantially completed on all 826,000 meters in New York City in 2012. To date, over 180 of the rooftop receivers have been installed with the remainder anticipated to be complete by the end of this year.

Aqueduct extension at the Croton Filtration Plant

Newly-acquired land in the Delaware watershed system

One of our most comprehensive initiatives is the ongoing modernization of the water billing and collection system. To improve knowledge of citywide water usage, the City has launched an automated meter reading (AMR) program that will help reduce water use and lower water bills. *(See case study on previous page.)* We have also sought ways to implement a major new water conservation program and to pay for a rebate program for toilets and fixtures.

Next Steps

Over the course of the next year, we will continue construction on both the Croton and UV facilities. At the Croton Filtration Plant, we will place another 40,000 cubic years of concrete, and begin installation of the electrical equipment and the piping for the plant. At the UV Disinfection Plant, installation of piping and concrete placement will continue and the floor for the UV reactors will be completed. In the watersheds, we will continue to acquire land to protect water quality. And over the next year, we will continue the planning work for a parallel aqueduct and a long-term resolution to the repair of the aqueduct. Finally, we will promote water conservation by installing AMRs, and by seeking Federal stimulus and other funding for water conservation.

Water Network Progress

	INITIATIVE	PROGRESS SINCE APRIL 22, 2008	IMPLEMENTATION MILESTONE FOR DECEMBER 2009	2009 MILESTONE PROGRESS
1	**CONTINUE THE WATERSHED PROTECTION PROGRAM**			
	Aggressively protect our watersheds as we seek to maintain a Filtration Avoidance Determination (FAD) for the Catskill and Delaware Water Supplies	New York City continues to comply with virtually all the provisions of the July 2007 FAD. In 2008, DEP passed the 90,000-acre milestone for land acquisition in the watershed. More than 240 pollution control practices were installed on watershed farms at a cost of $1.9 million. Additionally, DEP entered into a contract with the U.S. Forest Service to develop a forest management plan for the City's watershed land holdings	Renew the City's Filtration Avoidance Determination and fulfill its commitments	On Time
2	**CONSTRUCT AN ULTRAVIOLET DISINFECTION PLANT FOR THE CATSKILL/DELAWARE SYSTEMS**			
	Construct an Ultraviolet Disinfection Facility to destroy disease-causing organisms in our upstate watershed	Construction work began in April 2008. This work includes excavation, placement of concrete, installation of large diameter mechanical piping, pipe sleeves, embedments, drainage piping, and electrical conduit. Two Consent Order Milestones were met for construction progress	Begin construction of Ultraviolet Disinfection Facility	Complete
3	**BUILD THE CROTON FILTRATION PLANT**			
	Construct a water filtration plant to protect the Croton supply	Work included the placement of concrete, installation of large diameter mechanical piping and valves, sluice gates, pipe sleeves, embedments, drainage piping, sprinkler piping, ductwork, electrical conduit, and continuation of the electrical service ductbanks	Continue to construct Croton Filtration Plant	On Time
4	**LAUNCH A MAJOR NEW WATER CONSERVATION EFFORT**			
	Implement a water conservation program to reduce citywide consumption by 60 million gallons a day (mgd)	The City has realized a 6 percent reduction in consumption from the summer of 2008 through the first quarter of 2009. The process for citywide AMR installations has begun.	Launch water conservation program	Delayed
5	**MAXIMIZE EXISTING FACILITIES**			
	Add 245 mgd to our supply potential through increased efficiency	Construction contract for the Croton Falls Pumping Station has been awarded and is underway. Design on the Cross River Pumping Station is progressing and a construction contract is expected to be awarded by the end of the year. Facility planning for increased use of Jamaica groundwater has begun. Groundwater sampling and monitoring well installations are underway	Begin installation of new hydraulic pumps; begin designing enhanced filtration plant for greater use of Jamaica groundwater	On Time
6	**EVALUATE NEW WATER SOURCES**			
	Evaluate 39 projects to meet the shortfall needs of the city during a prolonged shutdown of the Delaware Aqueduct	A short list of projects for further consideration has been finalized	Finalize a short list of projects for piloting and design	Complete
7	**COMPLETE WATER TUNNEL NO. 3**			
	Complete construction of Stage 2 of Water Tunnel No. 3, and begin repairing Water Tunnel No. 1	The Brooklyn/Queens leg has been constructed and the activation process is ready to begin when needed. The concrete lining of the Manhattan leg has been completed and a contract for the installation of mechanical and electrical equipment is in the award process	Open Brooklyn/Queens leg	On Time
	Complete Stages 3 and 4 of Water Tunnel No. 3	Facility planning for Stage 3 (Kensico-City Tunnel) has been completed	Complete design of Stage 3[1]	On Time
8	**COMPLETE A BACKUP TUNNEL TO STATEN ISLAND**			
	Replace pipelines connecting Staten Island to Tunnel No. 2	Design documents are scheduled to be completed in January 2010 with construction estimated to start in the Fall of 2010	Begin replacing pipelines	Delayed
9	**ACCELERATE UPGRADES TO WATER MAIN INFRASTRUCTURE**			
	Increase replacement rate to over 80 miles annually	Planning process launched for accelerated main replacement schedule, but construction delayed due to funding constraints	Continue to replace water mains	Delayed

[1] 2015 milestone set—no 2009 milestone

Improve travel times by adding transit capacity for millions more residents, visitors and workers.

Reach a full "state of good repair" on New York City's roads, subways, and rails for the first time in history.

In PlaNYC, we set the twin goals of improving and expanding our transit system, and achieving a state of good repair. Although New York's economic prosperity has always been driven by the quality and reach of our transportation system, for the last 50 years, we have underinvested in maintaining and developing that network. In the coming years, our subways and commuter rail lines will strain under the demands from one million additional New Yorkers and continued ridership growth. As our economy faces the prospect of the largest downturn since the Great Depression, investing in our transportation infrastructure will be a key element in the recovery of our regional economy—but we must invest in ways that not only promote job creation in the short run, but also create the foundation for economic and environmental sustainability in the long run. To these ends, PlaNYC called for initiatives ranging from enhancing bus service and building bike lanes to expanding capacity on congested routes and reaching a state of good repair.

Our plan for the future of transportation includes the following initiatives:

Build and expand transit infrastructure

1 Increase capacity on key congested routes

2 Provide new commuter rail access to Manhattan

3 Expand transit access to underserved areas

Improve transit service on existing infrastructure

4 Improve and expand bus service

5 Improve local commuter rail service

6 Improve access to existing transit

7 Address congested areas around the city

Promote other sustainable modes

8 Expand ferry service

9 Promote cycling

Improve traffic flow by reducing congestion

10 Pilot congestion pricing

11 Manage roads more efficiently

12 Strengthen enforcement of traffic violations

13 Facilitate freight movements

Achieve a state of good repair on our roads and transit system

14 Close the Metropolitan Transportation Authority's state of good repair gap

15 Reach a state of good repair on the city's roads and bridges

Develop new funding sources

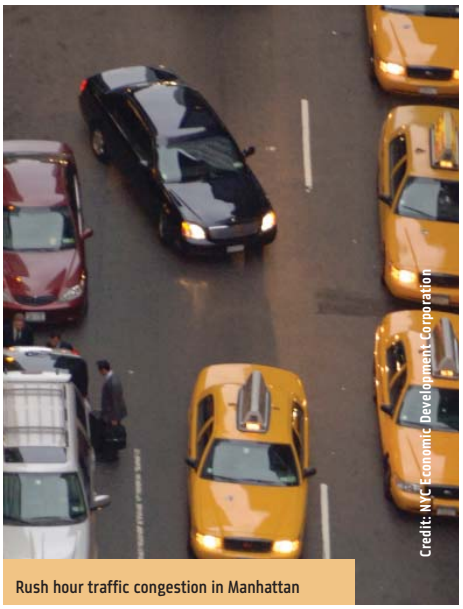
16 Establish a new regional transit financing

Transportation

OUR PROGRESS

Piloted first Bus Rapid Transit route, installed 80.9 miles of bicycle lanes, and cut City parking placards by 53% in 2008

Over the past year, we have continued to build a more efficient and sustainable transportation network. Building on PlaNYC's transportation initiatives, the New York City Department of Transportation (DOT) developed a strategic plan. Together with New York City Transit (NYCT), we implemented the City's first Select Bus Service (SBS), our version of Bus Rapid Transit (BRT), on Fordham Road in the Bronx. And, although the failure of the State Legislature to vote upon a congestion pricing plan has cost us an important traffic management tool, a much-needed source of funding for the Metropolitan Transportation Authority (MTA), and $354 million in Federal assistance for short-term transit improvements, we redoubled our efforts to meet the goals we established in 2007. In some cases, we are ahead of pace; in other cases, we continue to be on schedule.



Credit: NYC Economic Development Corporation

Rush hour traffic congestion in Manhattan

Governor Paterson's has issued a proposal to address the MTA's financial challenges. (*See case study).* As we noted in PlaNYC, nearly all New Yorkers benefit from a well-functioning, efficient mass transit system: bus and subway riders, employers, real estate owners, and even drivers. As such, we all have a role to play in ensuring that our transportation network meets our current and future needs. This ethos was reflected in the City's congestion pricing proposal, which would have created balanced contributions to the system from both transit users and drivers—and it is at the core of the Governor's plan.

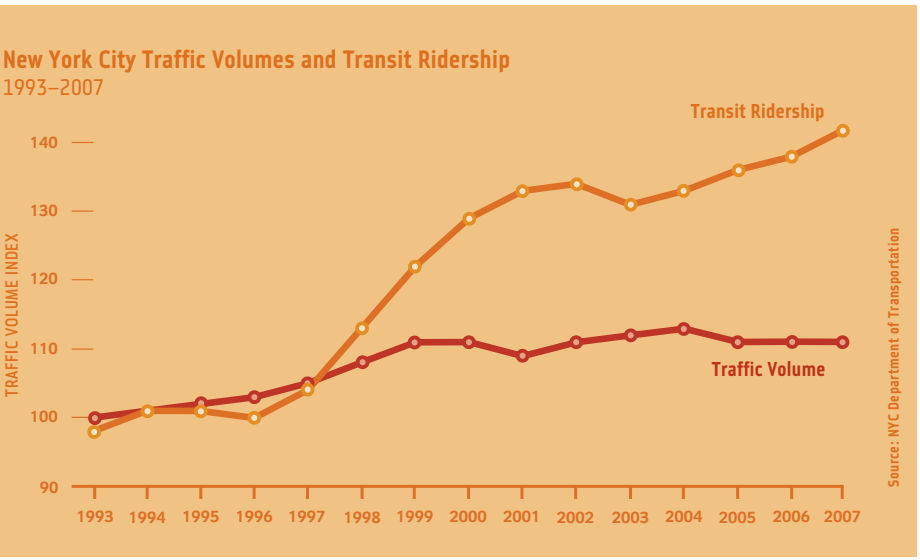
The future of the transit system is now in the hands of the State Legislature. In the absence of action from Albany, the MTA has been forced to resolve its financial difficulties with the only tools it has at its disposal: large increases in tolls and fares, along with substantial service cuts. Continued inaction will have severe consequences for all New Yorkers.

Build and expand transit infrastructure

In the past year, transit ridership reached record highs and progress continued on large capital projects to expand the system. In 2008, transit ridership increased by 3.1 percent over 2007, with weekday subway and bus ridership

Credit: NYC Department of Transportation

After putting up $2.1 billion to extend the Number 7 subway, the City lowered this boring machine cutter head into an assembly chamber under 11th Avenue



CASE STUDY: MTA FINANCIAL CHALLENGES AND THE RAVITCH COMMISSON

Currently, the MTA expects to face a projected budget gap of $1.2 billion in 2009, rising to $3.0 billion by 2012. In June 2008, Governor Paterson established a commission, chaired by former MTA chairman Richard Ravitch, to identify long-term solutions to the MTA's financial challenges. In December 2008, the commission issued its recommendations, which include:

- Creation of a Regional Mobility Tax. A new payroll tax equal to 0.33 percent of wages paid in the 12 counties serviced by the MTA would generate an estimated $1.5 billion annually for operating expenses.
- Cashless Tolling on the East and Harlem River Bridges. Imposing electronic cashless tolling on the East River Bridges, at the same rate as the MTA's major bridges and tolls, and the Harlem River Bridges, at the equivalent of the cost of a single-ride subway fare, would generate $600 million annually for bridge maintenance, capital repair, and mass transit improvements.
- Governance Reforms. A new Capital Finance Authority would be tasked with paying for new borrowing expenses associated with the MTA's capital program, relieving the MTA's operating budget from its growing debt service burden. Future fare increase decisions would be de-politicized.

The State Legislature continues to debate the merits of this, or a modified, proposal.

now averaging more than 7.6 million passengers daily, the highest weekday ridership since 1951. The Long Island Rail Road (LIRR) served over 88.5 million passengers—a 2.8 percent increase from 2007. MTA Bus Company ridership rose more than 10.3 percent on its 81 routes. New Jersey Transit also saw ridership increases.

The MTA continued work on its capital construction projects such as Second Avenue Subway, East Side Access, the 7 line subway extension, and Fulton Street Transit Center. In March 2009, the MTA marked a major milestone with the opening of the new South Ferry Station, the first since 1989.

Progress also continues on funding the Access to the Region's Core (ARC), a project that will double the capacity of the trans-Hudson commuter rail system. In January 2009, the Federal government approved the final environmental impact review, a key milestone in securing the remaining $3 billion needed for construction. Not only will this project promote economic development opportunities by enhancing our regional rail network in the long-term, it is also expected to create over 6,000 construction jobs in the short-term, with work beginning as early as this summer.

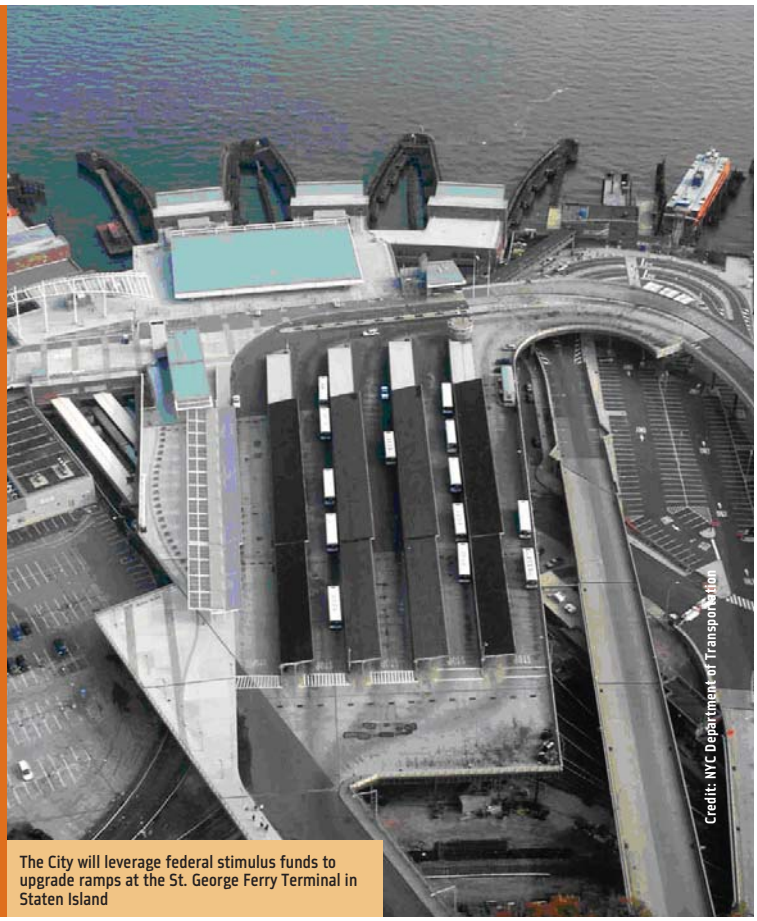
The key challenge remains in finding sufficient revenues to continue funding capacity expansion. The State Legislature's failure to approve a congestion pricing program or the Ravitch Commission recommendations has meant that the MTA's next five-year capital plan has no dedicated funding streams. And, although President Obama's Federal stimulus package, signed into law in February 2009, has provided the MTA with more than $1 billion in additional capital funds, there is still no long-term solution to our mass transit funding needs.

Improve transit service on existing infrastructure

We have made significant progress in improving bus service. Although we have the largest bus system in the country, with over 10 percent of commuters using buses to get to and from work, New York City also has some of the slowest bus speeds. To meet the growing mobility needs of New Yorkers, bus service needs to be faster, more reliable, and more convenient. Towards this goal, we committed to work on five Bus Rapid Transit (BRT) corridors across the five boroughs. The city's first route, called Select Bus Service (SBS), began operation on Fordham Road in the Bronx in June 2008. (*See case study).* In August 2008, we also installed red painted bus lanes on 34th Street, initially increasing bus speed by five percent on one of the most congested streets in midtown Manhattan.

Moving forward, the City will implement an additional SBS route on First and Second Avenues in Manhattan in 2010 and on Nostrand Avenue in Brooklyn in 2011, and we are in the process of developing a vision for a comprehensive citywide SBS system. Plans are also progressing for an exclusive busway on 34th Street and an SBS route on Hylan Boulevard in Staten Island.

Work also continues on the Plan's initiative to study congested corridors where road traffic is particularly severe. Initiated in early spring 2008, studies are now underway in five of the ten corridors identified. We will hold public meetings with these respective communities to gather local input and review proposed recommendations, such as improving pedestrian safety and enhancing intermodal connections. The City has also received funding for the second group of five corridors. We will finalize recommendations and issue final reports for each of the first five corridors



The City will leverage federal stimulus funds to upgrade ramps at the St. George Ferry Terminal in Staten Island

beginning mid-2009 with Amboy Road in Staten Island, completing the other corridors by early 2010. Implementation of operational improvement measures on Amboy Road is scheduled to begin in mid-2009 and improvement measures along the other corridors will begin after conclusion of the Final Reports. *(See map.)*

Promote other sustainable modes

We continue to make progress in expanding ferry options. New York Water Taxi has re-started ferry service on the East River. A new ferry dock at Schaeffer Landing in Brooklyn has been completed and we are currently determining the design and construction schedule for additional landings. Moving forward, the City is working on a contract for more frequent East River ferry service to an expanded number of destinations, and the New York City Economic Development Corporation (NYCEDC) is in the final stages of selecting contractors. Equally importantly, the plans for a crosstown SBS route on 34th Street in Manhattan will fulfill a PlaNYC commitment and make ferry service attractive for commuters who do not work within easy walking distance of the river.

In 2008, we made great strides in expanding our bicycle infrastructure. This year DOT designed and installed 80.9 lane miles of bicycle lanes and installed 1,211 new bicycle parking racks, surpassing PlaNYC targets. In 2009, we plan to install 50 lane miles of new bicycle lanes, along with 400 additional bicycle parking racks. These infrastructure investments are serving an increasing number of cyclists; DOT reports that commuter cycling grew 35 percent between 2007 and 2008.

The City also worked to expand indoor bike parking options. DOT and the Department of Citywide Administrative Services (DCAS) are committed to improving and expanding secure, indoor bicycle parking space for City employees. In December 2008, the City testified in support of a City Council bill that would require existing buildings to provide bicycle access. In addition, the Department of City Planning (DCP) drafted a zoning text amendment to require indoor, secure bike parking in new developments or enlargements of multi-family residences, community facilities, and commercial buildings. The City Council is currently reviewing both the indoor bicycle parking bill and the zoning amendment, and we will work with them and other stakeholders to address their concerns.

Improve traffic flow by reducing congestion

While PlaNYC proposed piloting a congestion pricing system to reduce traffic, improve air quality, and raise funds for the transit system, the State Legislature failed to vote on this legislation. As traffic congestion remains a significant challenge throughout the city, we have turned to other tools, some of which require State approval but others of which we already have the authority to proceed.

The State Legislature passed legislation in June 2008 reclassifying "blocking the box" from a moving to a parking violation, a switch that enables all 2,800 of the City's traffic agents to issue citations for the offense and fulfills a key PlaNYC goal. And in April 2009, the State passed legislation that increases the number of red light cameras deployed across the city by 50, for a total of 150 cameras, and extends the pilot until 2014. The City issued 791,700 violations for actions captured by red light cameras in 2008; as the program expands, we will continue to use it as a tool to improve traffic flow and safety on our streets. In 2009, we will also continue to seek State authority to mount cameras on MTA buses and street poles to enforce bus lane and bus stop regulations. In the meantime, the City has installed stationary cameras along 34th Street to issue tickets to taxis that block the bus lane.

With pre-pay stations allowing rear door entry, SBS riders never wait in boarding lines

Credits: NYC Department of Transportation

SBS utilizes a dedicated bus lane to allow for faster commute times

Credits: NYC Department of Transportation

CASE STUDY: SELECT BUS SERVICE (SBS)

The Bx12 SBS, serving Fordham Road and Pelham Parkway in the Bronx and 207th Street in Manhattan, is the city's first BRT route. The service, which began operation in June 2008, features a prepayment system that allows passengers to enter the bus through either end and dramatically speeds up boarding. The route features high-visibility red bus-only lanes and transit signal priority, where traffic lights stay green longer or turn green faster so that the bus gets caught at fewer signals. The SBS program also includes new bus shelters, new sidewalks, and new stop locations, all designed to make the service more comfortable and easier to use. By any measure, the Bx12 SBS has been a success.

- Travel times along the route have decreased by about 19 percent, or by about 11 minutes from end to end. Including both Bx12 SBS and Bx12 local.
- Ridership is up over 11 percent or 5,000 riders a day.
- Riders also approve of the new service with 98 percent of passengers satisfied or very satisfied.

The City and the MTA have worked to make adjustments to the service based on community feedback and will expand SBS around the city to improve the quality of the transit system.

In February, the City announced a new pilot program to improve traffic flow and safety in the heart of Midtown Manhattan. Dubbed "Green Light for Midtown," DOT will make targeted improvements on Broadway starting in May 2009, focused at Times and Herald Squares. The pilot will simplify traffic patterns, extend green lights, and reduce travel times through Midtown Manhattan by discontinuing vehicular traffic on Broadway from 47th Street to 42nd Street and from 35th Street to 33rd Street. In addition, new pedestrian plazas will be created, allowing for increased foot traffic – a particular boon to local stores and restaurants during the economic downturn. The pilot, to run through the end of 2009, will be closely monitored to determine if traffic is improved; if so, the program may be extended beyond this trial period.

To increase parking capacity, DOT is replacing single space meters with Muni meters. In 2009, DOT will focus on replacing all meters in Manhattan south of 60th Street. In the past year, DOT has also initiated PARK Smart, a pilot program in Greenwich Village that applies a higher metered parking rate during the periods of highest demand to increase turnover at these spaces. This will make it easier for shoppers and other visitors to find parking while also reducing congestion and improving safety. Initial results are positive, with more spaces available during peak hours. As a result, we plan to expand this pilot to five other commercial areas over the next two years.

The City has also undertaken an aggressive program to reduce the number and misuse of parking placards by government agencies. These placards, or permits, give City employees street parking privileges to conduct official business. They have also had the unintended consequence of increasing congestion in areas already prone to heavy traffic, including Lower Manhattan and Downtown Brooklyn. In the last year, 53 percent of these placards have been eliminated, far exceeding the Mayor's original pledge of a 20 percent reduction. The New York City Police Department (NYPD) has created a new enforcement unit to ensure compliance, and agencies have developed new procedures to prevent the abuse of placards.

Parking Placard Reductions

AGENCY	2007 ALLOCATION	2008 ALLOCATION	% CHANGE
Police Department	64,587	43,113	-33%
Department of Education	63,390	12,445	-80%
Fire Department	8,166	6,002	-27%
Department of Corrections	1,099	583	-47%
Department of Transportation	668	535	-20%
Department of Housing Preservation & Development	580	465	-20%
Administration for Children's Services	531	425	-20%
Department of Sanitation	410	329	-20%
Human Resources Administration	364	292	-20%
Mayor's Office/Intergovernmental	350	280	-20%
All other agencies	3,903	2,828	-28%
TOTAL	144,048	67,297	-53%

Source: NYC Department of Transportation

The West 106th Street bike lane in Manhattan, installed Summer 2008

Achieve a state of good repair on our roads and transit system

The City is currently ahead of schedule toward meeting the PlaNYC goal of 1,000 resurfaced street lane miles by June 2009. 688 lane miles have been resurfaced since July 2008, which is 23 lane miles above the planned milestone of 665 lane miles. We are also moving forward with the acquisition of a second asphalt plant, which would increase the use of reclaimed asphalt pavement (RAP), another PlaNYC goal. To maintain a state of good repair on New York City's bridges, DOT is scheduled to begin the rehabilitation of three of the Belt Parkway Bridges in Brooklyn: Paerdegat Basin, Rockaway Parkway and Fresh Creek (2009 – 2014), and is on schedule with its Brooklyn Bridge rehabilitation efforts. However, the economic downturn has resulted in significant cuts to the City's road and bridge maintenance programs, threatening the progress made in previous years.

The City is using $261 million in Federal stimulus dollars to restore maintenance and rehabilitation projects that would have been cut due to the economic downturn—putting thousands of people to work and rebuilding our infrastructure. Projects include rehabilitating the ramps at the St. George's ferry terminal and at the Brooklyn Bridge, upgrading pedestrian and roadway bridges throughout the city, and reconstructing sidewalks and streetscapes in all five boroughs. To further leverage Federal funds, we are re-allocating City funds originally intended for these projects to other transportation investments.

Even with the progress that has been made in the last twenty-five years, the MTA system needs billions of dollars to achieve a full state of good repair. As the MTA proposes its next five-year capital plan (2010 – 2014), new funding sources will be necessary to adequately ensure the maintenance of our mass transit system.

Develop new funding sources

In PlaNYC we identified over $50 billion in projects that would add transit capacity and reach a full state of good repair for the first time in New York City's history. Without dedicated funding—either through an expansion of existing sources or creation of new ones—these projects will continue to be at risk. At the end of 2008, the MTA faced a $1.2 billion shortfall in its 2009 operating budget, with the economic downturn continuing to exacerbate its financial situation. As the State Legislature considers the findings of the Ravitch Commission, we will continue to argue for solutions that address the MTA's fiscal imbalances.

Next Steps

Over the past year, we have engaged in a tremendous effort to reduce congestion on our streets and improve our transit system for future generations. However, the fundamental issue remains whether our State leaders will match the efforts of the City, MTA, and the region's other transit providers in meeting our transportation challenges. Investing in our transit system is an essential strategy for New York City's economic recovery. Over the next year, we will continue to pursue strategies to increase our mobility and access to jobs, such as implementing Select Bus Service across the city. But, it is ultimately up to the State legislature to decide whether or not our mass transit is funded appropriately. We cannot afford continued inaction; our economic future depends on it.

Transportation Progress

	INITIATIVE	PROGRESS SINCE APRIL 22, 2008	IMPLEMENTATION MILESTONE FOR DECEMBER 2009	2009 MILESTONE PROGRESS
1	**INCREASE CAPACITY ON KEY CONGESTED ROUTES**			
	Seek to fund five projects that eliminate capacity constraints	The City continues to monitor discussions between MTA and State officials regarding MTA's capital needs and funding sources for its 2010-2014 Capital Plan	Have funding mechanism in place	Delayed
2	**PROVIDE NEW COMMUTER RAIL ACCESS TO MANHATTAN**			
	Seek to expand options for rail commuters	The City continues to monitor discussions between MTA and State officials regarding MTA's capital needs and funding sources for its 2010-2014 Capital Plan	Continue construction of East Side Access and Second Ave. Subway; move other projects into engineering phase	Delayed
3	**EXPAND TRANSIT ACCESS TO UNDERSERVED AREAS**			
	Seek to provide transit to new neighborhoods	The City has initiated a land use and transportation study of Staten Island's North Shore, in coordination with the MTA's planning efforts in Staten Island	Complete Staten Island study and study of potential subway expansion	On Time
4	**IMPROVE AND EXPAND BUS SERVICE**			
	Initiate and expand Bus Rapid Transit	NYCDOT, in partnership with MTA New York City Transit, completed implementation of the Bx12 Select Bus Service on Fordham Road in the Bronx. The City and MTA are continuing their planning process for the remaining four pilot BRT routes	Open five SBS routes	Delayed
	Dedicate Bus/High Occupancy Vehicle (HOV) lanes on the East River Bridges	The City is analyzing opportunities for an HOV/bus lane on the East River Bridges	Operate bus service lanes on all three bridges	Delayed
	Explore other improvements to bus service	DOT has implemented Transit Signal Priority (TSP) on Fordham Road in the Bronx and Victory Boulevard in Staten Island. The City has secured Federal funding to implement additional TSP corridors citywide	Complete implementation of operating improvements for 22 locations	Delayed
5	**IMPROVE LOCAL COMMUTER RAIL SERVICE**			
	Seek to make better local use of Metro-North and Long Island Rail Road (LIRR) stations	The City continues to monitor discussions between MTA and State officials regarding MTA's capital needs and funding sources for its 2010-2014 Capital Plan	Improve local connectivity	Delayed
6	**IMPROVE ACCESS TO EXISTING TRANSIT**			
	Facilitate access to subways and bus stops citywide	Bus stops under EIs: 1 location complete (Brighton Beach & Coney Island Ave); 17 designed, implementation expected next year; Subway sidewalk interface: 1 location complete (40th Street station in Queens); 2 locations designed (Nostrand Ave and Wyckoff); Sidewalks to buses: 1 location complete (Sunrise Highway in Queens)	Complete construction of up to three bus stops under EIs, up to two Sub-Side interface, and up to 15 new sidewalks to bus stops	On Time
7	**ADDRESS CONGESTED AREAS AROUND THE CITY**			
	Develop congestion management plans for outer-borough growth corridors	Release of final report delayed by 6 months to early 2010 to account for expansion of the study area to include: additional locations based on community input; extensiveness of the outreach process; and complexity of the analysis and technical issues	Complete studies for nine corridors and begin implementation (2009)	Delayed
8	**EXPAND FERRY SERVICE**			
	Seek to expand ferry service and better integrate it with the city's existing mass transit system	Completed new ferry landing at Schaeffer Landing in Queens and building additional landings. Moving forward with planning for enhanced East River ferry service starting in 2010	Issue contract and launch service; study crosstown BRT	On Time
9	**PROMOTE CYCLING**			
	Complete the City's 1,800-mile bike master plan	In 2008, DOT designed and installed 80.9 lane miles of bicycle lanes throughout the City.	Complete 200 directional lane miles of bike routes	On Time
	Facilitate cycling	In 2008, the City installed 1,211 new bicycle parking racks, significantly exceeding the PlaNYC installation target rate	Install 400 new CITYRACKS per year; improve and update maps annually	On Time
10	**PILOT CONGESTION PRICING**			
	Seek to use pricing to manage traffic in the Central Business District (CBD)	The City continues to monitor discussions between MTA and State officials regarding MTA's capital needs and funding sources for its 2010-2014 Capital Plan	Install and run congestion pricing system by spring 2009	Redirected
11	**MANAGE ROADS MORE EFFICIENTLY**			
	Expand the use of Muni Meters	The City will replace all of Manhattan's single-space meters with muni-meters by July 2009. We also plan to install community-based meters in the Bronx, Brooklyn, Queens, and Staten Island by December 2009	Install Muni Meters in most outer borough central business districts	On Time
	Create an integrated traffic management system	DOT will install roughly 200 signals per month and complete installation of ASTCs by 2010	Consolidate TMC	Complete
12	**STRENGTHEN ENFORCEMENT OF TRAFFIC VIOLATIONS**			
	Expand the force of Traffic Enforcement Agents (TEAs)	The City has funded 100 new Level 2 TEAs in its FY09 budget. NYPD has begun recruiting and will fill these positions by the end of FY09	Hire 100 TEAs and deploy	Complete
	Enable all TEAs to issue blocking-the-box tickets	State legislation has reclassified "blocking the box" from a moving violation to a parking violation, a switch that enables all 2800 of the city's traffic agents to issue citations for the offense	Obtain authority to issue tickets[1]	Complete
	Expand the use of traffic enforcement cameras	City seeks State authority to mount cameras on MTA buses and street poles to enforce bus lane and bus stop regulations. State has reauthorized existing red light camera program until 2014 and added 50 new cameras for a total of 150	Install cameras	On Time
13	**FACILITATE FREIGHT MOVEMENTS**			
	Improve access to John F. Kennedy International Airport (JFK)	Permanent travel time signage will be placed on the Whitestone Bridge in Fall 2009 to provide comparative travel time to JFK Airport. A pilot program is planned for Summer 2009 to address congestion and safety concerns on the Van Wyck Expressway.	Implement short-term recommendations from JFK Access Task Force	Delayed
	Explore High Occupancy Truck Toll (HOTT) Lanes	The City continues to work with NYSDOT on its Managed-Use Lane Study	Complete study	Delayed
14	**CLOSE THE METROPOLITAN TRANSIT AUTHORITY'S STATE OF GOOD REPAIR GAP**			
	Seek a grant from the SMART Authority to cover the MTA's funding gap	The City continues to monitor discussions between MTA and State officials regarding MTA's capital needs and funding sources for its 2010-2014 Capital Plan	Have funding mechanism in place[1]	Redirected
15	**REACH A STATE OF GOOD REPAIR ON THE CITY'S ROADS AND BRIDGES**			
	Seek a grant from the SMART Authority to cover the City Department of Transportation funding gap	Through City funding, resurfacing activities currently remain on schedule. However, the economic downturn may result in cuts to the City's road resurfacing efforts, threatening future progress	Resurface 1,925 lane-miles of city streets is exceeding our current pace of resurfacing by 125 lane-miles	Delayed
	Seek a grant from the SMART Authority to fund accelerated capital repairs	The City continues to maintain its bridges in a state of good repair. However, the economic downturn has resulted in cuts to the City's bridge maintenance and repair efforts by over 30%, threatening future progress	Complete scheduled 10-year bridge capital plan on schedule	Delayed
16	**ESTABLISH A NEW REGIONAL TRANSIT FINANCING AUTHORITY**			
	Seek to create a SMART Financing Authority to advance new projects and achieve a state of good repair	PlaNYC's intent - to create a new, dedicated source of funding for the City's transportation network - was maintained in the Ravitch Commission's recommendations	Establish SMART Fund	Redirected

[1] 2015 milestone set—no 2009 milestone

Provide cleaner, more reliable power for every New Yorker by upgrading our energy infrastructure

For years, New Yorkers' energy usage has been rising, driven by new development, population growth and the increasing use of electronics and other equipment. This has put pressure on our energy supply, limiting the availability of natural gas and electricity especially at peak times. At the same time, energy costs have been rising–exacerbating the problem that New Yorkers pay some of the highest gas and electricity rates in the United States. PlaNYC laid out an approach to manage energy consumption by making our city more efficient, and easing our supply challenges with new renewables, cleaner fossil-fuel-based electricity, and additional supplies of natural gas. At the same time, it proposed significant changes to the way energy planning is done in New York State. Greater efficiency and new generation will lead to lower energy costs for everyone; a more reliable grid; cleaner air; and a smaller carbon footprint. By stimulating smart energy investments through incentives, mandates, and challenges, we are creating a healthier environment and a stronger economy.

Our plan for the future of energy includes the following initiatives:

Improve energy planning

1 Establish a New York City Energy Planning Board

Reduce New York City's energy consumption

2 Reduce energy consumption by City government

3 Strengthen energy and building codes for New York City

4 Create an energy efficiency authority

5 Prioritize five key areas for targeted incentives

6 Expand peak load management

7 Launch an energy awareness and training campaign

Expand the city's clean power supply

8 Facilitate repowering and construct power plants and dedicated transmission lines

9 Expand Clean Distributed Generation ("Clean DG")

10 Support expansion of natural gas infrastructure

11 Foster the market for renewable energy

Modernize electricity delivery infrastructure

12 Accelerate reliability improvements to the city's grid

13 Facilitate grid repairs through improved coordination and joint bidding

14 Support Con Edison's efforts to modernize the gird

Energy

OUR PROGRESS

Proposed existing buildings legislation to reduce citywide climate change emissions by at least 5% and supported a new, efficient power plant

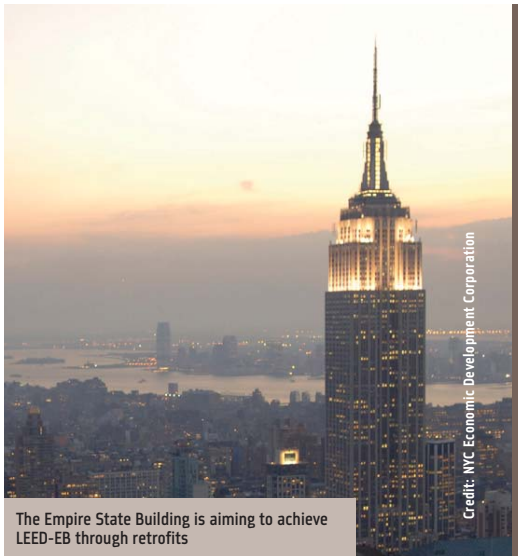
Achieving energy efficiency in our buildings is one of our central energy strategies. This year, we have made progress in almost every building sector that we targeted in PlaNYC: institutions, the private sector, existing and new buildings, as well as the City's own facilities. We have established mandates and incentives to set the foundation for significant future energy efficiency gains. Working with the City Council, we developed the nation's most comprehensive and aggressive legislation to move the market toward energy efficiency, and to require continuous energy upgrades of New York City's largest buildings.

Quick roll-up doors at the Dept. of Sanitation are part of the municipal effort to reduce energy consumption

Credit: Sean Hemmerle/Contact Press Images

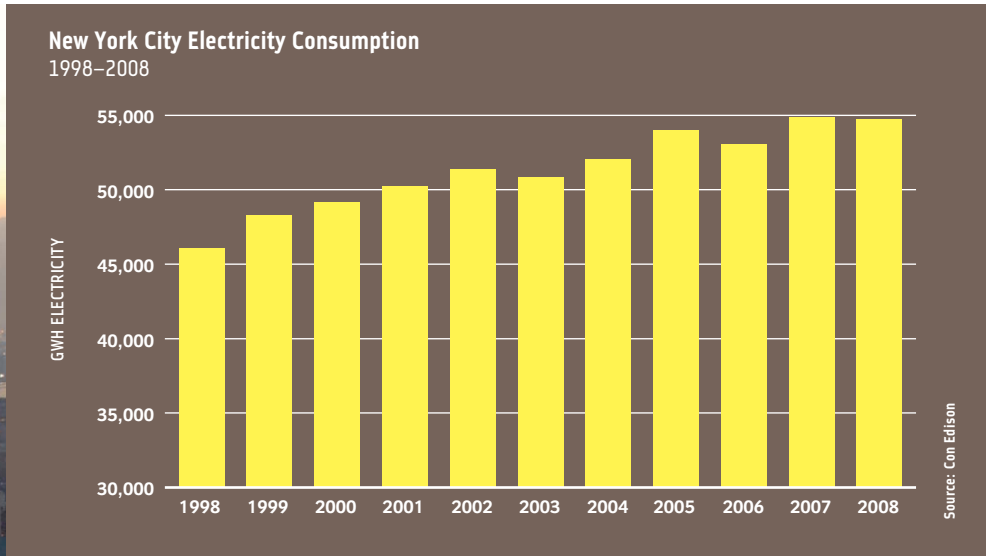
The City has also made strides in expanding the city's energy supply. In August, the New York City Economic Development Corporation (NYCEDC) began work on a long-term renewable energy strategy for the city; it will be released later this year. For the near term, we worked with the New York Power Authority (NYPA) to facilitate the construction of a new, highly-efficient natural gas-fired power plant in Queens. When it begins operation, its 500 MW of new supply will help to contribute to reliability and actually lower citywide pollution and greenhouse gas emissions because it is so much more efficient than the power it will displace.

Additionally, we have set in motion three planning efforts that will be crucial to our long-term goals and directly fulfill PlaNYC initiatives. The NYC Energy Planning Board brings together the State, the City, and utilities to coordinate future energy resource and infrastructure needs. The NYC Energy Policy Task Force advised the Board on State energy planning efforts and will advise on the development of future energy strategies for the City. The Green Codes Task Force, undertaken by the U.S. Green Building Council at the request of Mayor Bloomberg and Speaker Quinn, will recommend changes to green the City's many codes affecting new and existing buildings. And the NYC Energy Efficiency Working Group, launched in 2008, has helped coordinate proposals to the Public Service Commission (PSC) by the New York State Energy Research and Development Authority (NYSERDA) and local utilities for additional energy efficiency funding to meet the needs of the city's unique built environment.



Credit: NYC Economic Development Corporation

The Empire State Building is aiming to achieve LEED-EB through retrofits



Improve energy planning

This year Mayor Bloomberg launched the NYC Energy Planning Board to coordinate planning to meet the city's energy supply and demand needs. With many players at the state and local level responsible for different aspects of New York City's energy policies, this board fills a need for a coordinated vision that encompasses both supply and demand and simultaneously considers reliability, cost, and environmental impacts. The Board was created to ensure that the city's needs are incorporated into various other planning efforts such as the State Energy Planning Board and the utilities' infrastructure plans; to coordinate efforts on issues such as demand side program planning; and to update the City's energy policy on a regular basis. The Board is comprised of representatives from the Office of the Governor, the Mayor's Office of Long-Term Planning and Sustainability, NYCEDC, NYPA, National Grid and Consolidated Edison (Con Edison). In December 2008, the Board—with input from the Energy Policy Task Force—submitted recommendations on energy planning, power and natural gas supply infrastructure, energy efficiency, renewable energy and clean, distributed generation to Governor Paterson's State Energy Planning Board. The State's Energy Planning Board released its draft plan in March. We will be reviewing it closely to ensure the city's interests are addressed.

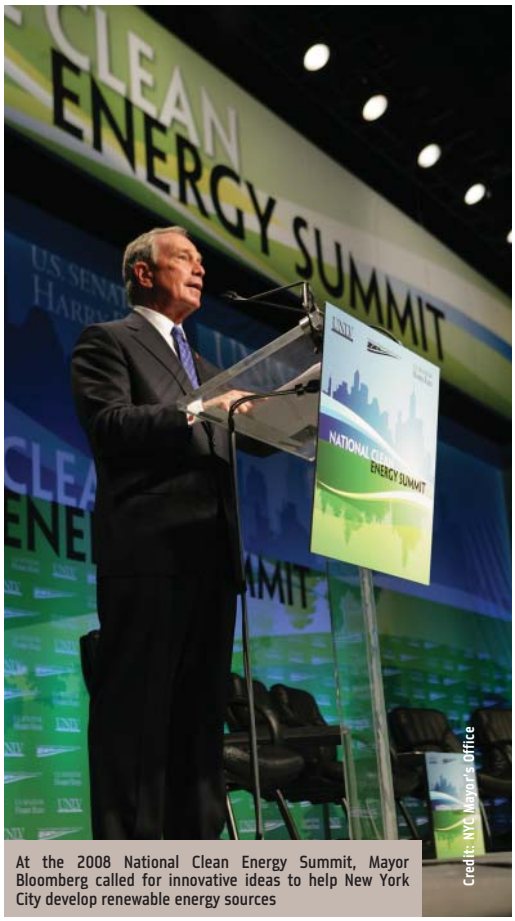
Reduce New York City's energy consumption

To improve the energy efficiency of City government, and to lead by example, PlaNYC committed the City to reduce municipal government's carbon footprint by 30 percent in 10 years. To achieve this goal, the Energy Conservation Steering Committee released the Long-Term Plan to Reduce Energy Consumption and Greenhouse Gas Emissions of Municipal Buildings and Operations, which lays out a strategy of capital upgrades, operations and maintenance improvements, and organizational options. The plan envisions more than $2 billion investment over the next decade, which will reduce City operating costs by roughly $300 million each year when finished—a direct savings to taxpayers. In its first two fiscal years, the program has allocated $180 million towards energy efficiency projects, and a new Deputy Commissioner for Energy Efficiency has been appointed at the Department of Citywide Administrative Services to oversee its implementation.

Several private sector partners have joined forces with the City to take the lead in reducing their energy consumption and emissions. In June 2007, ten leading universities accepted the Mayoral Challenge to reduce their emissions by 30 percent by 2017; in October 2008, they announced the completion of their greenhouse gas inventories and released their ten-year campus action plans. When fully implemented, these action plans will decrease citywide greenhouse gas emissions 0.6 percent. Six additional schools signed onto the Mayoral Challenge for universities in late 2008. The City undertook its second such initiative this year, working with Broadway theaters and productions to address their carbon footprint and environmental impact through the Broadway Green Alliance effort. *(See case study.)*

PlaNYC called for both increased incentives and new requirements and standards to ensure that all buildings in New York City are as energy efficient as possible. Last summer, Mayor Bloomberg and Speaker Quinn asked the US Green Building Council to organize and lead the Green Codes Task Force, charged with developing specific recommendations to eliminate barriers to green construction and to require low-cost green measures that have major impact. With over 150 expert members including architects, engineers, construction managers, and skilled trades, the Task Force has been working for nearly a year and will issue its recommendations later in 2009. To increase direct incentives for energy efficiency—which are the preserve of State energy regulators through the Systems Benefits Charge that most New Yorkers pay—the City coordinated with NYSERDA and the local utilities in the NYC Energy Efficiency Working Group which proposed targeted incentives. To date, the New York State Public Service Commission has increased incentives available statewide by $175 million, but in programs that benefit lower-density parts of the State. We continue to advocate that the PSC approve the full package of energy efficiency programs targeted at multi-family apartment buildings, rental properties, and large commercial buildings that NYSERDA, Con Edison, National Grid submitted in September 2008.

Above all, this year we made progress on a central component of PlaNYC: a coordinated, comprehensive approach to require ongoing efficiency improvements in existing large buildings that consume nearly 50 percent of the city's energy. By 2030, we project that 85 percent of our energy usage will come from buildings that already exist today; as a result, we cannot simply rely on new buildings to be more efficient. To ensure that existing buildings become more efficient over time, the Mayor and the Speaker have proposed that buildings over 50,000 square feet benchmark their energy consumption annually; upgrade their lighting systems over the next decade; and periodically undertake cost-effective energy upgrades that pay for themselves. To complement this plan, the City intends to use up to $16 million of Federal stimulus funds to finance retrofits in certain buildings as a pilot program, and will work closely with private banks, nonprofits, NYSERDA, and other partners to develop other financing options. Because no building owner would be required to make investments that do not pay for themselves, the savings will not



At the 2008 National Clean Energy Summit, Mayor Bloomberg called for innovative ideas to help New York City develop renewable energy sources

Credit: NYC Mayor's Office

An infrared image from the March 2009 National Geographic magazine cover story "Saving Energy" shows heat loss from city buildings

Credit: 2009 Tyrone Turner/National Geographic

only improve the environment but also improve New York City's economy and create more than a thousand jobs, All told, this will reduce our citywide greenhouse gas emissions by at least five percent by 2030.

Expand the city's clean power supply

In PlaNYC, we set a target to increase the capacity of cleaner energy supply by 2,000 to 3,000 megawatts (MW) through a combination of new power plants, new transmission connections, and repowerings. In July, NYPA signed a long-term power purchase agreement with Astoria Energy LLC to build a new, state-of-the-art 500 MW power plant in Queens on behalf of the City, the Metropolitan Transportation Authority (MTA), the Port Authority, and NYC Housing Authority (NYCHA). This plant, which is expected to begin operations by 2011, will lead to an almost 2 percent reduction in citywide greenhouse gas emissions. Despite financing challenges, the project is moving forward; the City will push to ensure that its contractual timelines are met, or explore alternatives.

To better understand which transmission projects make sense for New York City, NYCEDC commissioned a study, to be released in May, which analyzes the need for major transmission projects that could help meet the city's power needs.

The City has made significant strides in encouraging solar energy. The PlaNYC solar tax abatement took effect in 2008 and five buildings have applied for rebates on their 2008 City property taxes. Last year we released a Request for Proposals for a third party developer for panels on the City's own buildings and we plan to enter into a contract with a developer by summer 2009. We also reduced barriers to solar interconnection and investments by advocating for changes to the State law governing net-metering that passed in August 2008.

We are also ensuring that we capture the potential for other renewable energy technologies. Over the past year New York City took steps toward developing new sources of renewable energy. NYCEDC, on behalf of the City, released a Request for Expressions of Interest (RFEI) that called for innovative ideas to help New York City develop sources of renewable energy. The City received ideas for offshore wind farms, building-sited wind turbines, tidal power, solar power, biomass, and geothermal energy projects. In summer 2009, NYCEDC will release an update on the analysis and project implementation that has occurred since the RFEI was completed.

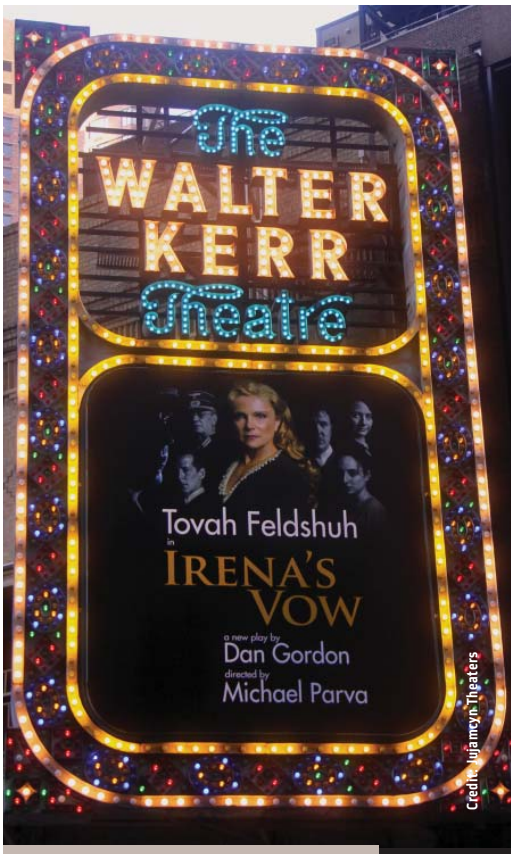
After releasing comprehensive rules on microturbines in December 2006, we have increased the amount of clean distributed generation (DG) in New York City. To further the effort, we are requiring City government buildings to assess the viability of Combined Heat and Power (CHP), or cogeneration, and to move forward on the design of the most promising installations. In addition, the City is encouraging the use of microgrid and small-scale district energy systems in large real estate projects planned for Manhattan and Brooklyn. The widespread use of CHP will help reduce greenhouse gas emissions attributed to the energy consumption of our city's buildings.

Modernize electricity delivery infrastructure

Since the Long Island City blackout in 2006, Con Edison has completed 267 recommendations to improve reliability. The reliability measures include a new substation in Long Island City that will be able to manage load more efficiently. The company is also conducting a series of pre-summer drills and refresher training for those who are responsible for determining the scope of an outage to improve response time.

Credit: Big Sue LLC

NYC's First Commercial net-metered solar electric generating system, built by Solar Energy Systems on the Big Sue LLC building in Brooklyn



Credit: Juiamcyn Theaters

As part of the Broadway Green Alliance, 25 theaters switched their marquees to more efficient lighting

Next steps

Over the next year, our main objective will be the passage and implementation of the existing building requirements. In addition, the City will assess the recommendations from the Green Codes Task Force, which are expected this summer, to develop an implementation schedule. We will continue to improve the efficiency of the City's own buildings, and to work with an increasing number of institutional partners who have committed to similar improvements through our Mayoral Challenge program. To sustain this ambitious efficiency agenda, we are working to ensure that the recently-doubled State and newly-committed Federal funding is allocated to these efforts and that we are developing a skilled work force that can deliver quality energy services. We will continue to urge the PSC to approve additional funding for energy efficiency later this year, with programs focused on existing multi-family and commercial buildings. Working collaboratively with the Energy Efficiency Working Group, we will continue to identify ways to most effectively meet the needs of New York City's energy users and unique urban environment. Finally, we are working with New York State to ensure that the increased funding for energy efficiency is allocated proportionately to New York City programs.

To make our energy supply cleaner, we will develop a renewable energy strategy based on stakeholder impact, submissions from the RFEI, and the results of Solar America Cities' studies. In addition to renewable sources, the City continues to push other types of clean, distributed generation. We will complete multiple feasibility studies on promising sites for cogeneration and distributed generation at City-owned facilities. The City also expects to support a Con Edison Advanced Metering Infrastructure (AMI) pilot proposal to be submitted to the PSC in April. We will work with the company and others to facilitate real time pricing and to increase New Yorkers' control of their energy usage patterns. In addition, we will work with NYPA to ensure successful completion by 2011 of the recently contracted 500 MW power plant, and to ensure that the builders, Astoria Energy LLC, meet agreed-upon schedules.

CASE STUDY: Broadway Green Alliance

The most cost-effective way to reduce energy consumption in buildings, both new and existing--and on Broadway--is through efficient lighting design. Nearly 20% of the city's total energy consumption is used for lighting. The potential for citywide energy and emissions reductions from lighting improvements could be 5-8 percent, which is more than the energy consumption of the whole subway system. Already, 25 Broadway theaters participating in the Broadway Green Alliance initiative have changed their marquees to more energy efficient bulbs.

Energy Progress

	INITIATIVE	PROGRESS SINCE APRIL 22, 2008	IMPLEMENTATION MILESTONE FOR DECEMBER 2009	2009 MILESTONE PROGRESS
1	**ESTABLISH A NEW YORK CITY ENERGY PLANNING BOARD**			
	Work with the State and utilities to centralize planning for the city's supply and demand initiatives	Launched NYC Energy Planning Board that submitted recommendations to State Energy Planning Board in Dec. 2008 on energy planning, power and natural gas infrastructure, energy efficiency, renewable energy and clean DG. Continue participating in State's process, to be completed mid-2009	Establish NYC Energy Planning Board	Complete
2	**REDUCE ENERGY CONSUMPTION BY CITY GOVERNMENT**			
	Commit 10% of the City's annual energy bill to fund energy-saving investments in City operations	Energy Conservation Committee released plan to reduce City's energy consumption and greenhouse gas emissions. $180 million allocated since 2007 to retrofits, pilot programs, and studies	Begin investing approximately $80 million a year into improving the energy efficiency of City buildings	Complete
3	**STRENGTHEN ENERGY AND BUILDING CODES IN NEW YORK CITY**			
	Strengthen our energy and building codes to support our energy efficiency strategies and other environmental goals	Green Codes Task Force, a group of over 150 building professionals, convened by USGBC-NY at request of Mayor and Speaker. Task Force expected to deliver over 100 code improvement recommendations to City in summer 2009	Complete and adopt first rounds of code changes (2008, 2010)	Delayed
4	**CREATE AN ENERGY EFFICIENCY AUTHORITY FOR NEW YORK CITY**			
	Create the New York City Energy Efficiency Authority (NYCEEA) responsible for reaching the City's demand reduction targets	New York City Energy Efficiency Working Group created and led by NYCEDC in 2008. Developed proposals to ramp up energy efficiency efforts in response to ambitious State and City targets	Create a new authority responsible for the implementation of NYC energy conservation and efficiency programs	Redirected
5	**PRIORITIZE FIVE KEY AREAS FOR TARGETED INCENTIVES**			
	Use a series of mandates, challenges, and incentives to reduce demand among the city's largest energy consumers	Released innovative building energy use legislation to mandate transparency and to institute continuing improvement in efficiency measures. Pushed PSC for additional energy efficiency program funding. Expanded Mayoral Challenge to more universities and Broadway theaters	Pass necessary local laws, building codes, and energy code	On Time
6	**EXPAND PEAK LOAD MANAGEMENT**			
	Expand participation in Peak Load Management Programs through smart meters	EDC issued RFP for a metering consultant – a competitive procurement to advance a 10-year plan. Con Edison is required to submit comments on the minimum requirements in 2009	Ensure Con Edison begins deployment of advanced meters with plan for greater deployment	On Time
	Support expansion of real-time pricing (RTP) across the city	Support enhanced AMI installations to facilitate RTP and provide additional consumer benefits, e.g. rapid power outage assessments	Establish appropriate rate	On Time
7	**LAUNCH AN ENERGY AWARENESS AND TRAINING CAMPAIGN**			
	Increase the impact of our energy efficiency efforts through a coordinated energy education, awareness, and training campaign	Submitted recommendations to PSC outlining proposed outreach programs. Launched winter energy awareness campaign on how to conserve energy and lower energy bills. Hired GreeNYC public awareness coordinator	Launch energy awareness campaign; set up training, certification, and monitoring programs	On Time
8	**FACILITATE REPOWERING AND CONSTRUCTION OF POWER PLANTS AND DEDICATED TRANSMISSION LINES**			
	Facilitate the construction of 2,000 to 3,000 MW of supply capacity by repowering old plants, constructing new ones, and building dedicated transmission lines	NYPA signed long-term power purchase agreement with Astoria Energy LLC, to build state-of-the-art 500 MW plant to serve City, MTA and Port Authority. NYCEDC preparing a plan for economic transmission projects to serve New York City region	Establish NYC Energy Planning Board	Complete
9	**EXPAND CLEAN DISTRIBUTED GENERATION (CLEAN DG)**			
	Increase the amount of Clean DG by 800 MW	Conducting studies to evaluate potential for the use of clean DG at City-owned facilities. Working with developers to study the potential for advanced cogeneration systems for new residential and office towers in major land developments	Study the capacity to increase interconnection limits in each network and work with manufacturers on new circuit breaker technologies	On Time
	Promote opportunities to develop district energy at appropriate sites in New York City	Working with developers to study the potential for advanced cogeneration systems for new residential and office towers in major land developments	Review completed Con Edison Hudson Yards District Energy Study and move forward on district energy projects based on report findings	On Time
10	**SUPPORT EXPANSION OF NATURAL GAS INFRASTRUCTURE**			
	Support critical expansions to the city's natural gas infrastructure	With Con Edison and National Grid, identifying infrastructure requirements for switch to natural gas for space heating by liquid fuel customers. The 182-mile Millennium Pipeline completed. Discussions to develop two new lateral pipelines into City. State rejected Broadwater LNG proposal	Support appropriate natural gas expansion proposals	On Time
11	**FOSTER THE MARKET FOR RENEWABLE ENERGY**			
	Create a property tax abatement for solar panel installations	Following Governor Paterson's signature into law in August and the City's public review process for the implementation service rules, the City began accepting applications for solar installations put into place since the August 2008 effective date.	Launch the solar incentive	Complete
	Study the cost-effectiveness of solar electricity when evaluated on a real-time pricing scenario	Launched study in January 2009 evaluating the impact of real-time rates on a variety of installation types. Consultants' findings and recommendations expected in June 2009	Complete study	On Time
	Support the construction of the city's first carbon-neutral building, primarily powered by solar electricity	Expected to break ground Fall 2009 with construction managed by Department of Design and Construction (DDC). Due to capital budget cuts, contribution to Solar II decreased. City continues to support Solar One's efforts to find other funding opportunities.	Begin construction of the city's first carbon-neutral building	On Time
	Increase use of solar energy in City buildings through creative financing	Released RFP for solar developer to purchase, install, own, and operate 2MW solar capacity in exchange for long-term power purchase agreement and received proposals in Fall 2008. The evaluation process is expected to be complete in Spring 2009	Select solar developer to install solar panels; enter into long-term solar power purchase agreement	On Time
	Work with the State to eliminate barriers to increasing the use of solar energy in the city	In August 2008, the State expanded its net-metering regulations to allow for larger solar and wind installations to net-meter. Study to identify solutions to technical barriers to solar grid connection to be completed June 2009	Increase/remove solar cap in New York City and increase net-metering opportunities statewide	Complete
	Pilot one or more technologies for producing energy from solid waste	Launched 2nd phase feasibility study of Hunts Point anaerobic digestion project. Release of RFP for development of facility in Fall 2009. In Spring 2009, will engage consultant to locate suitable alternative waste conversion technology sites in all five boroughs	Begin designing at least one pilot alternative waste technology facility	On Time
	End methane emissions from sewage treatment plants and expand the productive use of digester gas	Reduced emissions by 42 percent at Wards Island and the captured methane is being used productively. Other methane projects in process of analysis or design	End methane emissions from wastewater treatment plants	Delayed
	Study the expansion of gas capture and energy production from existing landfills	NYPA completed feasibility study on gas use from Fountain Avenue Landfill to produce electricity for 26th Ward WWTP. Found operating costs outweighed the anticipated savings. Continue to investigate other opportunities	Complete initial study; begin to follow up on recommendations	Complete
12	**ACCELERATE RELIABILITY IMPROVEMENTS TO THE CITY'S GRID**			
	Advocate for Con Edison to implement recommendations from the City's report on the northwest Queens power outages	A final order from the Public Service Commission to be issued in April by the NYS Dept. of Public Service. The City advocated for the Order to include authorized spending for reliability and crisis management programs	Begin implementation of City recommendations and all other appropriate recommendations to improve grid reliability	On Time
13	**FACILITATE GRID REPAIRS THROUGH IMPROVED COORDINATION AND JOINT BIDDING**			
	Pursue the passage of joint bidding legislation	Con Edison Management and Operations audit will be completed by third quarter of 2009. The City will support appropriate company audit recommendations for same	Approve joint bidding citywide, improve coordination, and begin work on pilot multi-utility tunnel with location identified by formalized team of City, State, and utility representatives	On Time
	Ensure adequate pier facilities are available to Con Edison to offload transformers and other equipment	City has had preliminary discussions on this with Con Edison governmental affairs personnel	Initiate a working group with relevant parties[1]	On Time
14	**SUPPORT CON EDISON'S EFFORTS TO MODERNIZE THE GRID**			
	Support Con Edison's 3G System of the Future Initiative	Con Edison is planning program that will begin a Smart Grid demonstration in limited locations in Long Island City, Queens. Will introduce smart meters as well as technologies designed to support plug-in hybrid vehicles	Continue to support Con Edison's 3G initiative[1]	On Time

[1] 2015 milestone set—no 2009 milestone

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

Poor air quality is increasingly recognized as a major public health threat. Despite decades of progress, the New York City metropolitan area is second only to Los Angeles for exposure to fine particulate matter (PM 2.5) and ozone. These pollutants exacerbate respiratory and cardiovascular illness and contribute to hundreds of premature deaths annually.

Our plan for the future of air quality includes the following initiatives:

Reduce road vehicle emissions

1 Capture the air quality benefits of our transportation plan

2 Improve fuel efficiency of private cars

3 Reduce emissions from taxis, black cars, and for-hire vehicles

4 Replace, retrofit, and refuel diesel trucks

5 Decrease school bus emissions

Reduce other transportation emissions

6 Retrofit ferries and promote use of cleaner fuels

7 Seek to partner with the Port Authority to reduce emissions from Port facilities

8 Reduce emissions from construction vehicles

Reduce emissions from buildings

9 Capture the air quality benefits of our energy plan

10 Promote the use of cleaner-burning heating fuels

Pursue natural solutions to improve air quality

11 Capture the benefits of our open space plan

12 Reforest targeted areas of our parkland

13 Increase tree plantings on lots

Understand the scope of the challenge

14 Launch collaborative local air quality study

Air Quality

OUR PROGRESS

Removed 327 tons of NOx from the air, protected children's health, and began to understand neighborhood air quality

Since Earth Day 2008, we have focused on reducing harmful emissions near vulnerable populations and gaining a better understanding of the scope of the problem in our neighborhoods. In a ground-breaking study of local air quality, we have begun street-level air monitoring across the five boroughs and will have preliminary data by the end of 2009. We are taking action to reduce residual heating oil use, an important local source of air pollution. We are purchasing cleaner trucks and using alternative fuels. These market decisions drive the demand for innovative technologies and create jobs in clean industries. The City also mandated the use of cleaner, more fuel efficient taxicabs but that effort was overturned by a Federal District Court decision. In response, the Taxi and Limousine Commission has adopted regulations that adjust leases to provide incentives for the use of clean air taxis. We are working to amend Federal law to allow our initial rules to proceed.

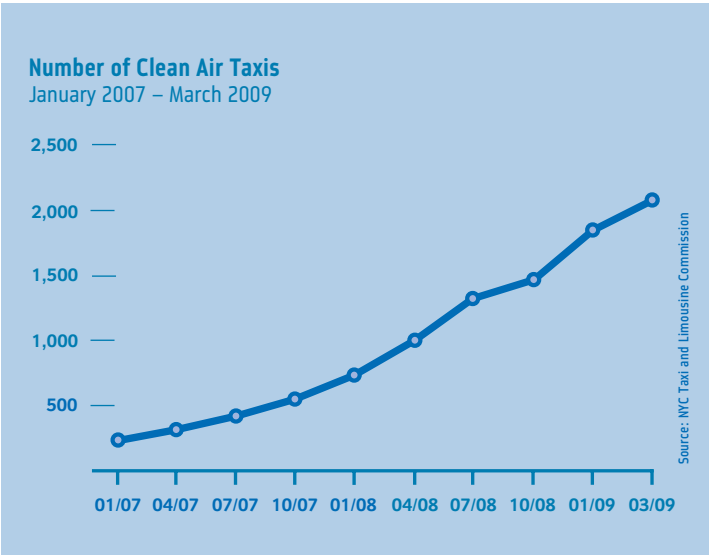
Our efforts take place amidst concurrent Federal and State efforts to reduce emissions from the transportation, off-road, and stationary source sectors. The U. S. Environmental Protection Agency (EPA) will reconsider whether to allow California and other states to regulate greenhouse gas emissions from vehicles. The EPA has put that decision on a fast track for completion in the first half of 2009. The U.S. Department of Transportation has announced that it will raise car efficiency standards to an average fuel economy of 35 miles per gallon by 2020. The EPA will seek to declare all U.S. coastal waters an "Emission Control Area" that is off-limits to bunker fuels with the highest sulfur levels and the State intends to lower the sulfur content in heating oil. These actions will reduce particulate matter emissions. And the American Recovery and Reinvestment Act of 2009 includes billions of dollars for the weatherization of buildings and for retrofits of older diesel vehicles.

Reduce road vehicle emissions

Last year's demise of congestion pricing was a temporary setback to a comprehensive program for supporting public transit improvements, unclogging traffic and improving air quality in all five boroughs.

We are proceeding with other PlaNYC initiatives to reduce emissions from vehicles, starting with enhanced enforcement of existing anti-pollution laws. Over the past year, the City and the New York State Department of Environmental Conservation (NYSDEC) launched a formal partnership to enforce State and City anti-idling laws and to target trucks that violate State smoking truck laws. Idling vehicles waste fuel and create unnecessary pollution. These efforts are targeted towards "hot-spot" neighborhoods with pervasive idling activity. To complement enforcement, the City launched an educational campaign to raise awareness of the health, economic, and environmental impacts of idling and to increase compliance with existing anti-idling laws. Finally, to strengthen the City's enforcement powers, and to protect children's health, Mayor Bloomberg signed laws limiting idling in school zones to one minute and allowing officers of the Department of Parks and Recreation and Department of Sanitation to issue idling tickets. Simultaneously, the City published draft rules that will enable all 2,300 traffic enforcement agents of the Police Department to issue tickets for idling violations.

In 2008, the City fleet continued to expand its use of cleaner fuels and vehicles. We piloted biodiesel blends of B50—50 percent biodiesel blended with 50 percent diesel fuel—in the Department of Parks and Recreation's heavy truck fleets. Because hydrogen remains a promising development program by the automotive industry as fuel cells continue to



More than 15% of the yellow taxis are hybrids as of April 2009

improve in cost, durability and efficiency, Shell Energy has built hydrogen fuel stations at the John F. Kennedy Airport and at a Department of Sanitation Bronx garage, to be operational in 2009. The Department of Sanitation has ordered delivery of two light-duty hydrogen vehicles, one hybrid CNG-hydraulic and two hybrid diesel-electric collection trucks, a hybrid diesel-electric tire truck, a compressed natural gas collection truck, and a heavy duty clean diesel truck with innovative low NOx (urea system) technology. These steps towards alternative fuel use in the city-owned fleet will provide valuable information on vehicle emissions, performance, durability, and maintenance while helping to develop a clean fuel distribution infrastructure. The City continues to work with the City Council to enact a mandatory retirement age for school buses.

Reduction in vehicle miles and fuel consumption will reduce vehicle emissions. To generate savings, Mayor Bloomberg directed all agencies to reduce their non-emergency response fleets by 15 percent, which will remove over 650 city vehicles from the road. In the long term, our Fleet Sustainability Plan will reduce greenhouse gas emissions from the city fleet 30 percent by 2017 by reducing vehicle size, car sharing, and anti-idling technology, among others.

The City also adopted financial incentives for hybrid yellow taxis and is developing incentives and mechanisms for black car owners to purchase more efficient vehicles. *(See case study.)*

Finally, the City is implementing strategies to increase privately-owned clean vehicles. In November 2008, we awarded $6.7 million in Congestion Mitigation and Air Quality grants to 14 private fleets to convert to alternative fuels or to retrofit trucks with diesel particulate filters. The next solicitation will occur in the summer of 2009. We are also laying the groundwork for a network of private and public electric-based private vehicles by analyzing the current buying decisions and usage patterns of New York City car owners and the barriers to widespread adoption.

Reduce other transportation emissions

Off-road vehicles such as construction and cargo handling equipment contribute well over a tenth of local PM 2.5 emissions. To reduce emissions from marine vessels and freight moving equipment, we are partnering with the Port Authority, the EPA, states, community groups, and other stakeholders to develop a clean air strategy for the port. The strategy includes mandates and incentives such as speed restrictions on ocean-going vessels, retrofits of harbor vessels, retirement of older trucks, and anti-idling measures. The City, the Port Authority, and a cruise line have arranged, designed and budgeted for the installation of electric plug-in shore power at the Brooklyn Cruise Terminal so that ships will not burn bunker fuel while making port calls. NYCEDC has submitted a petition with the Public Service Commission to set shore power electric rates that reflect the unique load characteristics of ships and are competitive enough to allow reduced use of dirty bunker fuel.

The City has made significant progress in retrofitting the Staten Island ferry fleet. By the end of 2008, three ferries were retrofitted with EPA Tier I engine upgrades and one vessel was retrofitted with a selective catalyst reduction (SCR) system. The remaining four vessels will be upgraded to Tier II engine standards or retrofitted with SCR technology. In 2010 and 2011, additional diesel oxidation catalysts (DOCs) will be installed in all vessels to further reduce pollution. The City also designed a retrofit program for private ferries and obtained Federal Transit Administration grants to implement it. In March 2009, custom-built DOCs were installed in two vessels to test their feasibility. If successful, all NY Waterway and Billy Bey private ferries will be retrofitted, with New York Water Taxi vessels following afterwards. In addition, three private ferries in the fleet will receive new Tier II engines in 2009.

CASE STUDY: CLEAN AIR TAXIS

Currently more than 15 percent of the city's 13,000 yellow cabs are hybrid or clean diesel vehicles. Since taxis average 80,000 miles a year, they are a significant source of vehicle emissions. Minimum fuel economy regulations adopted by the Taxi and Limousine Commission (TLC) in 2007 would have reduced greenhouse gas emissions by an average of 53 percent and NOx emissions by 71 percent. However, in 2008 a Federal District Court ruled that only the Federal government can regulate fuel efficiency. Shortly after the decision, Mayor Bloomberg announced a new strategy for greening the taxi fleet that involved both local and federal actions. On the local level, in March 2009 the TLC proposed and passed a package of lease cap modifications that offer financial incentives to increase the use of fuel efficient taxis. By adjusting the leasing fees that drivers pay fleets, the TLC provided an incentive for owners, who do not pay for gas, to purchase fuel efficient vehicles without penalizing drivers for the owners' purchasing decisions. On a Federal level, the City is continuing to work with Congressman Jerold Nadler and the New York Congressional delegation to amend the Federal Energy Policy and Conservation Act and the Clean Air Act to allow taxi regulators around the country to set fuel economy standards for the vehicles they license.

13 City and State idling enforcement sweeps issued nearly 100 idling tickets, pulled over 800 smoking trucks, and issued 265 tickets for air pollution violations

Credit: Isabelle Silverman

GreeNYC's most recent ad campaign discourages drivers from idling

Credit: Clear Channel

These efforts build on Federal efforts to reduce ship pollution. In March 2009 the EPA announced that it would seek to designate U.S. coastal waters as Emission Control Areas (ECA) under international law. An ECA would lower the sulfur in ocean going vessel fuel to 10,000 ppm in 2012 and to 1,000 ppm in 2015 from the average of 27,000 ppm sulfur used today.

Reduce emissions from buildings

Over the past year, the City developed targeted strategies for cleaning up heating oil, one of our most significant local sources of soot and smog. Our efforts have focused on residual fuel, which is used for heating more in New York City than in other major cities, produces far more harmful emissions than regular heating oil or natural gas, but which will remain unaddressed by proposed state regulations. In PlaNYC we committed to converting boilers to cleaner fuels at over 100 schools in the highest asthma hospitalization areas. Since Earth Day 2008, the City has begun conversion at nine schools and has scoped the replacement of another 14. Nine additional schools are also undergoing boiler conversion in other areas of the city. We have also begun to design the conversion of 26 boilers at four hospitals and two courthouses owned by the Health and Hospitals Corporation and the Department of Citywide Administrative Services. These projects will follow the late 1990s conversion of all 343 New York City Housing Authority properties to cleaner fuels.

The City has also developed a policy to phase out residual heating oil use by 2030, which would lower 50-85 percent of the particulate matter emissions from facilities currently using it. We believe this strategy is more effective than a mandate to use subsidized biodiesel blends. We continue to monitor the use of biodiesel and ongoing studies by the EPA, California Air Resources Board and Northeast states to resolve concerns about biodiesel's impact on food prices and land clearing for crops. Until there is a definitive standard for assessing lifecycle greenhouse gas emissions from fuels, the City is not prepared to mandate biodiesel's citywide use.

Pursue natural solutions to improve air quality

Certain neighborhoods in the City—including Morrisania and Hunts Point in the Bronx; East New York in Brooklyn; East Harlem in Manhattan; Far Rockaway in Queens; and Stapleton in Staten Island—have fewer street trees and higher rates of childhood hospitalization, primarily from asthma, than other neighborhoods. For this reason, the City has targeted its early planting efforts, through the MillionTreesNYC campaign, to plant trees and green spaces within these high need areas, designated as Trees for Public Health neighborhoods. By shading buildings on hot summer days, trees help keep residents cooler and reduce electricity demand for cooling that often is met by the oldest, least efficient, and most polluting peak power plants. Adding trees to streets make them more appealing places to walk and promotes physical activity, neighborhood interaction, and safety.

Understand the scope of the challenge

Air monitoring required to assess compliance with Federal clean air standards measures pollution levels at a limited number of rooftop sites. These monitors track air quality trends across the metro area and do not reflect street level exposures or variation across neighborhoods. To complement the regulatory monitoring network, in 2008, the City launched the New York City Community Air Survey (NYCCAS) to test street level air quality at 150 locations in all five boroughs. Over the past year, the Department of Health and Mental Hygiene and its partners at Queens College completed a sampling plan, undertook a pilot phase to test the monitors, and launched the monitoring program. The samples will be analyzed for pollutants that affect public health and are related to fuel combustion, including PM 2.5, ozone, nitrogen oxides, sulfur dioxide, elemental carbon, and metals in every season over three years.

Next Steps

Over the next year, the City will complete seven school boiler replacements and will introduce regulations for the phase-out of residual heating oil. To reduce diesel pollution from Hunts Point in the Bronx, the Department of Transportation will release a Request for Proposals to disburse $30 million in State and Federal CMAQ grants to promote the replacement of older trucks, the retrofit of newer trucks, and the use of alternative fuels. We will continue to raise awareness of the pollution and costs caused by idling, will continue unannounced idling enforcement sweeps with the State, and will exercise our new idling enforcement powers. In addition, the City will continue to aggressively plant trees both within our Trees for Public Health neighborhoods as well as with local and community partners in schoolyards, public housing complexes, and other available open spaces throughout the five boroughs. In December 2009, the City's Department of Health and Mental Hygiene will release the first report of the NYCCAS from the initial year of monitoring.

The City will continue to develop collaborative partnerships with key stakeholders. We will finalize the multi-agency clean air plan for the Port's marine operations. We will work with New York State to adopt California's greenhouse gas standards for vehicles if the EPA grants approval. We will also work with Congress to allow local regulation of emissions from taxi fleets. And we will fight to secure New York City's share of Federal stimulus financing for diesel retrofits and weatherization of buildings.

Air Quality Progress

	INITIATIVE	PROGRESS SINCE APRIL 22, 2008	IMPLEMENTATION MILESTONE FOR DECEMBER 2009	2009 MILESTONE PROGRESS
1	**CAPTURE THE AIR QUALITY BENEFITS OF OUR TRANSPORTATION PLAN (SEE TRANSPORTATION INITIATIVES, PAGE 28)**			
2	**IMPROVE FUEL EFFICIENCY OF PRIVATE CARS**			
	Waive New York City's sales tax on the cleanest, most efficient vehicles	State Senator Lanza and Assemblyman Espaillat introduced the hybrid sales tax legislation; however, the State Legislature did not approve the bills. The ongoing budget crisis precludes resubmission in 2009	Offer incentive	Delayed
	Work with the MTA, the Port Authority, and the State DOT to promote hybrid and other clean vehicles	Absent Congestion Pricing, there is no mechanism to provide preferential pricing for fuel-efficient, low-emission vehicles. However, the City has supported national legislation to improve vehicle fuel economy and California's efforts to adopt greenhouse gas standards for vehicles	Release assessment of policy options and begin implementation	Delayed
	Pilot new technologies and fuels, including hydrogen and plug-in hybrid vehicles	Shell has built hydrogen fuel stations at the John F. Kennedy Airport and at a Department of Sanitation garage, to be operational in 2009. In June, Toyota will provide two hydrogen vehicles to DSNY	Have an operational hydrogen station in New York City	On Time
3	**REDUCE EMISSIONS FROM TAXIS, BLACK CARS, AND FOR-HIRE VEHICLES**			
	Reduce taxi and limousine idling	Because hybrid vehicles do not idle, the City is pursuing expanding an existing CMAQ grant for anti-idling technologies in black cars to include financing for the purchase of new hybrid vehicles in the for-hire vehicle industry	Equip participating yellow taxis and black cars with anti-idling equipment	Delayed
	Work with TLC and the taxicab industry to double the taxi fleet's efficiency	A Federal District Court prohibited the City from mandating the use of cleaner taxis. In response, the Taxi and Limousine Commission adopted a package of lease cap modifications that offer financial incentives to increase the use of fuel efficient taxicabs	Work toward completing new standards for taxis	Complete
	Work with stakeholders to double the fuel efficiency of black cars and for-hire vehicles	Implementation of black car rules delayed one year on basis of financing and economic downtown	Work toward completing new standards for for-hire vehicles by 2010	Delayed
4	**REPLACE, RETROFIT, AND REFUEL DIESEL TRUCKS**			
	Introduce biodiesel into the City's truck fleet, go beyond compliance with local laws, and further reduce emissions	DPR uses B20 biodiesel in all diesel vehicles and equipment and began piloting B50 blends. DSNY, DOT and DEP use B5 on its diesel fleets while switching to B20 during the summer	Dispense a biodiesel blend at all city-owned diesel fueling stations	On Time
	Accelerate emissions reductions of private fleets through existing Congestion Mitigation and Air Quality (CMAQ) programs	In November 2008, the City awarded $6.7 million to 14 private fleets to convert to alternative fuels or to retrofit trucks with diesel particulate filters. The next solicitation will occur in the summer of 2009	Upgrade additional vehicles	On Time
	Work with stakeholders and the State to create incentives for the adoption of vehicle emission control and efficiency strategies	Despite ongoing discussions to identify funding mechanisms to create a State diesel retrofit fund, the State budget crisis impedes progress through 2009. However, the American Recovery and Reinvestment Act of 2009 includes about $17million for diesel reduction projects across NYS	Draft proposed parameters of fund	Delayed
	Improve compliance of existing anti-idling laws through targeted educational campaign	With NYSDEC, the City conducted anti-idling enforcement days in neighborhoods with pervasive idling activity. The City launched a public education campaign and published rules to enable 2,300 TEAs to issue tickets for idling violations	Launch anti-idling campaign	Complete
5	**DECREASE SCHOOL BUS EMISSIONS**			
	Retrofit both large and small school buses and reduce their required retirement age	The City was awarded $7.6 million in CMAQ funds to install diesel particulate filters in the school bus fleet starting summer 2009. The City continues to work with the City Council to enact a mandatory retirement age for school buses	Begin retrofits on smaller school buses	On Time
6	**RETROFIT FERRIES AND PROMOTE USE OF CLEANER FUELS**			
	Retrofit the Staten Island Ferry fleet to reduce emissions	Three ferries received cleaner engines and one vessel was retrofitted with an emissions reduction system. Four remaining vessels will receive engine upgrades or pollution reduction technology	Complete engine upgrades to Staten Island Ferry fleet	On Time
	Work with private ferries to reduce their emissions	The City is encouraging ULSD use in private ferries and designed a retrofit program and obtained Federal Transit Administration grants to implement it. In 2009, two vessels received custom-built pollution catalysts and three vessels will receive new, clean engines	Install DOCs in ferries; pass legislation promoting the use of ULSD	Delayed
7	**PARTNER WITH THE PORT AUTHORITY TO REDUCE EMISSIONS FROM PORT FACILITIES**			
	Seek to work with the Port Authority (PANYNJ) to reduce emissions from its marine vehicles, port facilities, and airports	The City, the Port, the EPA, states and others are strategizing to reduce air emissions. A project to install electric plug-in shore power at the Brooklyn Cruise Terminal is possible, but competitive electric rates from the Public Service Commission are needed	Begin creating a plan	Complete
8	**REDUCE EMISSIONS FROM CONSTRUCTION VEHICLES**			
	Accelerate adoption of technologies to reduce construction-related emissions	The City amended its rules for selecting Best Available Technology for construction equipment, allowing contractors to use a wider range of technologies that further eliminate pollution	Require, through contracts, applicable on-road vehicles used in city construction projects to follow requirements of Local Law 77	On Time
9	**CAPTURE THE AIR QUALITY BENEFITS OF OUR ENERGY PLAN (SEE ENERGY INITIATIVES, PAGE 33)**			
10	**PROMOTE THE USE OF CLEANER-BURNING HEATING FUELS**			
	Lower the maximum sulfur content in heating fuel from 2,000 parts per million (ppm) to 500 ppm	The City is developing a policy to phase out residual oil by 2030 which will complement a State cap on No. 2 oil sulfur content by 2015. The City also successfully piloted biodiesel in a DSNY No. 6 boiler	Draft new sulfur content requirements for State Code	Redirected
	Reduce emissions from boilers in 100 City public schools	The School Construction Authority began conversion of 18 boilers and scoped the replacement of another 14. Seven schools--Phase I projects--will be completed by December 2009. Work plans for the remaining schools in the highest-asthma areas are in development	Begin replacing boilers	Complete
11	**CAPTURE THE AIR QUALITY BENEFITS OF OUR OPEN SPACE PLAN (SEE OPEN SPACE INITIATIVES, PAGE 12)**			
12	**REFOREST TARGETED AREAS OF OUR PARKLAND**			
	Reforest 2,000 acres of parkland	MillionTreesNYC passed the 110,000 mark for reforestation tree plantings--17% above targeted goals. Many plantings were focused in six neighborhoods including Hunts Point, East New York, East Harlem and Far Rockaway	Begin reforesting 2,000 acres of parkland	Complete
13	**INCREASE TREE PLANTINGS ON LOTS**			
	Partner with stakeholders to help plant one million trees by 2017	Since launching in October of 2007, MillionTreesNYC has planted a total of nearly 225,000 trees across the five boroughs. Many plantings were focused in six Trees for Public Health neighborhoods, including Hunts Point, Morisannia, East New York, East Harlem, Stapleton and Far Rockaway	Launch partnership and begin planting trees	Complete
14	**LAUNCH COLLABORATIVE LOCAL AIR QUALITY STUDY**			
	Monitor and model neighborhood-level air quality across New York City	The Department of Health and Mental Hygiene and its partners at Queens College completed a sampling plan, undertook a pilot phase to test the monitors, and launched a sample collection program at 150 locations in all five boroughs	Launch Study	Complete

Reduce global warming emissions by more than 30%

Climate change poses real and significant risks to New York City. While PlaNYC has ambitious goals to reduce the City's greenhouse gas emissions by 30 percent by 2030, it is expected that some of the impacts of climate change will be felt regardless of our ability to reduce our emissions—including hotter temperatures, increased precipitation, and rising sea levels as well as more frequent and more intense extreme weather events (i.e., heat waves, intense rainstorms, and storm surges). These impacts can be decreased by reducing our emissions, but they cannot be avoided.

Adapting to climate change and investing in mitigation not only ensures the city's long-term economic vitality, but it will encourage public and private investments in the city's infrastructure, support green jobs, and improve the quality of life and level of service enjoyed by New Yorkers today.

Our plan for the future of climate change includes the following initiatives:

1 Create an intergovernmental Task Force to protect our City's vital infrastructure

2 Work with vulnerable neighborhoods to develop site-specific strategies

3 Launch a citywide strategic planning process for climate change adaptation

Climate Change

OUR PROGRESS

Launched Climate Change Adaptation Task Force and New York City Panel on Climate Change

The City first needed to know what its climate is likely to look like in the future to effectively and efficiently adapt to climate change. To determine this, Mayor Bloomberg convened the New York City Panel on Climate Change (NPCC) to quantify the impacts of climate change and to advise the City on adaptation. The New York City Climate Adaptation Task Force is using the climate change projections developed by the NPCC, which is funded through a grant from the Rockefeller Foundation, ensuring that the City's adaptation efforts are based on state-of-the-science data and projections.

Create an intergovernmental Task Force to protect our City's vital infrastructure

In August 2008, Mayor Bloomberg launched the New York City Climate Change Adaptation Task Force, the first effort of its kind to bring together stakeholders from the public and private sector to develop coordinated adaptation strategies, leveraging resources from several areas to address climate change. The Task Force consists of approximately 40 City, State, and Federal agencies, regional public authorities, and private companies that operate, maintain or regulate critical infrastructure in New York City. Task Force members are working to identify the risks posed by climate change to our critical infrastructure and to develop coordinated adaptation strategies to address these risks. The Boston Consulting Group provided the City with pro bono assistance to develop and convene the Task Force, ensuring that the City is at the cutting edge of adaptation planning.

New Yorkers may experience more intense rainfall events this century as a result of climate change

According to the NPCC, which produced the most detailed climate risk information to date for any major city in the world, New York City's climate will become more like present-day North Carolina's as temperatures increase by an average of 4 to 7.5 degrees Fahrenheit toward the end of the century and annual precipitation increases by 5 to 10 percent. In addition, using global climate models (GCMs), the NPCC projects that sea levels could rise by 12 to 23 inches by 2100. Recent trends not captured by the GCMs, including accelerated ice melt in Greenland and Antarctica, suggest that sea level rise could accelerate and reach as high as 41 to 55 inches by the end of the century. These "rapid ice-melt" projections; however, have a greater degree of uncertainty associated with them than those generated using GCMs. A reduction in global greenhouse gases would likely reduce these impacts, particularly those projected toward the end of the century.

In addition to increasing temperatures, precipitation, and sea levels, the NPCC projects that by the end of the century, we could experience:

- Approximately 2.5 to 4.5 times more days per year over 90 degrees.
- Approximately 2.5 to 4 times more heat waves (as defined as three consecutive days over 90 degrees) a year
- More frequent, intense rainstorms
- A current 1-in-10 year coastal flood about once every 1 to 3 years
- A current 1-in-100 year coastal flood about once every 15 to 35 years

Climate Change Projections for New York City[1]

	BASELINE 1971-2000	2020s	2050s	2080s
Air Temperature[2]	55°F	+ 1.5 to 3°F	+ 3 to 5°F	+ 4 to 7.5°F
Precipitation[2]	46.5 in	+ 0 to 5%	+ 0 to 105%	+ 5 to 10%
Sea Level Rise[2,3]	NA	+ 2 to 5 in	+ 7 to 12 in	+ 12 to 23 in
Rapid Ice-Melt Sea Level Rise[4]	NA	~ 5 to 10 in	~ 19 to 29 in	~ 41 to 55 in

1 Based on 16 GCMs (7 GCMs for Sea Level Rise) and 3 emissions scenarios. Baseline is 1971-2000 for temperature and precipitation and 2000-2004 for sea level rise. Data from National Weather Service (NWS) and National Oceanic and Atmospheric Administration (NOAA). Temperature data are from Central Park; precipitation data are the mean of the Central Park and La Guardia Airport values; and sea level data is from the Battery at the southern tip of Manhattan (the only location in NYC for which comprehensive historic sea level rise data are available).

2 Projections represent the middle 67% of values from model-based probabilities; temperatures ranges are rounded to the nearest half-degree, precipitation to the nearest 5%, and sea level rise to the nearest inch.

3 The model-based sea level rise projections may represent the range of possible outcomes less completely than the temperature and precipitation projections.

4 "Rapid ice-melt scenario" is based on acceleration of recent rates of ice melt in the Greenland and West Antarctic Ice sheets and paleoclimate studies.

Source: New York City Panel on Climate Change

Protecting the City from climate change necessitates planning for these changes today and making smart investments in our infrastructure so that they can operate in an evolving environment. An effective adaptation plan also recognizes the need to monitor and reassess climate change projections and adaptation actions over time. As such, the findings of the NPCC will need to be updated as our scientific understanding of climate change improves and climate change impacts are felt.

This fall, the Task Force will release a report on its initial efforts to identify what critical infrastructure in New York City might be affected by these dramatic impacts and to adapt to these changes. Many adaptation strategies have near-term benefits for the City, increasing efficiency, reducing maintenance costs, and preventing long-term business interruptions.

Work with vulnerable neighborhoods to develop site-specific strategies

To ensure that those communities that are most vulnerable to climate change are prepared for the risks that they face, the City developed an outreach program to work with neighborhoods to provide them with information and tools needed to develop neighborhood-specific adaptation strategies and to reduce their greenhouse gas emissions. Five pilot workshops were held in each borough—in Sunset Park in Brooklyn; East Harlem in Manhattan; Broad Channel in Queens; the North Shore in Staten Island; and Hunts Point in the Bronx—in partnership with local community-based organizations. The City is working to refine this outreach program based on feedback from the pilot workshops and will begin to engage with additional communities this year.

Launch a citywide strategic-planning process for climate change adaptation

The effects of climate change will extend far beyond our critical infrastructure, impacting public health, future development and investment decisions. The City will build upon the Task Force's work, which is identifying vulnerabilities to the City's infrastructure, and launch a citywide strategic planning process this year to determine the impacts of climate change to public health and other elements of the City and begin identifying viable adaptation strategies. Using the information generated by the Task Force and the NPCC enables the City to focus resources on those impacts with the greatest likelihood of occurring and the largest consequences.

Next Steps

The City will leverage the information generated by the NPCC and Climate Change Adaptation Task Force, as well as the resources of the Task Force members, to prioritize areas for investment and adaptation. The City will also continue to work with FEMA to update the City's FEMA flood insurance maps and partner with community organizations to help prepare our residents for the impacts of climate change.

CASE STUDY: NEW YORK CITY GREENHOUSE GAS EMISSIONS INVENTORY

The City released its annual greenhouse gas inventory in September 2008, reporting a 2.5 percent reduction in citywide greenhouse gas emissions between 2005 and 2007 and demonstrating that the City is on track to achieve its 30 percent citywide carbon reduction target by 2030. To continue this trend the City must continue to focus its efforts on reducing emissions from building energy consumption and on-road vehicles. The inventory also showed that greenhouse gas emissions from City government operations had increased 5.6 percent between Fiscal Years 2006 and 2007.

Despite increases in population, per capita energy use, and on-road vehicle miles driven, New York's citywide carbon footprint declined by approximately 1.6 million metric tons of carbon dioxide equivalent ($MMTCO_2e$) from 2005 to 2007 (to 61.5 $MMTCO_2e$), due in part to milder weather but mostly due to the impact of two new state-of-the-art natural gas in-city power plants that came online in 2006. The emissions reduction from these two new power plants demonstrates the impact that improvements to the city's power supply can have in contributing to the City's carbon reduction goals.

Although reduced carbon intensity of the city's electricity supply (-4.7%) and milder weather (-1.9%) both contributed significantly to reducing citywide CO_2e emissions, additional factors moderated the city's emissions reductions. Population growth (1.3%), increased electricity and heating fuels consumption (2.4%), and increased on-road vehicle miles traveled (0.6%) were major positive contributors to the citywide carbon footprint between 2005 and 2007. While electricity supply changes and mild weather have allowed the city to report an overall reduction in carbon emissions, increases in building energy use and vehicle miles traveled underscore the need to reduce emissions from these sources.

The City has made several commitments that will contribute to achieving its citywide carbon reduction goal. As shown, these measures will reduce citywide business-as-usual CO_2e emissions by 8 percent by 2030 (17 percent of total needed reductions). Most of these reductions will be achieved through building energy efficiency measures – however, the City's commitment to purchase electricity from the new SCS Astoria II power plant will result in an annual reduction of 1.4 $MMTCO_2e$, reducing 2030 annual CO_2e emissions by almost 2 percent.

While citywide carbon emissions declined between 2005 and 2007, City government carbon emissions increased by approximately 0.2 $MMTCO_2e$ between FY 2006 and 2007 (to 4.3 $MMTCO_2e$), reflecting the impact of increased electricity and heating fuel consumption by City agencies and an increase in methane emissions from wastewater treatment plants. This increase highlights the importance of our Long Term Plan to Reduce Energy Consumption and Greenhouse Gas Emissions of Municipal Buildings and Operations. This plan will reduce citywide emissions by 1.1 $MMTCO_2e$ by 2030 – 3 percent of reductions needed to achieve the citywide goal.

Although City government operations resulted in increased CO2e emissions between FY 2006 and 2007, reduced carbon intensity of electricity production (-1.7%), more efficient operation of the City's wastewater treatment plants (-0.6%), and milder weather (-0.6%) served to temper this increase. Increased electricity and heating fuel consumption (4.5%), an increase in reported vehicle fleet fuel consumption (0.8%), and an increase in fugitive methane leaks from wastewater treatment plants (2.9%) were the principal factors driving City government's CO_2e emissions increase.

Because the City government carbon inventory is reported by fiscal year (July 1 – June 30), weather had only a minor impact on government CO_2e emissions from FY 2006–2007, whereas it played a significant role in reducing citywide emissions between 2005 and 2007. In both periods, cooling degree days declined by approximately 18 percent, but heating degree days increased almost 5 percent between FY 2006 and 2007 and were almost unchanged between 2005 and 2007, resulting in a net reduction in energy use for that period. To allow for more comparability between citywide and City government emissions, and to comply with the current Local Government Operations Protocol, New York will also begin reporting City government CO_2e emissions by calendar year beginning in 2009.

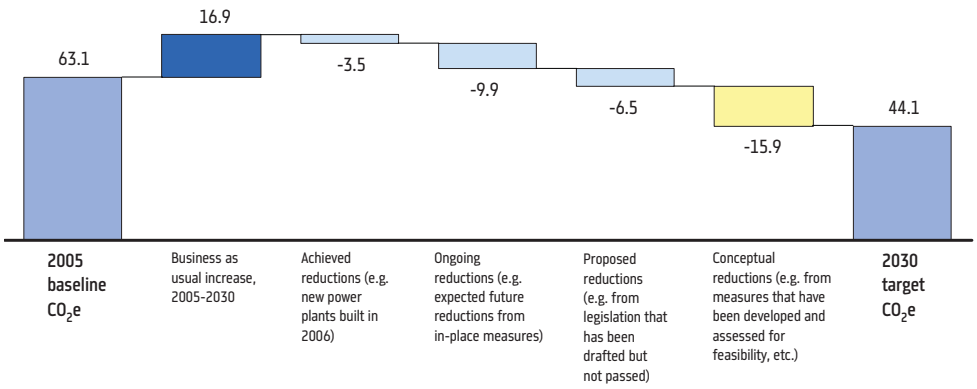
Climate Change Progress

	INITIATIVE	PROGRESS SINCE APRIL 22, 2008	IMPLEMENTATION MILESTONE FOR DECEMBER 2009	2009 MILESTONE PROGRESS
1	**CREATE AN INTERGOVERNMENTAL TASK FORCE TO PROTECT OUR CITY'S VITAL INFRASTRUCTURE**			
	Expand our adaptation strategies beyond the protection of our water supply, sewer, and wastewater treatment systems to include all essential city infrastructure	Mayor Bloomberg launched the NYC Climate Change Adaptation Task Force in August 2008 to identify vulnerabilities to the City's infrastructure from climate change and to develop initial adaptation strategies	Complete an inventory of all at-risk infrastructure with a priority list of high-risk components	Complete
2	**WORK WITH VULNERABLE NEIGHBORHOODS TO DEVELOP SITE-SPECIFIC PROTECTION STRATEGIES**			
	Create a community planning process and "toolkit" to engage all stakeholders in community-specific climate adaptation strategies	Five pilot workshops were held in each borough—in Sunset Park, Brooklyn; East Harlem, Manhattan; Broad Channel, Queens; the North Shore, Staten Island; and Hunts Point, Bronx—in partnership with local community-based organizations	Complete community planning toolkit and create a climate change adaptation plan with UPROSE	Complete
3	**LAUNCH A CITYWIDE STRATEGIC PLANNING PROCESS FOR CLIMATE CHANGE ADAPTATION**			
	Create a strategic planning process to adapt to climate change impacts	The City will begin a scoping study as a first step toward creating a strategic planning process	Release scoping study for a comprehensive climate adaptation planning process	Delayed
	Ensure that New York's Federal Emergency Management Administration (FEMA) 100-year floodplain maps are updated	The City continues to identify strategies for working with FEMA to update its FIRMs and is working to identify funding to acquire new LIDAR data for New York City, which would serve as the base for new FIRMs	Complete remapping of NYC 100-year floodplain	Delayed
	Document the City's floodplain management strategies to secure discounted flood insurance for New Yorkers	Held discussions with FEMA and NYSDEC on National Flood Insurance Program's (NFIP) Community Rating System (CRS) application. An analysis of the costs/benefits demonstrated the potential for minimal reductions in premiums; therefore, application efforts are on hold	Complete application to FEMA	Redirected
	Amend the building code to address the impacts of climate change	The City will incorporate climate change adaptation issues into upcoming code updates	Create a Task Force to evaluate necessary changes to the Building Code	Complete

In only two years, measures are already in place or have been proposed that will achieve more than half of the greenhouse gas emissions reductions laid out in PlaNYC

The City and its partners have already put it in place measures that will reduce the city's greenhouse gas (GHG) emissions from its power supply, building energy demand, and transportation sectors. Without these measures, New York City's emissions would have risen to almost 80 million metric tons by 2030. If all ongoing and proposed measures are completed, we will have achieved half of our goal by 2030. Additional measures in PlaNYC – such as new building codes and renewable energy sources– will bring us the rest of the way to our goal.

SUMMARY OF GHG EMISSIONS REDUCTION PROGRESS ($MMTCO_2e$)



SUMMARY OF GHG EMISSIONS REDUCTION PROGRESS (MMTCO2e)	
2005 baseline	63.05
2030 business as usual forecast (0.95% increase per year)	79.92
30% below 2005 baseline reduction target	44.14
Total reductions needed	**35.79**
City reductions	10.43
State reductions	4.03
Federal reductions	5.44
Total reductions achieved, ongoing, or proposed	**19.90**
Percent of 2030 CO_2e emission reduction target achieved, ongoing, or proposed.	**56%**

Progress Toward 30% GHG Reduction by 2030 (million metric tons CO_2e)

POLICY	CO_2e REDUCTIONS			
	ACHIEVED	ONGOING	PROPOSED	CONCEPTUAL
SUPPLY				
City				
NYPA Astoria Combined Cycle and SUEZ Astoria Energy power plants	3.20			
SCS Astoria II power plant			1.41	
Solar Request for Proposals (RFP) and solar panel tax abatement		0.02		
SUBTOTAL OF SUPPLY	**3.20**	**0.02**	**1.41**	**6.83**
DEMAND (BUILDINGS)				
City				
NYC government 30% by 2017 plan	0.11	1.02		
University Challenge*		0.34		
NYC energy efficiency legislation			3.20	
State				
Energy efficiency standards (ASHRAE 2001-2004)		0.98		
Energy efficiency standards (ASHRAE 2004-2007)			0.74	
System Benefit Charge (SBC)		0.14	0.78	
Energy Efficiency Portfolio Standard (EEPS)		1.39		
Federal				
Energy Independence and Security Act - lighting		1.11		
Energy Independence and Security Act - appliances		0.76		
SUBTOTAL OF DEMAND	**0.11**	**5.74**	**4.72**	**6.74**
Transportation				
City				
New York City government vehicle fleet		0.09		
Medallion and black car hybrids	0.04			
Medallion and black car hybrids			0.39	
Solid Waste Management Plan		0.19		
Federal				
CAFE standards		3.57		
Subtotal of Transportation	**0.04**	**3.85**	**0.39**	**2.32**
Other				
City				
DEP methane reduction	0.14	0.14		
MillionTreesNYC campaign	0.03	0.12		
Subtotal of Other	**0.17**	**0.26**	**-**	
TOTAL	**3.52**	**9.87**	**6.52**	**15.88**

* Reduction represents first 10 University Challenge participants only. New Challenge Parters to report their emissions by June 2009

To achieve additional GHG reductions needed to reach citywide 30% reduction goal, other anticipated initiatives are to:

- Repower power plants
- Continue to expand clean distributed generation/cogeneration
- Increase generation of renewable energy
- Expand Challenge to city's large energy users to match City's 30% greenhouse gas reduction target
- Modernize the electricity grid infrastructure
- Strengthen energy and building codes through the Green Codes Task Force
- Increase State-mandated funding for energy efficiency measures
- Expand peak load management efforts through use of smart meters and real-time pricing
- Increase federal energy efficiency standards for appliances
- Increase Federal vehicle fuel economy standards (CAFE)
- Continue to promote transit-oriented development
- Further reduce traffic congestion by managing roads more efficiently
- Further expand access to mass transit for underserved areas
- Implement national and international greenhouse gas reduction regimes

Partnerships

PlaNYC is a comprehensive set of citywide strategies, so we know we cannot rely only on City government's resources. For greater impact we are involving New Yorkers and our city's various institutions, as well as ensuring support from State and Federal sources through effective partnerships. We are also reaching beyond our borders by setting a global example on greenhouse gas emission mitigation and climate change adaptation planning.

Green Workforce Development

We are investing in New York City's existing workforce to meet the needs of growing green industries across the five boroughs. In the face of growing rates of unemployment and the nation's current economic state, we see an opportunity to retool laid-off workers with adequate skills, knowledge and information to enter the green sector.

With diverse partners we have developed a multi-faceted green workforce development strategy. We are building upon City's existing workforce development infrastructure by reviewing existing programs to identify areas to "green" the curriculum. These existing programs are being restructured to better support green industries like energy efficiency and landscaping. The City is also partnering with local organizations that provide training programs. Together with these partners, we aim to fill the projected gaps between the supply and demand of a workforce to implement sustainability initiatives from clean technology to recycling.

Effective Partnerships

We have initiated several partnerships that are allowing the City to amplify the impact of its efforts to combat climate change, green buildings citywide, improve our energy policies, and plan for the sustainability of our vital infrastructure.

New York City Panel on Climate Change

The New York City Panel on Climate Change (NPCC) was convened by the City and financed by a $350,000 grant from the Rockefeller Foundation. Their February 2009 report predicted more frequent and intense "extreme events," like heat waves, short periods of intense rain, droughts, and coastal flooding.

The climate change projections developed by this panel of experts puts quantitative estimates to what we already know – climate change is real and could have serious consequences for New York if we don't take action. The projections developed by the NPCC will be used by our Adaptation Task Force to create a plan to protect the City's critical infrastructure and will inform other City efforts to adapt to climate change.

Green Codes Task Force

To integrate green building into the NYC construction and energy code, Mayor Bloomberg and City Council Speaker Quinn asked the United States Green Building Council's New York Chapter to assemble a Green Codes Task Force to provide a comprehensive review of our codes. The Task Force, launched in summer 2008, will issue recommendations to eliminate barriers to green construction in the City's building codes and to identify opportunities to further green development, taking into account the unique construction environment in this city, in spring 2009.

Building America's Future

This year Mayor Bloomberg partnered with Governor Rendell of Pennsylvania and Governor Schwarzenegger of California to found a bipartisan coalition of elected officials dedicated to bringing about a new era of U.S. investment in infrastructure that enhances our nation's prosperity and quality of life.

U.S. Conference of Mayors

New York City is also a partner in the U.S. Conference of Mayors. Through this partnership we are promoting the development of effective national urban policy on green jobs and infrastructure; strengthening Federal-City relationships; and ensuring that Federal policy meets the needs of New York City's urban environment.

To accomplish the goals laid out in PlaNYC, we know that we have to leverage some of our greatest resources – the people and institutions of New York City.

Together we can.

Next Steps

Over the past two years since Mayor Bloomberg announced PlaNYC, the City has been very busy launching all of our PlaNYC initiatives. More than 20 City agencies, our Sustainability Advisory Board, our partners and supporters from all across New York City and indeed from around the world, and the City Council and other elected officials have played a pivotal role in helping us make exceptional progress.

Despite some setbacks, we have accomplished many things. We have completed rezonings to facilitate more transit-oriented development; we have planted over 174,000 trees and over 15% of our taxi fleet are now fuel-efficient vehicles; and we have installed 141 miles of bicycle lanes. We have also laid out one of the most innovative energy efficient building plans in the nation.

Most of all, we have inspired environmental action and climate change efforts throughout the city and across the globe.

In the next twelve months, we will take several big strides, and begin to lay out milestones beyond December 2009. We will continue our focus on energy and buildings—by rolling out the energy efficient buildings plan to reduce citywide greenhouse gas emissions by over 5%; we will continue to ask Albany to provide the millions of dollars in incentives needed to get owners to retrofit their buildings; and we will build on the recommendations of the Green Codes Task Force to require new buildings to be green and existing buildings to upgrade.

We will continue to attack sources of air pollution -- on our streets, from our energy supply, and from our buildings. We will implement elements of our sustainable stormwater management plan and lay out a renewable energy strategy. And we will continue to work for a more sustainable—and more extensive—transportation system, including fully funding the Metropolitan Transit Authority. Our new Office of Environmental Remediation will launch incentive programs to lower the costs of cleaning up vacant land for development in our city.

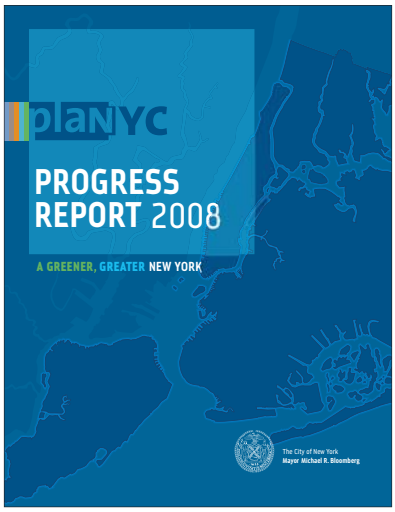
The New York City Climate Change Adaptation Task Force will help us identify the areas of the city where we should target our investments and adaptation efforts to prepare for the effects of climate change.

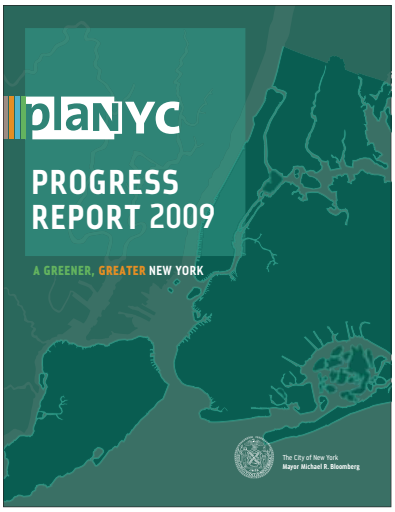
Over the next year we will continue to direct our attention to ensuring that sustainability remains a focus of City government beyond our tenure. This annual PlaNYC Progress Report, the sustainability indicators in the Citywide Performance Reporting tool, and the yearly greenhouse gas inventory give New Yorkers an easy way to track the City's progress toward our key environmental and infrastructure goals.

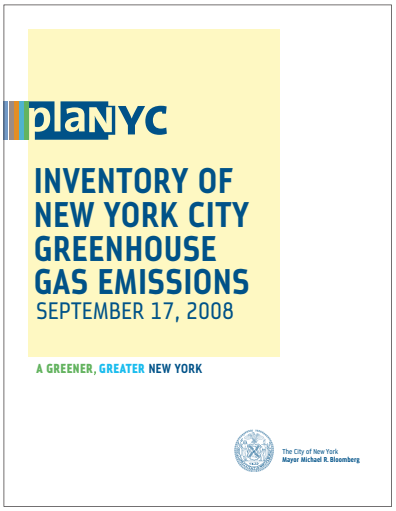
2009 will be a challenging year. We know that meeting these challenges requires vision and a sense of purpose. That is why we are looking ahead, setting ambitious and achievable goals, and planning for the green workforce of the future. Together we can build

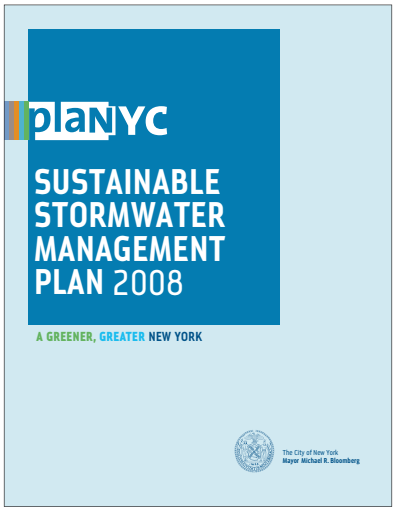
a greener, greater New York City.

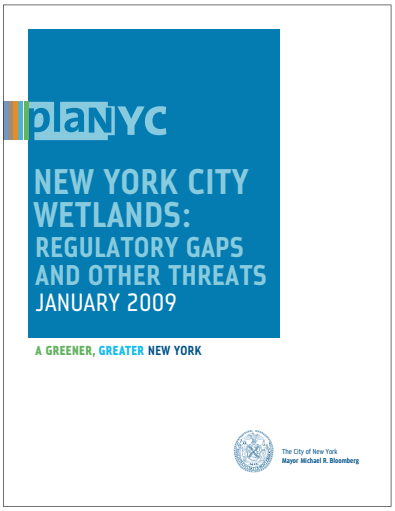
Visit **www.nyc.gov/planyc2030** for all of the plans, reports, and white papers released as part of PlaNYC during the past year.

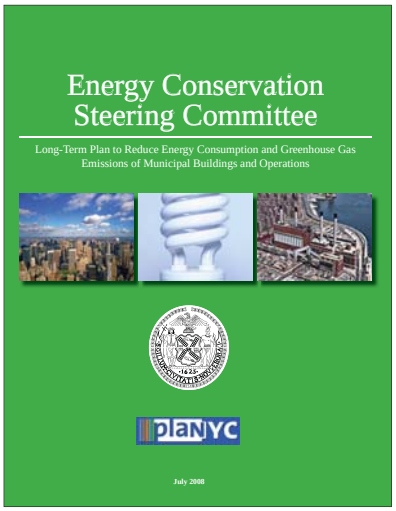


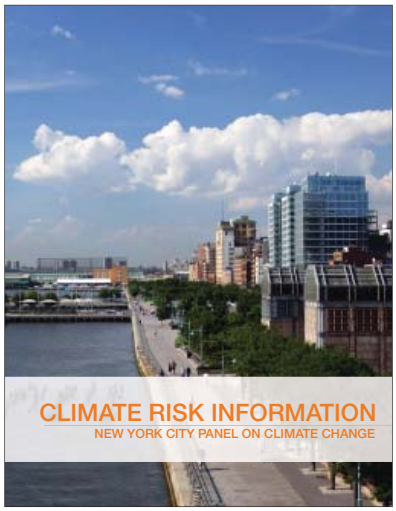


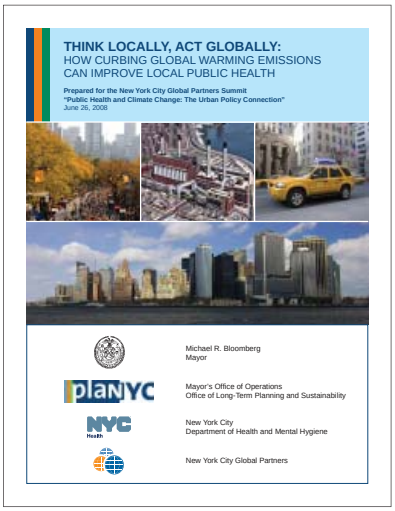












The development of PlaNYC, and the implementation of its initiatives, has been an enormous collaborative effort on the part of government agencies, civic organizations, academic experts, community groups, consultants, interns, representatives of organized labor and the private sector, elected officials,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

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