One New York
The Plan for a Strong and Just City

The City of New York
Mayor Bill de Blasio
Anthony Shorris
First Deputy Mayor
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Letter from the Mayor

Friends,

For generations, New York City has been the place where people from across the globe have come to realize their dreams. However, today, rising inequality makes it difficult for so many New Yorkers to live here and raise their families with dignity.

With the launch of One New York: The Plan for a Strong and Just City, we build on New York City’s global leadership when it comes to growth, sustainability, and resiliency—and embrace equity as central to that work.

We know the challenges facing New York City as we approach the start of our fifth century. OneNYC sets out what we need to do to make our city stronger, our people better prepared for jobs in the 21st century economy, our government more responsive, and our communities able to withstand the existential threat posed by climate change.

It is a blueprint of the New York City we want our children to inherit. The actions we take now will ensure we have a dynamic, inclusive economy, a healthier environment, more affordable housing, and more reliable and resilient infrastructure. With this work, we will be prepared for the shocks and stresses ahead, and have the ability to bounce back stronger.

OneNYC is ambitious, setting clear and aggressive goals. Our initiatives address every aspect of life in New York City—how we live, work, learn, and play, raise our children, and enjoy all our city has to offer. Achieving these goals requires nothing less than bold, innovative solutions.

We will meet the challenges we face today and in the future—as New Yorkers have always done—and inspire other cities around the world to do the same.

We are committed to building a stronger, sustainable, resilient, and equitable city—OneNYC.

Mayor Bill de Blasio
Ten years from now, New York City will enter its fifth century.

As we look ahead, we are asking critical questions about New York: what do we want our city to be in ten years, twenty years, and beyond? What kind of city do we want to pass on to our children—and to the generations to come?

This plan is our roadmap that will preserve and enhance New York City’s role as a leading global city. As with past iterations of this report, we focus on economic growth, sustainability, and resiliency. But we also seek to address issues of equity for our residents—because we must serve all New Yorkers.

The bold initiatives we launch in OneNYC will speak to these challenges and articulate the goals and long-term agenda of the de Blasio Administration. They build on previous sustainability plans, as well as on the initiatives we have announced over the past year regarding affordable housing, pre-kindergarten education, the reduction of traffic fatalities, the fight against climate change, bolstering our coastal communities, reducing greenhouse gas emissions, and economic development.

The plan lays down clear markers we will fight for, and sets out a comprehensive blueprint to prepare New York City for the future. We envision a dynamic, thriving economy, a city that is a responsible steward of the environment, and that is resilient against shocks both natural and man-made. We have made equity an explicit guiding principle—a lens through which we view all of our planning, policymaking, and governing. Equity means we ensure that every New Yorker has equal access to opportunities to reach his or her full potential and to succeed.

Our Vision for New York City

We have organized our vision for New York City’s fifth century around principles of growth, equity, sustainability, and resiliency.

Our Growing, Thriving City

New York City will continue to be the world’s most dynamic urban economy where families, businesses, and neighborhoods thrive.

To meet the needs of a growing population at a time of rising housing costs, the City will implement the nation’s most ambitious program for the creation and preservation of affordable housing. The City will support a first-class, 21st century commercial sector. It will foster job growth, and build an inclusive workforce by focusing investment in training in high-growth industries, as well as programs that provide skills to the hardest-to-employ. We will support the burgeoning innovation economy, create new high-speed wireless networks, and invest in transportation infrastructure. As a regional hub, we will work closely with our neighbors on issues including transportation, housing, and jobs.
Our Just and Equitable City

New York City will have an inclusive, equitable economy that offers well-paying jobs and opportunity for all to live with dignity and security.

With the measures in OneNYC, the City will lift 800,000 New Yorkers out of poverty or near poverty by 2025. We will do this by fighting to raise the minimum wage, and launching high-impact initiatives to support education and job growth. We will seek to reduce premature mortality by 25 percent by ensuring that all New Yorkers have access to physical and mental healthcare services and addressing hazards in our homes. We will expand Family Justice Centers to help victims of domestic violence. We will promote the citywide integration of government services, information, and community data.

Our Sustainable City

New York City will be the most sustainable big city in the world and a global leader in the fight against climate change.

We will strive to minimize our environmental footprint, reduce dangerous greenhouse gas emissions, and have the cleanest air and water. The City is building on its goal to reduce greenhouse gases by 80 percent by 2050 (80 x 50)—the largest city in the world to make that commitment—by expanding from an initial focus on buildings to including energy supply, transportation, and solid waste as part of a comprehensive action plan to reach our goal. We are committing to a goal of Zero Waste to landfills by 2030. We will keep organics out of the landfill, which will also cut greenhouse gas emissions. The City will make major investments to remediate contaminated land, and ensure that underserved New Yorkers have more access to parks.

Our Resilient City

Our neighborhoods, economy, and public services are ready to withstand and emerge stronger from the impacts of climate change and other 21st century threats.

As a resilient city, New York will be able to respond to adverse events like Hurricane Sandy, deliver basic functions and services to all residents, and emerge stronger as a community—with the goal of eliminating long-term displacement from homes and jobs after shock events by 2050. The City will upgrade private and public buildings to be more energy efficient and resilient to the impacts of climate change; adapt infrastructure like transportation, telecommunications, water, and energy to withstand severe weather events; and strengthen our coastal defenses against flooding and sea level rise. We will strengthen homes, businesses, community-based organizations, and public services to reduce the impacts of disruptive events and promote faster recovery.

New Challenges

The challenges of our fifth century will be as profound as those we’ve seen in the past. Despite widespread prosperity, living costs and income inequality in New York City are rising. Poverty and homelessness remain high. The city’s core infrastructure—our roads, subways, sewers, and bridges—is aging. Affordable housing is in short supply. Our air and water have never been cleaner, but our parks and public spaces don’t always serve the needs of all New Yorkers. And, without action, climate change is an existential threat to our future.

OneNYC is based on ideas coming from thousands of New Yorkers. We asked civic, community, and business leaders what they thought we should be doing. We heard from everyday New Yorkers—at town hall meetings and online, in polls and surveys—who told us about what works and what could be better in their lives, and what they imagine for New York’s future. We worked with over 70 City agencies and offices and many regional partners. As we implement this plan, we will continue to engage with New Yorkers. We will seek their opinions and suggestions about how to make our city better.

We will fight for New York to retain and enhance its status as a global leader—in commerce, culture, trade, innovation, sustainability, climate resiliency, and more. We will ensure that New York will always be a place where people can realize their dreams on the world’s biggest stage, as generations have done in the past, and that everyone has the opportunity to succeed.

The initiatives we announce today in OneNYC are far-reaching, but also realistic, and will prepare New York City for the challenges we face today and in the years ahead. By focusing our efforts on growth, equity, sustainability, and resiliency, we will ensure that the city’s fifth century will be our strongest yet.
Introduction and Evolution

New York City is the place where people come to realize their dreams. It's a city where people are determined to create a new and better life for themselves and their families. Sometimes gritty and in many ways grand, and always pulsing with a mix of symphonies, salsa, Broadway show tunes and street music, New York is both a global city—the preeminent center of commerce and culture—and one of small, vibrant neighborhoods.

Ten years from now, New York City will celebrate its 400th anniversary. OneNYC is the first step in creating a living and breathing plan for New York's fifth century—a vision of our city as a place where New Yorkers of today and tomorrow have the opportunity to thrive and succeed.

When PlaNYC was first released in 2007, the recession had not yet begun, nor had Sandy hit our shores. We are living in a different city today, and different times demand different approaches.

We now face multiple crises that threaten the very fabric of our city: climate change continues to threaten our future in a host of ways, while growing inequality gaps create other challenges. OneNYC lays out our approaches to dealing with income inequality along with our plans for managing climate change, all the while establishing the platform for yet another century of economic growth and vitality for this world capital.

Throughout our history, we have built a better New York City together

<table>
<thead>
<tr>
<th>Year</th>
<th>Event</th>
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<tbody>
<tr>
<td>1625</td>
<td>New Amsterdam established</td>
</tr>
<tr>
<td>1821</td>
<td>Erie Canal opened</td>
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<tr>
<td>1866</td>
<td>Metropolitan Board of Health, now DOHMH, created</td>
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<tr>
<td>1866</td>
<td>First settlement house founded</td>
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<tr>
<td>1895</td>
<td>Catskill System, including the Ashokan Reservoir and Catskill Aqueduct, completed</td>
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<tr>
<td>1903</td>
<td>First IRT subway line constructed</td>
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<tr>
<td>1915</td>
<td>NY Public Library established</td>
</tr>
<tr>
<td>1964</td>
<td>Verrazano-Narrows Bridge opened</td>
</tr>
<tr>
<td>2014</td>
<td>One World Trade Center opened</td>
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These challenges reach beyond the five boroughs.

New York City is the engine of the region's economy and its population center. It is at the center of the impact of climate change and the need for a responsible environmental policy. And inequality casts a shadow over the entire region, not just New York City itself. For all these reasons, we have the responsibility to fight for solutions to the challenges that we confront as a region.

OneNYC is the first step in bringing together government at every level, neighborhood organizations, and the private sector to tackle these crises.

OneNYC charts a course for a sustainable and resilient city for all its residents, and addresses the profound social, economic, and environmental issues that we face. Through OneNYC, we pledge to keep the promise of opportunity that has made our city such a remarkable place for so many generations.

OneNYC is what New Yorkers need now and for the next century. We recognize that we do not control all the levers and cannot alone eliminate poverty or greenhouse gas emissions. So we will engage the private sector, rally our people, and leverage our strength as a region, while committing the significant tools at our disposal, to meet our goals.

We cannot fix what is before us overnight. But we can lead the way. OneNYC is the first step.

Meeting Past Challenges

We've done this before. New Yorkers have a long and proud tradition of confronting tough issues head on, with determination and heart, and having the skills to get the job done. Through it all, we have remained a city of tolerance and diversity, one that has drawn people from around the world since our origins as a Dutch settlement. Our government has a noble history of innovating urban policies that have been adopted across the country and around the world. We created the first fire districts and a Board of Health committed to eradicating cholera and other epidemics. We devised a system of reservoirs to bring water to the city and engaged creative designers to build great public parks. We created a citywide zoning ordinance that became a worldwide model. We pioneered school meals programs, settlement houses for a booming immigrant population, and social programs that became a template for the New Deal and the Great Society.

Today, we are leading the way in curbing greenhouse gas emissions and preparing for climate change.

PlaNYC 2007-2013

In 2007, Mayor Michael R. Bloomberg released the first PlaNYC, which focused on responsibly meeting the city's growing population and infrastructure needs. Titled A Greener, Greater New York, it included the City's initial sustainability strategy, and became the model for other large global cities. PlaNYC outlined measures to address the city's aging infrastructure, support parks, improve the quality of life and health for New Yorkers, and for the first time ever, commit to a goal for reducing greenhouse gas emissions. PlaNYC 2011 expanded on these initiatives by strengthening the City's commitment to environmental stability and livable neighborhoods, launching brownfield cleanups, and improving the quality of our air and water.

In 2013, after Hurricane Sandy, the City released PlaNYC: A Stronger, More Resilient New York, which documented the lessons learned from Sandy, developed a strategy for the city to build back, and developed recommendations to adapt the city to the projected impacts of climate change, including rising sea levels and extreme weather events.

PlaNYC Progress

Since the first PlaNYC in 2007, the City has made considerable progress on reaching its goals. We have reduced greenhouse gas emissions 19 percent since 2005, invested billions of dollars to protect our water supply, planted nearly a million trees, installed 300 miles of bike lanes, and passed regulations and developed programs to phase out polluting heating oils. The City also strengthened coastal defenses, fortified crucial infrastructure such as wastewater treatment facilities, and worked to make buildings and neighborhoods more resilient.
Building on a Solid Foundation

In its first year, the de Blasio administration presented a series of long-term goals and strategies, and launched comprehensive initiatives across City agencies. These initiatives have already begun to show results. OneNYC builds upon these initiatives as a launching point for the ambitious goals set forth in this plan.
OneNYC: New Approaches

Previous PlaNYC reports have focused on the pressing issues of growth, sustainability, and resiliency. All of these goals remain at the core of OneNYC, but there are three significant differences in the approach taken with this plan.

A Focus on Inequality

With the poverty rate remaining high and income inequality continuing to grow, equity has come to the forefront as a guiding principle. In this plan, we envision a city that is growing, sustainable, resilient, and equitable—a place where everyone has a fair shot at success. The explicit addition of equity is critical, because a widening opportunity gap threatens the city's future. These four pillars together will spur the innovation we will need for the next century. We know that a drive for a sustainable environment leads to innovations that create whole new businesses, while driving out poverty leads to healthier people, and safe neighborhoods spur businesses to grow. They all grow together.

A Regional Perspective

To make the changes we need, OneNYC recognizes that we need to reach out to our neighbors so that our whole region may thrive. The strength of the city is essential for the strength of the region, and strong communities around the city make it more competitive nationally and globally.

Leading the Change We Need

While New York City has a vast and complex government, even one of its scale cannot accomplish all that needs to be done on its own. While City government will take the lead in every single aspect of OneNYC, this plan also calls for action from other levels of the public and even private sector. That means calling for some actions that are not entirely within the control of the City government, but they are all steps that are credible and necessary. We will not stop pushing for the right thing for our people because some of it is out of our control.

OneNYC is a citywide effort. Nearly all City agencies came together in cross-cutting working groups that examined underlying trends and data in order to develop new initiatives. The working groups were tasked with envisioning how the physical city should be shaped to address a range of social, economic, and environmental challenges on the municipal and regional scale. This exercise required deeper consideration of the relationship between physical and human capital, and acknowledgment that the built environment has manifest implications for not just economic growth and development, but public health and the delivery of essential services. This process helped break down agency “silos” and resulted in an ambitious set of visions, realized through supporting goals and initiatives, which crossed the traditional boundaries of City agencies and their focus areas of activity.

Vision 1

New York City will continue to be the world’s most dynamic urban economy, where families, businesses, and neighborhoods thrive

Vision 2

New York City will have an inclusive, equitable economy that offers well-paying jobs and opportunity for all New Yorkers to live with dignity and security

Vision 3

New York City will be the most sustainable big city in the world and a global leader in the fight against climate change

Vision 4

Our neighborhoods, economy, and public services will be ready to withstand and emerge stronger from the impacts of climate change and other 21st century threats
Neighborhood Spotlight
Bronx River Corridor

This plan introduces many ambitious initiatives to address the social, economic, and environmental issues facing our city today.

We’re taking the neighborhoods along the Bronx River Corridor—including the West Farms, Crotona Park East, Longwood, Soundview, and Hunts Point neighborhoods—to illustrate how OneNYC will guide future growth, sustainability, and resiliency.

These Bronx neighborhoods—vibrant, diverse, and ever-changing like the city as a whole—represent the opportunities and challenges that drive this plan in a number of ways.

Each vision includes a “Neighborhood Spotlight” section that shows how this plan will impact the Bronx River Corridor.

“We need to think about how we’re addressing high asthma rates in this area. We are seeing lots of new residential development in the neighborhood. When these new units come in, they often include parks and trees. This transition is helping to improve this neighborhood.”
—Donston E.
Walsingham Construction

“Our community has long been known as the ‘Toxic Triangle’ between the Sheridan, Bruckner and Cross Bronx Expressways. We see a direct correlation between health issues and access to open space and we’re trying to bring recreation opportunities to the area.”
—Dave S.
Youth Ministries for Peace and Justice

“I’ve lived in the Bronx since 1979 and worked at Hunts Point Market since 1988. Since then, the community has changed dramatically. Everyone feels safer. I think things are improving.”
—Rene C.
Employee at Mooser Family Brands, Hunts Point Cooperative Market

“While most Corridor residents (66%) use public transit to commute to work, 22% of them had a commute of 40 minutes or longer.”

Asthma Emergency Department Visits (Youths and Adults) by Neighborhoods, 2013

Residents experience the health effects of urban environmental conditions. Asthma hospitalization and ED visit rates are higher in the Bronx when compared to the citywide

Residents have found well-paying jobs.

While most Corridor residents (66%) use public transit to commute to work, 22% of them had a commute of 40 minutes or longer.

Public Transit Usage and Commute Times, 2012

This area lacks access to fresh and healthy food, with bodegas accounting for 77% of all retail food stores; only 4% of food establishments specialize in fresh produce.

Percentage of Residents Who Eat 5 or More Servings of Fruit/Vegetables Daily, 2013

Quartiles

4%-7%
8%-10%
11%-13%
14%-21%
no population

Bronx River Corridor ACS 2012
66% 57%
56% 46%
37% 25%
13% 12%

The Bronx

New York City

Asthma Emergency Department Visits (Youths and Adults) by Neighborhoods, 2013

Residents experience the health effects of urban environmental conditions. Asthma hospitalization and ED visit rates are higher in the Bronx when compared to the citywide.
How New Yorkers Shaped OneNYC

To find out New Yorkers’ priorities and to tap their most creative ideas, we used a variety of methods—from roundtable discussions to an online survey—during the months leading up to the launch of OneNYC. Our residents, and the communities they comprise, represent tremendous diversity of knowledge, culture, interests, skills, and economic resources. Approximately 3 million New Yorkers—37 percent of the City’s total population—were born outside the U.S., and 49 percent of all residents speak a language other than English at home. Some residents are intensely involved in their local community, while others are loosely attached to their neighborhood but still dependent on critical services.

Resident Outreach

We met face-to-face with over 1,300 New York City residents, advocacy groups and elected officials in one-on-one meetings, roundtable discussions, and town hall-style forums. We talked about issues regarding senior citizens, schools, housing, the environment, parks, and transportation.

Business Roundtable

Many of the city’s largest and most innovative employers met with us to tell us what they needed to succeed, to retain workers, to hire new ones, and to grow. We heard from them about their real estate needs, transportation for their workforce, broadband infrastructure, childcare services, as well as the importance of our cultural community.

More than 7,500 New Yorkers took the online public survey

800 New Yorkers participated in the telephone survey

1,300+ residents attended more than 40 community meetings in every borough

177 civic organizations and over 50 elected officials’ offices met about OneNYC

15 leaders from neighboring cities and counties met at City Hall to discuss the plan

Led by the Office of Sustainability, over 125 representatives from over 70 City agencies developed OneNYC

Advisory Board

The Mayor’s Sustainability Advisory Board also helped to guide our thinking. The 38-person Board represented all five boroughs and is comprised of civic leaders, policy specialists, and community leaders, representing sectors including sustainability, social services, the business community, academia, real estate, and healthcare.

Regional Coordination

Fifteen leaders, including Mayors and County Executives, from cities and counties in New York, New Jersey, and Connecticut met with the City to discuss the common challenges affecting the region, such as infrastructure, housing, jobs, and climate change.

Online Survey: nyc.gov/ideas

On March 6, 2015, OneNYC launched an online survey – nyc.gov/ideas – to ask New Yorkers for their ideas. Through the survey, over 7,500 people provided thoughtful and candid insights in seven languages. Respondents overwhelmingly mentioned the high cost of living and affordable housing as primary concerns. Comments and suggestions from the survey informed the plan.

Telephone Survey

We surveyed 800 New Yorkers to identify key issues and concerns. New Yorkers identified education, jobs, and housing as the most important issues facing the city today, and recognized diversity as the city’s top asset.

Most Important Issues According to New Yorkers

- 3% Environment
- 3% Connecting Government
- 7% Physical Infrastructure
- 7% Health
- 13% Public Safety
- 15% Jobs
- 29% Education
- 20% Housing
- 3% Don’t Know

In a telephone survey of 800 people, New Yorkers identified education, housing and jobs as the most important issues facing the city.
What We Heard from New Yorkers

Extensive pre-launch discussions with New Yorkers directly shaped the goals and initiatives detailed in this plan.

When nearly 3,500 people submitted comments to the online survey about housing and affordability, we affirmed the affordable housing commitments in Housing New York, the City’s ten-year housing plan. That plan lays out strategies to create and preserve 200,000 affordable housing units over the next ten years. OneNYC now sets a goal of creating 240,000 new housing units — both market rate and affordable — within the next decade. It also calls on governments across our region to support efforts to create new housing throughout the metro area.

Other feedback focused on providing New Yorkers with transit access from their homes to good jobs.

Through transit investments, job creation in diverse locations, and transit-accessible housing construction, this plan will ensure that by 2040, the average New Yorker will be able to reach 1.8 million jobs by transit within 45 minutes. Survey respondents requested that we reduce garbage in New York because it’s good for the environment and our neighborhoods. We’ve responded with a strategy to achieve Zero Waste by 2030.

As this goes to press, we are still evaluating great new ideas. How can we increase children’s access to affordable afterschool and summer camp programs, as recommended by Ivette S. in Queens, and many others? Could Eman R.’s (Brooklyn) proposed annual “NYC Challenge” to engage New Yorkers to resolve local issues be incorporated into the City’s BigApps Competition? Can Debbie L.C.’s (Manhattan) suggestion for a design, technology, and media innovation commission help fuel growth within those industries?

We look forward to continuing to test these and other ideas with New Yorkers beyond OneNYC’s publication.

New York City’s Greatest Assets, According to New Yorkers

In a telephone survey of 800 people, New Yorkers identified diversity as the City’s greatest asset.
New York City: Today and Tomorrow

Challenges and opportunities facing New York City as it enters its fifth century

Overview

New York City has been a hub of commerce and culture since 1625. Blessed with deep harbors and rivers running through verdant countryside, later connected by the Erie Canal to important trade routes, New York City grew into a domestic and international center of trade and commerce. Immigrants came and prospered, building new neighborhoods and a better life, far from the poverty and persecution they had fled. Industries were founded and flourished, and over time transformed, evolved, or departed. But thanks to the resourcefulness and ingenuity of New Yorkers, the city remains the global center of finance, research, industry, tourism, and culture. As New York City enters its next century a decade from now, we will leverage the great resources already available and set a path to prosperity for all.
What Works

Among the hallmarks of New York City are tolerance, pluralism, openness, caring for others, innovation, and business acumen. We are truly international: our residents come from every country, and over 180 languages are spoken by students in our public schools. We celebrate our diversity. We have shown the ability to recover from both man-made and natural disasters, including the attacks of 9/11 and the 2008 recession, and will continue to recover from Hurricane Sandy.

With jobs at an all-time high, our entrepreneurial spirit can be seen from Wall Street to storefront businesses and revitalized neighborhoods across the city. New York City is now the safest big city in the country. Our air and water are cleaner than they have been in recent memory. We welcomed a record 56.4 million tourists in 2014, and we continue to attract thousands of new people each year who want to call New York City home. We are reclaiming the waterfront, remediating brownfields, developing affordable housing and new commercial districts, providing all four-year-olds access to full-day pre-kindergarten, and creating open spaces for all to enjoy.

New York City’s cultural attractions offer something for everyone, with hundreds of museums, art galleries, performing arts companies, concert halls, Broadway theaters, zoos, and botanical gardens. Of the 60 largest U.S. cities, the Trust for Public Land ranks New York City second overall in park acreage, access, and investment in open spaces. And with more than 100 degree-granting educational institutions and over 600,000 students, the city is home to as many students as Boston’s total population.

What Could Be Better

New York City’s success has brought many benefits, but the city also faces significant challenges. Because so many people want to live here and many are doing well financially, affordable housing is scarce. A growing population—expected to reach 9 million by 2040—will test our infrastructure systems. Mass transit, roads, and other infrastructure are heavily used, but they have not been fully maintained over the years. For some New Yorkers, public transit is not easily accessible, or the system can’t get them across their own borough because it was designed to take people into Manhattan, and commute times are too long from many areas.

As commercial rents go up and neighborhoods change, existing small businesses and shops, many of which are family-owned and have been in business for a long time, struggle to stay open. Our public schools need to improve. Slow Internet speeds and gaps in accessibility hamper competitiveness and the ability of New Yorkers to be a part of all that New York has to offer. Income inequality is rising and nearly half of the city’s population now lives at or near the poverty threshold, while 1.4 million residents live in households that lack sufficient food. Too many artists and talented mid-level professionals leave for other cities that are more affordable. Homelessness is too high, and over half of renters spend more than 30 percent of their income on housing. Asthma, obesity, and diabetes rates remain high, especially among residents in low-income neighborhoods. And we could be better prepared for climate change and other 21st century threats.
Addressing Core Challenges and Opportunities

It is time to build on our strengths and address these challenges and opportunities. We are all at risk when so many New Yorkers struggle to find living-wage jobs, good schools for their children, affordable housing, and neighborhoods and communities they can proudly call their home for years to come. We run the risk of becoming two New Yorks: one for the affluent and one for those who are left out of the city’s success and lack access to good schools or good wages for hard work. What we do now to confront these challenges will define the future of New York City and what kind of city we leave to our children.

A Growing Population

New York City continues to grow at a rapid rate, in large part through immigration. With nearly 8.4 million people, the city’s population is at an all-time high, and is expected to reach 9 million by 2040. Growth is projected to be greatest outside Manhattan—with the largest increases in Brooklyn and the Bronx. This increased population will strain the city’s infrastructure and test the reliability of services. New York City’s population is also aging; by 2040, the number of New Yorkers over 65 will surpass school-age children. These changes will create new challenges in everything from the delivery of services to urban design. We must improve social and physical infrastructure to provide equitable access to services and employment for a changing population.

Throughout its history, people have flocked to New York City, drawn by its economic opportunities and ethnic networks. Foreign-born residents comprise almost 40 percent of the total population. At the same time, many young, educated Americans are also moving to New York City.

With a growing population comes the critical need for additional affordable housing for all New Yorkers. In order to accommodate projected growth and the natural loss of some housing over time, and to reduce pressure on housing prices, the City intends to create 240,000 new housing units—including market rate and affordable—in the next decade.

New York City population, 1900–2040 (projected)
An Evolving Economy

The city has an all-time high of 4.2 million wage and salary jobs, adding 113,000 private sector jobs in 2014 alone. Our economic activity, measured by Gross City Product (GCP), is $647 billion, and the city’s economic recovery since the last recession outpaced the nation’s, with an 11.5 percent increase in jobs between 2009 and 2014, compared to only 6.1 percent nationally.

Sustainable economic growth and stability depend on the continued strength of our core sectors, as well as economic diversification across both boroughs and sectors. The rate of job growth in the boroughs has been higher recently, outpacing Manhattan in the past ten years. While employment is becoming geographically diversified, it continues to remain highly concentrated in Manhattan.

The traditional core sectors of the city’s economy—finance, insurance, and real estate—remain the foundation of our economic strength. While they represent 11.7 percent of our jobs, they comprise 38.4 percent of GCP. They also provide a substantial tax base that supports investment in infrastructure and services to ensure our long-term ability to accommodate continued growth.

Jobs in sectors such as retail, food services, and home care are increasing due to growth in the overall population, tourism, and senior residents. These sectors provide opportunities for people who lack the skills to compete for high-wage jobs, and provide access to the job ladder to advance their careers. New York City has many people in this position, and these jobs are vital. One of the reasons less-skilled people stay in New York City, despite the high cost of living, is that jobs of this kind are available and generally accessible without a car. Expanding skills training and workforce development programs, as well as access to higher education, will enable low-skilled entry level workers to gain the skills needed to move into higher paying jobs.

While New York City is home to 52 Fortune 500 companies, small businesses with fewer than 100 employees are a critical part of the city’s economy. These businesses account for more than half of New York’s private sector employment. Small business owners in New York often face regulatory hurdles to starting and growing their businesses, while the high cost of living makes it difficult to attract and retain talented young people.
Growing Inequality

Despite its overall prosperity, New York City continues to struggle with high rates of poverty and growing income inequality. The crumbling of the middle class is not just a local problem; it is one that requires a national solution, and is a crisis of our time. Over the past decade, income inequality has increased in the city, surpassing the national average—and in recent years, it has continued to rise.

During the 2008 recession, workers experienced flat or declining wages, except for those in select high-wage sectors. The city has experienced an impressive recovery, gaining 422,000 private jobs between 2009 and 2014. While job growth has occurred across a range of sectors, it has been particularly strong in lower-paying sectors, such as accommodation, food service and retail trade. Since 2014, more workers have started to see wage gains due to declining unemployment and increasing demand for labor. Nonetheless, these gains have not fully offset the wage stagnation that occurred during the recession. As a result, low-income New Yorkers continue to struggle with the city’s high costs of living. Without training to support career development, these individuals and their families are likely to remain in poverty. Recognizing that high-, mid-, and low-skill jobs are all part of a diverse, healthy economy, the City is committed to supporting job-quality across all sectors—higher wages for low-wage jobs and expanded opportunities for skills training.

These employment and wage trends are occurring against a backdrop of other significant economic challenges. Nearly half of the city’s population still lives in or near poverty, including a disproportionate number of African-American, Latino, and Asian New Yorkers. The city’s already-high cost of living is still increasing. The supply of housing has not kept pace with the increase in population, leading to a severe lack of affordable housing, especially for those who are least well off. Homelessness is at a record high.

As it continues to grow, the City must invest strategically to create new economic opportunities for the most vulnerable and lowest-income New Yorkers. We must provide increased support to the economic sectors that drive middle-income job growth. The city’s rapid employment growth offers a real opportunity to improve the incomes of low-wage workers. To ensure that this happens, we must do all we can to continue to raise the minimum wage. We must also work with employers and labor unions to improve employee training, provide a path for advancement, and emphasize employee retention.
Infrastructure Needs

While New York City is a 21st century global city, its aging infrastructure is straining to meet the demands of a modern and dynamic urban center. Infrastructure connects people, neighborhoods, and businesses, and provides essential services—the water we drink, the gas we need to cook, the electricity that lights homes and businesses, and the Internet access to communicate and learn.

Despite a mountain of evidence emphasizing the link between modern infrastructure and economic growth, public investment across the region has not kept pace with capital investment needs. New York City’s transit system is in need of improvement and expansion to provide the best possible service to New Yorkers. Our subway system, the nation’s largest, had a record 1.7 billion total riders total in 2013 and is near or at full capacity. Every day, New Yorkers crowd onto subways and buses, with an average commute time of 47 minutes—the highest of any major American city. Investing directly in transit systems, including expanded Select Bus Service routes and a citywide ferry system, as well as coordination with regional entities, is key to supporting continued growth and will support competitiveness. Significant expansion of our existing rail transit system is extremely expensive and federal resources are dwindling. Yet without investments to maintain a state of good repair, aging infrastructure incurs higher costs down the road and imperils our long-term prosperity.

Many of the city’s gas, steam, sewer, and water lines are not only aging, but are made of materials not in use today, and prone to leaks and breaks. Much of the city’s underground infrastructure is not mapped, making it hard to pinpoint issues to make efficient repairs or improvements. Our highways and bridges are also old and at risk. The Brooklyn Bridge, for instance, opened in 1883.

The Internet is rapidly becoming as central to our daily lives as electricity, gas, and water. However, currently 22 percent of New York City households lack broadband Internet at home. Affordability of Internet services is cited as the main barrier to broadband adoption in New York City. Increased affordability and public availability of broadband service will help to close the adoption gap and increase access to online tools that support individuals, families, and businesses.

Identifying adequate funding resources to maintain and upgrade critically aging infrastructure and ensure a consistent state of good repair across the city is a major challenge.

Urban Environmental Conditions and Climate Change

In recent years, New York has made substantial headway in protecting the environment through improved air quality and reduced greenhouse gas emissions, which have decreased by 19 percent since 2005. We have reduced energy use in buildings and switched to less carbon intensive electricity generation. New York City’s air quality is the cleanest it has been in over fifty years, and among U.S. cities, it has moved from having the 7th to the 4th cleanest air over the past several years.

More than 100 brownfields encompassing over one million square feet have been cleaned up and redeveloped. The 23 sites completed this year alone will generate more than 420 new jobs, 550 units of affordable housing, and $162 million in new tax revenue. Green infrastructure initiatives such as bioswales help to mitigate stormwater flooding and prevent the discharge of pollutants into the city’s waterways.

At the same time, longstanding environmental conditions continue to have chronic impacts on the health and livelihoods of New Yorkers, with four out of every 1,000 children aged 5-17 years hospitalized for asthma in 2012. As the city’s population continues to grow, additional strain will be placed on the environment from basic infrastructure needs, including a projected 14 percent increase in heating fuel demand by 2030 and a 44 percent increase in energy consumption by 2030. The city generates about 25,000 tons of residential, business, and institutional garbage every day, but only about 15.4 percent of waste collected by City workers is diverted for recycling.
Climate Change

The city also faces increasing risks from the impacts of global climate change. While we have made significant strides in reducing our contributions to climate change, we still expect to face local impacts that could threaten the city. In partnership with the New York City Panel on Climate Change (NPCC), the City has continued its work to understand these risks and make sure that the best available science continues to inform the city’s climate policy.

Earlier this year, the NPCC released Building the Knowledge Base for Climate Resiliency, which included updated projections for the region. Among them, we can expect to see, by the 2050s, increased average temperatures (4.1 to 5.7°F), increased average precipitation (4 to 11 percent), and rising sea levels (11 to 21 inches). The average number of days per year above 90°F is expected to at least double. Due to sea level rise alone, coastal flood events will increase in both frequency and intensity. The number of the most intense hurricanes across the North Atlantic Basin is also expected to increase.

Each of these changes will increase the exposure of the city’s neighborhoods, businesses, and infrastructure. Health impacts on New Yorkers will continue to increase. Fortunately, the City continues to reduce these risks. We are reducing our greenhouse gas emissions and adapting our neighborhoods, with critical investments now underway on our coastline, in our buildings, and for our infrastructure. Much more remains to be done, and the City is committed to leading the globe in this fight, to the benefit of future generations.

NPCC mid-range projections on climate change

<table>
<thead>
<tr>
<th>Chronic Hazards</th>
<th>Baseline (1971-2000)</th>
<th>2050s</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average Temperature</td>
<td>54°F</td>
<td>+4.1 to 5.7°F</td>
</tr>
<tr>
<td>Precipitation</td>
<td>50.1 in.</td>
<td>+4 to 11%</td>
</tr>
<tr>
<td>Sea Level Rise</td>
<td>0</td>
<td>+11 to 21 in.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Extreme Events</th>
<th>Baseline (1971-2000)</th>
<th>2050s</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of days per year with maximum temperature at or above 90°F</td>
<td>18</td>
<td>39 to 52</td>
</tr>
<tr>
<td>Future annual frequency of today’s 100-year flood at the battery</td>
<td>1%</td>
<td>1.6 to 2.4%</td>
</tr>
</tbody>
</table>

New York City Voices

New York City works best when New Yorkers are involved with their city and have a say in their government, and when government listens to their voices to make better decisions. We need to create new processes for communication and dialogue. The result will be more informed policymaking and better-designed programs, and New Yorkers with the tools and resources to help shape the future of their city. Engaged New Yorkers are empowered residents who interact with their government, and can effectively help set priorities and shape policy.

There are a number of fundamental challenges to increasing civic engagement and democratic participation. More than one-third of the lowest-income New Yorkers, for example, lack broadband Internet access, which hinders their communications and access to City services. Only 18 percent of New Yorkers do volunteer work, below the national average of 25 percent, and 49 percent are dissatisfied with the level of cultural services in their neighborhood. Only 66 percent of eligible New York City voters are registered, and the voter turnout rate was 21 percent in the 2014 election.

Decisions about City policies and initiatives should be informed by broad public engagement with a wide range of stakeholders, including residents whose voices are not heard because of barriers such as language and time. Recognizing the importance of this dialogue in shaping policy, OneNYC sought and continues to seek input from a broad range of residents.
 Importance of the Region

New York City’s future is intertwined with its metropolitan region. The city’s economy drives the region’s prosperity, while benefiting from the region’s transportation, skilled workforce, cultural resources, and extensive infrastructure. Our suburbs and our city face many of the same issues, including increased income disparity, the need for affordable housing to keep pace with our growth, and a shared harbor. Between 1990 and 2010, the region grew by 10.9 percent, with the greatest percentage changes in population in Northern New Jersey (14.3 percent). At the same time, New York City’s job growth constituted 80 percent of the region’s growth since 2000.

Every year, residents in the region take more than four billion trips, or 184 per person, on buses, subways, commuter railroads, and ferries. No other U.S. metropolitan area comes close. Regional travel is not only about coming into Manhattan. Between 2000 and 2010, the number of reverse commuters increased by 12.5 percent, compared to 9.5 percent arriving at our city’s regional transportation hubs. The ability to access a broad range of employment opportunities and workers within the region enhances the city’s competitiveness as a place to live and to locate businesses.

However, we are not keeping pace with this growth in regional travel, and must coordinate with our regional partners to advocate for the critical transportation connections across the Hudson in New Jersey, as well as with Long Island, Connecticut, and beyond. The fragmenting effects of a multitude of jurisdictions have hindered regional planning in our broader region, including in

Transit ridership, 1972-2012

Despite comprising only 4 percent of the physical area, New York City is a powerful economic engine for the entire metropolitan region, transportation, energy, telecommunications, and a number of other crucial areas. The siloed delivery of infrastructure and services does not produce optimal outcomes. New York City must be a leader in working with regional governments. This will ensure regional cooperation and coordination and that funds are wisely invested.

A powerful illustration of this shared responsibility is that over $266 billion will be spent in the region over the next ten years by the City as well as regional agencies, such as the Metropolitan Transportation Authority (MTA) and Port Authority of New York and New Jersey (PANYNJ), and private utilities. The City’s preliminary ten-year capital budget makes up nearly 25 percent of this anticipated spending. This spending has a direct impact on New York City’s capacity to thrive and meet its goals for equity, sustainability, and resiliency. Looking ahead to the next ten years and beyond, the City is committed to taking a leadership role in directing these investments and incorporating them into our own strategic process, so that regional spending can be leveraged for the city’s maximum benefit.

Anticipated capital spending by City of New York and regional agencies, ten-year estimate*

<table>
<thead>
<tr>
<th>Category</th>
<th>Spending (billion)</th>
</tr>
</thead>
<tbody>
<tr>
<td>City Services</td>
<td>6.657</td>
</tr>
<tr>
<td>Economic Development</td>
<td>8.072</td>
</tr>
<tr>
<td>Education</td>
<td>35.480</td>
</tr>
<tr>
<td>Telecommunications</td>
<td>7.096</td>
</tr>
<tr>
<td>Recovery and Resilience</td>
<td>28.358</td>
</tr>
<tr>
<td>Subways</td>
<td>11.273</td>
</tr>
<tr>
<td>Bridges and Tunnels</td>
<td>15.168</td>
</tr>
<tr>
<td>Highways</td>
<td>9.203</td>
</tr>
</tbody>
</table>

*Since regional agencies and private utilities have varied capital budget years and timeframes, this analysis consists of a “rough justice” extrapolation where shorter-term capital budgets were extrapolated to a ten-year timeframe by assuming they would match projected annual spending in the future, escalated by inflation. For instance, the City assumes the MTA’s proposed 2015-2019 budget of $32 billion will be funded and subsequently repeated from 2020-2024, escalating to $37 billion based on inflation adjustment. The analysis is intended to be illustrative of the magnitude and one future capital expenditures based on reasonable assumptions.
Many agencies and entities are responsible for the capital spending that maintains and improves the infrastructure that makes New York City the thriving center of the region. City agencies with significant capital budgets include the Department of Transportation, the Department of Environmental Protection, the School Construction Authority, and the City University of New York, among others. Regional entities such as the Port Authority of New York and New Jersey, the Metropolitan Transportation Authority, and New Jersey Transit support mass transit, roads, bridges and tunnels, and airports and freight resources; private utilities such as Verizon, Con Edison, and National Grid.

The map illustrates the broad range of major planned City and regional capital projects, as reflected in the agencies’ projected capital spending that maintains and improves the infrastructure that makes New York City the thriving center of the region. Many agencies and entities are responsible for the capital spending that maintains and improves the infrastructure that makes New York City the thriving center of the region.

This map illustrates the broad range of major planned City and regional capital projects, as reflected in the agencies’ projected capital plans in the next ten years. These reported amounts may not reflect full project costs—some have begun construction before this time period, or may extend beyond ten years to complete.

**Category**
- **Airports and Freight**
- **Bridges and Tunnels**
- **Roads and Highways**
- **Energy and Water**
- **Recovery and Resiliency**
- **Education**
- **Economic Development**
- **City Facilities**

**Key**
- Project Name
- Lead Agency

**Lead Agency**
- PANYNJ
- MTA
- DOT
- DEP
- NYCEDC
- ORR, EDC
- ORR, DPR
- USACE
- NYCHA
- NYSDOT
- CUNY
- NYCHA
- NYS
- Amtrak
- NYCHA
Global Trends

More than half of the world’s population now lives in cities, and the percentage continues to rise. By 2050, 66 percent of the world’s population is projected to be urban dwellers, dramatically reversing the global urban-rural population distribution of 1950. Cities must take the lead in solving the key challenges of our time. Growing populations and economies have the potential to open new markets for New York businesses, though there may also be greater competition from low-wage nations.

Growth worldwide makes it increasingly important to address air and water quality, food systems, and our natural resources. Global growth is also tied to rising greenhouse gas emissions, climate change, and its associated sea level rise and global temperature changes.

Connectivity worldwide fosters interaction and collaboration between distant populations on a scale never seen before. Yet a world with increased technological, physical, economic, and telecommunications connections also makes us more vulnerable to global shocks. These include the risk of terrorism (cyber or physical) as well as vulnerability to epidemics and economic upheavals taking place in other parts of the world.

While New York City has little control over these global trends, we can anticipate them and act now to ensure that we are better prepared and more resilient to their potential threats. In 2015, the world’s governments are set to establish the United Nations Sustainable Development Goals for 2015-2030, focusing not only on ending extreme poverty and hunger, but also adding the challenges of ensuring more equitable economic growth and environmental sustainability. OneNYC follows the same path, recognizing the critical link between sustainable and inclusive growth moving forward, not only for our city, but for the world.
A Growing, Thriving City
The tech ecosystem is among the fastest growing and highest paying sectors in New York City, representing 290,000 jobs and $30 billion in wages annually. Supporting this sector is a critical part of the Administration’s approach to tackling inequality, expanding our economy, and creating good jobs for all New Yorkers. The key to doing this is ensuring employers have the workers they need to innovate and grow. We will advance our competitiveness as the city of choice for tech firms, and we will prepare New Yorkers for 21st century jobs.

- Support expanded access to affordable, reliable, high-speed broadband for businesses across New York City
- Enable access to flexible, affordable commercial space for technology companies and the broader innovation economy, ensuring that the city’s emerging sectors have the physical space to start and scale
- Support the creation of an advanced manufacturing network which would include research and development facilities, workspace for start-ups, fabrication labs, workforce programs, and community engagement opportunities
- Significantly expand access to computer science/technology education across New York City public schools by 2020
- Support workforce training programs such as the Tech Talent Pipeline—an industry partnership designed to deliver quality jobs for New Yorkers and quality talent for New York City’s tech businesses

A Just and Equitable City
As the world becomes more digital and technology-dependent, there is a growing gap between technology haves and have-nots. The City must narrow this digital divide and ensure all New Yorkers can participate fully. We will improve access and support innovation.

- Continue to evolve 311’s digital capabilities, more easily connecting residents to services and information
- Ensure roll-out of LinkNYC, offering free wireless locations throughout every New York City neighborhood
- Invest in innovative ways to provide high-speed Internet to homes, business, and the public
- Expand the City’s internal data integration
- Optimize nyc.gov web content for mobile devices
- Review every step of the City’s procurement process for opportunities to reduce delivery time, reduce costs, and make it easier for small businesses to help solve complex urban policy challenges

A Sustainable City
Technology can help people and institutions operate more efficiently and reduce energy needs and emissions. It will help us stake our claim as both the most sustainable big city in the world and a leader in the global fight against climate change.

- Implement an Information & Communication Technology-based civic engagement campaign using real-time open data tools to encourage voluntary changes in household energy consumption
- Launch a series of mobile applications that will empower and engage residents to support brownfield cleanup efforts
- Install modern lighting and sensors, which will help cut down lighting in empty buildings at night. This will help our city make a serious dent in our greenhouse gas emissions

A Resilient City
Digital tools can help solve some of the City’s most urgent resiliency challenges, bolster neighborhood resiliency and social cohesion, and improve our ability to withstand disruptive events.

- Leverage digital strategies to develop a comprehensive and interactive platform to map and aggregate the activities of community-based organizations and government agencies in local communities across New York City
- Through the Neighborhoods.nyc initiative, provide a baseline set of digital tools that connect residents to government services and each other, and leverage open-data for information about neighborhood-specific events

Effective Government
The technology sector has been a leading innovator in service delivery. Government can apply those principles to improve service delivery and increase civic engagement.

- Encourage adoption of the tech sector’s service design principles, such as human-centered design, to guide the development of City policies and service delivery practices
- Adopt two-way digital communication, which must play a major role in all aspects of civic engagement, from government-owned online properties like nyc.gov to strategic use of non-government platforms and products

Digital technology and the exponential growth of data are transforming every aspect of the economy, communications, politics, and individual and family life. The implications are profound for every sector of society—including government. The City must respond to these changes and use new digital tools to improve services and create more opportunities for all New Yorkers.

This plan acknowledges the importance of technology and data to each of our visions and points to new ways the City will engage with residents, develop our policies, and manage our work.
Our Growing, Thriving City

New York City will continue to be the world’s most dynamic urban economy, where families, businesses, and neighborhoods thrive

New York City will...

✔ Be home to 9 million people by 2040
✔ Increase median household income
✔ Continue to outperform the national economy
✔ Spur more than 4.9 million jobs by 2040
✔ Ensure the average New Yorker can reach 1.8 million jobs by transit within 45 minutes by 2040, a 25 percent increase from today
✔ Ensure 90 percent of New Yorkers can reach at least 200,000 jobs by transit within 45 minutes by 2040
✔ Create and preserve 200,000 affordable housing units and support creation of 180,000 additional new housing units by 2024
✔ Support creation of at least 250,000 to 300,000 additional housing units by 2040

Goals

Industry Expansion & Cultivation
New York City will have the space and assets to be a global economic leader and grow quality jobs across a diverse range of sectors

Workforce Development
New York City will have a workforce equipped with the skills needed to participate in the 21st century economy

Housing
New Yorkers will have access to affordable, high-quality housing coupled with robust infrastructure and neighborhood services

Thriving Neighborhoods
New York City’s neighborhoods will continue to thrive and be well-served

Culture
All New Yorkers will have easy access to cultural resources and activities

Transportation
New York City’s transportation network will be reliable, safe, sustainable, and accessible, meeting the needs of all New Yorkers and supporting the city’s growing economy

Infrastructure Planning & Management
New York City’s infrastructure and built environment will exemplify global economic, environmental, and social leadership

Broadband
Every resident and business will have access to affordable, reliable, high-speed broadband service everywhere by 2028
Introduction

Today, New York City is a global leader with an increasing number of jobs and growing economic activity that supports families, businesses, and neighborhoods. As detailed in New York City Today and Tomorrow, our population and economy are growing, with 8.4 million residents who speak an estimated 200 languages, and a record 4.2 million salary and wage jobs. Within the past year, we have had the highest twelve months of job growth in over two decades. We see evidence of our economic strength in the expansion of firms new to New York, such as Google, Makerbot, and Etsy, and we remain home to more Fortune 500 companies than any other city in the world. Visitors continue to flock to New York City and support a vibrant economy, with a record 56 million tourists in 2014.

Our economy also faces challenges. Growing income inequality, obstacles to job mobility, a crisis of housing affordability, and aging infrastructure could all hamper long-term growth. More than half of New Yorkers are rent-burdened, which means that they spend more than 30 percent of their income on rent. And 21.5 percent live below the poverty line—as defined by the New York City Center for Economic Opportunity. In today’s evolving economy, we must compete with global and local peers to attract and retain talent by providing diverse opportunities for employment; training for individuals to prepare them to enter the workforce; enhancing our rich cultural life and recreation opportunities; and investing in infrastructure systems that support the city across all boroughs.

OneNYC is a plan to address these challenges head-on and foster long-term, inclusive, and sustainable economic growth that benefits all New Yorkers. Our city’s economic success requires that we create access to opportunity, foster innovation, and train, retain, and attract talent. We have already started this important work. The City has enacted Paid Sick Leave so more New Yorkers can care for themselves or a family member without incurring financial burdens; increased and significantly expanded the living wage to support our residents in making ends meet; released Career Pathways, a plan to streamline and expand workforce development programs; and launched Housing New York, a vision to provide affordable housing to more New Yorkers.

We will build a stronger, more just New York by:

- Maintaining New York City as the global capital for innovation. We will support our core industries and nurture the innovation economy by investing in new, specialized space for creative firms; increasing capacity for Class A office space in central business districts (CBDs); expanding state-of-the-art infrastructure; and recruiting and building a strong talent base.

- Making it easier for businesses to start, grow, and thrive in New York. Small businesses represent 98 percent of all firms in New York City and provide a pathway to economic mobility for New Yorkers from all walks of life. To help these business thrive, we will simplify and reduce the regulatory landscape through the Small Business First initiative.

- Unlocking our human capital potential by providing access to skills development and the opportunity for all New Yorkers to ensure that our businesses have the workforce they need—not just today, but in the future. We will build on the strategies laid out in Career Pathways for refocusing the City’s workforce development initiatives. Small Business First initiative.

- Positions New York City as a leader in achieving triple bottom line results through investments in infrastructure and City-owned assets. We will begin to implement this strategy in our capital planning process, evaluating major investments on the basis of their economic, social, and environmental impacts. This process will not only support job growth, but also advance our agenda for a more sustainable, equitable, and productive economy.

Five key pillars drive the City’s economic development strategy:

- **Maintain New York City as the global capital for innovation.**
- **Make it easier for businesses to start, grow, and thrive in New York City.**
- **Unlock the full potential of our human capital by providing access to skills development to prepare our workforce for jobs today and in the future.**
- **Invest in infrastructure to connect our neighborhoods to jobs and our city to the world.**

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"Build more housing and make sure there is an affordable rental component throughout. Build it near [public] transit where possible and as green as [is] economically feasible. Invest, where possible, in additional local and regional [public] transit to create more areas where housing can be linked to jobs."

—Mark S., Brooklyn
Long Island City, Queens

Today, the average resident of Long Island City can reach 2.3 million jobs within 45 minutes by transit. The City, working with the MTA, will propose transit improvements, housing, and employment centers to leverage transit connectivity.

Flatlands, Brooklyn

The average resident of Flatlands can only access 70,000 jobs within 45 minutes by transit. The City, working with the MTA, will propose improvements to transit service to better connect residents to employment centers in Downtown Brooklyn, Lower Manhattan, and elsewhere.

Transit Access to Jobs

Mass transit is a vital part of most New Yorkers’ everyday lives. New Yorkers rely on public transportation more than residents of any other U.S. city. Six percent of our trips to work are via public transit, while in the top ten largest U.S. cities average only 13 percent. This reality fuels inclusive economic growth, supports healthy activity, and avoids many harmful environmental impacts. While New Yorkers have a longer average commute time than residents of other large cities, the average New Yorker can reach over 1.4 million jobs, or nearly 40 percent of payroll jobs, using public transit in 45 minutes.

While average access to jobs by public transit is high, differences among neighborhoods are significant, as illustrated in the maps at left. As the city grows, higher housing prices can push low-income New Yorkers to neighborhoods far from job centers, which only worsens these differences. More than half of the city’s neighborhoods with lower-than-average household income—representing 2.3 million residents—have a lower-than-average number of jobs accessible by transit.

Improving public transit access to jobs is one of the key approaches to growth and greater equality featured in this plan. The City will target a 25 percent increase in transit access to jobs for all New Yorkers, and will focus on neighborhoods where jobs access is particularly low by ensuring 90 percent of New Yorkers can access at least 200,000 jobs within 45 minutes. Residents of neighborhoods such as Far Rockaway in Queens and Co-Op City in the Bronx cannot reach 200,000 jobs within 45 minutes. New public transit and growing jobs in the outer boroughs will help close this gap.

This plan features initiatives to improve jobs access for New Yorkers by:

- Supporting growth of jobs closer to housing through investments in current and future job centers throughout the boroughs, from the Brooklyn-Queens Waterfront to Hunts Point
- Preparing New Yorkers to access more jobs in our economy and advance their careers through workforce development opportunities across the five boroughs
- Creating and preserving housing close to jobs and transit through the implementation of Housing New York
- Improving transit connectivity by expanding the City’s Select Bus Service (SBS) network, creating a city-wide ferry network, and supporting other system-wide investments

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Neighborhood Spotlight

In the Bronx River Corridor, new transit, affordable housing, and local jobs will support thriving families, businesses, and neighborhoods.

Metro-North Penn Station Access

Four new stations along the Metro-North New Haven Line will create direct connections to Penn Station from this area.

New Affordable Housing

Building on a prior phase of affordable housing development in the West Farms neighborhood, future plans will provide up to 1,031 additional new units of affordable housing.

Hunts Point Food Distribution Center

Investments in facilities modernization and resiliency will ensure this major hub of economic activity and jobs remains competitive now and into the future.

Sheridan Expressway

Redevelopment

Planning for a new boulevard, crossings, and off ramps would improve pedestrian safety, waterfront access, and provide a direct highway connection to Hunts Point.
Industry Expansion & Cultivation

Goal: New York City will have the space and assets to be a global economic leader and grow quality jobs across a diverse range of sectors

Overview

New York City has seen very strong economic growth over the past five years. We have gained 422,000 jobs and demonstrated an employment growth rate of 11.5 percent—compared to 6.1 percent across the U.S., with 113,000 private sector jobs added in 2014 alone. Yet, there is an opportunity to catalyze future growth through a more diversified economy with increased employment across a broader set of industries.

New York City has benefited from, and will continue to grow, sectors in which it is a global leader, such as finance, insurance, and real estate (FIRE). Diversification will add to this growth and reduce economic risk for the city as a whole. For example, finance and insurance account for 30 percent of the city’s total payroll and 27 percent of the base, but only 9 percent of employment. There are increasing signs that this diversification is already occurring. While lower-skill jobs in food services, retail, and accommodation have increased, so too have high-wage, high-growth sectors driven by the tech ecosystem, which now accounts for over 291,000 jobs and $30 billion in wages annually. Furthermore, advances in technology will continue to drive job growth in the high-skilled innovation industries.

Private jobs in innovation industries grew 15.8 percent from 2009 to 2013. Many of these jobs provide quality wages and have spurred growth outside the core Manhattan office markets. Moreover, some innovation industry firms have helped increase opportunities in traditional industries, such as manufacturing, which are leveraging new technologies to transform their businesses and create quality jobs. Although New York City is already a major hub for innovation industries, such as advertising, media, and technology, we have the opportunity to catalyze growth in others, such as the life sciences and advanced manufacturing sectors. To achieve this we must deliver a talented workforce, maintain a strong infrastructure, and ensure space and access for the specialized facilities these companies require.

To grow a diversified economy that offers quality jobs to all New Yorkers, the City must unlock the potential for businesses—in traditional industries, the innovation economy, and small businesses—to grow and innovate.

Initiative 1

Maintain New York as the global capital for innovation by supporting high-growth and high-value industries

A growing population, coupled with changes in the way we live and work, requires both the expansion of commercial space as well as the development of new models for the commercial business districts (CBDs) of the future. Today’s high-growth industries are knowledge-economy industries that invest heavily in research and development (R&D) and intellectual capital, thereby benefiting from opportunities to cluster and share information. To prepare for future economic growth, the City can support the activation of space within existing clusters (such as media and finance) as well as future innovation clusters, which will be dynamic, mixed-use urban business districts that benefit from sharing knowledge and resources, across the five boroughs.

This report defines innovation industries as those that:

• Derive their primary value from intellectual capital and creativity, and thereby place a strong premium on talent
• Invest heavily in R&D of new business models, harness new technologies, or leverage old technologies in new ways
• Disrupt the status quo to create new markets, often by collaborating across disciplines or with public or academic partners

These industries include:

- Advanced Manufacturing (including Clean Tech)
- Design
- Advertising, Media, and Arts
- E-Commerce
- Biotech/Life Sciences
- Tech and Information
Supporting Initiatives

A. Maintain and grow New York City’s traditional economic sectors

New York City’s traditional sectors are key engines of economic growth, job creation, tax revenue, and foreign investment. These sectors, which include finance, entertainment, fashion, and higher education, face a number of challenges as they seek to expand or maintain their footprints within their existing geographic areas. To ease these challenges, the City will examine strategies to support office development in central business districts (CBDs) throughout New York City, including both traditional and growing CBDs. Strategies for preserving and growing these commercial districts include zoning mechanisms for supporting new development and activating existing commercial corridors.

For example, the entertainment industry in New York is critical to maintaining our economic competitiveness and ability to attract residents, tourists, and businesses. It is also a key source of direct economic activity and jobs, and is one of the city’s strongest and most unique traditional sectors. Broadway ticket sales alone were $1.4 billion in 2014. During the 2012-2013 season, the Broadway industry contributed $11.9 billion to the city’s economy and supported 70,000 jobs. Film and television production in the city are also at an all-time high, currently generating a direct annual spend of $7.1 billion, $400 million in tax revenue, and 130,000 jobs. With this activity, the need for commercial spaces for these industries is also at an all-time high. The City will leverage its assets and strategic partnerships to activate the types of spaces required to maintain and grow the entertainment industry.

New York City’s fashion industry employs more than 183,000 people, accounting for 5.5 percent of the city’s workforce and generating $11 billion in total wages, with tax revenues of $1.35 billion. An estimated 900 fashion companies are firms with a presence. New York City is home to more than 75 major-fashion trade shows, plus thousands of showrooms. We can help maintain the city’s status as a fashion-industry leader by supporting the sector and fostering new businesses across the spectrum from design to manufacturing.

B. Ensure that businesses in emerging sectors are able to find and fit out the space they need to start, grow, and scale their companies

In addition to support for traditional sectors, the City is studying ways to respond to changing patterns in the way we live and work. For instance, a hallmark of the innovation economy is the number of self-employed and freelance workers, with nearly 834,000 freelancers in 2012. These jobs require workspace, which can be found through high-cost co-working facilities or by working at home. Approximately 52,000 individuals or 21 percent of self-employed workers in New York City worked from home in 2013. With a focus on alleviating barriers to entrepreneurship and business-to-business or business-to-customer interaction, we are completing a study to identify new real estate development concepts that allow for live-work arrangements such as live-work apartments, live-work buildings, or live-work districts.

The mechanisms for increasing availability of affordable, flexible commercial space might include providing a loan guarantee for upgrades to underutilized or underinvested commercial and/or industrial loft space; strategically activating City-owned property for targeted commercial uses; designing new zoning approaches; creating financing vehicles for development; and considering ways to complement existing incentives.

Initiative 2

Make triple bottom line investments in infrastructure and City-owned assets to capture economic, environmental, and social returns

The City will identify opportunities to maximize economic, environmental, and social returns (the triple bottom line) in capital planning and investments in City-owned assets. The initiatives below detail the City’s intent to invest in City-owned assets, while initiatives related to infrastructure planning are detailed in the Infrastructure Planning and Management goal.
**Industry Expansion & Cultivation**

**East Midtown**

East Midtown has long been the global capital of commerce, but the quality and capacity of its office space does not meet the demands of modern tenants. Modern tenants seek new buildings with open floor plans and high floor-to-ceiling heights, but the average age of buildings in the East Midtown area is over 75 years.

In May 2014, the City announced a two-track approach to protecting and strengthening East Midtown’s role as the world’s premiere business district. The first step was a focused proposal for the Vanderbilt Corridor between 42nd and 47th Streets. In exchange for permitting additional square feet for development, the City would provide an option for developers to make specific improvements in the area’s transit-oriented pedestrian circulation and public realm.

This proposal has since been approved by the City Planning Commission and is currently before the City Council. The first building seeking approval pursuant to this approach is One Vanderbilt. The developer will provide more than $200 million in public space and transit improvements for the Grand Central Terminal subway station in return for increased development rights. The second stage for a broader proposal for the entire East Midtown district is being examined through a longer-term, stakeholder-driven process. A task force led by Manhattan Borough President Gale Brewer and Council Member Dan Garodnick will provide recommendations to the Department of City Planning later this year.

**Applied Sciences**

Applied Sciences New York City is the ambitious initiative to build and expand world-class applied sciences and engineering campuses in New York City. The campuses will more than double the number of full-time applied science graduate students and faculty members and create a projected 48,000 jobs over the next 30 years. In addition, the campuses will not only create jobs and enrich the City’s existing research capabilities, but also lead to innovative ideas that can be commercialized, catalyzing the establishment of an anticipated 1,000+ spin-off companies over the next thirty years. This increases the probability that the next high-growth company—a Google, Amazon, or Facebook—will emerge right here in Silicon Alley.

**Laboratory Space for Early State Life Sciences and Research and Development Companies**

With $1.4 billion in annual National Institutes of Health funding across nine academic medical centers, New York City is positioned to play a transformative role in early-stage life sciences R&D. In fact, there has been a 15 percent total increase in life sciences jobs since 2009, bringing the total to more than 13,000 jobs and one million square feet of life sciences R&D laboratory space. However, this is significantly less than the 50,000 jobs and 10 million square feet in life science hubs such as Boston and Cambridge, Massachusetts. To achieve a critical mass of life sciences activity and to support roughly 10,000 new commercial life sciences R&D. In fact, there has been a 15 percent total increase in life sciences jobs since 2009, bringing the total to more than 13,000 jobs and one million square feet of life sciences R&D laboratory space. However, this is significantly less than the 50,000 jobs and 10 million square feet in life science hubs such as Boston and Cambridge, Massachusetts. To achieve a critical mass of life sciences activity and to support roughly 10,000 new commercial life science jobs, we need an additional four to five million square feet of laboratory space. We will maximize the potential of City-owned assets to catalyze the development of critically needed wet-lab space in proximity to key anchor institutions and hubs for the sector. Additionally, the City will consider zoning and other non-capital intensive measures to spur the development of this type of space.

**Supporting an Advanced Manufacturing Network**

New York City is well-positioned to become a center for innovation in advanced manufacturing. Our traditional industrial businesses are adopting new technologies and practices to increase production efficiency and overall competitiveness, while the startups driving these advancements are benefiting from New York City’s entrepreneurial talent pool, academic research, and access to markets. The City will support the creation of an Advanced Manufacturing Network, which will link traditional and emerging firms to resources across the tech ecosystem. The City will also invest in state-of-the-art facilities that will house high-tech equipment, affordable workspaces, business support services, and workforce training programs. The centers will help businesses reduce their upfront costs by sharing high-cost technologies needed for innovation in today’s manufacturing sector, such as 3D printers and robotics equipment. Such investments will ensure New York City’s manufacturing firms and workforce remain competitive in the 21st century economy.

**Invest in Fashion Manufacturing and Innovation Hub**

The City will help the fashion manufacturing industry, especially the garment production business, transition to a more sustainable cluster model, which will offer access to more affordable real estate and workforce training opportunities to enhance skills. For example, the City invested $3.5 million to support Manufacture New York to fit-out and modernize a 160,000 square foot space in Sunset Park, Brooklyn. This hub will include:

- A workforce development center to help train workers to develop fashion production skills and receive placements in on-site, high quality jobs
- A research and development center to help create new materials and wearable technologies
- A small-batch factory specializing in print-making and sample productions
- A design accelerator to create an educated pipeline of fashion and manufacturing talent
- Incubator space containing 12 private studios, classroom space, conference rooms, a computer lab, an industrial sewing room, storage, and work areas for 50 designers

The creation of this hub represents the City’s commitment to encourage innovation and partnership between the public and private sectors. Such investments ensure that companies at the cutting edge of the fashion industry can grow and innovate right here in New York City.
Supporting Initiatives

A. Support a state-of-the-art food production and distribution industry

Hunts Point Food Distribution Center (HPFDC) is one of the largest food-distribution centers in the world, occupying 329 acres and housing more than 115 firms. We will support the modernization and upgrade of Hunts Point to create space for food retailers and wholesalers serving the city. Currently, 60 percent of the city’s produce and 50 percent of meat and fish pass through the HPFDC, which directly employs 8,000 people and is responsible for many other indirect jobs and positive economic spillover effects in the Hunts Point Peninsula and throughout the South Bronx. By investing in modernizing and improving resiliency for the public markets and other HPFDC properties, Hunts Point will be better prepared for power outages, coastal flooding, job losses, and other disruptions that could come from extreme storm events to the citywide food distribution system. Moreover, at the adjacent Hunts Point Wastewater Treatment Plant, the New York City Department of Environmental Protection (DEP) is working to replace sludge digesters with a new design that could potentially take the food waste from HPFDC and use it as a source of energy for a local microgrid. Additionally, the City will work with the New York State Department of Transportation (NYSDOT) to make efforts to reconfigure the Bruckner-Sheridan Interchange and Sheridan Expressway to improve truck access to the HPFDC. HPFDC will anchor a world-class food cluster in Hunts Point Peninsula—with economic benefits for the South Bronx as well—as strengthening the entire citywide food-distribution system.

B. Activate the City’s industrial assets to support the creation of quality jobs

The City will renovate and redevelop City-owned industrial assets to maximize their economic development potential as well as their positive outcomes. The City will prioritize the creation of high-quality jobs as well as the activation of job-intensive uses within its industrial properties.

Initiative 3

Foster an environment in which small businesses can succeed

Small businesses are critical to the city’s growth, providing entrepreneurial and employment opportunities to New Yorkers; delivering important local services; and attracting residents and visitors by adding to the urban fabric that makes New York City so compelling. Recognizing the importance of small businesses to the City’s economy and character, New York City will seek to address the challenges they experience in starting and expanding. In recent years, small businesses (with fewer than 100 employees) and very small businesses (with fewer than 20 employees) have grown more rapidly than large businesses, in terms of percentage change in number of establishments. Small businesses, especially neighborhood retailers, support economic mobility for a diverse range of New Yorkers, from immigrant families to low-income entrepreneurs looking for a pathway to the middle class.

Brooklyn Navy Yard

The City has made a $76.8 million capital investment to upgrade Building 71, a one million square-foot building in the Brooklyn Navy Yard (BNY). The investment, along with an additional $63.2 million from other sources, for a total of $140 million, will transform this underutilized warehouse into a modern facility to accommodate both manufacturing and technology-based businesses. This renovation will increase an additional 3,000 jobs will be created through this renovation, accounting for more than a 40 percent increase in employment at BNY. Not only will this increase capacity at BNY, which has a long history of concrete occupancy rates for over a decade, the City will also expand the on-site job training center in partnership with the local philanthropic community. The companies at the Yard will have the space they need, as well as a talented workforce with the skills for a 21st century economy.

Building 71 is a part of the BNY’s current expansion, the largest since World War II. Other significant projects include:

1. Green Manufacturing Center: A $67 million, 250,000 square-foot adaptive reuse of a former machine-shop building
2. Steinier Studios: New York City’s anchor for the film and television industry will create a next-generation media campus complete with pre- and post-production studios
3. Admiral’s Row: A site that will house a 74,000 square-foot office/community facility

All initiatives underway underscore BNY’s mission to support the growth of well-paying, modern industrial jobs and ensure positive community impact. Through the work of its Employment Center, BNY will ensure these opportunities are available to local residents.

Supporting Initiative

A. Reduce the regulatory burden on small businesses through the Small Business First plan

Small Business First is a comprehensive plan to reduce the regulatory burden on small businesses in New York City. It will leverage a $27 million investment over the next five years to simplify the regulatory hurdles many small businesses face in opening and operating. It will improve communication between business owners and City government; streamline licensing, permitting and tribunal processes; provide support and resources to help businesses understand and comply with City regulations; and ensure access is available to all communities across the five boroughs.

Small Business First includes thirty initiatives developed as a direct result of conversations with stakeholders, advocates, small business owners, community leaders, and elected officials representing a diverse slate of city neighborhoods. In total, more than 600 unique comments and ideas were solicited, detailing the specific needs of small businesses in communities across the five boroughs. As a result, the Small Business First initiatives will include:

• Consolidating locations for businesses to find and process applications, permits, and information across agencies—both in person and online
• Creating one place—both in-person and online—for business owners to settle the majority of fines or violations
• Helping businesses navigate regulatory processes such as providing pre-inspection walk-throughs to help them comply before receiving fines or violations
• Translating resources and information materials into multiple languages
Workforce Development

Goal: New York City will have a workforce equipped with the skills needed to participate in the 21st century economy

Overview

All able New Yorkers should have the opportunity to participate in the workforce, with access to stable, high-quality employment.

During the recession, New York City workers experienced flat or declining wages, except for those in select high-wage sectors. However, since 2014, more workers have started to see wage gains, due to increased employment and demand for labor across a range of sectors. Nonetheless, these gains have not fully offset the wage stagnation that occurred during the recession. For example, in 2014, inflation-adjusted average annual wages were 2.1 percent lower than in 2007 for private, non-financial workers. Consequently, low-income New Yorkers continue to struggle with the city’s high living costs. Without the qualifications to advance to mid-wage jobs, these individuals and their families are likely to remain in poverty. Recognizing that high-, mid-, and low-skill jobs are all part of a diverse, healthy economy, the City is committed to supporting job quality across all sectors, as well as increasing wages and access to Paid Sick Leave and Family Leave for low-wage jobs.

The City’s new Career Pathways strategy aims to create a more inclusive workforce, comprised of individuals from a range of backgrounds in all five boroughs. Through Career Pathways, the City is committed to providing New Yorkers with opportunities to enter the workforce and achieve economic stability, regardless of their starting skill level or educational attainment. To realize this vision of a more inclusive workforce, the City will support training programs that give people who historically struggle to enter the labor market the skills needed for entry-level work, as well as support the career advancement of low- and middle-skill New Yorkers. The Career Pathways strategy rests on the creation of a more comprehensive, integrated workforce development system and policy framework that supports agencies in effectively coordinating to help workers gain skills and progress in their careers.

The City can leverage its purchasing power and investments to train and employ New Yorkers, including those investments envisioned by OneNYC. Each year, the City spends billions of dollars on infrastructure, goods, and services. We can promote targeted hiring to employ and train New Yorkers of all skill levels and qualifications, including those who experience the greatest challenges to stable employment. We will provide these individuals with enhanced training and support to increase their participation in the labor market and build relevant skills.

The City additionally recognizes that postsecondary attainment is critical to improving workforce participation and alleviating poverty. Workers with higher educational attainment participate in lower unemployment rates and higher median weekly earnings. For example, workers with a bachelor’s degree had an unemployment rate of 4.0 percent, compared to 7.5 percent for workers with a high school diploma and 11.0 percent for workers with less than a high school diploma. Likewise, based on median weekly earnings, workers with a bachelor’s degree made more than twice as much as workers with less than a high school diploma. By investing in increasing postsecondary attainment, we can empower our residents to join the workforce and thrive.

Initiative 1

Train New Yorkers in high-growth industries, creating an inclusive workforce across the city

The Career Pathways report identifies six target sectors for the City’s workforce development efforts, including Healthcare, Technology, Industrial/Manufacturing, Construction, Retail, and Food Service, which account for about half of all jobs in New York City. These sectors offer economic mobility and/or significant potential for both employer and worker benefits through improvements in job quality. They were chosen based on analysis of tax revenue, recent job growth, forecasted job growth, total employment, jobs multipliers, wages, and wage distributions. Healthcare and Technology are high-growth sectors that offer higher-wage, middle-skill jobs. The Industrial/Manufacturing and Construction sectors represent lower-growth sectors that offer relatively well-paying jobs that do not necessarily require high educational attainment. Finally, the Retail and Food Service sectors represent high-growth sectors that employ a large part of the workforce, thus providing the opportunity to aid significant numbers of New Yorkers through improvements in job quality.
Supporting Initiatives

A. Establish and expand Industry Partnerships

Reflecting our commitment to enhanced industry-focused training, we will create four new Industry Partnerships focused on the Industrial/Manufacturing, Construction, Retail, and Food-Service sectors. The program will be modeled after the City’s two existing Industry Partnerships in Technology and Healthcare, specifically the Tech Talent Pipeline and New York Alliance for Careers in Healthcare programs. Partnerships are teams of trusted industry experts focused on addressing the mismatches of labor supply and demand in each sector. They formalize feedback loops between education, training, and employers, and mobilize outside resources to address the needs of supply and demand. The Partnerships will convene public and private stakeholders to develop curricula and training programs that match industry needs. They will be located within City government or be competitively contracted.

B. Use Common Metrics for workforce programs

The City will pursue a system-wide effort to align definitions and data among workforce development agencies and build a shared system to collect data across all workforce programs. This will allow for evaluation of programs and longitudinal study of the impact of training and investments.

C. Create bridge programs to prepare low-skill job seekers

Bridge programs serve individuals not yet ready for college, training, or career-track jobs, typically scoring below tenth-grade literacy levels. The Career Pathways program will develop bridge programs to help New Yorkers obtain the academic credentials, experience, and technical skills required to secure entry-level work and advance into skilled training.

D. Ease the path to employment for formerly incarcerated people

People with a criminal history are often excluded from employment opportunities because they are required to disclose their background on job applications, thus may miss the chance to gain an interview and be considered for hire. A policy adopted by City government, and other cities around the nation, removes this upfront disclosure requirement so that an individual’s full range of skills and attributes can be considered before making a hiring decision. The City supports pending local legislation to extend this policy to private sector employers.

Initiative 2

Leverage OneNYC investments to train and employ New Yorkers of all skill levels

OneNYC envisions major investments in housing and infrastructure. These investments present a valuable opportunity to support training and employment for New Yorkers, which advance their careers and build a more inclusive workforce that creates pathways for those who have historically experienced high rates of unemployment.

Supporting Initiatives

A. Leverage City investments to create jobs and training opportunities for New Yorkers, and encourage targeted hiring

The City will expand targeted hiring programs that encourage targeted hiring and establish a “First Look” process that requires employers receiving City contracts to review and consider local qualified workers. In pursuing targeted hiring, the City will build on the model of the Sandy Recovery Hiring Plan, which ensures housing recovery projects create construction jobs and training opportunities for New Yorkers who were economically impacted by Hurricane Sandy. An online portal will support this and other targeted hiring programs to facilitate interaction and data exchange, and provide feedback regarding hiring and recruiting. The portal will create a real time loop that allows the City to use employer input to better prepare and assist candidates.

In addition, the City will support the use of Project Labor Agreements to increase the number of New York City residents that have access to middle-class jobs in the unionized construction industry. For example, the City recently launched a new New York City Housing Authority (NYCHA) $3.5 billion Project Labor Agreement, through which it is expanding its commitment to linking NYCHA residents, minorities, women, veterans, and high school students to the unionized construction industry.

B. Capitalize on the Career Pathways Construction Industry Partnership to create and expand construction training and employment opportunities for traditionally underrepresented New Yorkers

The City will establish a new Construction Industry Partnership to help qualified residents from targeted neighborhoods connect to construction jobs. The City will work with labor unions, construction firms, contractors, and developers to improve referral and recruiting systems that link New Yorkers to construction jobs. The model will be built on current successful pre-apprenticeship training programs such as the Edward J. Malloy Initiative for Construction Skills, a partnership among construction unions, the City, and union construction contractors to connect New York City’s youth to pre-apprenticeship programs. As part of this effort, the City will support construction training programs to help
Our schools must be able to provide not only books, but Internet access, and information-literacy instruction if we hope to have successful students who are ready for college and careers upon graduation.”

—Stephanie R, Queens

C. Support the creation of, and training for, green jobs

The City will create jobs to maintain growing investment in green infrastructure. The Department of Environmental Protection (DEP) plans to hire 260 maintenance and horticultural workers by June 2018 to monitor and maintain the agency’s growing number of bioswales and other stormwater-management tools in public areas, including the right-of-way, parks, schools, and NYCHA properties. DEP’s goal to have 9,000 bioswales in place by June 2018 is the first milestone in its plan to decrease impermeable surfaces and improve stormwater management in New York City. These entry-level jobs will provide workers with opportunities for further professional advancement within DEP and be coupled with a separate City program to train 10,000 building operators in the latest energy-efficiency principles and practices by 2025. The program will help operators develop their skills and gain access to new work opportunities and, at the same time, help reduce the city's emissions and better manage its energy demands. While this program will focus on providing green operations and maintenance training opportunities to non-union workers, the City will collaborate with Union 32BJ and Local 94 to develop and share best-in-class curricula specific to New York City’s built environment. The program will also support the development of energy benchmarking and monitoring tools to ensure that we can track progress of greenhouse gas emissions reduction goals and key performance indicators.

Initiative 3

Ensure all New York City students have access to an education that enables them to build 21st century skills through real-world, work-based learning experiences

We are committed to preparing our students for the 21st century global economy through greater access to educational opportunities in computer science and related disciplines; Career and Technical Education (CTE) Programs; bilingual learning environments; support for college- and degree-attainment; and connections between schools and relevant businesses and industries to provide students with an on-ramp to a career.

Supporting Initiatives

A. Significantly expand access to computer science/technology education across New York City public schools by 2020

Recognizing the high demand for talent and education in the technology sector, we have made great strides in expanding access to educational opportunities in computer science and related disciplines. The Department of Education (DOE) is launching a comprehensive, standards-aligned computer-science and software-engineering education program, the Software Engineering Pilot, for grades 6 through 12. The goals of the program, launched in 2013 are to increase the number of high school graduates ready to enter new and emerging high-tech fields, and develop students’ computational thinking and problem-solving skills in real-world contexts. The Department of Small Business Services (SBS) launched the Tech Talent Pipeline to support the growth of the city’s businesses and prepare New Yorkers for 21st century jobs. We are committed to expanding these efforts even further. We have convened an advisory committee to define an ambitious vision for technology education in our schools, along with specific programs and goals to ensure our students have the skills they need to succeed in a 21st century economy. This group is working to develop a detailed strategy and will be releasing plans later this school year.

B. Strengthen and expand Career and Technical Education programs

CTE programs are valuable, high impact programs on par with college preparatory programs and a critical part of the current New York City workforce development plan, codified in the Career Pathways report. These programs, which are formalized academic and technical education opportunities, prepare enrolled students for a seamless transition into postsecondary opportunities in two- or four-year degree programs, further training, apprenticeships, and entry-level work. Approximately 120,000 New York City public high school students take part in CTE programs each year. To address challenges related to space and access to necessary technology, DOE will invest in building sustainable systems that strengthen current offerings and add capacity within existing and new CTE programs to ensure high-quality instruction aligned with industry expectations. We will also develop and launch new, leading-edge CTE programs within existing schools in order to benefit more students.

C. Expand Transition Coordination Centers to every borough by 2020 to improve postsecondary outcomes for students with disabilities

Given the focus on developing opportunities for all students to access work-based learning opportunities, it is critical to identify and enable students who may not be able to access these traditional opportunities. To empower these students to pursue postsecondary opportunities, we will consider expanding our Transition Coordination Centers, which provide disabled students with work-based learning opportunities, assessments, and professional learning experiences. Currently,
Workforce Development

Vision 1

Supporting efforts to increase postsecondary attainment is key to the City’s goal to lift New Yorkers out of poverty and strengthen an inclusive workforce. To achieve this goal, we are committed to increasing the number of New York City public school graduates attaining associate’s or bachelor’s degrees. This initiative complements other strategies to lift New Yorkers out of poverty, as part of a complete set of actions that the City will pursue to reach this goal.

Strategies to increase postsecondary attainment begin in high school, where the City will work to increase access to college-specific advising. Efforts to improve advising are intended to promote high school graduation and college matriculation. Based on a study by the Research Alliance for New York City Schools, 59 percent of public school graduates enrolled in postsecondary education programs in 2006: 16 percent in the City University of New York (CUNY) 4-year, 13 percent in CUNY 2-year, and 30 percent non-CUNY. The City will take a comprehensive approach to advising, ensuring that it continues beyond high school, to college. In college, the City will expand programs designed to assist students in completing their degrees.

Increased advising enables students to better access the myriad resources available to them in both high school and college, as counselors are often the primary source of information about the resources and services available to students. While progress has been made to improve the ratio of guidance counselors to students in New York City’s public schools, there is still a significant need for counselors who have been trained to advise students on postsecondary options. In many schools, guidance counselors have caseloads of up to 500 students, and not all schools have designated college counselors.

For New York City public high school students, the DOE is partnering with the Goddard Riverside Community Center to train new counselors and educators on the college advisement process. This and other efforts are intended to support a target of one trained counselor for every 35 high school seniors.

Once in college, students may require additional help completing their degrees. Of New York City public high school graduates who started at CUNY in 2006 and 2007, 53 percent completed the CUNY 4-year program and 13 percent completed the CUNY 2-year program. At CUNY, Accelerated Study in Associate Programs (ASAP) assists students in earning associate degrees within three years. ASAP participants are more than two times as likely to graduate as their peers. ASAP also increases credits earned, lowers the cost per degree, and raises the number of students transferring to four-year colleges. Building on the success of this program, we are committed to expanding ASAP to serve 13,000 students over the next three years.

The success of these programs will help to build a well-prepared workforce, and enable more New Yorkers to participate in the City’s economic prosperity through quality jobs and careers.
Housing

Goal: New Yorkers will have access to affordable, high-quality housing coupled with robust infrastructure and neighborhood services

Overview

Housing is in high demand and short supply, as the population continues to grow and housing production lags behind demand. Despite a total supply of 3.4 million housing units, the largest New York City’s housing stock has ever been, the vacancy rate was only 3.45 percent in 2014, well below the legal definition of a housing emergency (a vacancy rate below 5 percent).

In 2014, almost 56 percent of New York City renter households were rent burdened, defined as paying more than a third of their income toward housing costs. More than 30 percent of renter households were severely burdened, defined as paying more than half of their income toward rent. This trend is a result of stagnating wages and increasing costs over the past 20 years. As described above, the creation of new housing supply at all income levels will help to alleviate this pressure and contribute to housing affordability in the city. The initiatives below support housing preservation and production, emphasizing Housing New York’s focus on affordability and the City’s commitments to support overall housing production. Additionally, we are committed to pursuing strategies for mitigating homelessness, beginning with the provision of support services for the city’s most vulnerable populations.

Initiatives discussed in Vision 4 address our commitment to strengthening the capacity of homeowners, landlords, renters, and tenants affected by Hurricane Sandy.

Housing production across the metropolitan area has also lagged behind demand, adversely affecting the region’s competitiveness as employers across diverse sectors seek to locate in areas that provide varied housing options for their workforce. As the region continues to grow, reaching 22 million residents in total by 2040, the City will seek to coordinate with regional partners to stimulate the production of housing to meet demand and relieve the burden on families of all income levels.

Rent Burden

66 percent of renters are rent burdened and three in ten households are severely rent-burdened, paying half or more of their income to rent and utilities.

Initiative 1

Create and preserve 200,000 affordable housing units over ten years to alleviate New Yorkers’ rent burden and meet the needs of a diverse population. Support efforts by the private market to produce 160,000 additional new units of housing over ten years to accommodate a growing population.

The City is committed to an ambitious goal to alleviate New York City’s housing affordability crisis by creating and preserving 200,000 units of affordable housing over the next ten years. With this as a cornerstone of the city’s mission, we will produce opportunities to create housing, and engage communities in planning processes to accommodate growth in neighborhoods across our city.
Housing 9 Million New Yorkers by 2040

To accommodate a population of over nine million New Yorkers by 2040, the city will need at least 3.7 million housing units throughout the five boroughs. The city’s population growth is driven by its desirability as a place to live and work. Without the production of new housing, this population growth drives housing prices upward, as new New Yorkers compete with current residents for a limited supply of existing housing units. To ensure all New Yorkers have access to housing they can afford, we must not only produce and preserve affordable units but increase the overall supply of all types of new housing.

Housing New York, the City’s ambitious ten-year housing plan, forms a foundation for creating and preserving 200,000 affordable housing units over the next ten years. The City will also support creation of 160,000 additional new units over the same period. This level of production will accomplish three key objectives to alleviate New York City's housing crisis: accommodate a growing population, ease supply constraints, and offset loss in the housing market as units are taken offline, demolished, or converted to non-residential units. To meet demand and continue to alleviate the housing crisis, the City estimates it will need to support creation of 250,000 to 300,000 new units from 2025 to 2040.

Like New York City, other mature major U.S. and global cities are continuing to accommodate population growth and manage affordability challenges through increased density, new housing typologies, expansion into surrounding land area, and smart infrastructure and technology investments. Many of these strategies point the way for our future growth.

- London plans to accommodate population growth from 8.2 million residents in 2011 to 10.1 million residents in 2036 by developing significant areas of vacant or underutilized land in coordination with transportation improvements, intensifying uses in town centers, and pursuing regional coordination.
- San Francisco anticipates growth in the Bay Area to 9.3 million residents by 2040, from 7.1 million people in 2010. Regional housing production efforts will focus on housing for low- and middle-income households, concentrating development in existing neighborhoods that can accommodate growth with access to public transit, housing, jobs, and services, while preserving surrounding natural resources.
- Projecting a population of 6.5 to 6.9 million by 2030, from 5.5 million in 2014, Singapore plans to meet this demand by intensifying land use in new developments, recycling land currently occupied by low-intensity uses, and creating additional developable area through infill.

New York City can accommodate the number of units planned and future units required to meet the need. The locations most likely to be suitable for substantial numbers of new units are key areas close to public transit. Increased density can build on the strengths of neighborhoods to improve quality of life, especially when aligned with targeted investments in public and private infrastructure.

Housing New York lays out a number of strategies to achieve these goals. These include engaging communities in neighborhood planning processes in all five boroughs to coordinate land-use and zoning changes, maximizing the use of City-owned land for new development of affordable housing, and effectively using City financing tools to expedite development of new housing and ensure the continued long-term affordability of existing affordable units.

Additionally, the City will:
- Pursue large-scale development on sites that may have been previously overlooked or present more complex opportunities for redevelopment, such as Sunnyside Yards
- Align new housing development with investments in public transit, to help New Yorkers reach critical services and their places of employment
- Support the growth of employment clusters in areas accessible to significant populations, providing New Yorkers with access to good jobs within a suitable commute
Supporting Initiatives

A. Maximize the use of City-owned land for new housing

The New Infill Homeownership Opportunities Program (NIHOP) seeks to promote creation of mixed-income communities with affordable homeownership opportunities for moderate- and middle-income households in new one- to four-family homes and small (less than 15 units) condominiums/cooperatives. The City will target small developers and local community development corporations to participate in the program and work with financial institutions to develop homes in neighborhoods that lack affordable homeownership opportunities. We will also launch the Neighborhood Construction Program (NCP), an initiative to aggregate sites to develop affordable housing in order to achieve economies of scale in the remediation, development, financing, and operation of scattered infill lots for rental housing. Both NIHOP and NCP have been designed to encourage the development of small, previously difficult-to-develop infill sites, and to offer opportunities for small developers, local nonprofits, and community development corporations directly or through partnerships to build their development capacity.

B. Conduct collaborative, holistic neighborhood planning to support new mixed-income housing creation with supporting infrastructure and services

Over the course of the next ten years, we will work with communities to identify areas across the five boroughs where coordinated planning—including changes to land use and zoning, and improvements to infrastructure and services—can promote substantial opportunities for new housing that complements and enhances neighborhood character. The Department of City Planning’s (DCP) borough offices will coordinate closely with community organizations, local residents, and sister agencies to conduct neighborhood planning initiatives around new and existing housing, and plan for additional transit and service improvements. DCP will engage communities at the early stages of this process to collect and share data on land use, housing, infrastructure, and services, while soliciting guidance from local residents and businesses, community organizations, and elected officials about their concerns and first-hand experiences to identify existing community needs, set priorities, and shape the plans. All land use actions initiated as a result of these community planning processes will be subject to a full public review process, which will provide additional opportunities for input from Community Boards and local elected officials.

C. Establish a Mandatory Inclusionary Housing Program to promote economic diversity and affordable housing development

The City will establish a new Mandatory Inclusionary Housing Program to create new housing affordable to local communities. The Mandatory Inclusionary Housing Program will be applied in conjunction with land use actions that promote increased housing capacity in order to create opportunity for economic diversity in neighborhoods. The housing created in the Mandatory Inclusionary Housing Program will serve households at a range of income levels, and will be permanently affordable, as part of the City’s effort to preserve communities and neighborhood affordability.

D. Expand opportunities for minority- and women-owned enterprises and expand the pool of developers building affordable housing

The Department of Housing Preservation and Development (HPD) is committed to promoting the participation of Minority- and Women-Owned Business Enterprises (M/WBE) in the development and management of affordable housing subsidized under City-sponsored programs. Through the Building Opportunity initiative, HPD seeks to build the capacity of M/WBE through professional development, networking, and mentoring programs; improve access to capital for M/WBE developers with low-cost financing options for site-acquisition and predevelopment costs; and enhance the ability of M/WBE developers to compete more effectively for HPD support by providing targeted new construction and preservation opportunities.

E. Support and expand efforts to preserve affordable units through neighborhood planning and outreach

Effective preservation strategies will vary by neighborhood and should be tailored to each planning effort. This will require analyzing costs on housing and market conditions to identify community needs, develop localized preservation strategies, and engaging communities to implement these strategies. For example, in a community facing rising rents due to market pressures, the City may be most effective in helping owners keep properties affordable by using tax incentives or financing tools to incentivize energy retrofits that would reduce utility costs. In a community experiencing high rates of physical distress, the City may need to focus efforts on expanding its Proactive Preservation Initiative (PPI) through HPD evaluations. PPI targets deteriorating properties for increased code enforcement, and works with lenders and regulators to encourage owners to make necessary repairs in a timely fashion.

F. Foster large-scale development at potential major-site assemblages

As the city’s population grows within its geographic limits, the availability of developable land will continue to decline. The rising cost of developable land, in turn, becomes a driving factor of the affordability challenge facing real estate development. There are potential development opportunities throughout the five boroughs where surface or subterranean infrastructure—such as rail-yards and tracks—can be built upon. At Sunnyside Yards alone, up to 200 acres are potentially available for such development. While overbuild development must be evaluated for technical feasibility and cost effectiveness, the City’s ability to identify feasible opportunities could make hundreds of acres of otherwise unavailable property across the five boroughs potential sites for transit-oriented development, improving connections to, and quality of life for, surrounding neighborhoods, and promoting affordable housing and economic development opportunities.
Initiative 2
Support efforts to create new housing and jobs throughout the region

The City recognizes that, as part of a regional economy and labor force, addressing housing challenges will require collaborative action by partners throughout the region if the economy of the whole region is to grow together in the coming years. Providing housing and convenient transit options in and around New York City will strengthen the region's future economy, while also increasing locational options for the region's workforce to live.

Supporting Initiative
A. Collaborate with regional municipalities and housing agencies on shared priorities

DCP will establish a unit that will address regional and long-range planning issues. The unit will analyze regional population, economic and land use trends. The unit will work with other municipalities and local governments throughout the metropolitan region, as well as with their local planning departments, to coordinate regional planning initiatives. The unit will identify challenges that face the region as a whole and help shape regional responses to leverage strengths and address challenges of mutual interest.

Initiative 3
Expand housing and related services to support the city’s most vulnerable populations

Our most vulnerable residents need safe housing and supportive housing services. We will expand and streamline programs to help individuals and families find housing—a critical element of a stable life. Affordable housing is essential to meeting the needs of New York City’s homeless population of over 57,000 individuals—including nearly 1,000 veterans (over half of whom are in shelter)—and the city’s growing senior population. Youth who age out of foster care, and formerly incarcerated people, too often encounter barriers that prevent them from transitioning successfully to independent living. Leveraging Housing New York, the City will provide community-based housing resources to these vulnerable populations to promote strong, safe neighborhoods and livable communities.

Supporting Initiatives
A. Strengthen community-based homelessness prevention systems

We will enhance and expand the city’s homeless prevention services through community networks and neighborhood organizations, while strengthening coordination across government agencies at city, state, and federal levels.

B. Create a more streamlined process for intake, assessment, and rehousing to end veteran homelessness

The City has committed to the White House’s goal of ending homelessness among veterans by 2016. We will create a housing plan for every homeless veteran in the city, regardless of discharge status, within two weeks of their entry into the system. We will also connect all single adult male veterans entering shelters with a Supportive Services for Veteran Families Program provider. We will conduct multi-agency case conferences to overcome barriers to housing, and prioritize veterans for housing based on each veteran’s preference, housing needs, eligibility, and vulnerability.

C. Develop affordable housing appropriate to community needs, including housing for families, supportive housing, and senior housing

This effort will leverage federal and state rental subsidies that help seniors afford their rent and will include zoning and regulatory amendments to facilitate the development of senior housing units.

D. Expand rental assistance and aftercare to support individuals transitioning from shelters to permanent housing

We will expand the Living in Communities program to provide rental assistance and support to over 6,000 households annually, ensuring existing shelter populations have stable housing. Additionally, the City will connect homeless families to existing permanent subsidized housing through NYCHA and the Section 8 Program.

E. Expand housing options for people with disabilities by increasing oversight, targeting placement strategies, and accessing housing subsidies

We will help people with disabilities access housing subsidies by improving coordination across government agencies and removing barriers to the City’s affordable housing resources. The City will expand the role of ADA and Section 504 coordinators to full-time positions to ensure a more active and coordinated response to the housing needs of people with disabilities.

F. Advocate for state and federal funding to increase supportive housing production

The City will increase targets for the production of supportive housing and advocate for increased funding from programs such as the Medicaid Redesign Team and a NY/NY4 agreement with the State. We will continue to focus on the creation of supportive housing that focuses on the particular needs of ex-offenders, youth aging out of foster care, and people with chronic illness and disabilities.
Thriving Neighborhoods

**Goal: New York City's neighborhoods will continue to thrive and be well-served**

**Overview**

New York City is a city of neighborhoods. When New Yorkers describe where they live, they often name their neighborhood. For residents to succeed, neighborhoods require basic services, healthy environments, a good quality of life, and connections to the city's job centers. As New York City's population continues to grow, we will make strategic investments to bring necessary public-transit access, quality affordable housing, retail, and services to both growing and underserved neighborhoods.

**Initiative 1**

Support creation of vibrant neighborhoods by alleviating barriers to mixed-use development and utilizing available financing tools

Neighborhood planning, including zoning changes and maximizing available financing tools, can open up a wide range of opportunities for mixed-use communities. These tools are effective in providing space for neighborhood services, including local retail, while also encouraging new housing.

**Supporting Initiatives**

A. Pursue neighborhood planning strategies that expand opportunities for mixed-use development, especially the attraction of retail and services to underserved neighborhoods

With input from communities and residents, the City will initiate strategies to create mixed-use communities that include housing, retail, and other commercial uses that together support the vitality of neighborhoods. For example, creation of appropriate commercial space can encourage location of retailers providing access to fresh food and necessary supplies for residents, as described further in Vision 2. In particular, this will include identification of areas where zoning discourages vibrant retail and mixed-use development, including reducing burdensome parking requirements and allowing for high-quality retail space on ground floors, while preserving the full potential for housing above. Finally, we will develop recommended design guidelines for City-sponsored mixed-use development to maximize the competitiveness and flexibility of ground-floor space.

B. Maximize the use of available financing tools that assist the commercial components of mixed-use projects to support vibrant mixed-use neighborhoods

To support vibrant mixed-use communities and strong commercial corridors that provide neighborhood services, the City will use a variety of funding sources to finance new retail space in underserved areas. It will also leverage federal programs such as New Markets Tax Credits (NMTC) to maximize investments. Furthermore, we will conduct commercial needs assessments to assess demographic, economic, and physical factors and create customized programs to help small businesses adapt to such changes. These efforts promote mixed-use projects that serve neighborhood goals, small business, and affordable housing opportunities.

**Sheridan Expressway: Transportation for Businesses and Residents**

The City will continue to work with the New York State Department of Transportation (NYSDOT), local businesses, and the community on the future of the Sheridan Expressway. We will pursue implementation of the "modify-combined" plan put forward in the City's 2013 Sheridan Expressway-Hunts Point Land Use and Transportation Study. The plan involves reconfiguring the Bruckner-Sheridan Interchange, constructing on- and off-ramps at Oak Point to provide direct truck access between the Bruckner Expressway and the Hunts Point Industrial Area, transforming the at-grade portion of the Sheridan Expressway into a local boulevard and implementing targeted safety improvements at area intersections. The plan would reduce truck traffic on local streets and decrease overall congestion. This will improve pedestrian and bicyclist safety and air quality; enhance truck access to the Hunts Point Food Distribution Center; better connect local residents to new parks and the South Bronx waterfront; and support development. The immediate next step to advance these improvements is for NYSDOT to restart and complete an Environmental Impact Statement (EIS) on modifications to the Bruckner-Sheridan interchange, the Oak Point ramps, and the Sheridan Expressway.
### Initiative 2: Make strategic investments for livable neighborhoods

The City will seek to align investments in infrastructure and services to support the livability of neighborhoods slated for growth. Across the city, there are neighborhoods where the hard work of planning and consensus-building for new housing development has already been completed and area-wide rezonings and large-scale development plans will foster new mixed-income housing and supporting uses. However, in some of these areas, the potential for new housing can only be fully realized after improvements to infrastructure and regulatory changes to allow for new mixed-use development. In these neighborhoods, and others going forward, agencies will work with local elected officials, residents, businesses, and community organizations to make targeted infrastructure investments to make it feasible for thousands of new affordable housing units and accompanying retail, services, and community facilities to be built. Examples of these types of investments are found in initiatives throughout OneNYC, as noted on the next page.

#### Table 1: Planning for Vibrant Neighborhoods

<table>
<thead>
<tr>
<th>Vision</th>
<th>Goal</th>
<th>Initiatives/Sub-Initiatives</th>
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<tbody>
<tr>
<td>1 Workforce Development</td>
<td>The City will bring workforce training programs to traditionally overlooked populations and support the creation of Transition Coordination Centers in every borough to improve postsecondary outcomes for students with disabilities.</td>
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<tr>
<td>1 Housing</td>
<td>The City will conduct collaborative neighborhood planning to identify areas across the five boroughs where land-use and zoning changes, and infrastructure and service improvements, can promote substantial opportunities for new housing that complements and enhances neighborhood character.</td>
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<tr>
<td>1 Transportation</td>
<td>The City will work with the MTA and others to improve existing transit services and invest in a major expansion of the transit network in order to better serve neighborhoods and provide reliable and convenient transit access to employment.</td>
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<tr>
<td>1 Broadband</td>
<td>The City will support expanded access to affordable, reliable, high-speed broadband service for residents and businesses by 2025.</td>
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<td>2 Culture</td>
<td>The City will ensure high-quality cultural facilities and programming in all neighborhoods.</td>
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<tr>
<td>2 Early Childhood</td>
<td>The City will enhance its Neighborhood Health Hubs with dedicated space for women’s health to reduce infant mortality and offer high-quality, full-day Pre-K to all children.</td>
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<td>2 Integrated Government &amp; Social Services Delivery</td>
<td>The City will provide all New Yorkers with access to high-quality City and community-based services through the Community Schools expansion, Neighborhood Health Hubs that co-locate health and mental health services with social services and City agencies, and digital platforms.</td>
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<tr>
<td>2 Healthcare Access</td>
<td>The City will establish health clinics in high-need neighborhoods and co-locate behavioral health services with primary care.</td>
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<td>2 Criminal Justice Reform</td>
<td>The City will make neighborhoods safer through increased use of technology and data as well as neighborhood engagement.</td>
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<tr>
<td>2 Water Resources</td>
<td>The City will offer high-quality water services in all neighborhoods, as well improve gray and green infrastructure to address recurrent flooding in certain neighborhoods.</td>
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<td>3 Public Realm</td>
<td>The City will support quality parks and public space in low-income, growing, and high-density neighborhoods through the Community Parks Initiative and other efforts while pursuing a Parks Without Borders strategy to enhance neighborhood access and connectivity to parks.</td>
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<tr>
<td>3 Coastal Resilience</td>
<td>The City will reduce flooding risk in waterfront neighborhoods by strengthening the city’s coastal defenses against flooding and sea level rise.</td>
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<tr>
<td>4 Social and Economic Resiliency</td>
<td>The City will make our neighborhoods safer by strengthening social and economic resiliency and enhancing community-based organizations’ capacity to support residents with services and information.</td>
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Culture

Goal: All New Yorkers will have easy access to cultural resources and activities

Overview
As one of the main drivers of tourism to New York City, culture is a central pillar of economic development. Cultural institutions attract tourists, provide thousands of jobs, and contribute to resident well-being and quality of life.

Every year, people come from all over the world to visit our world-class museums and attend one of the thousands of theater, music, and dance performances that occur annually across the city. According to NYC & Company, the City saw a record-setting 56.4 million tourists, almost half of whom—27.6 million—came specifically to enjoy New York City’s cultural life. Visitor spending in general generated nearly $38 billion in 2013, supporting nearly 370,000 leisure and hospitality jobs.

Moreover, our world-class institutions, of all scales and unique local offerings, underpin the fabric of our neighborhoods and attract artists and creative individuals to the city. This combination of home-grown talent and the newly arrived has spurred creation of new galleries, music venues, dance spaces, and theaters.

Cultural activities and spaces further underpin a high quality of life for residents, supporting the city’s ability to retain and attract talent. New York City’s rich cultural attractions figure in newcomers’ decisions to move and stay here, and factor among the neighborhood amenities that inspire residents to live in certain areas. Access to culture is critical to ensuring the well-being of residents, improving social connections, lowering stress, improving school effectiveness, raising community awareness, and enhancing civic engagement.

However, the boroughs other than Manhattan, and the low-income areas within these boroughs, are home to fewer grantee cultural organizations and facilities that drive programming, suggesting missed opportunities in supporting quality of life, jobs, and tourism in these areas (see Map). Across New York City, community-based cultural organizations and facilities face challenges in providing local cultural programming to residents due to limited funding and capacity. Parks, recreational centers, and public spaces often serve as convenient sites for neighborhood cultural programming, yet have suffered from inadequate investment as well as unclear permitting processes.

INDICATORS

Increase in number of public cultural and civic events in community districts with the highest rates of poverty and lowest rates of public cultural and civic programming

Cultural Resources and Poverty: New York City Department of Cultural Affairs Grants and Poverty Rates, 2013—2014

University of Pennsylvania’s Social Impact of the Arts Project’s preliminary map of NYC Department of Cultural Affairs’ grantee sites against rates of poverty in NYC is only a first step in a much larger interrogation of the social impact that culture has in NYC’s neighborhoods.
We are committed to addressing these challenges and ensuring the vitality of the arts in New York City, as we have been throughout the course of New York City’s history, demonstrated by the following recent and ongoing initiatives:

- Supplying financial support and technical assistance to New York City’s cultural community, including 33 City-owned institutions that comprise the Cultural Institutions Group, and grants to more than 1,100 other cultural non-profit organizations through the Cultural Development Fund
- Commissioning public art through the Percent for Art program, which has commissioned more than 300 works of art at public building sites throughout New York City since its inception thirty years ago
- Providing affordable artist workspace through programs like Spaceworks, which subleases affordable spaces to artists at below-market rates

Recently-initiated projects to continue this commitment include:

- Providing 1,500 units of affordable live/work spaces, and 500 below-market workspaces, for artists by 2024
- Collaborating with the University of Pennsylvania’s Social Impact of the Arts Project to conduct a study of the impact of cultural engagement on neighborhoods in order to help align policies with target neighborhoods

**Initiative 1**

**Ensure well-used, high-quality cultural facilities and programming in all neighborhoods**

**Supporting Initiatives**

A. Provide funding and capacity-building support to local cultural organizations to create public art and programming in underserved areas

The Department of Cultural Affairs (DCLA) will explore strategies to build upon the existing Community Arts Development Program (CADP) to develop a capacity-building program for public art and programming. This includes workshops and grant support for community-based cultural organizations that serve neighborhoods identified by the City as sites for cross-agency coordination and investment, including those home to Community Parks Initiative sites. DCLA will build upon the existing CADP, which offers workshops on expanding organizational capacity, to include capacity-building around commissioning neighborhood-based public art projects. In conjunction with this program, additional funding would enable DCLA to initiate a new competitive process for capacity-building grants aimed at supporting staff at cultural organizations to interface with other neighborhood civic groups.

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**Center for Arts & Education (Casita Maria)**

Center for Arts & Education (Casita Maria) is a venerable settlement house, founded in East Harlem in the 1930s, which followed the Latino immigrant community to the South Bronx in 1960. Casita Maria weathered the economic collapse of the area in the 1970s, when its neighborhood was devastated by an arson epidemic, unemployment, street gangs, and drug use. Recognizing that the South Bronx has been a hub for the cultural innovation and hybridization that has influenced American popular culture for decades—Jewish culture in the 1930s, the emergence of Latin music as Caribbean immigrants moved in, doo-wop in the 50s and 60s, and rap and hip hop in the 1980s—Casita decided to move the arts to the center of its identity as a social-service organization and use the arts to change the way people think about the South Bronx. According to Executive Director Sarah Calderon, “People from outside the area, but also local residents, have internalized its identity of helplessness and hopelessness. What this area needs is respect.” Casita has chosen the area’s rich cultural legacy as a strategy for cultivating that respect, including bringing Dancing in the Streets, a producer of adventurous free public performances in unexpected places like grain silos, beaches, parks, rooftops, and fire-escapes to the middle of the street, into its building as a resident company. Casita’s building, which is shared with a public school, also includes a gallery and theater. The two organizations have produced the South Bronx Culture Trail, which maps historic cultural sites and venues from the first Latin record store to the Fort Apache police station. Last fall, they began to breathe life into the Trail with tours and live performances on the fire escapes to the middle of the street, into its building as a resident company. Casita’s building, which is shared with a public school, also includes a gallery and theater. The two organizations have produced the South Bronx Culture Trail, which maps historic cultural sites and venues from the first Latin record store to the Fort Apache police station. Last fall, they began to breathe life into the Trail with tours and live performances on the fire escapes to the middle of the street, into its building as a resident company. Casita’s building, which is shared with a public school, also includes a gallery and theater. The two organizations have produced the South Bronx Culture Trail, which maps historic cultural sites and venues from the first Latin record store to the Fort Apache police station. Last fall, they began to breathe life into the Trail with tours and live performances on the fire escapes to the middle of the street, into its building as a resident company.

Casita Maria, Dancing in the Streets
B. Facilitate cultural partnerships, such as artists-in-residence, in public agencies

Funding for cultural partnerships enables agencies to further their missions, promote community engagement, support residencies and project production, and encourage public dialogue around social questions and issues City agencies work to address. Several City agencies, including the Department for the Aging, Department of Probation, and Department of Sanitation, have already engaged in cultural partnerships in recent years and attested to the value these partnerships have created for their agencies. Other agencies, including the Office of Immigrant Affairs, Administration for Children's Services, and the Economic Development Corporation, have also expressed interest in engaging cultural partners.

C. Streamline the permitting process in order to increase access to public spaces and facilities for community events

There is widespread demand among New York City residents for use of public spaces and facilities for community events. Fragmented permitting processes and information across agencies that offer these services, however, make it difficult to meet this demand. This will enhance access to public facilities and spaces by improving information-sharing and process-coordination across agencies for event permitting. DCLA will form a citywide task force dedicated to improving existing processes. Creating a unified coordination and communications strategy will make it easier for residents to navigate the permitting process and increase awareness of the availability of spaces for hosting community events.

D. Increase use of parks and public spaces by expanding cultural, educational, and civic engagement programming available to the public

Many public spaces and parks are underutilized, particularly in low-income neighborhoods. This would aim to increase resident use of parks and public spaces by providing grant funding to community-based cultural organizations to develop dynamic cultural and civic programming in these venues. Such programming could include public visual art, live music and dance, and information-sharing on community issues. Priority would be placed on cultural and civic programming conducted in public spaces such as community parks, plazas, and streets, to reach the greatest number of people, facilitate community interaction, cultivate pride of place, and promote physical exercise and community stewardship. As such, the initiative would seek to build upon and coordinate with the publicly-sited programming efforts currently in development as part of the Community Parks Initiative.

Museum of Contemporary African Diasporan Arts (MoCADA)

MoCADA is a community-based museum located in Brooklyn's Fort Greene area. MoCADA established a collaborative of 32 African diaspora arts organizations called Soul of Brooklyn that has built partnerships with local businesses in central Brooklyn neighborhoods around arts programming as a means of promoting their businesses and the enormous diversity of art rooted in the African diaspora. The keystone of Soul of Brooklyn is its annual Block Party, a summer event that draws some 20,000 people. MoCADA's second project, #SoulofBK, will bring arts programming to public spaces in four public-housing developments in Brooklyn's Fort Greene and surrounding neighborhoods on a monthly basis. The series began in February with a screening of the award-winning feature, Middle of Nowhere, a film that explores the effects of incarceration on women whose loved ones have been sent to prison. The screening, co-sponsored by the Ingersoll Homes Tenant Association, was attended by a balance of residents and non-residents, and was followed by a discussion with CNUS, a “think tank of formerly incarcerated professionals...working for justice.” Upcoming programs include a jazz performance, screening of the Harry Belafonte biopic Sing Your Song (with Belafonte present), a dance performance with “the street dance king of Brooklyn,” and participatory arts projects in the public-housing tenant gardens led by MoCADA teaching artists. The programming is designed to weave together MoCADA’s commitments to the cultural interests and needs of public-housing residents, breaking down the boundaries that may isolate them from the surrounding neighborhoods, the museum's exploration of the rich complexity of African-rooted expression, and dialogue about the difficult issues facing the large and complex black community of Brooklyn.
Transportation

Goal: New York City's transportation network will be reliable, safe, sustainable, and accessible, meeting the needs of all New Yorkers and supporting the city's growing economy

Overview

Our transportation network is the lifeblood of the city's neighborhoods and our economy. Every day the city's public-transit system enables millions of New Yorkers to get to work and school, access services and shopping, and enjoy the life of the city.

Throughout its history, New York City's economic growth has been supported by investment in its transit system. Despite the importance of the transit network, the first phase of the Second Avenue Subway—scheduled to open in late 2016—will be the first major capacity expansion of the system since the late 1930s. Today, a growing number of subway lines, such as the 4/5/6, are at capacity during peak periods. Transit hubs serving the region, such as Penn Station (Amtrak/NJT/LIRR) and the Port Authority Bus Terminal (PABT), are also strained. These capacity issues are not limited to Manhattan and traditional central business districts. Growth throughout the five boroughs, both to dispersed centers of employment and communities experiencing commercial and residential growth, like DUMBO, Williamsburg, and Long Island City, is creating new challenges, a telling sign of the need for better service and connections to emerging job clusters throughout the city.

Reliable and convenient transit access to employment and other activities remains stubbornly out of reach for too many New Yorkers. This problem is particularly acute for low- and moderate-income residents in areas poorly served by the subway or buses. For seniors and those with disabilities, this can affect their ability to simply get groceries, or see family and friends.

For New Yorkers who are active, biking offers a convenient travel option for work and other trips. As biking creates no carbon emissions, it also supports the City's sustainability goals. New York City's Commuter Cycling Indicator, an indicator developed by DOT that makes use of the most robust data available to estimate levels of cycling within the central areas of the city over time, has almost quadrupled since 2000. This growth has been facilitated by a dramatic expansion in the City's bike network to 980 lane miles. However, many neighborhoods outside Manhattan and inner Brooklyn and Queens still lack significant bike infrastructure.

New York's three main airports—JFK, LaGuardia, and Newark Liberty—consistently rank as the most delay-prone in the nation. During peak hours, the Federal Aviation Administration caps take-offs and landings in an effort to control delays. Adding to this challenge, forecasts show demand at these airports increasing from about 117 million passengers today to 150 million by 2030.

New York City's freight system also faces significant challenges. Although New York City's port and rail connections fueled the city's rise in the 19th and 20th centuries, almost all of the nearly 400 million tons of cargo that enters, leaves, or passes through the city every year are now transported by truck. This creates a host of challenges, from air quality to costs for businesses, to security and resiliency, to quality of life concerns for residents.

And those trucks put a tremendous amount of wear and tear on the City's roads, which are used by millions of vehicles each day. Our streets, bridges, and highways are among the oldest in the country and are in need of near constant repair and rehabilitation. A sustained commitment to maintaining our road network is essential to supporting the movement of people and good across the five boroughs.

Initiative 1

Support full funding of the MTA capital plan

A modern and reliable regional transit system is essential to New York's future growth and realizing the goals of OneNYC. Thus, the City strongly supports the full funding of the Metropolitan Transportation Authority's (MTA) 2015–19 Capital Plan. As the city's transit riders, toll payers, and taxpayers already support the much of the MTA's operations, we will continue to look to every level of government to support the modernization and expansion of New York's transit system, which is a key economic driver of the downstate New York region.

The City will also work closely with the MTA to identify significant savings and improve operational coordination in areas of common interest, such as bus rapid transit, other bus services, and Access-a-Ride. Any savings we achieve together can be leveraged to create new capital support for the MTA.

To support the goals on OneNYC, the City calls for the inclusion of the following additional capital projects and initiatives in the MTA capital plan:

- The development of a strategy to accelerate the installation of Communications-Based Train Control (CBTC), a technology that allows the MTA to operate more frequent service on existing subway lines. CBTC improves safety, expands capacity, increases reliability, shortens travel times, and enables the installation of countdown clocks. To keep up with growing ridership on our subways, CBTC must be more quickly deployed on congested routes
- A study to explore the expansion of the subway system south along Utica Avenue in
Brooklyn, one of the densest areas of the city without direct access to the subway

- Entrance upgrades at a number of subway stations in high-growth areas to relieve crowding and provide access for the disabled beyond those already included in the MTA plan
- A transfer connection at the Livonia Ave/Junius St stations between the L and the 3 lines, which would improve subway options for residents of Canarsie and East New York
- The development of a strategy to upgrade the Long Island Railroad (LIRR) Atlantic Branch to subway-like service after the completion of East Side Access—including adoption of the subway fare—and a timeline for implementation
- Improvements to the LIRR and Broadway Junction stations and necessary enhancements, including streetscaping and pedestrian improvements, to strengthen connections in a potential high growth area with transit capacity

Initiative 2

Improve existing transit services

Supporting Initiatives

A. Relieve congestion on major subway corridors. In addition to accelerating the installation of CBTC on key subway lines, as detailed in Initiative 1, the City will also continue to work with the MTA to move forward on design and construction of Second Avenue Subway Phase II, and move forward on the planning and design of Phase III. When completed, these phases will extend the line north to 125th Street and south to Houston Street, dramatically relieving congestion on the over-crowded 4/5/6 subway lines.

B. Improve and expand bus transit throughout the city

To improve bus service throughout New York City, we will:

- Expand the Select Bus Service (SBS) network to 20 routes citywide by 2017. The MTA and New York City Department of Transportation (NYCDOT) will significantly expand the reach of SBS, bringing faster and more-reliable bus service to tens of thousands of daily bus riders. The City and the MTA will initiate service on three new SBS routes in 2015 and five new routes in both 2016 and 2017. The next routes to launch in 2015 are 86th Street in Manhattan, Utica Avenue in Brooklyn, and Flushing to Jamaica via Main Street in Queens. The City has also begun work on a transformative new bus rapid-transit route on Woodhaven Boulevard which will reduce travel times by 25 to 30 percent for more than 30,000 daily bus riders. The SBS program has been successful in reducing travel times and increasing ridership.
- Improve local bus service. NYCDOT will work with the MTA to identify key congestion points along busy local bus routes, and to develop and implement solutions.

Over the next four years, the City will address eight of these bus hot spots. The City will also continue to expand transit signal priority (TSP), a system that improves bus reliability by giving buses an early green light or extra green time at intersections. The City will implement two new TSP corridors per year over the next four years (in addition to the nine corridors already being planned, and three already in operation).

- Increase camera enforcement of bus-lane rules. Bus lanes are an essential tool for moving buses through congested city streets and getting bus riders where they need to go more quickly. Effective enforcement of bus lanes requires cameras in order to keep the lanes free from traffic. The current State legislation authorizing enforcement of bus-lane rules with cameras expires this year. Working with our elected representatives in Albany, the City will work to expand use of bus-lane cameras to keep buses moving and thus provide faster trips for tens of thousands of New York City bus riders.
- Provide real time bus information to more riders. Working with the MTA, the City will install 250 real time bus information signs at key SBS and local bus stops in 2016 and 2017. These displays will provide better information to bus riders, especially those without smartphones.
- Leverage the commuter rail system to better serve New York City communities. The City will work with the MTA to better leverage the commuter rail system to provide improved transit connections within the city. The City will continue to support the building of new accessible stations in the Bronx as part of the Metro-North to Penn Station project, which will bring commuter rail service to Co-Op City and other Bronx communities currently without rapid transit access. The City will also work with the MTA on a study of the conversion of the Atlantic Branch to a more frequent and affordable shuttle service between Atlantic Terminal and Jamaica, which would provide a new transit option to residents of Crown Heights, East New York, and Jamaica. Finally, the City will advocate for changing commuter-rail-fare policy for intra-city trips, including the expansion of City Ticket, which would make the Long Island Rail Road and Metro-North an affordable option for travel within the city.

Initiative 3

Plan for major expansions of the transit network

Supporting Initiatives

A. Develop a regional transit strategy to address the growing number of commuters from west of the Hudson River

Over a quarter of a million workers commute every day from counties in northern New Jersey to Manhattan—and this number is expected to increase over the coming decades. The bus and rail infrastructure that handles most of this commuter load is already at capacity. The City will work with Amtrak, the MTA, New Jersey Transit, and the Port Authority of New York and New Jersey
Improving Transit Access to Jobs

The initiatives described within this goal will improve existing transit service and provide support for major expansions to the transit network. While increasing access to jobs for all New Yorkers, these improvements will particularly impact those whose poor access by public transit affects their economic outcomes.

The neighborhoods highlighted in the above map are those in which median household income for a family of four is below the citywide average of $52,259 and access by public transit to jobs is comparatively poor. Many workers in these communities do not have access to a car and rely exclusively on mass transit to get to work.

To improve access to employment in these priority areas, the City will implement a program of public transit and bike improvements, including new Select Bus Service (SBS) routes and expanded ferry service. The City will also work with the MTA to improve and expand the transit network. These initiatives are described in more detail in Initiatives 1, 2, 3 and 4 of this goal.

Including existing SBS routes, these projects will improve transit service in 25 priority communities, contributing to the target of providing 90 percent of New Yorkers with access to more than 200,000 jobs by transit in 45 minutes.

1 NYC median income is $52,259 (2013)
2 Weighted average jobs accessible via transit within 45 minutes
5-Year Estimates, Economic Opportunity and New York City Neighborhoods
NYU Rudin Center Analysis
Major Transit Projects Under Construction

1. **2nd Avenue Subway (Phase 1)**
   - **Who:** MTA-CC
   - **What:** Tunneling and station work to extend Q line to 86th Street.

2. **2nd Avenue Subway (Phase 2)**
   - **Who:** MTA-CC
   - **What:** Extension of the Second Avenue Subway from 14th Street to 72nd Street, adding new stations at 74th, 80th, and 86th Streets.

3. **Metro-North Railroad Penn Station Access**
   - **Who:** MTA-CC
   - **What:** Construction of a new terminal and supporting facilities to accommodate future demand and improve the customer experience.

4. **Gateway Program**
   - **Who:** Amtrak
   - **What:** Construction of two new Hudson River rail tunnels and other improvements to double-track capacity into Penn Station.

5. **Penn Station Terminal Redevelopment**
   - **Who:** MTA-NYCT
   - **What:** Design of a new modern transit system to replace the existing outdated facility, alleviating overcrowding and improving the passenger experience.

6. **PATH Newark Airport Extension**
   - **Who:** PANYNJ
   - **What:** Extension of PATH service to Newark Liberty Airport to provide a one-seat ride from Lower Manhattan.

7. **Atlantic Avenue Conversion**
   - **Who:** MTA-CC
   - **What:** Study of the conversion of the corridor rail line between Atlantic Terminal and Jamaica station into subway-like passenger service.

8. **Utica Avenue Subway Extension**
   - **Who:** MTA-CC
   - **What:** Study of the extension of the Eastern Parkway Line to provide service on the 2 and 3 lines along Utica Avenue in Brooklyn.

9. **Advanced Subway Signals**
   - **Who:** MTA-NYCT
   - **What:** Installation of CBTC, new communications and signal equipment to increase reliability and capacity on the IRT and B Division.

10. **2nd Avenue Subway (Phase 3)**
    - **Who:** MTA-CC
    - **What:** Design of the extension of the Second Avenue Subway south to Houston Street, with new stations at 15th, 21st, 34th, 29th, 14th, and Houston Streets.

11. **Advanced Subway Signal Expansion Projects**
    - **Who:** MTA-CC
    - **What:** Study of the conversion of the L and 3 lines at Livonia Avenue to improve the customer experience.

12. **Amtrak’s Gateway Project**
    - **Who:** PANYNJ
    - **What:** Major expansion projects described in Initiative 3, including Major transit projects already under construction by the MTA and PANYNJ.

13. **Major capital projects that are essential to the future growth of the city and are called for in OneNYC.**

New York City’s Priority Transit Projects

1. **2nd Avenue Subway (Phase 1)**
   - **Who:** MTA-CC
   - **What:** Tunneling and station work to extend Q line service to 86th Street.

2. **East Side Access**
   - **Who:** MTA-CC
   - **What:** Provide LIRR access to Grand Central Terminal via the 2nd Street Tunnel, increasing frequency and providing direct access to East Midtown.

3. **Advanced Subway Signals**
   - **Who:** MTA-NYCT
   - **What:** Installation of CBTC, new communications and signal equipment to increase reliability and capacity.

4. **Moynihan Station Expansion**
   - **Who:** MTA-CC
   - **What:** Redevelopment of projects in Initiative 3, including Major expansion projects described in Initiative 3, including major expansion projects described in Initiative 3, including Major transit projects already under construction by the MTA and PANYNJ.

5. **Penn Station Terminal**
   - **Who:** MTA-NYCT
   - **What:** Restructuring and modernization to improve the customer experience.

6. **PATH Newark Airport Extension**
   - **Who:** PANYNJ
   - **What:** Extension of PATH service to Newark Liberty Airport to provide a one-seat ride from Lower Manhattan.

7. **Atlantic Avenue Conversion**
   - **Who:** MTA-CC
   - **What:** Study of the conversion of the corridor rail line between Atlantic Terminal and Jamaica station into subway-like passenger service.

8. **Utica Avenue Subway Extension**
   - **Who:** MTA-CC
   - **What:** Study of the extension of the Eastern Parkway Line to provide service on the 2 and 3 lines along Utica Avenue in Brooklyn.

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    - **What:** Study of the conversion of the L and 3 lines at Livonia Avenue to improve the customer experience.

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13. **Major capital projects that are essential to the future growth of the city and are called for in OneNYC.**

New York City subway ridership has reached record highs. In 2014, the system recorded over 6.1 million trips in a single day, the highest daily figure since recording began in 1985. Commuter rail tunnels under the Hudson River, which are over 100 years old, are also carrying a record number of passengers. High transit ridership is putting tremendous strain on the subway and commuter rail systems.

The first map shows that subway and commuter rail lines are at 88 percent of passenger capacity overall entering the Manhattan central business districts during rush hour, with many lines (shown in dark red) at over 90 percent capacity. In some cases lines are operating at over 100 percent, with trains tightly packed and passengers often waiting for several trains to pass before being able to board.

The second map shows estimated capacity with the set of major expansion projects described in Initiative 3, including Amtrak’s Gateway Project, current and future phases of Second Avenue Subway, acceleration of advanced subway signal system improvements to expand the capacity of existing lines, as well as the East Side Access project currently underway. With completion of these projects, lines would be at 65 percent passenger capacity overall entering Manhattan during rush hour, allowing over half a million more passengers to reach places of work in the central business districts during the average work day. Many lines would achieve significant improvements to their capacity as shown by the number of dark green lines on the map.
B. Study new subway routes in underserved communities and other improvements to the subway network

The City will work with the MTA to study a Utica Avenue extension from the Eastern Parkway Line (3/4 train). The Utica Avenue corridor is a prime candidate for the next generation of subway expansion—it is one of the densest areas in the city not directly served by the subway and is served by the second busiest bus route in the City, the B46. The City will also work with the MTA to create new system transfers, such as a transfer between the L and 3 trains at Livonia Avenue. These new connections will reduce travel times and expand travel options for thousands of subway riders. Finally, the City will work with the MTA to identify strategies to improve and expand station entrances at subway stops experiencing growing ridership. As subway ridership continues to climb, we must take action to reduce overcrowding in subway stations, especially at choke points like stairways and fare-gate areas.

C. Expand the ferry network

The City will launch an expanded citywide ferry network to improve transit connections between the city’s waterfront communities; this service will be fully accessible to New Yorkers with disabilities. Three new routes—Rockaway, South Brooklyn, and Astoria—are scheduled to launch in 2017, with two others in 2018 (Lower East Side and Soundview). The City has also committed capital funding for the construction of landings.

D. Expand and improve service to and within Staten Island

Improving connections to Staten Island will support recent revitalization along the North Shore and strengthen the connection of the South Shore to the rest of the city, an essential link in expanding economic opportunity and building resiliency for those communities. The City will work to expand service through:

- Enhancements to east/west transportation along the North Shore. In the short term, this includes a package of bus service improvements, including additional Transit Signal corridors, real-time information signs, and treatments for bus hot spots.
- More frequent service on the Staten Island Railway (SIR). New train cars will improve service for existing ridership, while enhanced off-peak service will benefit residents of Staten Island as well as visitors to Staten Island’s neighborhoods and new attractions and amenities.

Initiative 4

Expand the City’s bike network

Supporting Initiatives

A. Continue to expand the City’s bike-lane network, especially to neighborhoods with limited bike infrastructure

Bicycling as a way to get around the five boroughs continues to grow in popularity. Between 2013 and 2014, the City’s In-Season Cycling Indicator—a measure of bike volumes on major bike routes into the Manhattan CBD—rose by 4 percent. Overall, cycling has increased a staggering 337 percent since 2000. To support this growth and the City’s goal of doubling the Cycling Indicator by 2020, the City will continue to invest in new bike infrastructure. Over the next four years, the City will add another 200 miles of bike lanes, including 20 miles of protected lanes, bringing the total to 1,180 lane miles. The City will work collaboratively with communities to continue expanding the bike network outward from the Manhattan core and inner Brooklyn. The City will also explore ways to better measure bike ridership in areas outside of the Manhattan CBD.

B. Improve bike access on bridges

Safe and convenient bridge access for bikes is crucial to making New York City more bike-friendly. In 2015 and 2016, the City will improve bike connections between Brooklyn and Queens with the construction of a two-way bike path on the Pulaski Bridge and the installation of protected bike lanes on the John Jay Byrne Bridge on Greenpoint Avenue. The City will also improve bike connections
to the High Bridge in Upper Manhattan to coincide with its reopening this summer. Moving forward, DOT is evaluating potential designs for improved bike routes on the Grand Street Bridge in Brooklyn and the Honeywell Street Bridge in Queens. The City is also initiating a study of bike access to the 15 Harlem River bridges, which will recommend a program of both short- and long-term improvements. Finally, the City is working with the MTA to pilot external bike racks on buses that cross bike-inaccessible bridges and to explore options for adding pedestrian and bike paths on the Verrazano Narrows Bridge.

C. Expand bike share

In 2015, the City and its partner, New York City Bike Share, will expand Citi Bike to Long Island City in Queens, and to additional parts of Williamsburg, Greenpoint, and Bedford Stuyvesant in Brooklyn. This expansion will include 1,000 new bikes and over 90 stations. In 2016 and 2017, Citi Bike will add another 5,000 bicycles and increase its service areas to additional areas of upper Manhattan, central Brooklyn, and western Queens.

Initiative 5

Expand the accessibility of the city's transportation network to seniors and people with disabilities

Supporting Initiatives

A. Increase accessibility of the pedestrian network to people with disabilities

The City will identify a range of measures to increase the accessibility of our streets to New Yorkers with disabilities. These measures include the expansion of Accessible Pedestrian Signals (APS) and sidewalk-repair programs, development of accessible design guidelines for all New York City street projects, and a pilot program to explore ways technology can improve accessibility. New technology, such as smartphones, opens up opportunities to assist pedestrians with disabilities, particularly the vision-impaired, in navigating the city's streets—in addition to other efforts like DOT's upgrading of pedestrian ramps.

B. Improve accessibility to bus services for transit users with disabilities

Buses are a critical transportation link for older residents and New Yorkers with disabilities. In 2015, the City will roll out a second phase of its Safe Routes to Transit initiative to address accessibility problems at 25 bus stops located under elevated train lines. At these bus stops, buses cannot pull to the curb, leading passengers to wait and then board from the street. This initiative will build sidewalk extensions on boarding islands at these stops so that passengers are safe and the bus ramps can be properly deployed.
The City will support the PANYNJ’s efforts to enhance the capacity of freight movements by rail large across the Hudson River, increasing opportunities now for shippers in Brooklyn, Queens and beyond.

B. Reduce the impact of the trucks that must bring freight “the last mile” to market

The City will increase off-hour deliveries by food- and retail-sector trucks, with a focus on large buildings, high-pedestrian areas, and bicycle-conflict areas such as Midtown and Lower Manhattan, Downtown Brooklyn, and Downtown Jamaica. By shifting deliveries to overnight and early morning hours, the City will decrease both congestion and truck emissions. As part of this effort, we will work with the trucking industry to explore and pilot low-noise truck technologies.

Mobile applications are now available to match suppliers who need to move goods with truckers who are already on the road and have room to pick up additional cargo, thus reducing new truck trips on our streets by consolidating loads. The City will launch a pilot project to encourage the use of these platforms.

The City will work with large fleets to create a Smart Fleet rating system, similar to the Leadership in Energy & Environmental Design (LEED) standard for buildings, but based on truck safety, noise reduction, energy efficiency, and emissions-control technology. The City will then publicly recognize fleets that go above and beyond in using safe, quiet, and green trucks for their deliveries.

To facilitate the delivery of construction-related cargo by water, such as building components, turbines, and generators, the City will create designated roll-on/roll-off and lift-on/lift-off staging areas for maritime cargo in each borough, making it easier and cheaper to bring these essential construction supplies into New York City.

C. Expand JFK Airport’s air freight activity

The City is working with PANYNJ to improve JFK’s air-freight facilities. Over the past decade, cargo volumes at JFK have declined by almost a third. Today, over 15,000 people at JFK work directly in air cargo related jobs. Regionally, the air cargo industry supports over 50,000 jobs, $8.6 billion in sales, and almost $3 billion in wages. The City remains committed to supporting the air cargo industry and will work with PANYNJ to increase the capacity of our air freight systems to expand JFK’s share of the air-freight market.

In March 2015, the City adopted a new rule allowing industry-standard 53-foot tractor trailers to access JFK. The City is also working with the PANYNJ to build new facilities. Over the past two years, a truck stop has opened on-airport, and a new animal handling facility (for which the City provided financing) is under construction. The next two years will see the construction of a new state-of-the-art cargo handling facility.

This work is complemented by the City’s efforts to establish an industrial business improvement district in the adjacent Springfield Gardens neighborhood.

Initiative 7
Expand airport capacity

To maintain our competitiveness as a center of tourism and the global economy, the City will work with PANYNJ, New York State, and the Federal Government to expand flight capacity and improve airport facilities and terminals at the region’s airports, particularly LaGuardia and JFK. Working with PANYNJ and the airline industry, the City will support the expansion of Terminal One, Terminal Eight, and Terminal Four at JFK and the complete reconstruction of the Central Terminal at LaGuardia Airport, an outdated facility that is long overdue for replacement. Additionally, the City will encourage the Federal Aviation Administration and PANYNJ to continue to implement NextGen technology, a series of upgrades to the region’s air traffic control system that will improve safety and enable more-efficient take-offs and landings.

The City supports expanding flight capacity at JFK, but only in a manner that is sensitive to the environment and the quality-of-life concerns of adjacent communities. The City will work with PANYNJ as it completes a study of capacity-expansion options, including the addition of a fourth runway. This study should take into account the noise, air quality, and greenhouse gas emission impacts of different expansion options and ways to mitigate these impacts.

Initiative 8
Provide reliable, convenient transit access to all three of the region’s major airports

Though they are all served by transit, none of New York’s major airports offers a one-seat transit connection to the City’s central business districts (CBDs). This lack of access impacts air travelers and airport employees, and increases congestion on the regional highway system.

The City will continue to work with the MTA and others to improve existing bus connections to LaGuardia in the short term, while working with PANYNJ, the MTA, and the State of New York to develop a plan for better long-term transit. Similarly, it will continue to support PANYNJ’s project to extend Port Authority Trans-Hudson (PATH) to Newark Airport, which will add airport access from Lower Manhattan.

Finally, the City will work with PANYNJ and the MTA to explore additional ways to improve existing bus and rail connections to JFK, such as adding more frequent shuttle service on the Atlantic Branch of the Long Island Rail Road after East Side Access is complete.
Initiative 9

Improve the city’s roads, bridges, and highways

The City is responsible for the operation and maintenance of a complex network of roads, bridges, and highways that connect the five boroughs. Much of this infrastructure is aging—the four East River Bridges, for example, are all over 100 years old—and requires continual reinvestment to remain in a state of good repair. Over the next ten years, the City will undertake dozens of major capital projects to restore our network of roads and bridges, including significant rehabilitation of major roads essential to the City’s economic vitality. For example, sections of the critical FDR Drive will be rehabilitated along with the esplanade that sits above it.

In Brooklyn, the City will rehabilitate and reconstruct the 21 interconnected bridge structures that carry the Brooklyn Queens Expressway from Atlantic Avenue to Sands Street, including the “triple cantilever” stacked section of highway completed in 1948, topped by the iconic Brooklyn Heights Promenade. With no reconstruction work in recent history, the triple cantilever is in need of major repair with many components experiencing significant deterioration. In Queens, the City will repair multiple structures carrying and crossing both the Van Wyck Expressway and the Cross Island Parkway. In addition, the City is initiating a series of robust safety improvements along sections of Queens Boulevard, a Vision Zero Priority Corridor, as part of the Administration’s Great Streets initiative.

In Staten Island, the City will undertake 17 projects to fully rebuild city streets, including sections of Father Capodanno Boulevard, Victory Boulevard, and Arthur Kill Road. Together, these projects will ensure our road and bridge network can continue to safely support the movement of people and goods across the city.

The “Triple Cantilever” in 1948 and today

Source: NYCDOT, Division of Finance, Contracting, and Program Management

Note: Highway Structure Rehabilitation/Reconstruction occurs at multiple points along each highway

The “Triple Cantilever” in 1948 and today

Source: NYCDOT, Division of Finance, Contracting, and Program Management

Note: Number represents the number of projects
Goal: New York City's infrastructure and built environment will exemplify global economic, environmental, and social leadership

Overview

Infrastructure is the foundation of our regional economy and provides for the everyday needs of all New Yorkers, yet much of New York's core infrastructure is aging and outdated. Many systems, including transit, sewers, and schools, were built decades ago and are at capacity, straining to meet the demands of a growing population and a modern, thriving economy. Fixing our infrastructure requires significantly more funding and a renewed national commitment to cities, as well as smarter, more efficient infrastructure planning and project delivery.

The physical legacy of disinvestment during the fiscal crisis of the 1970s stands as a testament to the urgency of achieving a “state of good repair.” The City spent the next three decades trying to catch up, investing billions of dollars to rehabilitate infrastructure and buildings. We need a near-term infusion of funding from all levels of government in order to prevent history from repeating itself and to allow us the opportunity to expand infrastructure systems that catalyze economic expansion and neighborhood revitalization.

While more investment is required, we will take significant steps to improve our use of existing funds through integrated capital planning, improved project delivery, and asset management. Current investment plans would benefit from better coordination with our regional partners, including State government, public authorities, utilities, and other private entities. The City is committed to taking a leadership role in coordinating these investments and incorporating them into our own strategic planning process.

As it currently stands, many capital projects come in over budget and behind schedule. This is partially due to reasons outside of our control, such as the complexities of construction in a dense city. However, we can do better in a number of areas, including reforming City and State laws, streamlining rules for public procurement and construction, streamlining permitting processes, improving capital project tracking and accountability, and enhancing the City’s technology and data systems.

Our overall goal is to ensure New York City’s infrastructure is the product of best practices and is consistent with our City’s reputation as a global leader in economic, environmental, and social policy. In this vein, we are fully committed to reforming the processes that support each stage of the infrastructure lifecycle.

Additionally, the City’s massive infrastructure program creates a wide range of jobs and economic activity. We will leverage these investments to create employment and career opportunities for New Yorkers, targeted to those who have historically experienced high rates of unemployment. These commitments are carried out through targeted training programs and Project Labor Agreements, discussed earlier in the Workforce Development goal.
**Initiative 1**

**Secure funding sources that are equitable, sustainable, and dedicated to our core infrastructure**

Over the next decade, the City will continue to advocate for a robust federal commitment to funding urban infrastructure, while exploring new streams of dedicated revenues.

**Supporting Initiative**

A. **Leverage land-use actions to encourage infrastructure investments**

City policy, such as rezonings, create economic value for property owners, some of which should be recaptured in order to fund the infrastructure improvements needed to accommodate growth and development. For instance, as part of the zoning changes associated with the planned One Vanderbilt office tower, the development firm SL Green Realty Corporation has committed to spend $210 million on improvements to the Grand Central Terminal and subway station. Investments in infrastructure can in return enhance real estate values and thus lead to increased tax revenue for the City.

**Initiative 2**

**Maximize the economic, environmental, and social benefits of infrastructure investments**

Every City agency strives to achieve economic, environmental, and social benefits with its investments—the triple bottom line. New methodologies have emerged to help inform investment decisions. The City should maintain a focus on achieving a state of good repair for its infrastructure assets while prioritizing projects that are economically advantageous, as exemplified by the emissions reductions, energy cost savings, and jobs created through retrofits to public buildings under One City: Built to Last.

The City already collects a wealth of data that could be harnessed to inform strategy and to identify data gaps that would support more sophisticated prioritization methodologies.

We will also facilitate interagency and intergovernmental collaborations in order to realize higher economic, environmental, and social returns (the triple bottom line). These efforts will include improvements to the City’s geographic information systems (GIS) and data-sharing platforms that will also increase the transparency of our infrastructure programs and facilitate greater partnerships with our infrastructure partners in state and federal government.

**Initiative 3**

**Enhance capital project delivery**

Capital projects often take too long and cost too much. While many of the reasons for this are outside of the City’s control, there is much we can change to improve the situation, particularly in rules and processes. Over the next several months, the City will establish a task force to identify strategies for accelerating investment programs and modernizing project delivery, procurement, and payment processes to greatly reduce the time between project approvals and completion.

**Supporting Initiatives**

A. **Reform state laws to enable design-build**

City construction is governed by state laws, some of which are outdated and undermine timely capital project delivery. In 2014, we were pleased to see the joint bidding law passed in Albany, which increases the pace and lowers the cost of upgrading our underground infrastructure—what E.B. White described as the “ganglia” of subterranean power lines, steam pipes, gas mains, and sewer pipes.

The City also supports an amendment to the New York State Construction Law authorizing the use of the design-build method of project delivery. Currently, the City is required to contract separately and sequentially for design and construction services. Design-build saves a great deal of time by requiring the procurement of only one contract for both phases and allowing these phases to overlap. New York State is using a design-build contract for the Tappan Zee Bridge rebuild, which may save taxpayers as much as $1 billion. New York City agencies should be able to use similar cost-saving measures for their projects.

B. **Expand the Accelerated Work Program**

Last spring, the City created the Underground Infrastructure Taskforce to improve the response protocol for gas leaks and find ways to advance the replacement of older gas pipes and water mains. In cooperation with private utilities, the City piloted the Accelerated Work Program in 2014, which identified locations where water- and gas-main work could be coordinated. The City will continue to expand the program in 2015. The Department of Environmental Protection will spend $100 million to replace old water mains on an accelerated schedule. Thanks to the Accelerated Work Program, private utilities will be replacing their gas pipes at many of the same locations using the same contracts. As a result these streets will be dug up only once.

C. **Improve project scoping and design to improve green-building and save costs**

Spending more time and effort on the early phases of any project pays great dividends during the design and construction phases. However, due to funding structures for capital projects, the scoping of a project is often short changed.
Several years ago the City created a program to fund early and enhanced project scoping. This program has proven to be successful and will be expanded to build on the progress already made.

We will take a more integrated approach to planning and design in general, and bring more of a design focus to capital planning and budgeting. Moreover, we will make a conscious effort to focus on citywide goals and values during each public-project design phase. Led by the Department of Design and Construction, the City will plan, design, and construct the City’s infrastructure and public buildings to integrate green building and energy-efficient goals in a cost-effective manner.

D. Modernize project delivery requirements and project management processes

The City is investigating additional ways to reduce construction costs and shorten project schedules. As a whole, the City’s project delivery requirements must be modernized to meet national and global project management lifecycle standards. Developing citywide project management knowledge and frameworks to address scoping, design, procurement, construction, payments, change orders, and permitting will reduce project costs, schedules, and risks. We will create a higher level of transparency and accountability for capital projects, and revamp the online Capital Projects Dashboard for internal tracking and public information. The Mayor’s Office of Contract Services is also reviewing every step of the City procurement process for opportunities to reduce delivery time and reduce costs.
Major Planned City Projects 2014-2025

The City will soon release its Ten-Year Capital Strategy, providing a blueprint for capital spending over the next decade that will be critical to improving New Yorkers’ lives in the years to come. A selection of major planned projects, including transportation, parks, water, sewers, hospitals, and schools, economic development and resiliency projects are highlighted on the map at right. OneNYC and the Ten-Year Capital Strategy are aligned to ensure funding for OneNYC goals.

Projects Not Shown

- Citywide Green Infrastructure Program
- NYCHA Recovery and Resiliency Investments
- Citywide Parks Initiative
- Parks without Borders

Note: Partial list of City-led projects

Projects located in

- Upstate New York
- Brooklyn
- Queens
- Manhattan

Projects Not Shown

- CUNY
- DEP
- DOC
- DOT
- DSNY
- DPR
- EDC
- NYCHA
- HHC
- SCA
Broadband

Goal: Every resident and business will have access to affordable, reliable, high-speed broadband service everywhere by 2025

Overview
High-speed Internet access is not a luxury, but an essential service that New Yorkers depend on to communicate, make a living, and access essential goods and services. Without broadband, families and businesses are unable to fully participate in many aspects of contemporary life. Lack of broadband negatively affects the civic, economic, and social engagement of community residents; makes it difficult for startups and small businesses to succeed and scale; and impedes neighborhood development, job creation, and the economic health of the city. Twenty-two percent of New York City households do not have Internet service at home, with major disparities in households above and below the poverty line. 36 percent of households below the poverty line do not have Internet access at home, compared to 18 percent of households living above the poverty line.

Commercial high-speed connections are often priced out of reach of small businesses and startups. The average cost of monthly gigabit speeds for commercial users is $8,000 in New York City, outpacing those in peer cities like Chicago, and far outstripping costs in cities that have made recent investments in broadband infrastructure.

Sluggish Internet speeds and capacity can also create barriers to local economic development and weaken New York City’s global competitiveness. Despite recent investments by Verizon to build a citywide fiber-optic network, many New Yorkers cannot access or afford this high-speed service. And while businesses located in Manhattan’s commercial corridors generally enjoy high-speed connections, there are insufficient options in the neighborhoods in other boroughs where growth in key sectors is taking place. Large healthcare and research centers are also finding Internet speed and access to be a barrier to their operations and growth. This poses a risk that critical New York City economic sectors might lose competitive ground to national and international cities.

The City has, to date, taken significant steps toward building its capacity to meet this goal, creating new positions focused on telecommunications infrastructure and policy, and establishing the Broadband Task Force, an advisory body composed of experts in broadband technology, real estate development, venture capital and digital equity.

Initiative 1
Promote competition in the residential and commercial broadband markets
The City will create new or expanded franchises and alternative service models to expand infrastructure, produce more competition, and increase affordability by 2025—in addition to holding incumbent providers accountable for their legal obligations and negotiating for additional upgrades when those franchises come up for renewal in 2020.

According to the Federal Communications Commission, broadband providers appear to invest more heavily in network upgrades and offer faster Internet speeds in areas where they face competition. The City will therefore seek to increase the diversity of residential and commercial broadband service options through new technologies, combined with novel approaches to the exercise of existing franchise authority, establishment of new franchise authority, creative investment of City resources, and/or creative uses of regulatory authority. The City will explore avenues for increasing competition, including maximizing non-exclusive franchises, supporting hyper-local residential and commercial networks, and facilitating the transition of companies that have, to date, solely focused on infrastructure to Internet service providers.

Initiative 2
Provide high-speed, residential internet service for low-income communities currently without service
The City will invest in networks providing high-speed residential access either free or at low-cost for low-income communities. Investments may be targeted at particular locations such as communities identified for economic and housing development, or may be focused on particular types of housing, such as public or subsidized properties. Sites may also serve as nodes in a citywide network consisting of LinkNYC and other wireless corridors and networks.

The City expects to realize cost savings resulting from greater efficiencies, such as the use of smart building technologies and resident utilization of e-services. The City will also develop revenue models—grounded in advertising, branding opportunities, premium paid service, and other strategies that will ensure networks are ultimately self-sustaining.
Vision 1

Initiative 3
Increase investment in broadband corridors to reach high-growth business districts, with a focus on outer-borough neighborhoods

The City will invest in new technologies to support innovation economy business in key commercial corridors. This will address the relative lack of high-speed fiber or wireless options for businesses in the boroughs outside of Manhattan, high prices and their combined impact on economic growth and development across the City. Selection criteria will include demonstrated need for and potential benefit from robust broadband by businesses in considered areas, and/or demonstrated engagement from community-based organizations and other stakeholders to help drive the adoption and implementation process.

Initiative 4
Promote seamless user experience across public networks to create high speed access across the boroughs

The City will ensure a successful citywide rollout of LinkNYC network, which will consist of up to 10,000 structures across the five boroughs, offering 24/7 free Internet access up to gigabit speeds, as well as a range of other services.

The City will leverage existing public and commercial wireless networks and corridors and the backbone created by LinkNYC, with a goal of covering a critical mass of the City’s public spaces with free Wi-Fi by 2025. Today, there are 1,090 documented public hotspots across the five boroughs; the City will enable a dramatic increase in this number.

Through these initiatives, the City will support a seamless user experience across all five boroughs, leveraging LinkNYC and other wireless hotspots. As a result of rising usage levels, the potential advertising-based revenue models—similar to the LinkNYC model—is sure to grow, which will promote the sustainability of these networks over time.

All networks in public spaces can be woven together to ensure a seamless user experience that can be accessed by residents and users across all five boroughs. To ensure all networks meet the benchmarks set by LinkNYC, the City will standardize the speed, security, interoperability, and price features across networks, and manage the technical integration between these networks.

Initiative 5
Explore innovative ways to provide high-speed Internet to homes, businesses, and the public

The City has released a Call for Innovations targeting the needs of underserved residential and commercial customers, identifying public and private infrastructure that might be leveraged to meet these needs, and requesting suggestions for innovative models to provide service to low-income households and startups. These policy and project proposals will inform City efforts to increase access, affordability, and adoption.

Finally, the City will conduct research on the latest broadband developments and trends to help inform the City’s strategy on connectivity.
Our Just and Equitable City

New York City will have an inclusive, equitable economy that offers well-paying jobs and opportunities for all New Yorkers to live with dignity and security.

New York City will...
- Lift 800,000 New Yorkers out of poverty or near poverty by 2025
- Reduce overall premature mortality by 25 percent by 2040 and dramatically decrease racial and ethnic disparities
- Increase median household income

Goals

**Early Childhood**
Every child in New York City will be nurtured, will be protected, and will thrive.

**Integrated Government & Social Services**
All New Yorkers will have access to high-quality, conveniently located, community-based City resources that promote civic engagement and enable them to thrive.

**Healthy Neighborhoods, Active Living**
New Yorkers of all ages will live, work, learn, and play in neighborhoods that promote an active and healthy lifestyle.

**Healthcare Access**
All New Yorkers will have access to the physical and mental healthcare services that they need.

**Criminal Justice Reform**
Among large U.S. cities, New York will continue to be the safest and will have the lowest rate of incarceration, with a criminal justice system that leads the nation in fairness and efficiency.

**Vision Zero**
New Yorkers will continue to embrace Vision Zero and accept no traffic fatalities on New York City streets.
Nearly half of New York City residents live in or near poverty

We will lift 800,000 New Yorkers out of poverty or near poverty by 2025

This can be achieved through a broad set of anti-poverty initiatives including raising the minimum wage—a particularly effective tool for reducing poverty and income inequality.

Scheduled and proposed minimum wage increases and anti-poverty initiatives will help us reach more than half of our goal

- Minimum wage is already scheduled to increase to $9 per hour in January 2016 (phased in from 2013 to 2016)
- Governor Cuomo has proposed raising the minimum wage to $11.50 per hour
- Early impact of anti-poverty initiatives (detailed below)

We will fight to raise the minimum wage to more than $13 per hour in 2016, indexed to inflation so it rises to $15 in 2019

We will not wait. OneNYC anti-poverty initiatives will continue to move us toward our goal while we push to secure the right starting wage for New York City

- Pre-K for All to provide early education and help parents re-enter the workforce
- Educational programs to prepare students for college and career success
- Workforce development programs to build skills and find New Yorkers quality jobs
- Better transportation to increase accessibility to work
- Healthy environments and access to quality healthcare to help New Yorkers stay in the workforce
- Affordable housing to reduce living costs for a range of households
- IDNYC—already issued to more than 100,000 New Yorkers—to access government and community services
- Accessible broadband to enable full participation in the city's civic and economic life

Near poverty defined as below 100 percent poverty threshold; poverty defined as $31,156 threshold for a family of four. Extreme poverty defined as below 50 percent poverty threshold.

The CEO Poverty Measure, 2013
Introduction

To truly achieve our aspirations, New York City must be a place where all can participate and contribute. Regardless of background or circumstance, all residents must be able to fully engage in the economic, civic, and social life of the region.

Equity is imbedd in all the visions of OneNYC. Vision 1 of this plan, for example, lays out a strategy for an inclusive workforce that ensures all New Yorkers have the skills they need to access well-paying jobs; Vision 3 aims to improve greenhouse gas emissions, air quality, flood control, and parks across all the boroughs; and Vision 4 sets out a plan for all of our neighborhoods to be ready to withstand and emerge stronger from the impacts of climate change and other 21st century threats.

Equity must inform all of our planning, policymaking, and governing. Through this lens we assess who will benefit, who is burdened or needs help, and whether the actions we undertake broaden the participation of underrepresented groups, reduce disparities, and expand opportunities for all New Yorkers. Where someone starts out in life should not determine where they end up. Equal opportunity and the genuine possibility of upward mobility are our nation’s signature ideals, and New York City has long been a place where these ideals can be achieved. Remarkable stories of extraordinary individuals who beat the odds and achieved their dreams provide inspiration to new generations of people seeking a better life for themselves and their families.

But we know there is a gap between our ideals and the real-world experiences of many New Yorkers. Too often, a person’s home address, parents’ income, race, or other demographic traits can weigh on his or her life outcomes—from educational attainment to future earnings, and even life expectancy. We must change these underlying odds.

A commitment to reduce poverty

In 2013, 45.1 percent, or 3.7 million, of our residents were living below 150 percent of the CEO poverty line, meaning they were in poverty or near poverty.

The economic insecurity of people living in or near poverty plays an outsized role in undermining individual potential, and compounds other challenges. The hungry student has difficulty focusing in the classroom; poor living conditions produce health challenges; and financial stresses can lead to depression, which in turn can affect the wellbeing of a family’s children. What might appear to be an issue specific to education, health, safety, or another concern is often rooted in something more basic: not having enough money.

Center for Economic Opportunity (CEO)

Poverty Measure

The CEO poverty rate is an alternative, more comprehensive poverty metric than the official federal poverty rate. It measures the cost of living in New York City and the resources available to households after tax and social policy are taken into account. CEO has developed a variety of models that estimate the effects of taxation, nutritional and housing assistance, work-related expenses, and medical out-of-pocket expenditures on total family resources and poverty status. The most recent data available is from 2013.

1. The poverty threshold for a family of four in 2013 was $31,156. The threshold to move out of near poverty, 150 percent of the threshold, was $46,734 for a family of this size.

2. The most recent CEO poverty rate for New York City is 45.1 percent, and the near poverty rate is 45.1 percent.

3. As of 2013, the poverty and near poverty rate has remained essentially unchanged since 2011.

Concurrent with the publication of this plan, CEO is releasing its annual poverty report, this year covering the period of 2005 through 2013. See www.nyc.gov/ceo.

A higher minimum wage would be a powerful force in reducing poverty. In his 2015 State of the City address, the Mayor stated the City’s goal to raise the minimum wage to more than $13 per hour in 2016, and to index it so that it is expected to rise to $15 per hour by 2019. If this were to happen, and OneNYC anti-poverty initiatives are implemented, 800,000 New Yorkers would be lifted out of poverty or near poverty by 2025. The change would be transformative.

Ensuring all New Yorkers live a long and healthy life

We are committed to ensuring every New Yorker has the opportunity to live a long and healthy life. Premature mortality—death before the age of 65—is closely tied to poverty and a lack of access to critical services. There are significantly more premature deaths among certain racial/ethnic groups in and certain neighborhoods. In 2013, the age-adjusted premature mortality rate per 100,000 deaths was 276.1 for black Non-Hispanic New Yorkers, 188.2 for white Non-Hispanic New Yorkers, 160.3 for Hispanic New Yorkers, and 98.5 for Asian New Yorkers.

As a City, we are committing to reduce the premature mortality rate by 25 percent by 2040, so as to dramatically decrease disparities among racial/ethnic groups. OneNYC targets causes of premature death such as infant mortality, chronic diseases, gun violence, and traffic fatalities. We will promote the health, safety, and well-being of all of our residents.

Premature death by neighborhood

Rate per 100,000

75.6 - 137.8
137.9 - 171.7
171.8 - 226.5
226.6 - 367.1

Unpopulated areas
Equity benefits us all

The city benefits from everyone’s contributions. We all gain when a child discovers a passion for dance watching his first neighborhood performance; when a middle-schooler can post to GitHub from her home because of broadband access; when a high school student receives guidance to apply for financial aid and realizes he can afford college after all; and when a parent goes to her job confident her toddler is safe in affordable childcare. City investments can make all of these things possible—and the future artistic works, entrepreneurial ventures, and productive workforce these investments create enrich our city and drive it forward.

New York City’s economic and cultural leadership over time won’t last if we do not make progress toward greater equity. Research is beginning to show that inequality can stymie economic growth. It can also undermine the social cohesion necessary to create resilient communities. We will all bear the consequences of inequality as our budgetary and social costs rise in areas such as healthcare and criminal justice. It is in our shared long-term interest to have a just city.

All New Yorkers deserve a chance to reach their potential, and over the next two decades, we will work as a city to ensure access to these opportunities. New York City will persist in its historic legacy as a city for everyone.

Taking action now

While the fight for a higher minimum wage goes on, New York City will not rest. Dozens of initiatives across all four visions in OneNYC are aimed specifically at reducing inequality and promoting opportunity. This plan describes the actions the City will take even as the effort to enact a fair minimum wage continues, and ultimately succeeds.
Early Childhood

Goal: Every child in New York City will be nurtured, will be protected, and will thrive

Overview

The City is determined to close the opportunity gap that exists for young New Yorkers, starting from the birth of every child. The infant mortality rate (IMR)—an indicator of the entire population's health and wellbeing—was the lowest in New York City history in 2013, at 4.6 deaths per 1,000 live births. However, despite a declining rate that is nearly 25 percent below the U.S. average, there are significant, and in some cases widening, disparities between neighborhoods. According to NYC Vital Statistics data, in 2013 infant mortality rates were nearly double in areas with very high poverty compared to areas with low poverty (5.2 infant deaths per 1,000 live births vs. 2.8, respectively).

Among racial ethnic groups, the disparity is the starkest between black and white babies. The 2013 infant mortality rate for black babies, 8.3 infant deaths per 1,000 live births, was the infant mortality rate for white babies more than 20 years ago. Among Hispanics, the 2013 infant mortality rate for Puerto Rican babies, 4.8 deaths per 1,000 live births, was over 1.5 times the rate for white babies, and was the infant mortality rate for white babies nearly a decade ago. Other Hispanic babies had an infant mortality rate of 4.3 deaths per 1,000 live births, a little under 1.5 times higher than the rate among white babies in 2013.

To address infant mortality disparities, the City proposes achieving a historic low of 3.7 infant deaths per 1,000 live births citywide by 2040 and dramatically decreasing the racial/ethnic disparity. The City will reach its commitment by targeting key neighborhoods with high infant mortality rates and implementing social and structural supports before, during, and after pregnancy.

High-quality early childcare and early childhood education lead to improved academic and life outcomes. High-quality pre-kindergarten promotes cognitive and academic gains that persist into adulthood, reduces involvement with the criminal justice system, increases high school graduation rates, and increases college attendance rates. When a child attends pre-kindergarten, his or her chances of reaching advanced reading levels by the third grade—a critical indicator of future success—increases by 18 percent. Studies have found that students who are proficient readers by third grade are more likely to graduate high school and enter college. However, not all families have the chance to provide pre-k for their four-year-olds. In New York City, such strides have been made. Pre-K for All, launched in January 2014, has helped bridge this gap for families with four-year-olds.

Initiative 1

Nurture and protect all infants so they thrive during their first year of life and beyond

Disparities in the infant mortality rate arise from inequities including, but not limited to, adverse working and living conditions, inadequate healthcare, socioeconomic position, and discrimination. Thus, the City proposes a series of projects that address these root causes of poor pregnancy outcomes and promote safety in the first year of life in order to reduce the number of infant deaths.

Supporting Initiatives

A. Create neighborhood spaces dedicated to advancing women’s health

The Department of Health and Mental Hygiene (DOHMH) will explore enhancing its Neighborhood Health Hubs (described further in goal on Integrated Government & Social Services) with designated space for women’s health services.

INDICATORS + TARGETS

- Reduce infant mortality rate by 20 percent to achieve a historic low of 3.7 infant deaths per 1,000 live births citywide by 2040, and dramatically decrease the racial/ethnic disparity
- All four-year-olds receive access to free, full-day, high-quality pre-kindergarten

Infant mortality rate by race/ethnicity

Per 1,000 live births, 2013

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<tr>
<th>Race/Ethnicity</th>
<th>Infant Mortality Rate</th>
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<tr>
<td>Black Non-Hispanic</td>
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<td>3.1</td>
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<tr>
<td>White Non-Hispanic</td>
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</tbody>
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DOHMH, Bureau of Vital Statistics

Infant mortality rate by mother's racial/ethnic group and education

Per 1,000 live births, 2013
promotion. Located in seven low-income, underserved areas, these hubs would provide access to comprehensive women’s health and baby-friendly care, which would help address infant mortality. Possible features include space for supportive group work (e.g., parenting support and coaching, smoking cessation), and exercise studios and equipment. In addition, the space would support healthy birth outcomes by reducing stress and providing a physical space for women to breastfeed, rest, exercise, and connect with each other. These structural supports are often missing in communities with poor birth outcomes and high infant mortality rates.

City programming in these spaces would also provide women with information and resources they need to stay healthy before, during, and after pregnancy, and offer them the support their young infants need. Some of the DOHMH's key initiatives to support infants and healthy mothers include breastfeeding and safe sleep education, cribs for families that cannot afford them, home visitation during pregnancy and early childhood, and promotion of women’s health, including increasing access to contraception to help plan pregnancies.

B. Expand the number of “baby-friendly” hospitals to promote access to breastmilk for newborns

The Baby-Friendly Hospital Initiative (BFHI) is a global program sponsored by the World Health Organization (WHO) and the United Nations Children’s Fund (UNICEF) to encourage and recognize hospitals and birthing centers that offer an optimal level of care for lactation based on the WHO/UNICEF Ten Steps to Successful Breastfeeding for Hospitals.

Breastfeeding has been shown to have many health benefits for infants, including reducing the risk of ear infections, diarrhea, and pneumonia. Moreover, it helps reduce infant mortality because it helps increase the likelihood of survival for premature infants. Research shows that infants born at facilities that provide recommended care for lactating mothers and babies, such as those that have incorporated the WHO/UNICEF Ten Steps to Successful Breastfeeding, are more likely to initiate breastfeeding, exclusively breastfeed, and continue to do so for longer periods of time.

Of the 40 maternity facilities in New York City, 17 hospitals and one birthing center are participating in the New York City Breastfeeding Hospital Collaborative, an initiative to increase exclusive breastfeeding rates. Of these 18 participating facilities, three are Baby-Friendly Designated, and seven are in the final phase of designation. Under this initiative, the City will pursue and encourage physical interventions in hospitals that will transform newborn nurseries into smaller observational areas, assuring adequate space for newborns to safely sleep in the same room with their mothers; establish space for breastfeeding education and support, including a private place to breastfeed for mothers whose infants are in the Neonatal Intensive Care Unit; and establish a central place to store infant formula for mothers who are not exclusively breastfeeding.

Approximately 80 percent of all infant deaths due to injury are related to the infant’s sleep position and environment. The City has launched the Safe Sleep Campaign to make parents and other caregivers aware of the potentially fatal risks of sharing a bed with an infant, and how to prevent injuries and deaths associated with other unsafe sleep practices, such as excessive bedding, bumpers, and toys in cribs. City hospitals and community health centers are leading these efforts.

Pre-K for All is New York City’s truly universal full-day pre-kindergarten system. As of December 2013, fewer than 27 percent of four-year-olds in the city had access to full-day pre-kindergarten. Launching Pre-K for All in January 2014, the City committed to ensuring all four-year-olds whose families are interested in full-day pre-k could participate in a high-quality program by the 2015-2016 school year.

In September 2014, the City opened 245 new full-day sites in all five boroughs. Recognizing the critical role teachers play in early childhood education, the City committed to recruiting high-quality pre-k teachers with early childhood certification, as well as supporting several hundred teachers in earning their certification through a partnership with City University of New York (CUNY). It also trained more than 6,000 lead teachers, assistants, and paraprofessionals. Programs are expected to support all children in gaining the foundation needed to realize their potential. These programs focus on curriculum, instruction, and family engagement on the skills and knowledge reflected in the comprehensive state pre-k learning standards, known as the New York State Prekindergarten Foundation for the Common Core.

In conjunction with its commitment to offer a high-quality, full-day pre-k seat to every four-year-old, the City will continue to focus on developing high-quality early childhood programs through teacher recruitment and training as well as through increased support for students whose native language is not English, students with disabilities, and students from high-need areas.

The Center for Economic Opportunity and the Department of Education are collaborating with Westat,
Early Childhood

“...I am a social worker and my husband is a postal worker...We do not quality for affordable childcare, so between childcare, afterschool, rent, and clothes, we barely have money for food. I visit the local pantry at my church to get help with food. Our school-age children attend public school, but I pay $1,800 a year for daycare for one child, $3,000 a summer for day camp, $30,000 in rent, and $18,200 on daycare for my two-year-old.”

—Sanaya B., Manhattan

Metis Associates, and Branch Associates, with supplemental support from the New York University Institute for Human Development and Social Change, to undertake a rigorous two-part research study of this work. It will include an evaluation of the effectiveness of the implementation process and an impact study assessing the kindergarten readiness of children in pre-k. The research is designed to inform future years of program delivery as well as lay a foundation for future longer-term research.

Given the research that demonstrates how critical early childhood learning is, the City will explore the possibility of expanding pre-kindergarten to three-year-olds. Like Pre-K for All for four-year-olds, this program would help close the opportunity gap among New York City students and will enable new parents to re-enter the workforce earlier.

Initiative 3

Develop a comprehensive plan for high-quality early childcare

Childcare is a major expense for working families in New York City. Studies show that providing increased access to high-quality childcare—and lowering the cost of childcare—can significantly increase mothers’ employment rates and incomes. It can also help businesses retain employees and, in turn, provide job stability. However, in 2014, New York was the least affordable state in the nation for childcare, with the average price of center-based, infant childcare about 15 percent of the median annual state income for married couples, and 34 percent for single mothers.

A 2011 Center for Urban Future (CUF) report found that only one in four low-income children under the age of six was being served by center-based childcare programs across the five boroughs. In addition, waiting lists for childcare centers in some parts of the city were long, with as many as 40,000 parents in line for childcare services. Several city neighborhoods, most notably the South Bronx, northern Manhattan, and parts of Central Brooklyn, were underserved in subsidized and affordable childcare.

Currently, the Administration for Children’s Services (ACS) runs the Early Learn initiative, which provides center-based and family-based early care and education to more than 29,000 children from six weeks through four years of age. Early Learn is a model for early care and education that brings together Head Start, childcare, and pre-k services, and provides quality early learning opportunities at 350 centers in the highest need areas.

As part of an effort to expand early-care and education programs, ACS is conducting a large-scale community needs assessment to better understand the changing needs of New York City communities. The City will use the findings to develop a plan to close the gap in access to childcare. In drawing up the plan, the City will consider subsidies, property and zoning concerns, and economic development initiatives to increase the availability of group childcare in underserved communities.

Talk to Your Baby Campaign

On April 1, 2015, the City launched Talk to Your Baby, which is a campaign to encourage early childhood language development and establish strong bonds between parents and children. The campaign promotes talking, reading, and singing to babies to help build their brain. Children of low-income parents typically hear 30 million fewer words by the time they reach age four. This “word gap” persists over time, having a negative impact on their language development and establishment strong bonds between parents and children. Just like we encouraged thousands of new parents to sign up for pre-kindergarten, we can get thousands of parents to start talking, reading, and singing to their babies. These efforts are led by the Children’s Cabinet, the Mayor’s multi-agency initiative intended to increase communication and coordination among City agencies and develop strategies for a holistic approach to child safety and wellbeing.
Neighborhood Health Hubs, we have already begun to break down service silos.

With the expansion of the Department of Education’s (DOE) Community Schools and fostering collaboration among City agencies. The City has already begun investigating how best to expand the existing Community Schools and enable residents to thrive.

We are working to give New Yorkers the right services at the right times in a coordinated and integrated manner through both physical and digital approaches. This involves meeting people where they are in their communities—their schools, health providers, libraries—and providing them with a “one-stop shop” that addresses their service and information needs. In addition, we need to invest in a data platform that helps us identify the services that New Yorkers need most.

The City is looking to build on existing successes and work toward establishing physical hubs, which will provide a cohesive range of social and community services. Hubs allow access to City government and community information, and civic engagement opportunities specific to those neighborhoods. We will use existing government-owned and non-profit-owned real estate to the greatest extent possible and build on local initiatives.

With the expansion of the Department of Education’s (DOE) Community Schools and the launch of the Department of Health and Mental Hygiene’s (DOHMH) Neighborhood Health Hubs, we have already begun to break down service silos.

Salamé Ureña de Henríquez Campus School

Located in Washington Heights, the Salomé Ureña de Henríquez Campus School is a Community School founded in a partnership between The Children’s Aid Society, Community School District 6, local community-based partners, and the City of New York. Most students qualify for free school lunch, and a large number are English Language learners. The school is a prototype for community schools across the country.

Working with school staff, an on-site Community School director coordinates the activities and services offered to students. These services include afterschool, holiday, and summer programs; medical and preventative health services; and family and community engagement and development opportunities (such as a family resource room, vocational and educational training, and Advocacy and leadership opportunities).

The school has offered mental health support to students and families in neighboring communities after major tragedies such as 9/11, and emergency community support like water and cooling stations after incidents such as prolonged blackouts.

Integrated Government & Social Services

Goal: All New Yorkers will have access to high-quality, conveniently located, community-based City resources that promote civic engagement and enable residents to thrive

Overview

New York City is home to a world-class government and non-profit programs that provide social services, civic engagement opportunities, and resources for improving residents’ lives. Participation in these services and civic engagement opportunities, however, is often inhibited by a variety of barriers, including inaccessible or inconvenient locations, lack of information, timing constraints, immobility, lack of language options, and lack of broadband access. In addition, in many cases, people need help identifying their needs and which services can best help them.

The City is looking to build on existing successes and work toward establishing physical hubs, which will provide a cohesive range of social and community services. Hubs allow access to City government and community information, and civic engagement opportunities specific to those neighborhoods. We will use existing government-owned and non-profit-owned real estate to the greatest extent possible and build on local initiatives.

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network beyond our initial cohort of 128 schools, with the aim of ultimately transforming every school into a Community School. Given the large number of CBOs across New York City, there is ample opportunity to expand the network of partners.

The first cohort of Community Schools will provide important information on strong practices and lessons learned. We will draw on this experience when we release the next competitive RFP for 100 additional City-supported Community Schools, which will occur in 2017 or 2018.

**Initiative 2**

**Establish Neighborhood Health Hubs that co-locate clinical health and mental health services with social services and City agencies to foster improved coordination**

Community health and service offerings are often fragmented, duplicative, and have persistent service gaps. Too often, despite an array of services provided by many dedicated organizations, there has not been the kind of impact needed to significantly improve population health.

Thus, the DOHMH will launch Neighborhood Health Hubs, which aim to eliminate health disparities and promote health equity. These health hubs revitalize a 1920s idea whereby CBOs, providers of medical and mental health services, and other New York City government agencies co-locate to provide coordinated services to neighborhood residents. The aim is to foster cross-sector work that addresses the root causes of health inequities—such as violence, low income, and low educational attainment—in communities with the greatest burden of disease, while building on the wealth of existing assets in those neighborhoods.

DOHMH will begin by establishing at least seven Neighborhood Health Hubs in neighborhoods with high health disparities. The first site is expected to be in East Harlem. These Neighborhood Health Hubs will be located inside DOHMH District Health buildings.

Building on this health hub model, additional City agencies are exploring new ways to co-locate their staffs with one another and with non-profit organizations. Not every access point to the government needs to be a City office. We will explore ways to embed staff from agencies in other institutions, including existing non-profits that already serve as trusted community providers. Staff can provide information and help residents navigate and enroll in available programs and services, register to vote, and access other civic services. In conjunction with the multi-service centers, these access points can reduce the challenges that residents have to get what they need, when they need it.

**Initiative 3**

**Enhance the digital capabilities of NYC 311 to provide easier connections to government and community services and information**

We will continue to make it easier for residents to find information, enroll in programs, and provide feedback to the City online. Today, too much information is presented by individual agencies, which means residents must know the City’s organizational structure in order to discover relevant opportunities. We will make it easier for New Yorkers to search for and find relevant services and opportunities.

This enhanced digital platform will provide the same information available at the physical hub offices, without residents needing to visit an office to access information. Some of the tools that help residents discover relevant information and engage online have already been announced, including LinkNYC, which will offer up to a gigabit of free wireless in 10,000 locations, and Neighborhoods.nyc, which will provide domain names for community groups to develop a single neighborhood digital presence for civic engagement, online organizing, and information sharing.

311 is the single most recognizable and easy-to-access customer service tool for all New Yorkers. The digital capabilities of 311 will continue to be enhanced to provide easier connections to services and information and to simplify customer engagement. Customers will be able to create and manage their own accounts and relationship with the City and collaborate on content. They will also be able to unlock access to service requests and access data currently not available in the existing 311 system. Human Resources Administration (HRA) call centers will be merged with 311 to provide “one-stop shopping” for customers with multiple questions or needs. The expansion of social media and mobile app offerings will streamline the customer experience.

We will continue to develop other ways to enhance the digital experience of New York City residents so they can receive services and information in a more efficient and simple manner.
IDNYC

On January 12, 2015, the Mayor launched a major municipal identification (ID) initiative, IDNYC, to ensure every New Yorker has access to the opportunities, security, and peace of mind that comes with having government-issued photo identification. There is a critical need for this program because approximately half of New York City residents age 16 and over do not have a New York State Driver License. The IDNYC card is helping more New Yorkers, regardless of immigration status, homeless status, or gender identity, access public- and private-sector services, programs, and benefits.

The IDNYC card is broadly accepted across the city and provides eligibility for City services, entry to City buildings and schools, recognition by City agencies such as the NYPD, and opportunity to open bank accounts at select financial institutions.

The vision for the IDNYC card is to create a single card for each New Yorker’s wallet. This card integrates the various forms of identification issued by local government, giving it dynamic value and expansive functionality. To supplement the card's value as a form of identification, the City has developed a set of key partnerships with libraries, cultural institutions, and other organizations. Learn more at www.nyc.gov/idnyc.

Initiative 4

Expand the City’s internal data integration capacity to help ensure clients receive the right resources and service at the right times

The challenges faced by social service clients can cut across the purview of different City agencies. Many times, however, different agencies are unaware that they are working with the same clients. Technology-enabled tools can help agencies better support individuals and families to achieve better results. For example, auto-notifications can alert caseworkers from different agencies that they share common clients (subject to privacy protections), which can help them coordinate support. With greater investments in integrated data systems, the City will also be able to better track the results of its programs. By examining the short- and long-term outcomes of interventions and services, we will be able to, over time, reallocate resources toward the most effective approaches.

Analytic tools can improve decision-making across a range of disciplines. In criminal justice, smarter use of data can not only inform criminal justice processing and programming decisions, but also be used to share data to improve residents’ health and safety. These tools are detailed further in the section below on Criminal Justice Reform.

To advance these and other solutions, the City aims to enhance its data platforms to be able to personalize and improve its social services work. By integrating data about the City’s people, places, and program activities, the City can conduct more powerful analyses and do a better job of sharing information among agencies about both community needs and specific individuals and families. This enhanced analytic capability will help us connect residents with the right services when they need them. It will also help us track the relative impact of the City’s funding streams and programmatic models so we can make more evidence-informed decisions about what works. Our initial scoping work for this “intelligent service platform” will begin this year.

NYC Library Systems

New York City’s three library systems, comprising 210 branches across all five boroughs, offer free quality services to students, families, job-seekers, seniors, and anyone in need of information or assistance as centers of learning and civic engagement. In addition to their important traditional services—circulating millions of books and supporting research by students and scholars alike—the libraries are expanding their roles and working in increasingly close partnership with the City to support the changing needs of our neighborhoods and residents.

The library systems are assisting new immigrants by providing English Speakers of Other Languages (ESOL) classes, citizenship education, and support for immigrant small business owners and entrepreneurs in coordination with the Department of Small Business Services. The libraries are critical partners for the Department of Education in supporting students and families through early education services, after school programming, and homework support. Libraries are also helping us close the digital divide by offering Internet access in their buildings and lending Wi-Fi hotspots and other mobile devices for families to use at home. Libraries help strengthen our communities by offering cultural and recreational neighborhoods, and serving as resident service centers in times of emergency.

The library systems are also critical partners on major citywide initiatives including IDNYC, Pre-K for All, and OneNYC. Together, we are ensuring that all people have access to the many resources and opportunities our City has to offer.
Healthy Neighborhoods, Active Living

Goal: New Yorkers of all ages will live, work, learn, and play in neighborhoods that promote an active and healthy lifestyle

Overview

The access New Yorkers have to nutritious food and beverages, opportunities for physical activity, and quality housing play a large role in determining their physical and mental wellbeing and their ability to fulfill their potential. Many New York City neighborhoods have considerable room for improvement in promoting good health and wellbeing, with large disparities in opportunities for healthy living and health outcomes between high-poverty and low-poverty neighborhoods. We will implement several initiatives to ensure all New Yorkers live in neighborhoods and housing that promote healthy lives.

Initiative 1

Improve food access, affordability, and quality, and encourage a sustainable, resilient food system

Quality food is fundamental to a healthy life. However, the City’s current food system does not allow for equitable access to nutritious food. There are broken links between food production, sales to distributors and wholesale buyers, and delivery to consumers that result in inequitable distribution of and access to healthy food.

Moreover, approximately 1.4 million New Yorkers, or one in six, report they are food insecure, a result of unemployment, poverty, and other household characteristics. Food insecure families may worry that food will run out before they have enough money to buy more, eat less than they should, or be unable to afford to eat balanced meals. The availability, quality, and affordability of food affect the quality of New Yorkers’ diets. Cardiovascular disease, which is often connected to poor diet, is the leading cause of death for men and women in New York City.

Increased fruit and vegetable consumption is associated with a decreased risk of chronic diseases such as hypertension, heart disease, and stroke. Not all New Yorkers consume the same amount. The 2013 Community Health Survey reported the lowest levels of consumption were among black and Hispanic New Yorkers, those with low education levels, and those living in high-poverty neighborhoods.

Our goal is to increase the average number of servings of fruits and vegetables adult New Yorkers eat every day by 25 percent, from 2.4 to 3 mean servings, in the next twenty years. The City will undertake a variety of initiatives aimed at promoting access to nutritious, quality food for all New Yorkers, especially those most in need.

Supporting Initiatives

A. Increase the share of regional food in the New York City food system through investments in the regional food distribution system

Our region produces high-quality, nutritious foods, including fruits and vegetables, legumes, meat, and dairy. Farmers in the region are interested in selling more products in the New York City market, but face distribution and other barriers. By investing in the regional food distribution system, we can increase the availability of local food for the city’s consumers across the income scale, while also enlarging the market for local and regional farmers in the city.

Increasing the amount of food from the region has broader benefits. It will reduce greenhouse gas emissions from shipping food from far away, make our food system more resilient to climate change and other potential disasters, and create jobs locally and across the region.

To increase access to good quality food produced in the region, the City will work with the State on the Regional Food Hubs Task Force, which was launched in March 2015. We will act on its recommendations to increase the amount of regionally-produced food coming into the city through investments in the food system. Furthermore, upstate farmland that feeds the city and protects our water regionally-produced food coming into the city through investments in the food system.

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B. Expand and improve quality of New York City school food

The City’s public school system has 1.1 million students, about 75 percent of whom qualify for free lunch. Providing over 160 million meals a year, the NYC Department of Education (DOE) runs the largest school food-service program in the United States. This program has enormous reach and buying power such that its potential to transform the eating habits, nutrition, and food security of young New Yorkers is monumental.

“Make it appealing for supermarkets to open in high-population areas so people can have access to nutritious foods at reasonable prices.”

—Phyllis G., Manhattan

Healthy Neighborhoods, Active Living

INDICATORS + TARGETS

- Increase the average number of servings of fruits and vegetables that adult New Yorkers eat per day by 25 percent, from 2.4 to 3 servings, by 2035
- Increase the percentage of adult New Yorkers who meet physical-activity recommendations from 67 percent to 80 percent by 2035
- Increase the percentage of New York City public high school students who report meeting recommended levels of aerobic physical activity from 19 percent to 30 percent by 2035
- Decrease asthma emergency department visits by children by 25 percent, 299 per 10,000 to 224 per 10,000, by 2035
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- Increase the percentage of adult New Yorkers who meet physical-activity recommendations from 67 percent to 80 percent by 2035
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“Make it appealing for supermarkets to open in high-population areas so people can have access to nutritious foods at reasonable prices.”

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To ensure no public school student goes hungry, and that all are ready to learn, we will work to increase participation in school meal programs.

We must also improve the lunchroom experience and environment for students. To promote participation in meal programs, and healthy choices, we will begin by renovating 45 middle and high school cafeterias over five years with new furniture, paint, and improvements to serving lines.

To improve the quality of food served, the City will continue to increase procurement of sustainable, healthy, and local food and supplies. We will promote food and environmental education by increasing student engagement with gardens—both by working to increase the number of school gardens and facilitating school partnerships with existing gardens. By investing in the quality of our school food, we will continue to provide nutritious meals to families and children that need them, and help build healthy eating habits in New Yorkers at a young age, promoting a lifetime of healthy eating.

C. Ensure all communities have access to fresh food retail options, with a special focus on traditionally underserved neighborhoods

New Yorkers see significant disparities in their neighborhood food options. A survey of the food stores in the Crotona-Tremont neighborhood of the Bronx in 2012 found that for every supermarket in the neighborhood, there were four fast food restaurants and ten bodegas. We have an opportunity to work with the private sector to improve the food marketplace and access to healthy food for those in need.

To improve the availability of healthy food in retail settings, we will expand on the City’s work to attract new supermarkets to underserved neighborhoods and encourage renovations and upgrades of existing small or independent grocery stores.

We will also work with the private and non-profit sectors to explore innovations and business growth in food retail, including health- and community-focused grocery stores, restaurants, and corner stores. Improving the nutritional quality and affordability of the food available citywide will encourage better health outcomes for all and will have positive effects on job creation and economic development.

In addition, we will support and expand initiatives to provide fresh food options to underserved neighborhoods. For example, we will support and expand fresh food box programs that bring an affordable basket of fresh fruits and vegetables to community settings such as childcare centers. This means ensuring the non-profit providers of these programs have the resources they need to be viable and expand; and that we help community settings get a program like this to their area. We will work with community organizations to bring new community-based farmers markets to underserved neighborhoods. These initiatives will be complemented by an annual distribution of in Health Bucks—vouchers that can be used to purchase fresh fruits and vegetables—to provide additional buying power for local and fresh foods among low-income consumers.

D. Support community gardens and urban farms in select neighborhoods in the city

Urban agriculture plays a small but critical role in communities underserved by quality, affordable, fresh food. Urban farming provides opportunities for residents to engage in growing local produce, educates children about nutrition, and offers training in food preparation, gardening, and retailing skills. By offering young people jobs in the youth markets and providing formal horticulture training for community members, urban agriculture also provides opportunities for workforce development.

To encourage the growth of the urban farming sector, the City will support community gardens in neighborhoods with necessary infrastructure. We will also support these gardens with assistance in selling produce at farm stands and teaching nutrition and cooking. We will work to support school gardens, and educate students about nutrition, gardening, and science.

We will also support larger-scale urban farming ventures, and establish food-producing gardens at NYCHA sites through its Gardening and Greening program. We will study additional emerging urban agriculture opportunities, such as vertical farming projects, to activate underutilized light industrial space and offer related community programming.
Initiative 2
Create environments that encourage New Yorkers to be physically active regardless of age

Physical activity is beneficial for overall health and wellness, leading to lower risk of developing chronic diseases, greater cardiorespiratory fitness, stronger muscles, better bone strength, and higher self-esteem. Still, 33 percent of all adults and 43 percent of older adults in New York City fail to meet physical activity recommendations, putting them at higher risk for heart disease, diabetes, stroke, and falls.

Residents living in poor or predominantly minority neighborhoods are less likely to have clean, safe, and attractive places to be physically active. Consequently, physical activity levels are often correlated with income, race, and neighborhood. In New York City, 37 percent of residents in very high-poverty neighborhoods fail to meet physical activity recommendations compared to 29 percent in low-poverty neighborhoods.

A strong body of evidence demonstrates how one’s physical environment influences physical activity. For example, residents in neighborhoods with

Level of physical activity by age

<table>
<thead>
<tr>
<th>Percent, 2013</th>
<th>Inactive</th>
<th>Insufficiently active</th>
<th>Sufficiently active</th>
</tr>
</thead>
<tbody>
<tr>
<td>18-24 years</td>
<td>75</td>
<td>72</td>
<td>64</td>
</tr>
<tr>
<td>25-44 years</td>
<td>24</td>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td>45-64 years</td>
<td>1</td>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td>64 and over</td>
<td>1</td>
<td>5</td>
<td>75</td>
</tr>
</tbody>
</table>

recreational facilities are more likely to use them and be more active; and making stairs accessible and attractive is associated with increased stair use. By increasing access to physical activity space in and around schools, to commercial and community recreational facilities, and to accessible stairs, the City will increase opportunities for physical activity for all New Yorkers. And we will work to reduce inequities in access to environments that support physical activity by focusing these efforts on low-income neighborhoods.

Supporting Initiatives

A. Increase opportunities for physical activity in and around schools

As children spend about half of their waking hours in school, schools are uniquely positioned to play a role in improving physical activity levels of students. To encourage active play at school, the City will explore enhancing existing school yards by painting colorful ground markings including games, tracks, and other creative designs. Painted ground markings have been shown to be a low-cost but effective way to increase physical activity.

B. Increase design elements that promote physical activity in buildings

New Yorkers, on average, spend over 90 percent of their time indoors. As the City constructs and renovates buildings, we will take advantage of the opportunities to apply Design Guidelines for Healthy Living building elements such as secure bicycle storage, accessible stairs, indoor and outdoor recreation space for building users, and building exteriors that contribute to making the streetscape welcoming for pedestrians. The City will expand the scope of Department of Design and Construction (DDC) projects to incorporate Design Guidelines for Healthy Living strategies such as stair improvements, bicycle storage, and fitness rooms.

Further, we aim to improve stair use by supporting legislation that, consistent with the recommendation of the Green Codes Task Force, requires new buildings and certain major renovations to include at least one stairway that is easily accessible and open for use.

We will continue to explore incentives for residential building owners receiving City financing for new construction and substantial rehabilitation to promote physical activity through Design Guidelines for Healthy Living. We also support passing the Department of City Planning Zoning for Quality and Affordability text amendment, introduced in February 2015, which would remove obsolete provisions and modernize other zoning provisions to foster diverse and livable neighborhoods. The text amendment, for example, would allow ground floors to accommodate more active uses and add interest to the streetscape.
C. Provide opportunities for physical activity in the community for residents of all abilities

People are more likely to exercise and be active when they have quality, affordable, and accessible recreational facilities. The City is working to ensure such facilities are available to all New Yorkers. New York City will build off the success of existing adult exercise equipment in the City by co-locating universally accessible age-appropriate adult exercise equipment in or near playgrounds, where feasible.

Beyond this, the City will encourage the creation of community recreation centers and commercial gyms by exploring the elimination of special permit requirements for gyms in certain districts and by conducting outreach to gym and recreation center operators.

Furthermore, Parks Without Borders will pursue new and better ways to connect neighborhoods to the city’s parks and make our streets, sidewalks, and other pedestrian plazas more inviting public spaces (detailed further in Vision 3).

Finally, to ensure New York City active and healthy design initiatives meet the needs and priorities of the communities we serve, we will conduct community engagement as part of Department of City Planning (DCP) comprehensive neighborhood studies, with the goal of creating neighborhoods with access to key facilities and services and a more vibrant street life.

By integrating opportunities for physical activity into the environments where we live, work, study, and play, we will make staying active and healthy easier for all New Yorkers.

Initiative 3
Address health hazards in homes

The home environment is critical to the health and wellbeing of people of all ages. When homes are poorly maintained or not designed to promote safety and health, occupants can be exposed to a variety of health hazards, such as asthma triggers and fall hazards.

Supporting Initiatives

A. Reduce asthma triggers in the home

Asthma affects nearly one million New Yorkers and is the most common chronic respiratory disease in children. More than one in three children with asthma living in high poverty neighborhoods are exposed to potential asthma triggers in the home. Home-based asthma triggers include tobacco smoke, pest infestations, moisture, and mold, as well as some building materials and products. Housing disrepair, such as water leaks, cracks, and holes, create housing conditions conducive to pest infestation and mold growth. Living in pest-free environments is correlated with children having the ability to fulfill their potential; for children with asthma, specific housing interventions have been shown to be effective in reducing allergens, resulting in fewer symptom days, missed school days, and emergency room visits.

Secondhand smoke is also a powerful asthma trigger, with exposure occurring when there is a smoker in the household or smoke travels from one apartment to another. New York City will fund a roof replacement program in NYCHA developments which will address the root causes of mold. The City will also implement a joint HPD-DOHMH enforcement initiative focused on housing with egregious pest infestation. Efforts will target neighborhoods at highest risk for asthma, with building owners required to implement safe pest-control measures using integrated pest management (IPM).

Additionally, we will explore creating strong incentives for building owners receiving City financing for new construction or substantial rehabilitation to use IPM, a comprehensive and prevention-based approach to pest control, smoke-free policies, safer building materials/products, and moisture/mold control. Each year, the City receives applications from affordable housing owners and developers for the financing of new construction or the financing of substantial and moderate rehabilitation of existing housing, impacting an estimated 16,000 housing units per year. These “financing moments” provide important opportunities to promote the use of building materials and products that reduce allergens and asthma triggers for low-income people.
of healthy building practices that reduce asthma triggers in the home. By integrating simple, often low-cost healthy housing measures into building design and construction, renovation, and ongoing operations and maintenance, our buildings will be healthier places to live.

B. Decrease secondhand smoke exposure in the home

There is no safe level of exposure to secondhand smoke (SHS). Non-smokers exposed to secondhand smoke in the home have higher risks of asthma attacks, heart disease, lung cancer, and chronic respiratory disease. Children and the elderly are particularly affected by SHS exposure in the home because they are more vulnerable to its health effects, and because they typically spend more time at home. Secondhand smoke complaints are common, with 40 percent of adult New Yorkers reporting smelling cigarette smoke in their home that comes from another home or apartment or from the outside. We are already making strides to dramatically reduce SHS. An overwhelming majority of non-smokers (81 percent) and most smokers (53 percent) in New York City do not allow smoking in their homes. And 69 percent of New York City adults support smoke-free housing. To address secondhand smoke, a primary driver of unhealthy indoor air quality, the City will work to pass legislation requiring multi-unit housing to have a smoking policy and to disclose it to residents and prospective residents. To complement this, we will explore opportunities for the adoption of other smoke-free housing policies in New York City.

Together, these strategies will work to reduce asthma triggers in the home, which will decrease the percentage of homes with housing conditions associated with asthma.

C. Reduce housing-related fall hazards for older adults

Falls are the leading cause of injury-related hospitalizations and deaths among older adults in New York City, causing an average of 17,000 hospitalizations and nearly 300 deaths each year. Fall-related hospitalization charges total more than $750 million. There are currently more than one million older adults (age 65 or older) in the city, and the older adult population is expected to grow by 41 percent to 1.41 million by 2040, which could dramatically increase the burden of falls and their associated costs.

Most falls among older adults occur at home. Finding and fixing fall hazards in the home is effective in lowering both the risk of falls and the rate of falls among older adults. By 2030, all City contracts for providing home-based services for older adults will require an assessment for fall hazards, as per the DOHMH recommendation. In addition, for new construction, the City will promote the adoption of universal design elements such as grab bars, hand rails, slip-resistant floors, and lighting that reduces the risks of falls. Similarly, for existing buildings, the City will provide incentives for in-place retrofits for these measures aimed at promoting safe home environments and preventing falls among older adults.

By reducing housing-related fall hazards for older adults, we will reduce the number of falls in the home, keeping our aging population healthy and safe.

Age Friendly NYC

Soon, older adults in New York City will outnumber school-aged children. To prepare for this demographic shift, the Office of the Mayor, the New York City Council, and the New York Academy of Medicine have partnered to create Age Friendly NYC. Age Friendly NYC is dedicated to ensuring our older population is healthy, active, and engaged. Initiatives that support the efforts of Age Friendly NYC include:

Increased mobility through accessible transportation: As further detailed in Vision 1, the City aims to expand use of yellow and green taxis—including the growing number of wheelchair accessible yellows and greens—to provide faster and more convenient paratransit services to New Yorkers with disabilities. Additionally, DOT is planning to install attractive and durable benches around the city, particularly in areas with high concentrations of seniors, to make streets more comfortable for transit riders and pedestrians.

Convenient healthy and nutritious food: The City will explore improved meal- and grocery-delivery programs that will improve access to seniors and people with disabilities whose limited mobility and fixed incomes make it challenging to purchase nutritious food.
Healthcare Access

Goal: All New Yorkers will have access to the physical and mental healthcare services that they need

Overview
In 2013, nearly one million New York City residents felt they did not receive the medical care they needed in the past year, with residents of the poorest neighborhoods reporting they were receiving the least care. Residents of these low-income neighborhoods also bear a greater burden of specific diseases, such as heart disease, diabetes, and infant deaths, when compared to other neighborhoods. For example, more than a third of residents of very high-poverty neighborhoods have been diagnosed with high blood pressure; by contrast, less than a quarter of residents of low-poverty neighborhoods were diagnosed with high blood pressure.

Mental health and substance abuse issues affect many New Yorkers. Fifteen percent of all New Yorkers report having been diagnosed with depression. However, the highest prevalence is in high-poverty neighborhoods. In the poorest New York City neighborhoods, seven percent of residents experience serious psychological distress (SPD), compared to three percent in the wealthiest neighborhoods.

Mental and physical healthcare access

<table>
<thead>
<tr>
<th>Neighbhood Poverty</th>
<th>Medical care</th>
<th>Mental health counseling or treatment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lowest poverty (wealthiest)</td>
<td>93%</td>
<td>59%</td>
</tr>
<tr>
<td>Medium poverty</td>
<td>62%</td>
<td>75%</td>
</tr>
<tr>
<td>High poverty</td>
<td>55%</td>
<td>60%</td>
</tr>
<tr>
<td>Very high poverty (poorest)</td>
<td>47%</td>
<td>55%</td>
</tr>
</tbody>
</table>

Mental health counseling or treatment is percentage of adult New Yorkers who feel they have received the mental health care that they have needed in the past 12 months. Mental health counseling or treatment is percentage of adult New Yorkers with serious psychological distress that have taken a prescription medication for a mental health problem.

To reduce disparities in health outcomes, the City will work to develop a healthcare delivery system that emphasizes an integrated and patient-centered approach to care that is delivered in convenient and accessible locations.

Initiative 1

Ensure all New York City neighborhoods have access to high-quality essential healthcare services

Over the past decade, far too many New York City communities have lost critical healthcare services due to the closure of hospitals essential to their wellbeing. Changes in the science of healthcare delivery and healthcare reimbursement are realities we have to face. But New York City cannot allow neighborhoods to lack critical medical services. And we certainly cannot allow the closure of major hospital facilities that would leave communities without essential healthcare.

For these reasons, Mayor de Blasio called for the creation of several new models in healthcare, including the Brooklyn Health Authority, to ensure that no community is left without essential care services. The Authority’s role was envisioned as ensuring adequate funding, leading integrated planning, and promoting the new types of coordinated healthcare service delivery models that protect families and workers given the shifting healthcare landscape.

There have been major developments since the Mayor’s initial proposal for the Authority several years ago. Thanks to the support of the federal government, Governor Cuomo, and Mayor de Blasio, the $8 billion Medicaid waiver was approved by the Obama Administration in April 2014. $6.4 billion of this waiver is explicitly designed to help hospitals across the state restructure their care delivery models to reflect the most current science and reimbursement structures. New York City’s hospitals now have the opportunity and resources to make planned, orderly reforms rather than resorting to the sudden closures that marked the previous decade, while improving the quality and experience of care across the city.

The implementation of these changes has already significantly altered the healthcare landscape in New York. New hospital networks called Performing Provider Systems (PPSs) have developed across the city and pair some of the city’s most financially stressed institutions with those that are more stable. If used properly by the networks, Medicaid waiver funds can prevent major hospital closures and ensure that every community in New York City has access to essential healthcare.

The City must remain vigilant however to ensure these one-time funds are used appropriately and effectively. The City remains steadfast in its commitment that every community has access to the care it needs. We will fight for critical healthcare services across the City and not accept the closure of any more hospitals in Brooklyn or any other communities which would be left without the medical care we need. This commitment includes investments made by the
In addition to its role in providing care for vulnerable New Yorkers, HHC is well positioned to lead transformation of the healthcare delivery system in the City because it offers a comprehensive array of healthcare services. Through its seven regional healthcare networks, HHC operates 11 acute care hospitals, four long-term care facilities, six diagnostic and treatment centers, a certified home health program, and more than 60 community-based health clinics throughout the five boroughs. In addition, MetroPlus, HHC’s wholly-owned health insurance company, takes care of more than 469,000 New Yorkers annually. HHC also provides emergency and inpatient services to New York City’s inmate population at City correctional facilities, and HHC conducts mental health evaluations.

Given the recent shifts in the City’s healthcare landscape, HHC, like the other large hospital systems, is transforming from a healthcare system focused on delivering inpatient services to those who are already sick to a model of care that keeps people healthy throughout their entire lives. This transformation requires HHC to invest in new models of care coupled with a new infrastructure.

Supporting Initiatives

A. Create health access points embedded in communities rather than hospital campuses

In 2015, HHC is rolling out a primary care expansion aimed at providing care to 100,000 additional patients in under-served neighborhoods across the five boroughs through a combination of expanded service offerings at existing and new HHC Gotham Health community clinic locations, including a newly constructed clinic on Staten Island. In addition, as one of only two PPSs that serve all five boroughs, HHC’s Medicaid waiver projects that increase community-based primary care and behavioral healthcare will have a significant impact throughout the city. Finally, when patients seek primary care in hospital emergency rooms, HHC is connecting patients without primary care providers to settings ensuring continuity of care.

B. Ensure critical hospital services are fully functioning in the face of increased demand, weather disasters, and aging infrastructure

The Elmhurst emergency room, where patient volume is expected to increase by 20 percent given hospital closings in the catchment area, is in design phase for its planned renovation and expansion. Significant infrastructure projects underway at Coney Island, Bellevue, Metropolitan and Coler Goldwater hospitals are designed to ensure these facilities can continue operating during future weather disasters (see Vision 4 for more detail). Finally, ongoing infrastructure upgrades at HHC facilities are essential to meet new regulatory requirements and safety initiatives.

Initiative 2

Transform NYC Health and Hospitals Corporation into a system anchored by community-based preventive care

New York City Health and Hospitals Corporation (HHC), the nation’s largest public healthcare system, serves 1.4 million people every year, approximately one out of six New Yorkers. HHC’s role as the city’s largest safety net provider is critical to ensuring all New Yorkers have access to healthcare regardless of their ability or pay or documentation status. Close to half a million of HHC’s patients are uninsured and/or undocumented.

NYC Health and Hospitals Corporation (HHC) coverage

- Acute Care Hospital
- Community Health Center
- Diagnostic Treatment Center
- Long Term Care/Nursing Home
- Mobile Medical Unit
- School Based clinic
Health Care Access

C. Adequately provide healthcare services to New York City’s growing senior population

A key part of transforming HHC’s system is tailoring care to the needs of different populations to ensure their care is the most appropriate and effective. In particular, recognizing New York City’s growing senior population, HHC is including age-appropriate designs in its infrastructure projects. This translates into exam rooms, diagnostic treatment areas and bathrooms meeting wheelchair and walker space requirements, and soundproofing of rooms to improve communication between patient and provider for patients with hearing impairments. HHC also plans to transform the Seaview Campus on Staten Island, which currently offers services for seniors, into a vibrant healthcare destination site which will meet the ongoing needs of the surrounding community.

By strengthening HHC’s infrastructure and adapting to the changes in the healthcare environment, HHC will continue to be a leader improving the health of all New Yorkers.

Initiative 3

Expand access to primary care by establishing health clinics in high-need communities

Healthcare is an essential component of creating and maintaining healthy communities, and primary care is a key part of this equation. High-quality primary care provides a “medical home” for individuals and ensures they get the right care, in the right setting, by the most appropriate practitioner, and in a manner consistent with their desires and values. A close partnership between providers and patients helps patients navigate an increasingly complex healthcare system and strive toward better health outcomes.

In New York City, there are 26 neighborhoods federally designated as primary-care shortage areas. Even this measure undercounts the real need, as neighborhoods must apply for this federal designation.

To address inequalities in access to primary care the City will help create at least 16 health clinics by the end of 2017 in neighborhoods identified by the Community Healthcare Association of New York State as being in need of additional primary-care services. Some of these clinics will be located in New York City Department of Health and Mental Hygiene (DOHMH) Neighborhood Health Hubs (detailed further in goal on Integrated Government & Social Services), collaborating with other local organizations to improve health in their communities. Additionally, New York City HHC’s Gotham health network and other federally qualified health centers will expand to new locations to address the need for primary care.

Unmet need for mental health treatment in New York City

23 percent of NYC adults experiencing serious psychological distress reported not getting the medical treatment they needed in the past year.

41 percent of New Yorkers with serious mental illness reported not getting the medical treatment they needed.

56 percent of New Yorkers with SPD reported not getting any outpatient mental health treatment at all.

Initiative 4

Expand access points for mental health and substance abuse care, including integrating primary care and behavioral health services

Mental health concerns are widespread in New York City. Fifteen percent of New Yorkers reported having been diagnosed with depression, and 12 percent of the city’s adult population reported receiving some form of counseling or taking prescription medication for a mental health problem in the past year. In 2013, five percent of the New York City adult population experienced serious psychological distress (SPD), which is characterized by a range of symptoms commonly present in individuals with mental illness but are not specific to any particular disorder. Mental health issues are not distributed evenly across the City. New Yorkers with serious mental illness are overwhelmingly of low- and moderate-income, with 39 percent living below the federal poverty line. Mental health concerns are also much more prevalent among those with physical health issues.

There is significant unmet need for mental health treatment in the city. Twenty-three percent of New York City adults experiencing SPD reported they did not get all the mental health treatment they needed in the past year; as did 41 percent of New Yorkers with serious mental illness. Barriers to receiving necessary mental health treatment include language difficulties, stigma, difficulty with navigating the mental health system, and cost. Immigrant populations may be more likely to experience stigma around mental, emotional, and behavioral (MEB) health and may be less familiar with their communities’ health resources. Additionally, the behavioral healthcare system is fragmented and poorly integrated with the primary care system.

NYC HHC intends to improve the overall health of New Yorkers with mental health and substance-abuse diagnoses by scaling two best practice approaches: first, co-located and integrated substance-abuse and mental health specialty services, and second, integrated behavioral healthcare in primary care through the integrated Collaborative Care model—a collaborative team of a primary-care providers, care management staff (e.g., nurses), and psychiatric consultants. Each of the models requires providers to build deep relationships with community-based organizations, social-services agencies, and government agencies able to identify patients in need, engage them, and assist in supporting their treatment.
Initiative 5

Work with New York State in enabling and supporting the transformation of the healthcare delivery system

The aforementioned initiatives are cornerstones of our vision of all New Yorkers living fully realized lives. But New York City can’t do it alone. As the primary regulatory entity, the State plays a critical role in shaping who can deliver healthcare, how and where those services are provided, and how services are paid for within New York City. The City stands ready to partner with the State to implement changes to the healthcare system that will ensure high-quality, coordinated care for all New Yorkers.

Supporting Initiatives

A. Integrate patient data across healthcare systems

Since 2009, thousands of healthcare providers have adopted and are using electronic health records. However, few are connected to systems that enable sharing of medical and behavioral health information between care settings or with supportive services organizations. According to the New York eHealth Collaborative (NYeC), only two percent of clinical practice sites are connected in New York City and 14 percent across New York State. Furthermore, based on DOHMH’s health information connectivity data, only about five percent of 7,000 primary-care providers listed in its database are connected to a health-information exchange.

The lack of information-sharing is associated with duplicative testing, delays in care, and incomplete information—all issues that have resulted in poorer health outcomes and higher costs to the City and State. A recent study found that up to 22 percent of patient records reviewed had duplicative testing documented. This fragmentation of healthcare and supportive services affects New Yorkers across all five boroughs and is especially problematic for people with low health literacy, limited English-language proficiency, limited mobility, mental or behavioral health conditions, previous incarceration, or other factors that can make accessing care more difficult.

A call-to-action is needed to accelerate federal and state programs to integrate patient information of New Yorkers across healthcare delivery and supportive systems, as well as across jurisdictional lines. The City stands ready to partner with the State to implement changes to the healthcare system so all New Yorkers can receive high-quality, coordinated care.

We have already made strides in this direction. In 2006, the New York State Department of Health (NYSDOH), in cooperation with healthcare leaders in New York State, established a public-private partnership to develop and operate the Statewide Health Information Network of New York (SHIN-NY). SHIN-NY facilitates the exchange of patient information across health settings anywhere in the state. Additional effort is still needed to scale up the information exchange process to as many provider types as possible and incorporate data from related health and social support services (e.g., social work, community health, school health).

B. Transform the Medicaid reimbursement methodology

To change the way healthcare works, we need to change the way we pay for it. Currently, we pay less for preventive care that keeps people healthy and more for healthcare services when people get sick. In particular, payments for preventive care, including primary care, and other services delivered in outpatient settings need to incentivize greater provision of these services. In addition, services and supports that help keep people healthy, such as telemedicine, effective health information technology, and care coordination should be paid appropriately. The City will work with New York State in altering what and how Medicaid pays for these services.
**Criminal Justice Reform**

**Goal:** Among large U.S. cities, New York will continue to be the safest, and will have the lowest rate of incarceration, with a criminal justice system that leads the nation in fairness and efficiency

**Overview**

Twenty years ago, no one thought we could control crime. In 1993, there were 1,946 murders and 99,207 burglaries in New York City. In 2013, both of those numbers had dropped by more than 80 percent. The city ended 2014 with the lowest murder rate in the city's history.

Fluctuating crime has also meant a shrinking jail population. At the end of 2014, for the first time in thirty years, Rikers Island had fewer than 10,000 inmates, less than half of its high-water mark of 21,688 in 1991.

This extraordinary progress is proof we can have both more safety and less incarceration. And it is one of many things that set New York City apart: while incarceration climbed seven percent elsewhere in the country between 1996 and 2012, the city saved billions by reducing crime and unnecessary incarceration.

In the next twenty years, New York City will continue to be a national leader in public safety. This will mean continuing to strengthen the things we are already doing—such as data-driven policing—but it will also mean investing in people and neighborhoods. We will provide opportunities for individuals to lead productive lives. Cohesive, engaged neighborhoods are the crime prevention tools of the 21st century. In the next twenty years, New York City will pursue evidence-driven strategies and sophisticated technologies to both prevent crime well before it begins and ensure its criminal justice system is increasingly safe, fair, and effective. And we want to make sure that, of those populations affected by crime—particularly victims of domestic violence—we can provide the support they need when they most need it.

**Initiative 1**

**Reduce crime and unnecessary incarceration**

The key to safely reducing the jail population while keeping communities safe is to reduce crime well before it begins, which leads to both less crime and fewer people behind bars. To reduce crime and unnecessary incarceration, the City will implement a set of interlocking strategies to help ensure we are reducing crime in the most targeted way and using jails and programming wisely and effectively.

**Supporting Initiatives**

A. Use advanced technology and integrated data to accurately and effectively reduce crime

The cornerstone of the City’s crime reduction efforts is ensuring officers are able, in real time, to assess the risks and needs of individuals they encounter on the street, so they can effectively and accurately exercise discretion. This initiative will require both sophisticated mobile technology to access data as well as quality, reliable data.

The City is already working to put in the hands of every police officer and in every police car a tablet, phablet, or smartphone that can serve as a primary information source. Access to real-time information will allow them, while they are out on the beat, to both identify frequent offenders and deliver instantaneous information about crimes and other critical missions. For example, the City has already invested in ShotSpotter technology, a gunshot detection tool that triangulates the location of a gunshot to within 25 meters of where the shot was fired. Making this information immediately available on mobile devices will allow officers to deploy to a specific location instead of a general area, saving resources and increasing the chances that shooters will be caught.

This technology will also allow the police to become better informed when they exercise their discretion so that, consistent with public safety, officers know when to make an arrest or issue summonses. And finally, technology will give them better access to information about programming, so they can more effectively match individuals to services.

To enhance the quality of data available to first responders, the City is building an integrated data platform, described in the Integrated Government & Social Services goal, that will help facilitate the cross-agency coordination of programs and services to accurately match individuals to the right intervention. The goal is for this integrated...
platform to connect City agencies, District Attorneys, defenders, courts, and providers to ensure all agencies that touch the population involved with the criminal justice system have data and analytics to drive wise decision-making, to reduce both crime and unnecessary incarceration.

B. Reduce crime through changes to criminal justice facilities that will promote concepts of fairness and confidence in the law

We will conduct an infrastructure survey of probation, police, and court facilities to ensure signage and physical design inform individuals of what to expect from the criminal justice process, provide the ability to voice concerns, and promote better interaction among the players in the justice system. For example, we will introduce waiting rooms that can separate victims from their alleged attackers, visiting rooms that can permit defendants and lawyers to consult meaningfully, and clear access that would permit corrections officers to escort inmates to court in a timely fashion.

C. Enable crime prevention through environmental design

Crime Prevention Through Environmental Design (CPTED) is an approach to deterring criminal behavior by altering the physical design of neighborhoods. Evidence-driven tactics range from the strategic use of parks and public spaces to designing apartment buildings to maximize the number of residents who can easily monitor their streets. To promote public safety in high-crime neighborhoods, New York City will implement CPTED surveys to develop plans for low- and no-cost changes to buildings, parks, and other features of the built environment that could reduce crime.

D. Reduce incarceration by examining risk, needs, programming, and system flow

An effective criminal justice system should have the ability to assess the level of risk at key system points. We will implement citywide risk-assessment instruments at arraignment and implement risk-classification and needs assessments within incarcerative settings.

We will provide effective programming during incarceration and appropriate services in the community. Physical space in detention and placement/jails for juveniles and adults will accommodate cost-effective programming to reduce re-offending. We will ensure supportive housing for “frequent flyers,” those who repeatedly cycle through the criminal justice system.

We will also design incarceration and justice system spaces to affect behavior and resolve system bottlenecks.

Initiative 2
Build sustained neighborhood engagement to employ fairness as a crime reduction tool

Smart reforms have made New York City the safest big city in the country. However, crime and violence disproportionately affect the city’s poorest neighborhoods, where confidence in government is low.

People are more likely to obey the law when they believe those who are enforcing it have the legitimate authority to do so. The public confers legitimacy on those in positions of authority who treat them with dignity and respect, give them a voice (even if that voice does not carry the day), make decisions that are neutral and fair, and convey their motives as trustworthy. The social cohesion of neighborhoods is associated with lower crime rates. To translate these well-founded theories into actionable steps that will reduce crime, the City will implement the following initiatives.

Supporting Initiatives

A. Create neighborhood CompStats with residents and City agencies in high-distress neighborhoods

CompStat, short for COMplain STATistics, are the initials given to New York Police Department’s (NYPD) data-driven management tool and are now internationally known as a label for an accountability mechanism. In the neighborhoods in which distress is clustered, the City will create a regular CompStat to identify and solve problems with neighborhood residents. These CompStats will be supported by data and measured through key metrics. This data support will include the building of neighborhood-justice mapping centers that will engage residents and promote cohesion through joint action.

B. Implement a regular citywide method of surveying resident engagement

The City will create a survey system to gauge residents’ feelings about their communities. It will be operated online, where ease of use and other incentives will encourage residents to respond to periodic questions about neighborhood satisfaction and cohesion. This information will enable the City to track changes in attitudes and raise resident confidence in government responsiveness.
### Initiative 3

**Use criminal justice data-driven strategies to improve decision making and reduce crime and unnecessary incarceration**

Leveraging the citywide integrated data platform, the City will build tools to ensure agencies that touch the population affected by criminal justice, inside and outside of Mayoral control, have data and analytics to drive wise decision making to reduce both crime and unnecessary incarceration. A range of analytic and data strategies designed to assess decision making at critical points throughout the spectrum of criminal-justice processes will support this goal.

### Supporting Initiatives

**A. Introduce strategic tools for health and neighborhood safety**

Strong communities, with robust networks of programs and services, lay the groundwork for enduring safety. We will work to make neighborhoods safe through a set of strategies designed to support crime prevention and reduce conditions in some of the city’s most distressed neighborhoods.

To prevent crime, the City will also build a set of strategic tools designed to support people with behavioral health needs in chronic care treatment. These tools will help prevent an individual’s contact with the criminal justice system.

**B. Build crime-and-incarceration reduction strategic tools**

Once an individual is in the justice system, the City will build analytic tools to ensure fair and appropriate decision making throughout the deployment system. This will include strategies to reduce case processing times, improved matching of candidates to diversion programs, alternatives to detention and incarceration programs, pre-arraignment and pre-trial screening, and reduced warrants through, among other things, reminder systems for summons appearances.

### Initiative 4

**Ensure all victims of domestic violence have access to a shelter and necessary services**

Domestic violence accounts for a significant percentage of the crime that occurs in New York City. In 2014, 40 percent of all felony assaults and 36 percent of all rapes were related to domestic violence. That same year, domestic violence accounted for 19 percent of murders. In total, the NYPD responded to 282,648 domestic violence incidents.

In addition to reducing crime and lowering incarceration, we also aim to provide services to victims of crime, so they can recover and re-participate fully in the city. While the City provides many services for victims of domestic violence, too many domestic violence victims still lack access to the services they need when they need them. The moment of exit from an abusive relationship is one of the most dangerous times for victims. In 2014, over 4,100 adults and children who needed emergency domestic violence shelter were not linked to one, with only 35 percent of single adults linked to a shelter in comparison with 52 percent overall.

The City must address the need for additional shelter space for any member of a vulnerable population subject to the threat of domestic violence: single adults, members of the LGBTQ community, sex-trafficking victims, and others. Accommodations including longer-term shelter beds must be made for victims with children. Placement in domestic violence shelters is limited to 180 days, and therefore, in the implementation of the City’s housing plan, the City will implement a sustainable plan for domestic violence victims to transition from shelters to permanent housing.

In key neighborhoods where domestic violence occurs more frequently, the City will build upon the community-based Family Justice Center model and expand into new neighborhoods. These centers will be able to provide comprehensive multi-agency services for domestic-violence victims, close to their homes.
Vision Zero

Goal: New Yorkers will continue to embrace Vision Zero and accept no traffic fatalities on New York City streets

Overview
Traffic fatalities in the city have fallen significantly—from 701 in 1990 to 381 in 2000, to an all-time low of 249 in 2011—and New York is internationally recognized as a leading innovator in safe street design. However, approximately 4,000 New Yorkers are still seriously injured and more than 250 killed in traffic crashes each year. Vulnerable populations are the most affected—being struck by a vehicle is the leading cause of injury-related death for children under 14, and the second-leading cause for seniors, who comprise 12 percent of the population but 33 percent of pedestrian fatalities.

In January 2014, the Mayor launched Vision Zero, a bold commitment to improving street safety in every neighborhood.

Vision Zero contains a robust portfolio of initiatives to make our streets safer, including expanded enforcement against dangerous moving violations such as speeding and failing to yield to pedestrians; new street designs and configurations to improve safety; broad public outreach and education; and a sweeping legislative agenda to deter dangerous driving. These projects include fifty street-improvement projects to reengineer intersections and corridors, speed cameras to reduce speeding in school zones, and upgrades to City fleet vehicles to monitor speeding and other dangerous driving behaviors. Together, these comprehensive initiatives are giving New York City control over the safety of our streets.

Vision Zero is already having an impact. 2014 was the safest year in New York’s history for pedestrians and one of the safest years for all New Yorkers since record keeping began in 1910. In 2013, 182 pedestrians lost their lives in traffic crashes, while in 2014, only 138 pedestrians were fatally injured. Despite this significant progress, the City recognizes there is more work to be done—and we are committed to a new set of initiatives to continue this work.

Pedestrian traffic fatalities, 1984-2014

<table>
<thead>
<tr>
<th>Year</th>
<th>Pedestrian Traffic Fatalities</th>
</tr>
</thead>
<tbody>
<tr>
<td>1984</td>
<td>305</td>
</tr>
<tr>
<td>1994</td>
<td>246</td>
</tr>
<tr>
<td>2004</td>
<td>155</td>
</tr>
<tr>
<td>2014</td>
<td>138</td>
</tr>
</tbody>
</table>

INDICATORS + TARGETS
- Reduce the number of traffic fatalities to zero
- Reduce the number of serious injuries due to traffic collisions to zero
Pedestrian traffic fatalities 2009-2013
- Queens Boulevard: 85 pedestrians killed or seriously injured
- 4th Avenue: 60 pedestrians killed or seriously injured
- Atlantic Avenue: 64 pedestrians killed or seriously injured
- Grand Concourse: 70 pedestrians killed or seriously injured

**Initiative 1**
Continue implementation of the Vision Zero Action Plan

The City will continue to execute and build on the portfolio of initiatives developed in the 2014 Action Plan, focusing on pedestrian safety, bicycle access, truck safety, and improvements to priority areas citywide.

Bike lanes are a fundamental aspect of the Vision Zero strategy to increase safety. Well-designed bike facilities protect bicyclists, reduce excessive speeding, organize traffic flow, and shorten crossing distances for pedestrians. And when bicycling feels safer, people are more likely to choose it as a transportation option. Therefore, the Department of Transportation (DOT) will work closely with communities around the city to expand a bicycle network that improves safety for all road users, including installing at least five miles of protected bicycle lanes annually. This supports our efforts to develop a multi-modal transportation system, further laid out in Vision 3.

Turning trucks pose a significant safety risk to pedestrians in crosswalks, so the City will launch a pilot program to test the effectiveness of truck side guards. Side guards are protective additions to vehicles that reduce the likelihood that pedestrians and cyclists will suffer severe injuries when struck by a turning truck. Department of Citywide Administrative Services (DCAS) will install truck side guards in more than 200 units within the City fleet—the largest side-guard program in the nation. If the initial rollout is a success, every new City truck will be designed to include them.

**Initiative 2**
Use Borough Pedestrian Safety Action Plans to guide future engineering projects and enforcement priorities

In an effort to drive down traffic fatalities, DOT and NYPD developed a set of five plans, each of which analyzes the unique conditions of one New York City borough and recommends actions to address the borough’s specific challenges to pedestrian safety. Each Borough Plan was shaped by a comprehensive community outreach process that included 28 workshops and 10,000 comments to the Vision Zero input map. Community input was combined with cutting-edge crash-data analysis and used to identify the predominant traffic safety issues at priority corridors, intersections, and areas of the city—the most crash-prone locations. This broad, participatory, data-driven process ensures an equitable approach to prioritizing safety projects. Each year through 2017, DOT will complete fifty Vision Zero safety projects at the priority corridors, intersections, and areas identified in the Borough Plans. These improvements will simplify complex intersections, discourage excessive vehicle speeds, add bicycle lanes, make pedestrians and cyclists more visible, increase accessibility, and shorten pedestrian crossing distances.

To give pedestrians a “head start” while walking across the street and reduce conflicts with turning vehicles, DOT will expand exclusive pedestrian crossing time on all Priority Corridors by the end of 2017. Leading pedestrian intervals (LPIs) are a signal-timing treatment that provides pedestrian-only walk time before vehicles, including turning vehicles, receive the green light. They are a proven method of reducing pedestrian-vehicle incidents at high-pedestrian crash locations.

**Initiative 3**
Transform dangerous arterial roads into Vision Zero Great Streets

Many of the corridors with the highest rates of fatal and serious-injury pedestrian crashes per mile are wide roads that divide our neighborhoods and communities but have the potential to serve as connectors—including Queens Boulevard, 4th Avenue in Brooklyn, Atlantic Avenue in East New York, and the Grand Concourse in the Bronx.

The Vision Zero Great Streets program will rethink and redesign these major corridors in order to prevent serious crashes, enhance mobility, increase accessibility, and bolster neighborhood vitality. This comprehensive overhaul provides opportunities for improving safety such as shortening of pedestrian crossing distances through curb extensions and widened medians, physically separated bike lanes, and the addition of amenities such as benches and landscaping.

Great Streets capital projects will be fast-tracked in order to allow a permanent build-out of street improvements initially made with temporary materials. Capital construction projects are complex and develop over multiple years because of the extensive coordination and collaboration between DOT, DDC, and a host of other City agencies, utility companies, and the community. Each of these corridors presents special challenges because of high pedestrian volumes, heavy car, bus, and truck traffic, and the presence of subways underneath the road or elevated structures overhead. Under Vision Zero Great Streets, painted medians and temporary bollards will be built out in permanent materials faster, and New Yorkers will begin to see construction of expanded pedestrian space, beautified medians with trees, and physically separated bike paths on major streets by 2017.
Our Sustainable City

New York City will be the most sustainable big city in the world and a global leader in the fight against climate change.

New York City will…

- Reduce the city’s greenhouse gas emissions by 80 percent by 2050 relative to 2005 levels
- Reduce waste disposal by 90 percent by 2030 relative to 2005 levels
- Reduce risks of stormwater flooding in most affected communities

Goals

80 x 50
New York City’s greenhouse gas emissions will be 80 percent lower by 2050 than in 2005

Zero Waste
New York City will send zero waste to landfills by 2030

Air Quality
New York City will have the best air quality among all large U.S. cities by 2030

Brownfields
New York City will clean up contaminated land to address disproportionately high exposures in low-income communities and convert land to safe and beneficial use

Water Management
New York City will mitigate neighborhood flooding and offer high-quality water services

Parks & Natural Resources
All New Yorkers will benefit from useful, accessible, and beautiful open spaces
Invest even more in the Gowanus Canal vibrancy. Where we come together, New Yorkers from all over, we need powerful public design that inspires, sustains, and catalyzes community.

- Jeff B., Manhattan

Introduction
Sustainability means the activities we undertake today will not compromise the present generation’s or future generations’ ability to meet their own needs. It is grounded in the recognition that people, economic development, and the environment are interconnected, and for any to thrive, all must thrive together. A sustainable city is connected by transportation systems that move people and goods to their destinations in a way that is both affordable and minimizes air pollution and greenhouse gas emissions. In a sustainable city, the air is breathable and the water drinkable. Waterways are clean and healthy food is available in any neighborhood.

The power system is efficient and dependable, meeting the demands of an expanding population without the greenhouse gas emissions that contribute to climate change. Buildings provide healthy environments, and are well designed for comfort and minimal energy costs. The small amount of solid waste generated is recycled, composted, and/or turned into energy without affecting air quality.

Contaminated land from our industrial history is cleaned up to create housing, parks, and opportunities for new jobs. Parks offer spaces for children to play in and adults to walk around, trees provide shade and absorb carbon emissions, and are a refuge from the clanging and concrete. To become the most sustainable big city in the world, we have to be conscientious of the resources we consume and the structures we build. We have to innovate, because our density and island status create special conditions. And we must remember that what we do now will have lasting effects for generations. To become the most sustainable big city, we must all do our part today, for the sake of the future.

Across the globe, greenhouse gas emissions are growing at an unprecedented rate, causing a rise in average global temperature and changes to climate patterns. In order to limit temperature increases this century to just 2°C and to avert the worst effects of climate change, as called for in the United Nation’s Framework Convention on Climate Change, we will need a 50 percent reduction in global emissions by mid-century—and up to an 80 percent reduction in developed countries. New York City has signed on to meet this goal.

Cities must play a leading role in addressing the problem as more than half the world’s population now lives in urban areas, with cities generating the majority of the world’s emissions. Many cities, especially those concentrated in coastal zones that face increasing threats of rising sea levels, have recognized the urgency to act now to reduce emissions, regardless of national or regional climate policies.

We can take pride in the progress made to date toward our sustainability goals. In a very short span since the end of the last century, we have already shaped New York City to be a model for the 21st century. Our city has its cleanest air in the last 50 years, and greenhouse gas emissions have dropped 19 percent from 2005 levels. We are but a few plantings away from the goal of a million new trees. Over 475 brownfield properties are being cleaned up and readied for new development, which is expected to bring 3,850 units of affordable housing. Our harbor is now the cleanest it has been in the last century. More than 500 miles of sewers have been constructed, or rebuilt, and we are activating a third city water tunnel to provide critical infrastructure redundancy to our water supply and the opportunity to repair older tunnels.

Much of this work has stemmed from the emphasis on sustainability embedded in past PlaNYCs, and was enhanced by the initiatives developed since 2014. New York City has firmly established itself among the community of global urban leaders in sustainability. We share this leadership with the most progressive capitals of commerce and culture in the world, but there remains much more to be done if we are to stake our claim as the most sustainable big city in the world.

As New York City continues to grow, meeting sustainability objectives will become more challenging. We are consuming more goods and resources, and consequently risk generating more waste and pollution. Our businesses and lifestyles, the engines of our economy and the products of our creativity, also require increasing amounts of energy, most of which is still derived from carbon-intensive fossil fuels. Continuing combustion of fossil fuels compromises our air quality goals—and adversely affecting vulnerable populations and neighborhoods—and our ability to reduce our emission of greenhouse gases that result in global climate change.

New sites to develop are becoming increasingly scarce, and the basic services needed to support a city, from water to power to sanitation to transportation, are becoming increasingly strained under the weight of a growing population and aging infrastructure. We must figure out how all New Yorkers can sustainably and affordably live in clean, healthy environments. In building on the good work of our predecessors, we must enlarge the scale of our efforts to match the boldness of our ambitions.
Environmental Justice

We recognize that equity and environmental conditions are inexorably linked. Environmental hazards translate into poor health, loss of wages, and diminished quality of life, particularly for residents of low-income communities that have historically been burdened with a disproportionate share of environmental risk.

OneNYC addresses the sources of disparities in health outcomes such as asthma and cardiovascular disease, as well as the environmental impediments to economic opportunity and neighborhood stability. It calls for a more equitable and targeted approach to a broad variety of City services, such as solid waste and stormwater management, tending our open spaces, and environmental remediation. Through OneNYC, we are committed to:

- Improving air quality in vulnerable communities through reduced and diverted truck trips resulting from implementation of Zero Waste, increased barging of waste under the Solid Waste Management Plan, and a freight strategy to shift the movement of goods to rail and water transport. Air pollutant emissions will also be reduced through the accelerated conversions of boilers in buildings and the targeted expansion of mass transit and pedestrian and bicycle networks. (Visions 1 and 3)
- Addressing indoor health hazards in homes through initiatives such as New York City Housing Authority (NYCHA) mold remediation. (Vision 2)
- Improving parks that have received little capital investment and are located in areas of high need, based on higher-than-average poverty, density, and population growth. (Vision 3)
- Advancing an aggressive and participatory brownfields redevelopment program that protects human health for those living in close proximity while creating new opportunities for affordable housing development and job creation. (Vision 3)
- Reducing flooding in Southeast Queens and other highly affected neighborhoods through a combination of grey and green infrastructure as well as other water management services. (Vision 3)
- Developing new mentorship and job training programs to ensure that the city’s workforce benefits from and contributes to the City’s efforts to mitigate climate change and build a more resilient city. (Vision 1)

Finally, it is imperative that we empower communities through public dissemination of data and the creation of venues for participatory planning. We need the help of community stakeholders to identify at-risk populations, toxic “hot spots,” research gaps, and effective implementation strategies. Only through the joint deployment of scientific expertise and local knowledge will we achieve clean, healthy, livable, and sustainable communities across the city.

Neighborhood Spotlight

In the Bronx River Corridor, investments in zero waste initiatives, improvements to local parks, cleanup of brownfields, and upgrading of critical infrastructures will ensure the sustainability of this neighborhood for generations to come.

Bronx River Houses
Pilot NYCHA recycling outreach program will reduce the neighborhood’s waste output and contribute to achieving Zero Waste.

Lyons Square Playground
Quality and amenities of park will be improved through Community Parks Initiative.

NYC Voluntary Cleanup Program Site
Conversion from a contaminated gas station site to a commercial building will generate local jobs.

Hunts Point Wastewater Treatment Plant
Replacement of waste processing infrastructure will unlock potential for future renewable energy generation to power plant and adjacent Food Distribution Center.
**80 x 50**

**Goal: The New York City's greenhouse gas emissions will be 80 percent lower by 2050 than in 2005**

**Overview**

Climate change is an existential threat to humanity. New York City, a city built primarily on islands and with 520 miles of shoreline, is particularly vulnerable to the effects of climate change in a number of ways. Rising sea levels, extreme storms, and heat waves are a few of the perils it faces. To combat these threats, the City is employing two strategies. First, we must reduce our own greenhouse gas (GHG) emissions, and second, we must adapt so that our neighborhoods, economy, and public services are ready to withstand, and emerge stronger from, the impacts of climate change. Here, we discuss how we will approach the first strategy: the reduction of our own emissions. The second strategy is addressed under Vision 4.

In September 2014, New York City committed to the goal of achieving an 80 percent reduction in GHG emissions from 2005 levels by 2050 (80 x 50). The city's emissions have already dropped 19 percent, nearly two-thirds of the way toward an intermediary goal of reducing GHG emissions 30 percent by 2030. The majority of the GHG reductions achieved to date were the result of replacing coal and oil with natural gas for electricity generation, as well as other improvements to utility operations. These specific strategies cannot be replicated, and future reductions will be more challenging.

Every year, the City undertakes an inventory to monitor citywide GHG emissions. Nearly three-quarters of New York City's GHG emissions are attributable to energy used in our buildings and how they are operated. Vehicles and emissions from decomposing solid waste make up the balance. By contrast, the national average has a far larger proportion attributable to vehicles. As a result, the City’s focus to-date has been on buildings and energy efficiency—and we are committed to leading the way.

However, the entire burden of reducing GHG emissions cannot be borne only by the owners and occupants of our buildings. The power they are receiving should be less carbon-intensive. Significant emissions reductions have already been achieved by increasing the share of natural gas in the city’s power mix. Nuclear power, which emits minimal GHGs, is also a large part of the city’s energy portfolio, representing 30 percent of the city’s power supply. Subtracting nuclear energy from our supply would raise issues of sourcing alternatives low-carbon energy, reliability, and cost. Beyond that, only a small fraction of the power the city receives comes from renewable sources of energy. Fragmented approval chains combined with limited knowledge about available resources and grid infrastructure stymie promising alternatives, such as geothermal and solar installations. Power regulators and others are looking at what a carbon-minimal future requires and what we need to do to get there, recognizing the difficulties of the status quo, including costs. Offshore wind, microgrids, and distributed energy generation can work here as they do in other cities, but the roadblocks need to be removed. Renewable energy sources must account for a significant proportion of the city’s energy mix.

To reach 80 x 50, over 43 million metric tons of carbon dioxide-equivalent (CO₂) emissions reductions relative to business-as-usual trends will need to come from cleaner power generation, fossil-fuel-free modes of transportation, reducing solid waste, as well as improvements to the energy efficiency of buildings across New York City. By 2050, we must reduce nine million metric tons from power production, seven million metric tons from personal and commercial vehicles, two million metric tons from the disposal of solid waste, and the remaining 25 million metric tons from energy used in buildings. These numbers are the current estimated thresholds necessary to meet 80 x 50, but may change over time with technological advances, increased resources, and other factors.

**Focusing on all four key sectors—buildings, power, transportation, and solid waste—will get us to 80 x 50.** We will continue implementing existing GHG-reduction initiatives identified in former PlaNYC’s, and in One City: Built to Last, the City’s blueprint to address emissions from the building sector.

New York City will substantially reduce emissions from electricity generation, transportation, and solid-waste management by 2025. The initiatives announced in this plan are a down payment on our efforts to dramatically reduce greenhouse gas emissions. In the next year, the City will develop a 2025 action plan of additional initiatives for each of these three sectors to set our power, transportation, and solid waste systems on a path to 80 x 50.

**INDICATORS + TARGETS**

- Reduce the city’s greenhouse gas emissions by 80% by 2050 relative to 2005 levels

**Pathway for reductions in citywide greenhouse gas emissions to 80 x 50**

Source: NYC MOS
CANNONSVILLE RESERVOIR HYDRO-ELECTRIC FACILITY

The New York City Department of Environmental Protection (DEP) will develop a new hydroelectric facility at the City’s Cannonsville Reservoir, located in Delaware County. The 14-megawatt facility will advance New York City’s goal of developing affordable, clean, and renewable energy supplies that support economic growth, while reducing the city’s overall carbon footprint. By capturing the natural force of the millions of gallons of water released from Cannonsville Reservoir each year, the hydroelectric facility will generate enough electricity to power roughly 6,000 homes while avoiding the emission of 25,620 metric tons of greenhouse gases each year—the equivalent of carbon sequestered by 20,000 acres of U.S. forests in one year. The Federal Energy Regulatory Commission recently issued a license to DEP to build a hydroelectric facility at Cannonsville Reservoir. The facility will be comprised of four hydroelectric turbines generating an estimated 42,280 megawatt hours of electricity each year, situated inside a 9,000 square foot powerhouse. Constructing and operating the facility will also have a positive impact in the Delaware watershed that surrounds Cannonsville Reservoir, creating approximately 65 construction jobs and as many as five full-time green jobs for those who will operate the plant. The facility will help hold down electricity costs; update and displace an equivalent amount of generation from higher-cost, fossil-fuel fired sources. Such displacement not only reduces the emission of pollutants from burning fossil fuels, but also tends to reduce the overall wholesale market price of energy.

Initiative 1

Develop near-term local actions and long-term regional strategies to reduce greenhouse gas emissions from the power sector

The power sector has become significantly cleaner in recent years, but a fundamental reconfiguration is required to achieve a deep reduction in GHG emissions and move toward the 80 x 50 goal.

While a low carbon power sector is technically feasible, many hurdles remain. Much of our current energy supply and the barriers to cleaner generation lie beyond the geographic boundaries of the city. Therefore, our 80 x 50 plan will be based on a regional strategy. We will partner with other municipalities, utilities, transmission owners, generators, and energy services companies, as well as State and Federal regulators, in order to achieve significant GHG reductions.

Supporting Initiatives

A. Remove barriers to more efficient power generation and increased renewable power production

In-city power generation facilities are aging—76 percent of the facilities are over 40 years old. Replacing older generators represents a significant opportunity to increase efficiency, reduce GHG emissions, improve air quality, and maintain high levels of reliability and resiliency. However, current market rules do not value such externalities. We must work with the New York Independent System Operator (NYISO, manager of the bulk power system), regulators, and suppliers to change the market rules to value these benefits and provide incentives for newer, cleaner generators. The City will work with other market participants, NYISO, and State and Federal regulators to eliminate the barriers to entry that now exist.

B. Support the development of renewable energy resources

Currently, most renewable resources require financial assistance to address high upfront costs. Such funding is available at the state level. For example, it is estimated that the Renewable Portfolio Standard, administered by the New York State Energy Research and Development Authority, could have an economic potential to support 3,348 megawatts (MW) of new renewable generation by 2020, and 15,594 MW by 2030. If this potential is realized, the state would achieve annual GHG reductions of 2.33 million metric tons by 2020, and 13.51 million metric tons by 2030. Funding is also available through the Regional Greenhouse Gas Initiative, which sets a regional carbon dioxide (CO2) cap for the power sector and sells CO2 allowances to power generation facilities in participating states. The revenue is used to support cleaner fuel, renewable energy, and energy-efficiency-related initiatives. RGGI funds have been used to invest in new equipment that will generate approximately 7.3 million fewer metric tons of CO2 over the its useful life. We must work with the State to ensure these and future funds are fully used to support renewable and energy-efficiency programs.

NEW YORK STATE PUBLIC SERVICE COMMISSION REFORMING THE ENERGY VISION PROCESS

Over the past two decades, the technology used to produce and provide electricity to customers has changed significant- ly. We are at the beginning of a new era with more power options for customers than ever before. The New York State Public Service Commission is at the forefront of developing the regulatory paradigm for the future of the electric power industry through the Reforming the Energy Vision (REV) initiative. REV aims to reorient both the electric power industry and the utility ratemaking paradigm toward a consumer-centered approach that harnesses technology and markets. The process promotes efficient use of energy, reduces the cost of delivering energy resources, and makes the grid smarter. Such displacement not only reduces the emission of pollutants from burning fossil fuels, but also tends to reduce the overall wholesale market price of energy.

Electricity Delivery System

The bulk of New York City’s power comes from large conventional power plants running on natural gas, nuclear power, or fuel oil. However to achieve 80 x 50 the City will need to increase its reliance on utility scale renewable power sources. Power produced in large, centralized plants is transmitted through high voltage transmission lines. To ensure smooth integration of a growing share of renewable energy, the transmission system must be maintained and enhanced. Substations convert electricity to lower voltage before distribution to consumers. Distributed generation, such as from combined heat and power (CHP) or solar installations, also plays an important role in reducing GHG emissions. These are located closer to customers thereby reducing transmission and distribution losses.

Finally, by increasing the use of smart grid technologies, such as automated demand response and smart meters, consumers can reduce both peak and total demand.
Bottlenecks in the transmission system from energy generated in western and northern New York to the east and south to the lower Hudson Valley and New York City restrict the ability of the city to rely on renewable energy generated in other parts of the state. The City will work with its neighbors and State agencies to develop solutions to transmission bottlenecks through transmission modernization, new facilities, and smart transmission technology.

Smart grid technologies can also enable greater integration of distributed generation technologies and allows consumers to better manage consumption, helping to reduce both peak and total energy loads. The City supports the development of a comprehensive strategy to deploy smart grid technologies. This is consistent with the New York State Public Service Commission’s efforts to develop a new vision for the region’s power grid.

E. Expand decentralized power production

Decentralized and district-scale clean energy also have a role to play in meeting our 80 x 50 goal. On-site power generation across a network of decentralized systems, such as CHP systems and community-shared solar photovoltaic (PV) systems can reduce losses associated with transmission and distribution, increase efficiency, and enable a more resilient power system. Through One City: Built to Last, the City committed to supporting community-shared solar PV projects. These installations would use net-metering to bring solar power to new neighborhoods and allow homes and businesses to feed unused energy back into the grid.

Additionally, the City will leverage direct capital investment, power purchase agreements, and emergent solar deployment models to attain the most cost-effective and comprehensive clean energy strategy. As the market develops and available incentives for solar and clean energy shift, the City will adjust its approach to assess and pursue the most desirable pathways to increasing cost-effective low carbon energy throughout its operations.

F. Achieve net-zero energy at in-city wastewater treatment plants by 2050

Emissions from the water and wastewater system are responsible for nearly 20 percent of City government emissions and wastewater treatment accounts for 90 percent of that. The City will work to dramatically reduce these emissions with an aim of net-zero energy consumption at in-city wastewater treatment plants by 2050. Improving the efficiency of wastewater treatment, increasing the production of biogas, and capturing and beneficially using all biogas as a renewable energy source will significantly reduce carbon emissions associated with flaring, as well as offset emissions from energy generated from traditional fossil-fuel sources. Over the next decade, the City will achieve further reductions in energy consumption across all of the wastewater treatment plants by decreasing demand, increasing on-site power generation, recovering and reusing biogas, and undertaking co-digestion of organic wastes.

Cogeneration at In-City Wastewater Treatment Plants

North River

Design is underway to install a 12 megawatt cogeneration system at the North River Wastewater Treatment Plant. This CHP system will use digester gas, produced on site, as well as supplemental natural gas to generate electricity that will meet the plant’s base electrical demand, while recovering enough heat for the plant’s heating needs. This project will offset the use of 90 percent of utility electricity and over 1.7 million gallons of fuel oil and double the amount of digester gas used. This will improve air quality, reduce carbon emissions by approximately 10,000 metric tons of CO₂ per year, and reduce energy bills.

CHP is a good fit for a facility such as the North River Wastewater Treatment Plant because it operates 24 hours a day and continually needs electricity and heat. Wastewater treatment plants produce digester gas as part of the treatment process, which is made up of 60 percent methane, and can be used as a renewable energy source for the CHP system. Furthermore, CHP systems offer electric reliability and resiliency benefits by being able to produce energy on-site and “self-power” in the event of an electrical grid disruption.

Wards Island

Wards Island Wastewater Treatment Plant was built in 1937. It is the second largest of the 14 WWTPs located across the city. The plant serves a population of over one million people and a drainage area of over 12,000 acres, which includes the western portion of the Bronx and the Upper East Side of Manhattan. The WWTP has an average load of just under 12 MW and consumes approximately 100 million kilowatt hours (kWh) a year— the equivalent of approximately 12,450 homes. In addition, in order to meet the WWTP’s thermal demand, it consumes about 30,000 million British Thermal Units (MMBTU) of fuel oil each year and 169,000 MMBTU of digester gas—combined, the equivalent of heating approximately 1,650 homes.

Because of the relatively constant power and thermal requirements necessary to operate the WWTP, and the need for a new heating system and backup power, cogeneration offers a tremendous opportunity to meet all of these needs with a single solution. It is estimated that a cogeneration system fueled by digester and natural gas will reduce GHG emissions by almost 37,000 metric tons per year. This reduction represents a 68 percent reduction in the plant’s carbon footprint—the equivalent of removing near- ly 7600 passenger vehicles from the road. Using digester gas produced at the WWTP as the primary fuel source and recapturing the waste heat as part of the cogeneration system is estimated to save $3.4 million per year.

Hunts Point

Built in 1952, the Hunts Point Wastewater Treatment Plant is located in a section of the Bronx adjacent to the Hunts Point Terminal Produce Market Center—the largest food distribution system in the world. The plant serves a population of over 680,000 people across 16,660 acres in the eastern section of the Bronx. It has an average load of eight MW and consumes approximately 70 million kWh per year—the equivalent of powering approximately 8,700 homes. For its heating needs, Hunts Point uses approximately 169,000 MMBTU of fuel oil, natural gas, and digester gas—the equivalent of heating approximately 1,400 homes a year.

The replacement of the plant’s digesters along with possible future cogeneration would produce over 70,000 MWh per year (enough to power 8,700 homes), yield cost savings of $5 million per year, and reduce carbon emissions by 11,410 metric tons, per year—the equivalent of removing 2,300 passenger cars from the road. By providing digester capacity to accept high strength feedstocks (e.g., food waste), additional higher quality digester gas would be produced. This could allow the WWTP to meet all of its energy needs and potentially become net energy-positive, allowing excess energy to be supplied back to the Food Distribution Center. This would offset the need to purchase fossil fuel-generated energy, divert waste from landfills, and reduce long-haul trucking, thereby multiplying the environmental benefits associated with reducing GHG and criteria pollutant emissions.
Initiative 2

Develop a mode shift action plan to reduce greenhouse gas emissions from the transportation sector

New Yorkers produce fewer greenhouse gas emissions to get around than citizens of most other cities in the country, thanks to our 24/7 subway system, citywide bus network, and dense, walkable communities. But we can do more. Despite widespread mass transit use, New York City’s transportation sector, which includes private vehicles, freight, and mass transit (subway, commuter rail, and bus), makes up 23 percent of the city’s total greenhouse gas emissions. Fossil fuels burned in passenger cars contribute 16 percent of the citywide total, while those in trucks are responsible for an additional four percent. On-road vehicles also emit particulates and other air pollutants such as nitrogen and sulfur oxides (NOX and SOX), which contribute to asthma rates and premature mortality.

The transportation investments detailed under Vision 1 of this plan are the first key steps to diversified low-carbon transportation options for New Yorkers. Select Bus Service, the expansion of bike networks and bike share, safer streets for walking and biking, expanded ferry service, and upgrades to the subway system all reduce the need for getting around by car and will have regional impacts on greenhouse gas as well as air pollutant emissions. These benefits will help create cleaner communities and reduce commute times, thereby enhancing livable neighborhoods and providing a better quality of life for all New Yorkers.

Beyond the currently planned investments in better buses, an expanded bike network, safer streets, and improved transit, the Department of Transportation (DOT), in partnership with the Mayor’s Office of Sustainability (MOS), will develop a long-term plan for further reductions in emissions from the cars and trucks in New York City to achieve the necessary GHG reductions on a trajectory to 80 x 50. This will include consideration of additional policies and investments that emphasize low-carbon and multi-modal options such as walking and biking; reduced dependency on private fossil fuel vehicles; greater use of low- or zero-emission vehicles; improved mass transit; and the continued development of zoning and parking policies to further these goals. The City is already working to encourage the use of alternative vehicles. For example, since the end of 2014, the electrical systems of all new parking garages and open parking lots, as well as those undergoing increases in electric service, must be capable of supporting electric vehicle charging stations. Other alternative vehicle programs are discussed under the air quality goal of this plan.

Supporting Initiatives

A. Reduce carbon emissions from the City government’s vehicle fleet

As technologies such as electric vehicles, biodiesel, compressed natural gas, gas-electric hybrid, and hydrogen-powered vehicles come to market, they will contribute to the solution. As discussed in more detail in the air quality section of this plan, the City will continue to pursue clean vehicle technology adoption pilots and strategies.

Proper fuel management is paramount to reducing consumption and efficient operations, and the City will introduce new fuel use reporting protocols and anti-idling technologies and enforcement to control consumption.

For vehicles used for City government functions, the City’s current vehicle fleet-share program with Zipcar will be expanded to at least 1,000 vehicles by 2017, up from its current 600 vehicles across five City agencies.

Initiative 3

Build upon Zero Waste to reduce greenhouse gas emissions from the solid waste sector

Every day, New Yorkers generate 18,500 tons of waste. Only a portion of this waste is recycled, composted, or converted to energy. Most of it is sent by truck to landfills, where it releases methane as it decomposes. Together, this adds up to over two million tons of CO2e a year, or four percent of the city’s total.

Emissions have decreased 22 percent in the solid waste sector since 2005, as New Yorkers generate less waste and some of the waste transport has shifted to rail and barge. However, to reach our 80 x 50 goal, additional GHG emissions reductions must be attained. In the near term, the City will focus on waste reduction, scaling up the processing of organic waste, improving recycling, addressing commercial waste, and identifying the waste destinations that result in the smallest emissions footprint. Achieving 80 x 50 will require changing behaviors through education and incentives, strengthening regulations, investing in new infrastructure, and working closely with the communities and industries that generate waste.

As detailed in the following section, the City is adopting a Zero Waste goal. The various initiatives required to meet this ambitious goal and divert all waste from landfills will be a key component of our 2025 GHG emissions reduction action plan. As with the other sectors, the 2025 action plan will aim to put the city on a trajectory toward 80 x 50 and will identify further initiatives to close the remaining gap.
Initiative 4

Continue implementation of One City: Built to Last to reduce greenhouse gas emissions from buildings by 30 percent by 2025, and chart a long-term path away from fossil fuels

Our effort to achieve 80 x 50 began through One City: Built to Last. This comprehensive ten-year action plan aims to retrofit public and private buildings to reduce GHG emissions, generate jobs and business growth in construction and energy services, and provide operational savings to owners and tenants. One City: Built to Last has established an interim target to reduce emissions from energy used in buildings by 30 percent by 2025 from a 2005 baseline and reduce emissions by 35 percent in City-owned buildings to maintain a trajectory toward the 80 x 50 goal. In 2015, the City convened the Buildings Technical Working Group, with leaders in real estate, architecture, engineering, labor, affordable housing, and environmental advocacy to help develop the indicators, interim metrics, high performance construction standards, and potential mandates for existing buildings. The goals of the Buildings Technical Working Group are closely linked to the City’s affordable housing plan, Housing New York, as utility costs continue to rise and disproportionately impact low-income residents.

The initiatives mentioned above for the power, transportation, and solid waste sectors follow the One City: Built to Last model in determining interim targets and developing long-term GHG reduction policies to ensure 80 x 50. For the buildings sector, the City will retrofit every City-owned property with significant energy use and will install 100 MW of renewable power by 2025. For privately-owned buildings, the City will create a thriving market for energy efficiency and renewable energy investments and services, establish world class green building and energy codes, and make New York City a global hub for clean energy technology and innovation. In 2015, the City will launch the Energy and Water Retrofit Accelerator, which will offer technical assistance and education programs to help building owners make energy- and water-saving retrofits. Coupled with access to innovative financing and incentives, these programs will generate demand for private sector energy efficiency and renewable energy services. The City will also launch a specific initiative for small and midsize buildings, with an initial focus on neighborhoods within Con Edison’s Brooklyn/Queens Demand Management Zone, which includes Brownsville, East New York, Cypress Hills, and Ozone Park. The City will work to accelerate customer-side solutions, including demand reduction at scale, energy storage, and distributed generation, to help ensure the reliability of the electricity network and realize energy use reductions in neighborhoods facing disproportionate affordability pressures. The City will also bring access to energy use information to mid-size buildings by requiring energy benchmarking and audits to identify the greatest opportunities for conservation and savings.

To serve the specific needs of the affordable housing sector, the Department of Housing Preservation and Development, in conjunction with the Housing Preservation and Development Corporation, will implement the Green Housing Preservation Program to integrate energy audits and conservation measures into its moderate rehabilitation projects. NYCHA will implement a series of Energy Performance Contracts projected to total over $100 million, representing the largest energy savings program for any public housing authority in the country. The first in the series, expected to total $40 to $60 million, will target inefficient lighting and boilers within the Housing Authority portfolio.

A number of One City: Built to Last initiatives are already underway, including the NYC Carbon Challenge—a voluntary carbon reduction program among universities, hospitals, commercial offices, and multi-family buildings to reduce emissions by 30 percent or more in 10 years. The City is also expanding educational opportunities to improve building operations and maintenance. The City continues to implement data-driven GreenNYC public education campaigns to foster energy-conservation reduction for residents. Through these initiatives, the City will continue to work with commercial building owners and tenants to raise awareness of tenants’ energy use and encourage investments in energy-efficient retrofits. Low-cost measures such as using sensors and smart controls to turn off lights in commercial and retail spaces at night will reduce energy waste, commensurate GHG emissions, and light pollution.

The City has taken steps to expand renewable power on buildings. City government is leading by example with a target to install 100 megawatts of renewable energy on City-owned buildings by 2025. Through the Department of Citywide Administrative Services Energy Management, twenty-four schools across the five boroughs are already slated for solar photovoltaic (PV) installations. The City is actively surveying over 80 City properties for rooftop solar PV potential, with another 50 assessments already identified for the coming years. Feasibility studies will also target innovative, non-roof-mounted solutions such as parking canopies; ground mounted and other building deployments; development of resilient solar PV resources through incorporation of energy storage technologies; and piloting wind, geothermal, and other clean-energy resources across City properties. In the private sector, the City has expanded the NYC Solar Partnership to facilitate solar PV adoption on private sector buildings and reach previously underserved areas through innovations in community-shared solar. The goal is to reach 250 megawatts of production capacity by 2025.
**Zero Waste**

**Goal: New York City will send zero waste to landfills by 2030**

**Overview**

Every week, the average New Yorker throws out nearly 15 pounds of waste at home and another nine pounds of waste at work and in commercial establishments. Altogether, in New York City this adds up to more than three million tons of residential waste and three million tons of commercial waste generated per year. To manage all of this waste, the City has developed a complex system to collect, transport, and dispose of waste. It is a system with an enormous impact on our neighborhoods, our environment, and our economy.

The things New Yorkers throw away contain potentially valuable resources. For 25 years, the City has offered curbside recycling programs to divert certain materials, including paper, metal, plastic, and glass, from the refuse stream. However, these programs divert only 15.4 percent of the waste collected by City workers.

But we are moving in the right direction. In 2013, the City began a pilot curbside collection program for organic waste, such as food scraps, yard waste, and soiled paper. This program will continue to expand to serve a total of 133,000 households in all five boroughs. In addition, many New Yorkers already choose to donate or sell used clothing, furniture, and other household goods. These efforts reflect a changing focus—how we export and dispose of waste has become an opportunity for us to build industries and develop a local economy around materials that can be recovered.

Building on these achievements, the City will become a worldwide leader in solid waste management by achieving a goal of Zero Waste by 2030. We will eliminate the need to send our waste to out-of-state landfills, thus minimizing the overall environmental impact of our trash. To measure our progress toward this goal, we will track the extent of our waste reduction and how much we divert waste away from landfills. We have set an ambitious target of reducing the amount of waste disposed of by 90 percent by 2030 from a 2005 baseline—and we are already taking steps to get there. For example, the decision to ban expanded polystyrene foam was a positive step in this direction.

This report charts the full path to Zero Waste by enumerating several bold initiatives, including the expansion of the NYC Organics curbside collection and local drop-off site programs to serve all New Yorkers by the end of 2018. It also aims to implement single-stream recycling collection for metal, glass, plastic, and paper products by 2020.
Initiative 1

Expand the New York City Organics program to serve all New Yorkers by the end of 2018

Food scraps, yard waste, and soiled paper not suitable for recycling make up 31 percent of the city’s residential waste stream. In landfills, this organic material decomposes, releasing methane gas, a greenhouse gas six times more potent than carbon dioxide. However, this material can be composted and converted into a nutrient-rich natural fertilizer that can replenish our city’s soil, strengthen our parks and street trees, and enrich community gardens. Energy-rich food waste can also be processed through anaerobic digestion, wherein microbes break down complex fats and carbohydrates, releasing methane gas that can be captured and used as an alternative to natural gas.

In 1993, the City created the NYC Compost Project to educate New Yorkers about the benefits of composting their food and yard waste, as well as foster community-scale composting initiatives in all five boroughs. In 2013, DSNY began a pilot program to offer curbside organic-waste collection service to residents of Westerleigh, Staten Island, to test the feasibility of collecting the material directly from residents’ homes. Today, the program serves more than 100,000 households in all five boroughs, covering 240,000 New Yorkers. In 2015, the program will expand once again to an additional 33,000 households with nearly 100,000 residents.

To meet our goal of Zero Waste, we will expand the NYC Organics program by increasing curbside organics collection and convenient local drop-off sites. To do this, DSNY will complete the evaluation of the curbside organics collection pilot required by Local Law 77 of 2013. In 2015, DSNY will submit a report to the Mayor and City Council, detailing the results of the pilot and the Department’s plans to expand curbside collection service.

Supporting Initiatives

A. Develop additional organics sorting and processing capacity in New York City and the region

Currently, material collected on Staten Island through the City’s curbside organics collection pilot is delivered to the City-owned composting facility on the site of the Fresh Kills Landfill. There, workers sort out non-compostable contaminants such as plastic bags, and pile the material into long piles called windrows where organisms break down the organic waste into a nutrient-rich soil-like product. Material collected in the other boroughs is transported to compost facilities in upstate New York and Connecticut. However, these facilities don’t have the capacity to take all the waste we generate.

To meet the growing quantities of source-separated organic waste collected through the NYC Organics program and other initiatives, the City will work with local non-profit organizations and private-sector partners to develop additional capacity for sorting and processing organic waste.

In addition, we will expand and upgrade the Staten Island Compost Facility and explore additional sites for developing City-owned compost facilities in the other four boroughs.

B. Process 250 tons of food waste per day at City WWTPs and assess long-term feasibility of scaling up processing of organic food waste

In 2013, the City launched a pilot program at an existing WWTP to process food waste in anaerobic digesters, boosting the production of renewable biogas on-site. DSNY and DEP will expand that pilot to process up to 250 tons of organic waste per day over a three-year demonstration period. DEP and National Grid will construct gas-processing infrastructure to feed the high-quality renewable natural gas into the surrounding grid to heat homes and businesses.

If the demonstration project is successful, the WWTP has the capacity to treat up to 500 tons per day of organic waste – about eight percent of the city’s total food waste (i.e., residential and commercial combined). This scale is unprecedented anywhere in the country and has the potential to produce enough energy to heat 5,200 homes and reduce annual greenhouse gas emissions by 90,000 tons. Together, DSNY and DEP will assess the long-term feasibility of scaling up the processing of organic food waste through anaerobic digestion. The City will also explore options to beneficially use biosolids resulting from the processing of organic waste at WWTPs.

C. Expand community composting opportunities in all five boroughs

Long before the City began curbside organics collection, community groups such as the Lower East Side Ecology Center and Build It Green! NYC offered local residents the opportunity to drop off food scraps for composting. Although community composting divers only a small amount of organic waste compared to curbside collection, it plays a big role in engaging and educating New Yorkers about the importance of composting. It raises awareness of what compost is and what benefits it provides through both outreach and education, and how to use it to grow food and care for green spaces in New York City neighborhoods. Making and using compost locally demonstrates to New Yorkers firsthand that apple cores and eggshells are not garbage, but rather useful resources. Today, New York City has 225 community composting sites, and we will work to expand this number by establishing new sites in neighborhoods across the five boroughs.
Initiative 2

Enhance the City's curbside recycling program by offering single-stream recycling by 2020

Mixed paper, magazines, newspapers, and cardboard make up 18 percent of the City's residential waste stream. Metal, glass, and all rigid plastics make up another 14 percent. Almost all of the products collected through the traditional green-bin and blue-bin curbside recycling programs can be cleaned and remade into new products. Paper collected in Manhattan, for example, travels by barge to a plant on Staten Island where it is made into pizza boxes and other cardboard products. However, last year, New Yorkers recycled only 42 percent of these materials.

To achieve our goal of Zero Waste, we will make it easier for New Yorkers to recycle and expand our recycling education and outreach.

When the City began offering curbside recycling collection in 1989, we collected newspapers and cardboard separate from bottles and cans. Today, the two-bin collections continue, but advances in sorting and recycling technology have made it easier to separate comingled material into high-value, single-commodity streams. Most other large cities in the U.S. have already combined their recycling streams into one, and these cities have seen improvements in recycling rates. In New York City, we expect that offering single-stream recycling will increase diversion rates by as much as 20 percent, up from 16 percent. Single-stream recycling means not only fewer recycling bins in the home, but also fewer trucks to collect the material, reducing neighborhood truck traffic and air pollution. We will work in partnership with our recycling vendors to develop a plan to convert all curbside recycling collections from dual-stream to single-stream in the next five years.

Supporting Initiative

A. Create and expand markets for recycled materials

Separating and collecting recyclable materials is a huge first step toward reaping the environmental and economic benefits of recycling. However, many of the products we buy do not contain recyclable materials, and markets for recycled materials remain poorly defined. We are working with trade associations, industry groups, waste management companies, and some of the world's largest consumer goods manufacturers and retailers to identify barriers to increasing recycled content of new products and to identify product designs that make it even easier to recycle. Through these partnerships, we will push an aggressive agenda, including everything from clear, easy-to-understand recycling instructions on packaging to products made from 100 percent post-consumer recycled material. Through these steps, New York City will become a global leader in the movement to develop a "circular economy" where resources are used again and again, rather than mined from the earth and dumped into landfills.

Waste sorting at South Brooklyn Marine Terminal
Initiative 3
Reduce the use of plastic bags and other non-compostable waste

In January 2015, the City announced that it would move forward with a ban on all expanded polystyrene foam food-service containers and packing peanuts after a thorough market analysis determined that recycling markets do not exist for those products. Expanded polystyrene foam is a lightweight material that often contaminates the organic material collected from homes and schools. It is a major source of neighborhood litter—the City currently collects more than 28,000 tons of expanded polystyrene foam per year. The ban will encourage residents and businesses to switch to reusable, recyclable, or compostable alternative products. We will continue to identify hard-to-recycle products in the City’s waste stream and develop programs to reduce their use and encourage more sustainable alternatives.

Single-use plastic bags make up 2.3 percent of the City’s waste and cost the City nearly $10 million per year to dispose of in landfills. They are a major component of street litter and can clog storm drains, jam the machinery at the City’s recycling sorting facility, and end up in New York Harbor. Even single-use paper bags, which are recyclable in the paper recycling stream, are only recycled at a rate of five percent, and are often made from virgin trees and not recycled paper. Cities such as San Francisco, Portland, and Los Angeles have already banned the use of plastic bags and implemented fees for the purchase of other types of bags. Other cities, including Washington, D.C., have instituted a flat fee for all single-use bags. Because so many viable alternatives to plastic bags exist—including reusable, compostable, and paper bags—we will work with the City Council to reduce the overall impact of these products on our local environment.

Initiative 4
Give every New Yorker the opportunity to recycle and reduce waste, including at NYCHA housing

Today, recycling diversion rates vary widely from neighborhood to neighborhood. Older, denser residential neighborhoods often have buildings that lack adequate space for recycling bins. In NYCHA developments, small and inconvenient recycling bins have gone unused for much of the last decade. This spring, NYCHA has begun to tackle this challenge head-on, so as to allow residents the opportunity to recycle like every other New Yorker by constructing new recycling centers at all NYCHA developments. DSNY and GrowNYC will work with NYCHA to train residents, community leaders, and staff on recycling and waste reduction practices. Through partnerships with private and non-profit organizations, NYCHA will continue to support improvements in recycling rates as part of a comprehensive waste management strategy.

In addition to working with NYCHA developments, we will expand outreach to low-income and immigrant communities with the goal of doubling recycling diversion rates in these communities over the next five years. We will translate recycling mailers and pamphlets into the City’s eight most commonly spoken languages and work with local community organizations, block associations, and community garden groups to give people the tools they need to reduce waste and recycle more.

Initiative 5
Make all schools Zero Waste Schools

New York City schools are educating our next generation of recyclers. There is a tremendous opportunity to reduce landfill waste from schools, which generate more than 40,000 tons of refuse per year. Setting up the infrastructure in the schools, as well as teaching the City’s 1.1 million students about proper recycling practices, can also help improve waste reduction reuse and recycling, and instill sustainable practices that last a lifetime.

The Departments of Education (DOE) and DSNY will collaborate to launch the first 100 Zero Waste Schools, with the ambitious goal of diverting all recyclable and compostable waste from those schools within five years. Through the collaboration of students, parents, teachers, principals, custodians, and cafeteria staff, these schools will become models for others and advance a culture of recycling and sustainability throughout the school system.
Initiative 6
Expand opportunities to reuse and recycle textiles and electronic waste

Used clothing and textiles can be readily reused. Non-profits such as Goodwill and the Salvation Army collect, clean, and distribute used clothing to those in need. The City’s re-fashionNYC program, operated in partnership with Housing Works, offers in-building collection for apartment buildings with 10 or more units and currently serves more than 100,000 households in 553 apartment buildings and complexes. Even with these readily available reuse and recycling options, used clothing and textiles still make up six percent of the city’s waste. We will continue to grow and develop the City’s non-profit reuse sector, connecting potential donors with organizations that reuse or resell material to support the arts, public health, and other causes. We will expand the re-fashionNYC program to serve even more New Yorkers.

Although it contributes less than one percent of the total waste stream, electronic waste contains many toxic materials, including mercury, cadmium, lead, and other heavy metals. Recycling electronic waste not only keeps these toxins from polluting the air, soil, and water, it also reduces energy and water use associated with manufacturing new materials. In January 2015, a New York State law banning the disposal of electronic waste took effect, barring the City from collecting these materials as refuse. New Yorkers now have many convenient options for recycling their electronic waste, including drop-off programs at more than 95 retailers citywide.

The City has also created the e-cycleNYC program, which offers room cleanouts, storage bins, and recycling events to apartment buildings with 10 or more units at no cost to residents. Since the program began in 2013, more than 4,000 buildings have signed up; we will continue to reach out to property owners, superintendents, and cooperative boards to expand the program. In 2015, the City will double the number of Solvents, Automotive, Flammables, and Electronics (SAFE) disposal events held in each borough to give residents an opportunity to drop off electronics and other household hazardous waste, including chemicals and prescription drugs. The City will explore opportunities to partner with other organizations to collect and recycle electronic waste from residents who may be unable to bring it to a drop-off location.

Initiative 7
Develop an equitable blueprint for a Save-As-You-Throw program to reduce waste

The City anticipates spending more than $350 million a year to dispose of waste in out-of-city landfills and energy-from-waste facilities. While the amount of waste we create has decreased steadily over the past decade, the costs of disposing and transporting that waste has increased, while space in landfills has decreased. However, New Yorkers are largely insulated from the growing cost of disposing of their waste, since transportation and disposal are funded through the City’s general fund. Volume-based incentives for residents and property owners can lead to reduced waste volumes and higher recycling rates, thereby reducing disposal costs and cutting back the environmental impacts of landfilling waste. Other cities, including San Jose and Seattle, have seen large decreases in waste generation and increases in recycling rates as a result of implementing use-based incentives for refuse. For example, in San Jose, recycling more than doubled in the three years after a user-fee program was implemented in the early 1990s. In New York City, implementing a Save-As-You-Throw program that would reward those who waste less and recycle more could reduce waste generation by as much as 30 percent. The program would represent the largest potential contribution toward our Zero Waste goal.

To evaluate this policy and develop a fair, equitable blueprint for waste reduction, the City will assemble a working group of representatives from the Administration, City Council, affordable housing advocates, tenant associations, property managers, environmental advocates, good-government groups, and many others. This group will be tasked with evaluating the range of options available to help New Yorkers save money as they reduce waste, and recommending solutions to address the mounting costs of disposing of and transporting waste.
Initiative 8
Reduce commercial waste disposal by 90 percent by 2030

New York City’s commercial establishments—offices, restaurants, hotels, shops, and manufacturers—create an estimated three million tons of waste per year, less than one-third of which is currently recycled. Waste and recyclables from these businesses are collected by private waste hauling companies. Through a combination of legislative reform, public-private partnerships and incentives, the City will aim to reduce commercial waste by 90 percent by 2030.

Supporting Initiatives
A. Conduct a comprehensive study of commercial waste collection zones

New York is unique in that it has a commercial waste collection system completely separate from the municipally controlled residential waste system. A fully privatized system drives down prices through competition, which is good for small businesses but can also result in additional trucks on the road. The City is taking steps to clean up the commercial fleet. For example, it recently enacted legislation that will hold commercial waste haulers to stricter emissions standards.

In recent years, cities such as Los Angeles and San Jose have established an exclusive commercial solid waste franchise system with exclusive hauler districts/zones. Proponents of this system believe this model empowers municipalities to achieve multiple environmental, economic, and labor-related policy goals by setting quality and cost-of-service terms in exchange for exclusive carrier contracts. The impacts of drawing up commercial waste zones and bidding them out to an exclusive waste hauler, or haulers, would certainly be significant. To evaluate the feasibility and appropriateness of this course of action, the City will conduct a study to determine if there are substantial inefficiencies in the way waste is collected and if so, whether exclusive collection zones would reduce those inefficiencies and possibly create ancillary benefits such as improved recycling rates, working conditions, and wages.

B. Encourage periodic waste audits for large commercial buildings

Solid waste generation is unlike energy and water consumption in that it cannot be metered or easily measured. That said, the primary way for an entity to improve its sustainable operations and potentially lower the costs associated with waste management is by taking stock of its waste generation. Additionally, knowing what a business throws away is as important as knowing how much it disposes.

In just a few years, the City has begun to see energy reductions in large commercial buildings as a result of making energy auditing, and now retrofitting, a requirement. As a first step, the City will develop a voluntary audit program to track commercial waste generation trends. The City will also explore working with the City Council on a measure requiring large commercial buildings to periodically conduct waste audits and report their findings. These efforts represent a critical step in determining the waste generation characteristics of businesses, an area that historically has been short of reliable data.

C. Create a Zero Waste Challenge program for large commercial waste generators

New York City launched a voluntary commercial food-waste diversion program in 2013 with the support of more than 100 New York City restaurants. The participants committed to a 50-percent food-waste diversion goal, as well as ongoing reporting of their progress. Within the first six months of this public-private partnership, the Food Waste Challenge reduced organic waste citywide by 2,500 tons—the largest single source of food waste diversion at the time—demonstrating the potential impact of voluntary programs. Building on the success of the Food Waste Challenge, the City will create a Zero Waste Challenge program for large commercial waste generators.

D. Revise the commercial recycling rules to make recycling easier for businesses

Recycling is the law in New York City for residents and businesses alike. Existing commercial recycling regulations designate recyclable materials based on the business type. However, this presents a disconnect between what is required for New Yorkers at home versus their places of work or entertainment, thus creating confusion for businesses.

By 2016, working closely with the City Council, DSNY will initiate commercial recycling regulation and enforcement system reforms. By permitting single-stream recycling and holding commercial entities responsible for diverting the same materials residents are obliged to recycle, the City hopes to achieve behavioral step changes and increase diversion rates citywide.

E. Require all food service establishments to source-separate food waste

New York City’s commercial waste stream is comparable to its residential waste stream in terms of the share of food waste it’s comprised of. With organics constituting over one-third of the total waste stream, diverting this material for beneficial use—as a soil amendment through composting or as feedstock for clean, renewable energy through anaerobic digestion—is a major opportunity area. However, the lack of food-waste processing capacity in New York City and the region has presented a challenge for both businesses and haulers wishing to divert food waste.

In 2013, New York City Council passed a law requiring select large food waste generating businesses to separate their organic waste and ensure its diversion from landfills. This legislation has a phased approach to catalyze the expansion in industrial processing-capacity needed to make organics diversion viable long-term. In 2015, DSNY will begin identifying the first set of businesses that must source-separate their organic waste. As processing capacity in the region continues to grow, the City will require all food-service establishments and related businesses to separate their organic waste for composting.
INDICATORS + TARGETS
- Achieve best air-quality ranking among major U.S. cities by 2030 (PM2.5)
- Reduce disparity in SO2 across city neighborhoods by 50 percent by 2030, relative to 2013
- Reduce disparity in PM2.5 across city neighborhoods by 20 percent by 2030, relative to 2013

Air Quality

Goal: New York City will have the best air quality among all large U.S. cities by 2030

Overview

New York City’s air is becoming progressively cleaner. Over the past several decades, actions taken at the federal, state, and local levels have dramatically improved air quality. New York City’s particulate matter (PM2.5) concentration has decreased more rapidly than in most other big U.S. cities, declining by about 25 percent between 2008 and 2013. As a result, the city’s air-quality ranking among major U.S. cities improved from seventh place as recently as 2008-2010 to fourth place in 2011-2013.

Despite this progress, air pollution remains a leading environmental threat to the health of New Yorkers. Levels of air pollution in New York City continue to cause serious health problems, contributing to a number of hospital admissions and deaths, mainly from heart and lung problems. It is estimated that particulate matter (PM2.5) contributes to more than 2,000 deaths and over 6,000 emergency visits and hospitalizations for cardiovascular and respiratory disease each year.

All neighborhoods are affected by these health impacts, but they disproportionately occur in high poverty communities and among vulnerable populations. The rate of emergency room visits due to PM2.5-attributable asthma is three times higher in the most disadvantaged neighborhoods compared to more affluent ones. The public health benefits of even modest improvements in air quality are substantial because everyone is exposed to air pollution.

Our goal is for New York City to have the best air quality among all large U.S. cities. We are committed to reducing disparities in ambient pollution level exposures within the city by 20 percent for PM2.5 and 50 percent for sulfur dioxide (SO2) by 2030 relative to 2013. Meeting this goal will require significant reductions in air pollutant emissions. We will need to implement local strategies, as well as continue working with state and federal partners to reduce emissions from upwind sources. New York City will need to outpace improvements in other cities to attain this goal.

Improving our air quality is feasible and has been demonstrated in recent years. Reducing the disparity in pollutant levels across the city is also attainable, as demonstrated by declining differences in community SO2 concentrations. Between 2008 and 2013, the difference between the highest and lowest community district SO2 concentrations declined by more than half while overall concentrations declined by 70 percent, mainly due to State efforts to reduce sulfur content in heating oil and the City’s efforts to phase out the use of heavy heating-fuel oil in buildings.

There are many sources of air pollution, mainly derived from fuel combustion within and outside the city. Based on best estimates of current emissions, for PM2.5, 49 percent of emissions are from buildings, 24 percent from traffic, 19 percent from non-road mobile sources, and 7 percent from electric-power generation (one percent from other sources). For SO2, 61 percent of emissions are from buildings, five percent from vehicles, 14 percent from non-road mobile sources, 17 percent from electric power generation, and 3 percent from other sources.

This plan focuses on reducing local PM2.5 and SO2 emissions. While they are not the only harmful pollutants, they are the two most important pollutants for public health that the City is able to substantially reduce through local emission controls.

Initiative 1

Enforce the updated DEP Air Pollution Control Code

The recently updated DEP Air Pollution Control Code controls emissions from currently unregulated sources such as commercial charbroilers, wood boilers, refrigeration trucks, and mobile food trucks. Altogether, these unregulated sources account for 14 percent of local PM2.5 emissions.

Reducing emissions from commercial charbroiling is a cost-effective way to address a currently unregulated and significant pollution source. An analysis based on 2005-2007 data estimated that installing existing control technology could reduce charbroiler emissions in New York City by 85 percent and result in over 300 avoided deaths and 500 avoided emergency department visits and hospitalizations for cardiovascular and respiratory disease annually. The code also provides incentives to use clean technologies for auxiliary power units (APUs) for mobile food trucks and refrigeration trucks through registration-fee waivers and stricter controls on idling for vehicles without APUs.
Initiative 2
Identify additional targeted air quality improvements through data analysis and community engagement

Since December 2008, the Department of Health and Mental Hygiene (DOHMH) has monitored criteria for air pollutants at street-level sites around the city through the New York City Community Air Survey. This survey has provided essential data to design sound policy and inform research.

Pursuant to available funding, DOHMH will seek to build on this success by developing a community air quality “citizen-science” toolkit that will include how-to guides for accessing available data on emission sources, designing neighborhood air pollution surveys using new, low-cost technologies, and sharing data online. DOHMH also plans to expand its Environment and Health Data Portal to incorporate neighborhood-level sustainability indicators, create a neighborhood-level “Sustainability and Health” report, and develop an educational module on sustainability and health for outreach in public schools and CBOs. These efforts can provide valuable data on air pollution hot-spots and local emissions sources that may be used to inform future control measures beyond those proposed in this plan.

Initiative 3
Accelerate conversions of residual heating oil boilers in buildings

At the beginning of 2012, there were about 5,300 boilers in the city that still fired #6 fuel oil, the heavy heating oil associated with the highest levels of air pollutant emissions. By July 2015, the City will no longer issue permits to use #6 fuel oil, so all boilers must switch to gas, #2 oil, or #4 oil. As a result of the City’s targeted outreach and enforcement efforts, approximately 90 percent of boilers on #6 have been converted.

Nonetheless, residual oil (#4) will continue to be used by several thousand devices as owners have until 2030 to switch from #4 oil to the less-polluting #2 oil, or gas. Complete phase out of heavy heating oil (#4 and #6) in New York City could prevent 80 deaths per year and avoid 200 hospitalizations and hospital emergency department visits for heart and lung disease. In addition, it is estimated that 99 percent of the boilers in buildings over 25,000 square feet that still use heavy oil are located in the highest poverty neighborhoods in the city.

We will therefore explore the feasibility of accelerating the phase out of #4 oil in boilers in advance of 2030. In addition, through the Retrofit Accelerator program, which, under the 80 x 50 goal, provides technical assistance, financing, and incentives for building owners to shift from the most polluting heating fuel to cleaner fuels, the City has the opportunity to both reduce GHG emissions and achieve considerable public health benefits by targeting buildings in specific high-poverty neighborhoods. The Mayor’s Office of Sustainability (MOS) will formalize a screening methodology to select projects with the highest co-benefits across greenhouse gases and air pollutants and to track air pollution benefits as buildings convert under the Retrofit Accelerator program.

Predicted reductions in PM2.5 concentrations due to heating oil programs

| µg/m³ | 0.09 — 0.42 | 0.43 — 0.83 | 0.84 — 1.44 | 1.45 — 2.60 | 2.61 — 4.07 |

DOHMH
Initiative 4
Cut emissions from mobile sources

Supporting Initiatives
A. Reduce emissions from the City fleet

The City is currently on track to replace or retrofit 90 percent of its diesel on-road vehicles to meet 2007 emissions standards or better by 2017. The impact is significant—it is estimated that replacing or retrofitting a vehicle to 2007 standards reduces emissions by approximately 90 percent over the previous standard. The City will consider targeting the remaining 10 percent of its diesel on-road vehicles.

The City is also promoting the adoption of new technologies through a variety of innovative projects, including increasing electric vehicles in its fleet. This follows a legacy of leadership in technology development and adoption. For example, DSNY tested state-of-the-art technology and alternative fuels and helped pioneer the improvements in heavy-duty diesel emissions that are now taking place nationwide. At present, the City operates over 800 Electric Vehicle (EV) plug-in units of some type and plans to reach at least 1,000 EV units in operation by 2017. The City currently operates 203 EV chargers, which is the largest network in the state of New York. We plan to have at least 250 chargers in operation by 2017. By 2016, the City also plans to introduce fast-charging chargers and at least one solar carport, an EV charger that draws all its power from solar panels.

B. Reduce emissions from private truck fleets and for-hire vehicles

Currently, the City’s Hunts Point Clean Trucks Program offers rebates to trucks servicing the Hunts Point market for voluntary upgrades to cleaner vehicles or fuels, including diesel replacements. Rebates are offered for the costs of upgrading or retrofitting to a CNG or hybrid, and old “dirty” trucks are being scrapped to ensure they are not resold. As of March 2015, the Hunts Point Clean Trucks Program has funded diesel replacement for close to 450 trucks, reducing their particulate matter emissions by 97 percent. The City will consider replicating the Hunts Point Clean Trucks Program in other industrial areas, with a focus on environmental justice communities and including private waste haulers serving those communities.

C. Reduce emissions from vehicle idling and toll crossing

Vehicle idling is a major source of pollution in New York City. According to the Environmental Defense Fund, air pollution from idling engines is a contributor to elevated levels of air pollutants, and people who live near heavily-trafficked roadways face significantly greater risks of suffering from asthma and heart diseases, among other conditions. Existing laws need to be enforced, and we will work with the City Council to explore new ways to address this serious problem.

Finally, the City will work with the MTA to expand the use of gateless tolling—a system that dramatically speeds up the process of toll payment—to reduce congestion and the attendant vehicle emissions at major bridge and tunnel crossings in New York City.
Brownfields

Goal: New York City will clean up contaminated land to address disproportionately high exposures in low-income communities and convert land to safe and beneficial use

Overview
New York City has over 3,000 vacant commercial and industrial properties and more than 7,000 properties designated by the City as subject to mandatory environmental study and management. Perhaps as many as 40 percent of these properties are chronically vacant or underutilized contaminated land, commonly known as brownfield sites.

Comprehensive brownfield management has the potential to address many environmental, social, and economic problems in New York City. As our need for space grows, we must use our existing stock of land more effectively. Brownfield cleanup and redevelopment represents one of our best opportunities to engage communities and reclaim land for development in the city. It also offers an opportunity to simultaneously benefit the environment, improve the health of our neighborhoods, and attain more equitable and sustainable economic development.

We aim to clean up contaminated land to eliminate exposure to environmental toxins and alleviate social inequality caused by disproportionately high occurrences of brownfields in low-income neighborhoods.

This disproportionate impact of brownfields is endemic in cities across the U.S. These properties remain vacant or underutilized because prospective developers fear the risks of environmental liability and government enforcement, as well as construction delays and cost over-runs caused by unpredictable land pollution. Brownfields result in lost opportunities to create small businesses, new jobs, affordable housing, and healthy open space in areas where these opportunities are needed most. Oftentimes, their presence leads to a cycle of financial disinvestment and a downward economic and social spiral.

Brownfields can contain a wide variety of heavy metals, organic solvents, and other pollutants that remain a legacy of past industrial land uses and tax pollution management practices that predate modern standards for environmental protection. If left abandoned, these properties are a source of heightened public exposure to environmental toxins for our most disadvantaged citizens.

Until recently, no city in the U.S. operated its own regulatory brownfield cleanup program. Under PlanNYC 2007, New York City launched the nation's first municipal brownfield cleanup program—the NYC Voluntary Cleanup Program (NYC VCP). In consultation with environmental and social-justice advocates, the City also established over thirty brownfield programs to promote social equality that now constitute our Land Cleanup and Revitalization Initiative (LCRI). LCRI is unique as it allows the City to manage all steps of the brownfield revitalization process. The City no longer has to rely on outside government agencies to achieve local environmental, social, and economic goals on brownfields.

Initiative 1
Accelerate cleanup of brownfields to improve public safety and encourage private investment in new development on brownfield sites

The City will continue its efforts to clean up brownfields by leveraging city and state brownfield programs. Over the next four years, we aim to clean up 750 properties through our remediation programs, including at least 375 in low- and moderate-income communities. This will enable $14 billion in private investment and create 5,000 new units of affordable housing.

We will certify each of these remediated properties in the NYC Green Property Certification Program. This certification provides the City's formal recognition that new buildings on cleaned properties are among the most environmentally protective places in New York City to live and work. The certification is designed to demonstrate our confidence in the safety of remediated properties and encourage developers to clean up properties using government programs. Brownfield cleanup programs can be complex, especially for those unfamiliar with the cleanup process. To increase predictability of cleanups, to lower the time and cost of cleanup projects, and to encourage greater enrollment in the NYC VCP, we will launch EPIC (Environmental Project Information Center) Environment, a web application that automates and streamlines cleanup-project navigation.

To achieve our ambitious goals for both affordable housing and industrial development, the City will need to increase the use of both the NYC VCP and the State Brownfield Cleanup Program (State BCP). We will encourage the New York State Legislature to pass legislation to stabilize the tax credits offered by the State BCP; provide a gateway to those tax credits for affordable and supportive housing and industrial development projects; lower costs for cleanups, such as providing exemptions for unnecessary state fees and taxes that currently apply to cleanup in the NYC VCP; and continue State funding for the Brownfield Opportunity Area program for community engagement. We will also encourage Congress to reauthorize the IRS Section 199 Brownfield Cleanup Tax Deduction, which expired in 2013, to lower cost for cleanup in the NYC VCP.
The City will establish the Brownfield Jumpstart Program to provide higher levels of City funding for environmental investigations and cleanup to unlock certain strategic brownfield properties that will be used for affordable housing and industrial development. We will also sponsor enrollment of these funded projects in the State BCP to enable State brownfield cleanup tax credits.

We will provide City funding to continue delivery of NYC Brownfield Incentive Grants (BIG) for brownfield investigation and cleanup to encourage enrollment in the NYC VCP. Currently, BIG provides numerous financial incentives to promote brownfield cleanup and redevelopment, but grant eligibility can be difficult for land owners and brownfield developers to understand. We will launch Financial Assistance Search Tool (FAST), a web application to help community-based organizations, community and private developers, and citizens find grants and loans for community brownfield planning, brownfield investigation, and cleanup in New York City.

New York City has established the NYC VCP and now offers a wide variety of incentives to promote the cleanup of brownfield properties in order to provide affordable and supportive housing. To date, we have enrolled 60 projects for affordable housing in the NYC VCP that will produce over 3,000 new units of housing to serve over 12,000 New Yorkers. One such project is Norman Towers, an 18,000 square-foot property at 161st Street in Jamaica, Queens. Prior to enrolling in the NYC VCP, this property was vacant and undeveloped. Cleanup of this site involved the removal of over 11,000 tons of soil and two leaking underground petroleum tanks, and placement of a plastic liner beneath the building to prevent leakage of underground vapors from the surrounding area. Cleanup at the property achieved the State’s highest cleanup standard, and the site was formally certified in the NYC Green Property Certification Program.

To assist site remediation in the NYC VCP, Norman Towers received $100,000 in environmental investigation and cleanup funding from the NYC BIG Program. The affordable housing was funded by tax-exempt bond financing and low-income housing credits from the NYC Housing Development Corporation (HDC), state low-income housing credits from the New York State Housing and Community Renewal, and program subsidy funds from HDC and NYC Housing Preservation and Development. Norman Towers is now a thriving 101-unit affordable housing apartment building with a mix of retail, office, and parking. Its affordable apartments are available to New Yorkers at a wide range of income levels, and the building is home to the new offices of the building’s developer, The Bluestone Organization, providing 25 permanent jobs.
Brownfields in low-lying waterfront areas present a greater risk from erosion as coastal flooding is projected to become more frequent. Flood waters can cause contaminants to be dispersed into surrounding communities, including environmental justice areas already overburdened with pollution. We will facilitate the environmental cleanup of 100 properties in the 100-year floodplain over the next four years to lower the contamination risk from future tidal storm surges.

To accelerate cleanup of flood-prone areas and improve public safety, we also expanded the BIG program to establish new small grants to support cleanup activities in the 100-year floodplain in the NYC VCP.

In 2014, we began performing free climate-change resiliency surveys of brownfield development plans for projects in the NYC VCP. These surveys are performed by knowledgeable building resiliency experts and are provided to brownfield developers to educate them on the most protective building design practices to lower vulnerability of both the buildings and the surrounding community to storm surge and other effects of climate change and about financial incentives available to help achieve these goals.

EPIC COMMUNITY

Place-based community brownfield planning is essential to engage the public and promote community-driven brownfield redevelopment. We plan to double the number of communities we serve, and will bring new tools and resources to help community brownfield planners identify strategic sites and achieve community-driven redevelopment. One such tool is EPIC Community, a new web application that will bring state-of-the-art digital communications to community brownfield planners working in 40 neighborhoods throughout the city. With EPIC Community, community brownfield planners will be able to work with each other in a well-coordinated network, reach more citizens in their communities, and easily communicate with government agencies and developers working on cleanup and redevelopment projects in their area. EPIC will provide discussion forums to share best practices and enable document sharing with peers. It will offer easy access to all work plans and reports for cleanup projects in the NYC VCP and provide notifications to keep community brownfield planners up-to-date on the latest developments on cleanup projects in their neighborhoods—making the NYC VCP one of the most transparent cleanup programs in the country.

In 2014, the City established new regulations to strengthen standards for cleanup of industrial properties on the waterfront. These new rules reduce the level of contaminants that can be left on these sites when cleanup is complete, and are intended to lessen the pollution impact of future storm surges on communities in coastal industrial areas.

We will expand our support for grassroots planning for climate resiliency by establishing four new community brownfield planning areas in neighborhoods heavily impacted by flooding during Hurricane Sandy. SPEED2.0 will also improve online access to maps of current and projected floodplains, wetlands, and emergency evacuation zones.

In 2014, we began performing free climate-change resiliency surveys of brownfield development plans for projects in the NYC VCP. These surveys are performed by knowledgeable building resiliency experts and are provided to brownfield developers to educate them on the most protective building design practices to lower vulnerability of both the buildings and the surrounding community to storm surge and other effects of climate change and about financial incentives available to help achieve these goals.
Water Management

Goal: New York City will mitigate neighborhood flooding and offer high-quality water services

Overview

Water is one of our most precious resources and must be valued and managed wisely. Water is essential to our daily life and public health. We must preserve New York's water from contamination, the risks of aging infrastructure, and the impacts of climate change.

The New York City DEP operates one of the most complex water and wastewater systems in the world. It manages a network of 19 reservoirs and three controlled lakes that cover approximately 2,000 square miles of watershed land as far as 125 miles upstate. The City's drinking water system is the largest unfiltered water supply in the world, delivering approximately one billion gallons of high-quality drinking water each day to nine million New Yorkers.

New York City has approximately 7,000 miles of water mains and over 7,500 miles of sewer mains that incur substantial maintenance, replacement, and management costs. Fourteen large municipal WWTPs treat an average of 1.3 billion gallons of wastewater every day.

To safeguard this invaluable natural resource and more efficiently deliver critical water services, the City has adopted a holistic approach to water management. This is anchored in an understanding of local water cycles and an appreciation for the contributions of smaller-scale, decentralized projects aimed at optimizing the performance of existing large-scale systems. For example, the City has spent approximately $1.7 billion since the 1990s in watershed protection. These investments have helped protect our natural resources and ensure high-quality affordable drinking water, while also avoiding the need for an estimated $10 billion new filtration plant. Similarly, instead of exclusively relying on expensive, energy-intensive traditional engineering controls to capture stormwater runoff, the City has adopted a Green Infrastructure program to construct and maintain curbside gardens—also known as bioswales and stormwater greenstreets—and has promoted other green infrastructure such as permeable paving, which absorbs stormwater before it enters the sewage system.

Delivering high-quality drinking water, wastewater services, and stormwater management to residents of New York City requires substantial capital and operating investments. The City has been tracking and analyzing trends in population, water consumption, waterfront use, and changing environmental conditions. Although the cost of New York City's water and wastewater services is below the national average, the cost of safeguarding drinking water quality and managing storm water is likely to increase. This is particularly hard to bear for low-income homeowners and providers of affordable housing. In order to balance the goals of investment and equity going forward, DEP will continue to develop rates that support policy goals, and will invest in the technology to support innovative fee structures. The City will update the water and wastewater billing system, and evaluate its financial framework to ensure we have a sustainable financial model.

We will continue to manage the city’s drinking water supply to maintain its world-renowned drinking water quality. In addition, the City will manage its wastewater treatment, stormwater management, and drainage systems to improve the quality of our local waterways and beaches, as well as ensure every neighborhood receives a high level of infrastructure services.
Water Supply
New York City is one of only five large cities in the country that has a surface drinking-water supply that does not require filtration as a form of treatment—although the water is still disinfected to reduce microbial risk. The City’s next Filtration Avoidance Determination (FAD) is expected in 2017. The FAD is a Federal Environmental Protection Agency (EPA) ruling that allows the City to continue with the measures it currently uses to ensure clean drinking water rather than redoing its entire system and building a large, costly, energy-intensive filtration plant. Issuance of the FAD is not a given and requires comprehensive watershed evaluation and protection.

The City must also meet increasingly stringent regulations and requirements for simultaneous compliance with the Clean Water Act and Safe Drinking Water Act to protect the quality of our drinking water and aquatic resources, as well as to protect recreational opportunities in our waterways.

In addition, since the 1990s, DEP has been monitoring leaks in a portion of the Delaware Aqueduct and identified two areas of significant leakage in the Rondout-West Branch Tunnel portion of the Aqueduct. Together, these areas leak approximately 35 million gallons of water every day. Work is underway to construct a bypass tunnel and repair the leak.

Stormwater Management and Drainage
Local topography, dense urban development, the capacity of our aging sewer system, and increasingly extreme weather are some of the biggest contributing factors to flooding. Some communities throughout New York City, including sections of Queens, Staten Island, the Bronx, and Brooklyn, have been prone to flooding and drainage problems.

Stormwater runoff is generated from rain and melting snow conveyed over impervious surfaces such as rooftops, streets, and sidewalks. Rather than being absorbed into the ground, water flows to catch-basins in the streets, and from there into the sewers. These impervious surfaces cover approximately 72 percent of New York City’s 305 square miles of land area. During wet-weather events, runoff from hard surfaces of the city can cause flooding, carry pollutants to waterways through the Municipal Separate Storm Sewer System (MS4), or overwhelm the combined sewer system leading to combined sewer overflows (CSO). As with many older cities, New York City has a drainage system that combines waste from buildings with stormwater in its combined sewers; the system can overflow with high volumes of stormwater.

Different neighborhoods in New York City have different infrastructure requirements. The initiatives in this plan have been screened to address priority projects, as well as the need to improve on the delivery of infrastructure services while also addressing community levels of service.

Initiative 1
Protect the city’s water supply and maintain the reliability and resiliency of the water supply system
DEP received its first 10-year FAD in 2007. The 10-year FAD represents a strong endorsement by our regulators that the City’s innovative strategy of source-water protection is an effective and sustainable approach to protecting water quality and public health. The longer time horizon also gives DEP and its many partners more certainty of the stability of the water supply protection programs and allows for more effective long-range planning, budgeting, and contracting. In preparation for the 2017 FAD, the City will compile a comprehensive summary of all program activities and an assessment of water quality status and trends.

The City is undertaking several major water infrastructure projects. We will construct a Kensico-Eastview Tunnel to provide necessary redundancy between the Kensico Reservoir and the Catskill-Delaware UV Treatment Facility to meet current and future flow requirements. DEP has also begun repairing the Delaware Aqueduct. The work necessary to construct a bypass tunnel beneath the Hudson River is proceeding ahead of schedule. Shutdown and repair of the leaking portion of the Delaware Aqueduct, i.e., the Rondout-West Branch Tunnel, is scheduled to begin in 2022.

The City will initiate a grant program of up to $1 million per year through 2020 to encourage on-site water reuse on private properties. Potential applications include greywater, blackwater, and rainwater reuse in non-potable water processes such as toilet flushing, cooling tower waters, and irrigation. The program is part of the City’s broader water demand management efforts. The City will also examine its own regulatory and permitting processes, and update as required.
Initiative 2

Install or repair 500 water fountains and water bottle refilling stations across the five boroughs

Water is essential to all human physiologic processes, and maintaining proper hydration has numerous health benefits. Functioning and accessible water fountains promote healthy beverage habits among New Yorkers. Moreover, water is a healthy and free alternative to sugary drinks, the single largest source of added sugar in our diets. Sugary drinks provide no nutritional value, and have been linked to weight gain, type 2 diabetes, and heart disease. In our city, it is estimated that over half of adults consume sugary drinks on a daily basis.

Our water should be the first choice for quenching thirst in the home, workplace, or on the street. To encourage proper hydration and healthy water consumption, the City is committing to installing or repairing water fountains across the five boroughs. DEP will commit $5 million over the next ten years toward the goal of increasing water-bottle filling fountains and stations to eliminate drinking water drought and reduce single-use plastic bottles across the city.

There are also important environmental advantages to water fountains. Many fountains cannot be used to fill water bottles or are underused because filling is slow. This contributes to single plastic bottle use and adds to the costs and pollutant emissions associated with collecting, transporting, recycling, and disposing of the plastic bottles. We will promote drinking water and fountain use with signage and messaging to encourage water bottle refilling.

To promote the new water fountains, the City will enlist the help of GreeNYC to launch a multi-media strategic marketing campaign that includes signage, out-of-home advertising (including subway, bus, and billboard), radio, and digital media. In addition, the City will launch or promote an existing phone app that allows residents and visitors to find water fountains and stations around the city. The City will also develop a plan to increase the number, quality, and popularity of water fountains in schools.

Initiative 3

Expand green infrastructure and smart design for stormwater management in neighborhoods across the city

To alleviate the impact of storms on public infrastructure, DEP will work with partner agencies to institutionalize stormwater management into the design of public property, including streets, parks, schoolyards, and public housing. The City will also continue the NYC Green Infrastructure Program, including the installing of 9,000 curbside garden bioswales by 2018 in areas served by the combined sewer system. The City will use demonstration projects to explore expanding the use of green infrastructure in other parts of the city served by the separate storm–sewer system. In addition, the City will assess and implement green infrastructure opportunities at municipal facilities.

To encourage more private property stormwater retrofits, the City will streamline or expand the existing Green Infrastructure Grant Program in areas served by the combined sewer system or both. It will also conduct a study to assess new private property stormwater-revetment incentive programs to strengthen or expand the effectiveness of the existing stormwater performance standard through institutional controls.

Supporting Initiative

A. Alleviate flooding in Southeast Queens

DEP is developing an action plan to resolve long-standing flooding conditions that affect over 406,000 city residents in Southeast Queens. The area has more 311 flooding and confirmed sewer backup complaints than any other area of the city, and in certain neighborhoods, experiences recurring flooding conditions. The plan will consist of intensive and accelerated long-term sewer build-out, complemented with innovative, site-specific solutions, such as Bluebelts and green infrastructure. It will serve as a model for other flood-prone neighborhoods of the city.

Initiative 4

Reduce pollution from stormwater runoff

The DEP is developing a comprehensive plan to address pollution from the MS4 and improve water quality. This citywide plan will include, among other things, adopting measures for public outreach and involvement, finding and eliminating illicit sewer connections, managing stormwater during and after construction, managing industrial/commercial stormwater sources, controlling floats, and adopting pollution prevention practices for municipal facilities.

Plastic bags and other litter in our waterways are a major concern for the City. Therefore, as part of the citywide stormwater management plan, the City will conduct a study to identify sources of floats (i.e., trash) carried to waterways by stormwater, and implement a program to reduce these floats. In addition, we will launch a citywide media campaign for floats, settleable trash, and debris reduction.
Parks & Natural Resources

Goal: All New Yorkers will benefit from useful, accessible, and beautiful open spaces

Overview

A high-quality, easily accessible open space is a foundation of vibrant neighborhoods. It is part of the city’s public realm and includes all outdoor spaces, such as our city’s parks, public spaces, streets, and natural habitats, which together make up more than 40 percent of New York City’s land area. As an integrated system, a great open space can attract residents and businesses, and promote greater use of recreational, civic, cultural, and natural resources.

All New Yorkers experience open spaces every day—whether on the street, in a park, or just looking out the window. Access to high-quality outdoor spaces, streets, and sidewalks produces tangible benefits. Parks and public space are essential to economic development, civic engagement, and community revitalization, promoting interaction with neighbors, attracting visitors, and providing a venue for art and culture. In addition, these resources have significant public health and environmental benefits, providing active and passive recreation opportunities, reducing pollution, and helping to minimize the impact of climate change.

New York City strives to make its open spaces more useful, accessible, and beautiful. To accomplish this, we will develop a data-driven improvement strategy to ensure a deep understanding of existing assets and then make targeted investments to deliver the greatest benefits to the most New Yorkers.

Many of New York City’s parks and public spaces were designed 50 or 100 years ago and now require significant investment to meet changing demands, including new patterns of development, demographic trends, and park users’ interests.

Unfortunately, both the quantity and quality of these resources vary, with too many New Yorkers lacking access to neighborhood parks and more than 200 parks having received less than $250,000 each in capital investment over the last 20 years.

Beautiful parks and public spaces improve quality of life, attracting residents and businesses to New York City. In addition, enhancements to our city’s natural environment generate environmental benefits, including reduced pollution and improved stormwater management and flood resiliency. These resources help reduce stress, lower asthma rates, improve focus and mood, and, for children, are related to improved academic performance.

INDICATOR + TARGET

- Increase percent of New Yorkers living within walking distance to a park from 79.5 percent to 85 percent by 2030

Prospect Park

Investment in open spaces has often been disjointed, resulting in disparate projects with their own distinct priorities. By planning for the city’s open spaces as a unified system, we can increase quality and efficiency, enhance park access, and improve neighborhood connections. A more cohesive and coordinated strategy will target high-impact projects to underserved neighborhoods, improve access to recreational amenities, and bring the beauty of our parks to other public spaces, including streets, sidewalks, and pedestrian plazas.

Significant investment, directed by a data-driven, equity-focused framework, is needed to ensure that the quality of our open space keeps pace with the city’s growing population and changing needs.
Initiative 1
Strengthen the utility of parks and public space in under-resourced and growing neighborhoods

Released in October 2014, NYC Parks: Framework for an Equitable Future set forth a strategy to invest capital, programming, and maintenance resources in parks where the need is greatest. This data-driven, equity-based approach identifies parks that have received little capital investment and are located in areas of high need, based on higher-than-average poverty, density, and recent population growth, to ensure investment in projects that will produce the most benefits for New Yorkers.

Through the Community Parks Initiative, New York City Department of Parks and Recreation (NYC Parks) has already launched major capital investments in 35 small parks with the input of local residents. The City will expand the Initiative to include additional sites, with the goal of impacting more than three million New Yorkers across 24 community districts, focused on low-income, growing, and high-density neighborhoods.

To expand NYC Parks’ ability to prioritize essential capital projects across the park system for repair and strategic investment, a new capital needs assessment will be developed to generate information about asset conditions and capital needs.

Initiative 2
Improve open spaces through Parks Without Borders, a new strategy to enhance neighborhood access and connectivity

Parks Without Borders is a new effort to make our city’s outdoor spaces more welcoming, accessible, and better connected to surrounding neighborhoods.

The quality of a city’s outdoor space depends on an integrated system in which parks, sidewalks, pedestrian plazas, and other open spaces are connected to each other, improving access to neighborhood resources and promoting community interaction.

To make Parks Without Borders a reality, NYC Parks will take a new approach to park entrances and boundaries where they most directly interact with the surrounding community. NYC Parks will improve fences and gates and add other amenities, such as public art and landscaping, to make entrances more inviting. Along park boundaries, we will identify opportunities to remove or reduce fencing and barrier vegetation in order to make the natural beauty of parks more visible from their neighborhoods.

As part of Parks Without Borders, NYC Parks, in cooperation with DOT and other agencies, will also find new ways to bring the beauty of the park into the community by greening key intersections and entrances, and by identifying new opportunities to activate underused public spaces with temporary art and programming. We will also look for opportunities to extend park amenities to adjacent sidewalks and pedestrian plazas.

Parks Without Borders is a key strategy to help ensure the livability of neighborhoods and the strength of our communities.

Initiative 3
Reduce light pollution from large buildings at night

Light pollution exists in every borough and is worse in areas with many commercial office buildings and unshielded exterior lighting. It has a detrimental impact on the quality of life, according to complaints registered with 311. Moreover, studies suggest light pollution has a detrimental effect on animal migratory patterns. The Hudson River is one of the most important migratory flyways for birds in North America, and New York City’s parks and ponds are favorite rest stops. Twice a year, New York City is one of the great places to see rare birds and a favorite destination for birdwatchers.

Light pollution from buildings, however, interferes with migrations.

In addition, light pollution is also linked to inefficient use of energy, which contributes to greenhouse gas emissions. Offices and retail spaces that are empty at night yet leave the lights on both create light pollution and waste energy.

Municipalities in Massachusetts, California, Connecticut, and Arizona have successfully reduced light pollution and even increased the ability to view the night’s sky, ultimately helping to preserve the natural environment and reduce greenhouse gas emissions.

The City Council recently introduced the Lights Out Bill (Intro. 578/2014) to require vacant offices and retail spaces to shut off their lights at night. The City will work with the Council to pass a version of this bill that reduces energy-wasting light pollution from large buildings. In 2009, the City enacted Local Law 88 (LL88) requiring upgrades to lighting in all non-residential spaces of large buildings. This requires office and retail spaces to comply with current Energy Code standards by 2025. With full compliance with the law, the city can expect to reduce greenhouse gas emissions by approximately an additional two percent from 2005 levels.

Through the existing Retrofit Accelerator Program (discussed earlier in Vision 3), the City can assist building owners through loans and incentives to comply with LL88 lighting upgrades and install modern lighting and controls.
Initiative 4
Expand the use of our streets as places to play, congregate, and be together

To better serve our neighborhoods, the City will continue to work with communities and other partners to convert underused streets into pedestrian plazas and explore ways to transform underused areas below elevated roads and train lines to more attractive and inviting public spaces. Programs like Weekend Walks, Play Streets, and Summer Streets will continue to provide more opportunities for New Yorkers of all ages to get outdoors and into the public realm.

Initiative 5
Create beautiful and well-tended streets in neighborhoods across the city

To further improve our streets and sidewalks, we will invest in new street trees and other plantings, benches, way-finding signs, and other amenities. We will focus on rezoned and growing neighborhoods. As part of our street safety and affordable housing initiatives, the City will also invest in streetscape improvements on major corridors, such as landscaped medians, to improve pedestrian safety and the urban environment. Two new City programs will bring technical assistance and other resources to improve plaza maintenance and the condition of planted medians in low-to-moderate income or otherwise under-resourced communities.
Environmental Education

The City will continue to provide environmental literacy programs to support the next generation of environmental stewards and to ensure widespread awareness of the environmental impact of OneNYC sustainability initiatives.

Several City agencies—including DOE, DEP, and Parks—offer environmental literacy programs. The City is supported in this work by hundreds of non-profit organizations, including Jamaica Bay Science and Resilience Center, GrowNYC, the Horticultural Society of New York, and 1,800 park stewardship groups.

These education programs equip both students and teachers with the tools they need to become engaged community and environmental stewards. The Natural Classroom, NYC Parks’ environmental education program for students in grades K-8, is a series of inquiry-based, hands-on programs led by the Urban Park Rangers and developed in partnership with National Geographic and Columbia University. NYC Parks also offers free instruction and resources in neighborhood tree care. These efforts support the investments made in improving the city’s urban forest, and works with partner organizations to provide hundreds of hands-on stewardship opportunities each year. The DEP Office of Education also provides a range of free programs and resources—pertaining to water and wastewater, green infrastructure, sound and noise, environmental stewardship, and climate change—and will soon offer complementary online teacher and student resources.

Initiative 6
Green the city’s streets, parks, and open spaces

To protect, maintain, and enhance the city’s green canopy, NYC Parks will continue to plant new trees in parks and neighborhoods citywide. Greening the public realm brings new beauty to our parks and neighborhoods, sustains ecological diversity, and adds permeable areas that enhance stormwater management. These natural systems provide valuable environmental benefits to all residents, including passive indoor and outdoor cooling; cleaning of air, water, and soil; and improved resiliency to natural events and climate change—true public health and quality-of-life benefits.

The City will be guided in these efforts by a number of research initiatives designed to ensure a better understanding of ecosystems, natural resources, and how they benefit New Yorkers and improve air and water quality. Research initiatives include an update to the City’s state-of-the-art street tree census and an ecological and social assessment of the city’s natural areas, conducted in partnership with the Natural Areas Conservancy.

The City will also use LiDAR technology—land cover mapping based on aerial remote imaging. LiDAR technology helps inform policy decisions among different agencies and policy areas. For instance, past LiDAR data has been used by the City to assess ecosystem decline and prioritize tree planting and forest restoration; impervious surface cover for green infrastructure planning; the solar energy potential of rooftops; and coastal flood hazards. The landscape of the city has changed since we last used LiDAR data in 2010 due to natural forces and human interventions, and new data will help to inform our understanding of and investment in the City’s resiliency and sustainability. The City is currently working to secure 2013 LiDAR data from the federal government.
Vision 4

Our Resilient City

Our neighborhoods, economy, and public services will be ready to withstand and emerge stronger from the impacts of climate change and other 21st century threats.

New York City will...
- Eliminate disaster-related long-term displacement more than one year of New Yorkers from homes by 2050
- Reduce the Social Vulnerability Index for neighborhoods across the city
- Reduce average annual economic losses resulting from climate-related events

Goals

**Neighborhoods**
Every city neighborhood will be safer by strengthening community, social, and economic resiliency.

**Buildings**
The city’s buildings will be upgraded against changing climate impacts.

**Infrastructure**
Infrastructure systems across the region will adapt to maintain continued services.

**Coastal Defense**
New York City’s coastal defenses will be strengthened against flooding and sea level rise.
Introduction

In late October 2012, Hurricane Sandy roared into New York Harbor with unprecedented force, causing record-breaking water levels. Many neighborhoods were devastated, with homes and businesses becoming flooded, public services interrupted, and infrastructure damaged. After the storm passed and the water receded, a new reality emerged: New Yorkers must confront the implications of living in a coastal city.

Sandy claimed the lives of 44 New Yorkers and caused $19 billion in damages and lost economic activity. It also highlighted the vulnerability of New York City—as well as the entire region—to the risks posed by coastal storms. As the city counted the costs and pushed ahead with a robust recovery effort, a new conversation began: Recovery must push ahead with a robust recovery effort, a new conversation began: Recovery must

The first of these risks is climate change. Rising sea levels, increased temperatures and precipitation, and a growing likelihood of more intense storms pose unique challenges to a coastal city like ours. In 2015, the New York City Panel on Climate Change (NPCC) released an updated set of climate projections for the region. Among its findings, the report noted that sea level rise for New York City, which had averaged 1.2 inches per decade (a total of 1.1 feet since 1900), is nearly twice the observed global rate over a similar time period.

Climate change projections through 2100

<table>
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<th>Middle Range</th>
<th>Low End</th>
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</thead>
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<td>Temperature</td>
<td>+5.3 °F</td>
<td>+3.2 °F</td>
<td>+2.0 °F</td>
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<tr>
<td>Precipitation</td>
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<td>1.2%</td>
<td>1.0%</td>
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<td>Coastal Floods</td>
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<td>+13 to 26 in.</td>
<td>+3 to 14 in.</td>
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<tr>
<td>Heat Waves</td>
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<td>12.2 to 13.1 °F</td>
<td>11.8 to 12.0 °F</td>
</tr>
<tr>
<td>Cold Events</td>
<td>0°F</td>
<td>-5°F</td>
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</tbody>
</table>

In June 2013, the City published A Stronger, More Resilient New York, which identified 43 Sandy-related fatalities in New York City. In July 2013, the Office of the Chief Medical Examiner classified one additional fatality as Sandy-related, bringing the total to 44.

Mitigation reduces the impact of a stress or shock event or prevents the impact altogether, such as bolstering the defenses of coastal communities to withstand flooding. In response to future threats, adaptation takes place to change the physical form or function of a structure, a place, or a community, such as hardening power supplies to withstand the effects of extreme weather and a changing climate.

“Sandy made it clear that Jamaica Bay communities need flood protection. The City should coordinate with state and federal agencies to make sure coastal projects for this area are funded and move forward.”

—Roger W., West Hamilton Beach

According to the middle range of these projections, sea levels are expected to rise 11 inches to 21 inches by the 2050s, and 22 to 50 inches by 2100. Using the highest estimate of current projections, sea levels could rise as much as six feet by 2100. With this projected rise in sea level, the city’s floodplain will continue to expand, creating more frequent and intense flooding, and underscoring the city’s growing vulnerability to the many impacts of climate change. For instance, a similar Sandy-like event in 2050 could cause $90 billion in damage and lost economic activity—compared to Sandy’s $19 billion—due to the rise in sea level alone.

As outlined in the City’s recent report, NYC’s Risk Landscape: A Guide to Hazard Mitigation, an additional set of natural hazards like winter weather, water shortages, earthquakes, and pandemics all pose risks to the city—as do human-induced hazards.

Next, an evolving economy means we can no longer rely on the same sectors for job growth, or to comprise the city’s tax base. Climate change endangers both small businesses and commercial corridors in our coastal communities. A diversified economy, as detailed in Vision 1, is vital to maintaining the city’s economic resiliency, and enables those impacted by emergencies to recover more quickly.

Finally, growing economic inequality poses challenges to the city’s social fabric. Inequality threatens to disrupt the connections between our neighborhoods, institutions, and communities that we rely on in times of crisis, prolonged stress, and difficult life events. Without these connections, recovery becomes even more difficult.

Over the years, New York City has been no stranger to shocks and stresses. For instance, in the years between the attacks of 9/11 and the 2014 Ebola infections, the city has endured, among other traumas, two hurricanes, a global economic downturn, and an earthquake. In each case, New Yorkers have joined together to face these challenges and come back stronger. In other words, New Yorkers have been resilient.

Since Hurricane Sandy, New York City has strengthened its commitment to resiliency. We are in the vanguard of a new global movement that is changing the way cities respond to 21st century threats, both acute and chronic. In partnership with 100 Resilient Cities (an organization pioneered by the Rockefeller Foundation dedicated to fostering the resiliency of cities), New York City will continue to lead the way toward a more resilient future. And with half of the world’s population now living in cities, and two-thirds expected to live in cities by 2050, it is more urgent than ever for New York City to demonstrate global leadership in developing and utilizing the tools that will make all of us more resilient against future risks.

What we seek to accomplish now is to build a stronger, more resilient New York City—one that is ready for anything. This means we will continue to strengthen our communities, work to reduce the impacts of the risks we face, and improve recovery times when the unexpected happens. The future of New York City will indeed be resilient.
To achieve this vision, New York City must adapt. A growing population, aging infrastructure, an evolving economy, and increasing economic inequality will continue to challenge our ability to adapt. But the news is not all bad. The right investments can be leveraged to strengthen communities while we rebuild. It is understood that every dollar invested in risk mitigation can repay itself four or more times over in future damages avoided. With the funds available after Sandy, the City has a unique opportunity to buy down future risk—that is, to invest now by working with communities, upgrading buildings, protecting infrastructure, and reducing flood risks—to enhance the city’s resiliency. In fact, building on the City’s comprehensive $20 billion climate resiliency program, we will advance that program, expand our efforts, and prepare our city for the impacts of climate change and other 21st century threats.

The Evolution of the City’s Resiliency Program

The City’s vision for resiliency and climate adaptation is rooted in nearly a decade of innovative and proactive planning that commenced with the release of A Greener, Greater New York in 2007. In June 2013, the City released its comprehensive climate resiliency plan A Stronger, More Resilient New York that outlined a 10-year, over $20 billion program with 257 initiatives for adapting the city’s infrastructure systems and its hardest-hit neighborhoods after Hurricane Sandy. A Stronger, More Resilient New York provides a detailed analysis of what occurred to New York City’s communities, buildings, infrastructure, and coastlines during Sandy and sets forth a risk assessment that informs our program to prepare for a future with climate change.

As part of the city’s recovery from Sandy, Build It Back, run by the Mayor’s Office of Housing Recovery Operations and supported by federal funding, was established in 2013 to oversee housing recovery in New York City. To provide financial or construction assistance to those in need, Build It Back developed several programs, including Reconstruction for those repairs completed in the first year after Sandy. Home acquisitions and repairs to multi-family buildings are also underway. Over 20,000 residents applied and nearly 12,000 applications are currently active.

In April 2014, the City committed to enhancing and expanding the resiliency and housing recovery programs with the release of One City, Rebuilding Together. This report created the Office of Recovery and Resiliency, which is dedicated to advancing the City’s resiliency vision. It also implemented critical improvements, including expedited reimbursement checks and more construction starts, to the Build It Back program and expanded economic opportunities for residents impacted by Sandy, such as the expansion of Sandy Recovery Workforce, and developing a pipeline for pre-apprenticeship programs in the construction trades.

To date, Build It Back has sent out over 3,200 reimbursement checks and started construction on over 1,100 homes, of which more than 500 were already completed. The appendix of this report describes our current progress on the City’s resiliency program.

What’s New in the Plan

A comprehensive climate resiliency plan for New York City was announced in June 2013 and continues to serve as the roadmap for the city’s climate adaptation efforts. With OneNYC, the City expands and accelerates that roadmap to build a stronger, more resilient New York City with several new concepts and focus areas, including:

Community Strengthening

This plan enhances the focus on strengthening communities by building the community, social, and economic resiliency of our neighborhoods. It will include a new emphasis on deepening resident, non-profit, and business participation in emergency planning, and exploring social cohesion as a strategy for resiliency, which would include forming a task force to study the role of community institutions, like houses of worship and community-based organizations, in resiliency planning.

New Climate Projections

The City is committed to using the best available scientific knowledge to inform its policy. In 2015, the NPCC released Building the Knowledge Base for Climate Resiliency, which included updated climate projections and recommendations on climate indicators and monitoring protocols. New topics covered in this report include public health, with a focus on extreme heat events and coastal storms, and enhanced dynamic coastal flood modeling, which incor- porate the effects of sea level rise.

Focus on Heat

Based on the NPCC’s work, the City is putting a new emphasis on protecting New Yorkers from acute and chronic heat, including an urban heat island working group, efforts to understand the need for better ambient air temperature data collection across the city, and an analysis of natural infrastructure and its impact on the urban heat island effect.

Land Use Policy

The City’s 2013 climate resiliency plan recommended further study into how land use policy can be a tool for resiliency. Ten neighborhoods impacted by Sandy across the city are currently involved in planning studies to generate resiliency recommendations and land use changes, on both a local and citywide level. These recommendations are expected to reduce long-term vulnerability by smartly managing growth and development in vulnerable parts of the City.

An Updated Federal Agenda

Since 2013, the federal government has reformed the National Flood Insurance Program (NFIP), slowing increases in insurance premiums, but failing to solve the problem of long-term insurance affordability. NFIP is expected to be reauthorized in 2017, providing a unique opportunity to institute new reforms. In advance of reauthorization, the City continues to evaluate a variety of policy changes and outcomes that provide incentives for risk-reduction investments and promote affordability. At the same time, the city’s flood maps are being updated, showing that more of the city is vulnerable to flooding. Finally, the U.S. Army Corps of Engineers (USACE) has released its two-year North Atlantic Coast Comprehensive Study, recommending further action to reduce coastal vulnerability in the city. The City will continue its work to ensure that the USACE is able to launch a new feasibility study in New York Harbor and its tributaries. This study is expected to lead to new authorized projects ready for construction.
Resiliency Indicators

To measure our progress, the City will continue to consider ways to measure the impacts of its resiliency efforts. The field of resiliency does not yet have a rigorous standard for indicators and performance measures, but the City will commit to creating a methodology to develop and test indicators for resiliency. This might include simple metrics, scenario analysis tools, or computational modeling techniques to determine whether and how the City is improving its resiliency. To implement a specific set of monitoring tools, the City will continue its work with 100 Resilient Cities.

In order to advance Vision 4 effectively, the City has identified the following indicators through which we can monitor our progress. This Vision aims to reduce or eliminate the following:

- Eliminate disaster-related long-term displacement (more than one year) of New Yorkers from homes by 2050
- Reduce the Social Vulnerability Index for neighborhoods across the city
- Reduce average annual economic losses resulting from climate-related events

Neighborhood Spotlight

In the Bronx River Corridor, the City is working with local communities to plan for a more resilient future. This includes a range of investments and planning initiatives to prepare for the impacts of climate change and other 21st century threats.

- **Hunts Point Resiliency**: Investing in coastal and energy resiliency, in partnership with local business and resident stakeholders, can protect critical assets and supply chains while creating new community amenities.
- **Harding Park Resiliency Neighborhoods Study**: Planning with the Harding Park community about the area’s short- and long-term resiliency aims to mitigate the risks of coastal flooding for this vibrant bungalow community.
- **Bronx River Shoreline at Starlight Park**: Creating wetlands, soil cleanup, and ecosystem restoration will protect and strengthen an existing community asset.
Neighborhoods

Goal: Every city neighborhood will be safer by strengthening community, social, and economic resiliency

Overview

New Yorkers come together during emergencies to support each other and begin the recovery process. And while significant disruptive events like Hurricane Sandy affect all New Yorkers, they ultimately expose and exacerbate underlying vulnerabilities in many communities. Across every corner of the city, everyday New Yorkers, along with local institutions, energize the recovery process and voluntarily help their neighbors without waiting for official assistance. In short, these residents, organizations, and community leaders anchor neighborhood recovery, and continue to provide support long after official resources are no longer available.

Unquestionably, official resources are vital for community preparedness. One of the most critical components to disaster preparedness and response is effective communication between government and community stakeholders. This means the City must continue to work with local organizations before disasters strike. By establishing communication links; emergency on-call contracting authorities; off-the-shelf recovery programs for communities, residents, and businesses; disaster recovery assets, and strengthened shelter services, we can be better prepared. Additionally, as medium- and long-term recovery proceeds, the City must work with local communities to address the lingering effects of disasters on residents, businesses, and communities, all of which require new efforts to ensure recovery doesn't stall when attention turns elsewhere.

The strengthening of social networks and planning within a community are also critical to enhancing resiliency. This can entail building relationships with, and checking in on, neighbors and the availability of adequate neighborhood gathering and resource centers. How New Yorkers interact with one another can be an important factor in guarding against many risks. Heat, for example, presents a unique challenge to New York City. As we learned during the Chicago heat wave of 1995, neighborhoods with more robust social infrastructure, such as community centers, safe streets, and schools had better health outcomes than those without. And as mean annual temperatures in New York City are projected to increase by 4.1° to 5.7°F by the 2050s, neighborhoods without social networks and infrastructure are at an even greater risk, particularly where heat-vulnerable populations, such as children and seniors, are increasing.

Finally, because communities can't do this all on their own, it is important that the City’s emergency communication and preparedness programs, in partnership with communities, maintain their ability to respond to any disaster. As the city has seen, it is vital for first-responders and other essential personnel to be able to have emergency access to restricted areas: response and recovery operations, logistics and support zones, and critical emergency facilities. The opportunities that come from long-term recovery operations ensure residents impacted by disasters are able to participate in the recovery of their neighborhoods through hiring programs and workforce development.

INDICATORS + TARGETS

- Increase the capacity of accessible emergency shelters to 120,000
- Increase the rate of volunteerism among New Yorkers to 25 percent by 2020

Sandy Recovery Opportunity and Resource Fair at the Challenge Preparatory Charter School in Queens

Community Resiliency in Red Hook

The morning after Hurricane Sandy hit Red Hook, Sheryl Nash-Chisholm, a resident of Red Hook Houses, decided to check on her place of employment, the Red Hook Initiative (RHI), a community-based organization serving Red Hook in Brooklyn. Once inside, she realized that RHI had not been damaged by the storm. She immediately opened the center to serve as a gathering place, charging station, and supply-distribution center. By taking this initiative, Sheryl became a key part of the Red Hook community's recovery.

For the next three weeks, Sheryl and two dozen neighbors worked tirelessly to serve their community, returning each night to their own apartments that were still without heat, running water, and electricity. RHI was open for up to 14 hours per day during those three weeks, with RHI volunteers and partner organizations providing supplies and meals to thousands of area residents, as well as free Wi-Fi and legal and/or medical assistance to nearly 300 home-bound people in the community. With long-lasting local relationships and community awareness, RHI and their partners demonstrated that community-based organizations and their members are often able to mobilize quickly and provide meaningful, critical support for neighborhoods in times of crisis.

Sheryl Nash-Chisholm
Initiative 1

Strengthen community-based organizations

Social infrastructure plays an important role in making communities ready for the unexpected, and neighborhoods vary in the level of social cohesion and available resources. To address this situation, the City will work to build capacity in communities by strengthening community-based organizations that serve their neighbors and by working to expand civic engagement and volunteerism.

First, the City will seek to develop a comprehensive, interactive web-based platform to map both small and large community organizations and activities, as well as local government services and initiatives, across New York City. The platform will allow for the identification of both gaps and duplication of efforts, as well as opportunities for integrating existing community-based and government initiatives. It will also encourage more effective coordination, collaboration, and decision-making in these efforts, in addition to linking to tools for connecting organizations and aiding in community-based emergency planning between government and communities.

Next, the City will seek to bolster neighborhood resiliency and civic participation by strengthening community-based organizations’ services, information capacity, and ability to conduct community-level emergency and resiliency planning. The City will study a model for social empowerment zones, which aim to increase residents’ ability to conduct community-level emergency and resiliency planning. The City will also encourage more effective coordination, collaboration, and decision-making in these efforts, in addition to linking to tools for connecting organizations and aiding in community-based emergency planning between government and communities.

In partnership with the City Council, the City will establish a Hurricane Sandy Task Force to make recommendations on expanding the participation of community-based organizations and faith-based groups in local emergency planning and resiliency efforts.

Finally, the City will expand volunteerism opportunities in neighborhood-based initiatives run by community-based organizations, neighborhood institutions, and the City. An enhanced NYC Service platform will connect organizations and programs in need of support with available volunteers, including linking volunteers with emergency response and recovery efforts.

Initiative 2

Improve emergency preparedness and planning

Resiliency starts with preparation. Securing physical assets for emergency response such as a power generators, light towers and others are a critical first step. The City, through NYC Emergency Management (NYC EM), will expand public education efforts so that all New Yorkers know the risks they face during extreme weather events and other disasters, and how to prepare and respond.

The City will invest in emergency shelter sites to accommodate 120,000 vulnerable New Yorkers—an improvement on the current capacity of 100,000—including retrofits for the accessibility of existing shelters. We will strive to ensure vulnerable populations that need shelter are provided with adequate transportation services. The City will also continue working to identify additional accessible sites throughout the five boroughs that can serve as emergency service centers.

During large-scale emergencies and disasters, getting the right resources to the right place at the right time saves lives and helps New Yorkers recover faster. The City can ensure this happens by expanding the existing Corporate Emergency Access System (CEAS), a program recognized by New York City Police Department (NYPD) and NYC EM that allows emergency access for businesses, into an emergency access credential for City Agency staff and other essential personnel. The City will convene an inter-agency working group to evaluate, and make recommendations for, the development of this credential and its procedures during a disaster.

In the summer of 2014, the City launched a comprehensive review of its 911 emergency response system. The first assessment examined the technological and facilities improvements already underway as part of the Emergency Communication Transformation Program. The second assessment examined the operations, procedures, and call volumes of the 911 system. Through the operational assessment, improvements in emergency care emerged as a top priority.

New York City ambulances respond to over a million calls each year, 40 percent of which are for life-threatening emergencies. As that volume continues to increase, the challenge of maintaining optimal coverage in every part of the city, at all times, only becomes greater. To address this problem and reduce response times, the City will explore options to provide additional support where the need is greatest. This year, the City added 45 additional ambulance tours and deployed additional resources to station areas, focused in southern Bronx, western Queens, and Staten Island. The City is also building out a fully redundant, second 911 answering center in the Bronx, increasing staffing of dispatchers and supervisors, and improving governance and quality assurance protocols to ensure a more robust and efficient emergency response system.

Service providers, such as in-home food and health service organizations, could play an essential role in emergency preparedness and planning. To ensure service providers are equipped with the necessary tools and training to serve vulnerable
populations during emergencies, the City will include front-line staff in emergency planning, training on public communications, and table-top exercises. In addition, the City will modify standardized contracts to require service providers to participate in the City's emergency protocols (such as Advance Warning System), develop a training program to incorporate community-based organizations in response and recovery operations, and assign all available City employees a response role for emergencies.

The City will continue to integrate its Hazard Mitigation Plan with climate resiliency plans so that we are planning for and acting on the full array of hazards and risks our city faces. Additionally, the City will launch its third NPCC in 2015, which will include a climate risk analysis to inform planning and decision making on resiliency efforts focused on equity and regionalism.

Finally, the City will work with the design and construction industries to develop a system of standardized on-call contracts, with agreed upon payment and risk management terms, in order to deploy construction and other services such as effective and efficient debris removal and building repairs during and after a major disruptive event. And we will work to improve long-term case management for those impacted by disasters to connect survivors with the services they need.

**Initiative 3**

Support small businesses and local commercial corridors

Small businesses are a critical part of any community, providing jobs as well as goods and services. After Sandy, the disruption to businesses in affected communities meant lost earnings for business owners, displaced jobs for workers, and reduced access to vital goods and services. As a result, residents in many communities were left with limited options to meet their daily needs.

In response, the City provided financial and technical assistance to more than 650 businesses in the immediate aftermath of Hurricane Sandy. In addition, the Hurricane Sandy Business Loan and Grant Program will have served more than 250 businesses before the end of 2015. As of April 2015, the City has approved awards worth $35 million to more than 200 businesses.

In Spring 2015, the City will announce the winners of RISE: NYC, a $30 million competition that leverages innovative resiliency technologies in energy infrastructure, telecommunications, and building systems for small businesses. Additionally, the City will launch a new Business PREP program to provide tailored resources and technical assistance in preparing and planning for future disruptive events to businesses.

The City will also invest $30 million toward commercial corridor enhancements in Coney Island and the Rockaways, including storm water management, streetscape and place-making projects to enhance the connectivity of these places, and improvement of local infrastructure that provides basic services to businesses.

**Initiative 4**

Ensure that workforce development is a part of all resiliency investments

As the City advances its more than $20 billion resiliency capital investment program, residents impacted by Sandy will have opportunities to access employment and the training needed to be eligible for the construction jobs these investments will create. To realize this opportunity, the City will build on the model designed for the Build it Back program that established the Sandy Recovery Workforce1 program, which encourages the hiring of Sandy-impacted residents and provides training vouchers for residents to access pre-apprenticeship programs.

Specifically, the City will ensure all investments that strengthen the city’s resiliency will create job opportunities for residents and low-income applicants. This will require the City, in cooperation with the Department of Small Business Services (SBS), to secure additional State funding for residents, through both pre-apprenticeship and apprenticeship programs. The City's neighborhood resiliency investments, added to other Department of Small Business Services (SBS), will secure additional State funding for community-supported workforce development services in several Sandy-impacted neighborhoods.
Initiative 5
Mitigate the risks of heat

The effects of urban heat are well known. Extreme summer heat kills, on average, over 100 New Yorkers annually from heat stroke and the heat-related exacerbation of chronic health problems. Hundreds more need hospital care for serious heat-related illness. The risk of death from extreme heat is highest among those without air conditioning, in neighborhoods with higher poverty rates, and where there is less land covered by trees and other vegetation. By greening neighborhoods and increasing access to air conditioning, we aim to reduce heat-related illnesses and deaths, and reduce disparities in vulnerability to climate change.

In partnership with The Nature Conservancy, the City is developing strategies to evaluate the best available science on the urban heat island effect in order to invest in better data collection and develop effective capital investment and operational strategies to adapt our city to the increasing impacts of urban heat. First, the City will identify urban heat mitigation and adaptation strategies to benefit the city’s most heat-vulnerable communities by coordinating through a new Urban Heat Island Working Group that has already begun to meet.

The Working Group will make recommendations for the creation of a citywide air temperature monitoring system to enable the collection of community-level temperature data to guide urban heat mitigation and emergency response activities.

In order to measure heat mitigation activities accurately across the five boroughs, the City will seek updates to its 2010 LiDAR dataset, which will involve aerial data collection through remote sensing. This will help the City to quantify the investments that have already been made and will inform future strategies about how to plan the built environment. Additional insights from LiDAR data will include the extent of the tree canopy across the five boroughs, and better detail for the City’s public mapping data, among others. The City is already working to secure federally-provided 2013 LiDAR data.

Additionally, the City will call on the State to ensure cooling access during extreme heat for low-income, heat-vulnerable populations through an expanded allocation of Federal Low Income Home Energy Assistance Program funds to assist with air conditioning purchase and installation, and utility costs. These air conditioners will be as energy efficient as possible, and are a life-saving resource for seniors and those with pre-existing health conditions.

Finally, the City will propose that the New York City Board of Health amend the health code to establish maximum allowable temperatures in residential facilities and supportive housing for vulnerable people to protect against heat-related illness.

Heat Vulnerability Index (HVI) for New York City Community Districts

The HVI is adapted from a study by researchers at the Department of Health and Mental Hygiene (DOHMH) and Columbia University who analyzed mortality data from 2000 through 2011. The analysis identified factors that were associated with an increased risk of deaths during a heat wave. The map shows New York City Community Districts ranked from least to most vulnerable and divided into five equal groups. Each Community District HVI is the average of all census tracts in the Community District.

Heat-related illness and death rates, by neighborhood poverty in New York City

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<tr>
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<tbody>
<tr>
<td>Low (&lt;10%)</td>
<td>36.7</td>
<td>12.7</td>
<td>1.2</td>
<td>8.1</td>
</tr>
<tr>
<td>Medium (10 to &lt;20%)</td>
<td>53.4</td>
<td>18.5</td>
<td>1.4</td>
<td>9.3</td>
</tr>
<tr>
<td>High (20 to &lt;30%)</td>
<td>55.2</td>
<td>19.0</td>
<td>1.5</td>
<td>18.9</td>
</tr>
<tr>
<td>Very High (30%+)</td>
<td>76.5</td>
<td>21.1</td>
<td>1.9</td>
<td>18.8</td>
</tr>
</tbody>
</table>

Notes: Data on heat-related deaths, hospital visits, and emergency department visits are restricted to events in the months of May through September for the years indicated. Neighborhood poverty rates are based on zip code and are defined as the percentage of residents with incomes below 100% of the Federal Poverty Level per the American Community Survey 2007–2011. Population estimates for incidence are based on 2010 census data.

Source: NYC DOHMH
Buildings

Goal: The city's buildings will be upgraded against changing climate impacts

Overview

Newly constructed buildings in New York City are designed to meet current codes that promote safety and energy efficiency. But the vast majority of city buildings—our homes, schools, workplaces, businesses, and places of worship—were constructed before most modern standards were in place. There is a significant need to adapt buildings across the five boroughs to withstand and recover from extreme weather events and other hazards, while continuing to serve residents and businesses during normal conditions.

The Mayor’s Office of Housing Recovery Operations is making significant investment in homes across the city through the Build it Back program, supporting the recovery of single-family homeowners and multi-family building residents. Eligible homeowners may repair, elevate, rebuild, or sell their homes. This program was dramatically improved in 2014 and is continuing to serve Sandy-impacted residents.

Other buildings across the city are also subject to ongoing climate risks, particularly the flooding associated with storm surge and sea level rise, as well as wind and heat. When the Federal Emergency Management Agency (FEMA) released its first Flood Insurance Rate Maps for New York City in 1983, it defined the 100-year floodplain—the area that has a one percent or greater chance of flooding in any given year—as an expanse that today includes approximately 35,500 buildings. However, Sandy’s extensive flooding encompassed over 88,700 buildings, and according to current FEMA updates to these maps, the new 100-year floodplain is expected to include approximately 71,500 buildings. These expanding floodplains will bring flood construction and insurance requirements into neighborhoods that were not built to such standards.

Looking ahead, with new flood maps and rising flood insurance premiums, it will be critical to align new zoning and land use changes with existing building codes to mitigate the risk of flooding, upgrade against other threats, and ensure mitigation and insurance options remain available and affordable in the city's coastal communities.

INITIATIVE 1

Upgrade public and private city buildings

Many of New York City’s nearly one million buildings are not as prepared as they need to be against evolving risks. To address this, we will adapt vulnerable building stock to withstand the risks of climate change and extreme weather events.

The City will implement the Build it Back program to demonstrate how best to prepare homes and neighborhoods for the future. In addition to elevating houses, the program is exploring other protective strategies to improve single-family homes and upgrade multi-family buildings, including the relocation or hardening of building systems, and flood-proofing of lower levels. The City’s multi-family housing component of Build it Back provides comprehensive resiliency retrofit measures necessary to protect vulnerable residents from the loss of critical building services in the event of a storm, such as raising electrical equipment and other building systems, flood-proofing lower levels of buildings, and ensuring the redundancy of building systems.

The City will also invest in increasing the resiliency of public housing. NYCHA has secured over $3 billion from FEMA to execute a comprehensive resiliency program across 33 public housing developments, which will include the elevation and hardening of building systems, flood-proofing, and upgrading infrastructure.

The City will also continue to repair and upgrade City-owned buildings to mitigate the impacts of future climate changes. In all cases, the City is committed to maximizing the allocation of federal funding for building resiliency and will identify all required local match funding to secure these funds.
Initiative 2

Adopt policies to support building upgrades

The City’s efforts to upgrade buildings for climate resiliency must be supported by policies that enable the right investments in building resiliency. Overall, new zoning requirements, updated building codes, and reforms to flood insurance programs are already having an effect on the built environment, with the City coordinating these efforts across government stakeholders and with the community.

The City will continue to align zoning and building code updates with reforms to the National Flood Insurance Program (NFIP) and expected changes to the Flood Insurance Rate Maps (FIRMs). A working group focused on resiliency is already active within City government, with representatives across capital and planning agencies, and will lead this program.

By 2018, the City will work to develop and adopt consistent resilient design guidelines for buildings in areas vulnerable to flooding, extreme wind, and heat. With our changing climate, these standards will need to be developed based on an evaluation of the inherent uncertainty of future climate projections, the lifespan of assets, and their criticality in order to develop cost-effective design guidelines. These guidelines will ensure what is built adheres to the highest performance standards.

As part of this effort, the City will explore funding for loans and grants to finance and encourage resiliency retrofits such as home elevations and other building upgrades for building owners who were unable to participate in current programs.

Another important aspect in this effort is land use. The City continues to evaluate land use as a tool to promote resiliency across the city. The Department of City Planning’s ongoing Resilient Neighborhoods studies are engaging communities in ten areas across the five boroughs that face flooding and other resiliency challenges. In this process, the City will evaluate and establish a framework for adaptive land use planning based on a range of coastal hazards and with consideration of climate change projections. This will include updates to local land use regulations and citywide zoning to promote resiliency investments in buildings and infrastructure, including commercial and industrial buildings, and will explore incentives to balance the costs of improvements.

Finally, the City will increase the capacity of owners and operators of buildings located in the floodplain to align investments around both sustainability and resiliency investments when capital improvements are made. This will coincide with investments being made in the City’s municipal and private building stock to promote energy efficiency and reduced greenhouse gas emissions, as detailed in Vision 3.

Initiative 3

Work to reform FEMA’s National Flood Insurance Program (NFIP)

As the city’s coastal communities continue to be threatened by escalating flood risk and rising FEMA NFIP premiums, the City will pursue a comprehensive set of activities to promote investments in physical risk reduction and better policies, including those that promote NFIP affordability. This includes conducting several studies to evaluate recent NFIP changes and their impacts on urban environments, reviewing federal studies while they are being drafted, and working with FEMA to institute reforms based on the results of these studies.

The City wants to be sure the public understands its flood risk and flood insurance purchase requirements, and is already conducting frequent outreach meetings and developing further public education campaign materials for city residents living in and near the floodplain. This flood insurance consumer education campaign seeks to inform as many people as possible about their flood risk through advertisements on public transportation and radio, as well as at community events and through elected officials, with two key messages for consumers: understand your risk and flood insurance purchase requirements and purchase flood insurance.

“I live in Red Hook, Brooklyn, where flood insurance affordability is a concern. FEMA should reduce insurance premiums if homeowners take action to mitigate flood risk, like elevating mechanical equipment. We’re really excited about the Integrated Flood Protection System for Red Hook and all such resiliency projects across the city.”

—Andrea S., Red Hook
Based on this program, the City will also work to build a regional and nationwide coalition in advance of the 2017 reauthorization of the NFIP to achieve reforms that will ensure residents are better educated about their risk, more incentivized to mitigate risk, and better able to afford flood insurance premiums.

At the same time, the City will continue to explore participation in FEMA’s Community Rating System (CRS), which could reduce premiums for the city’s flood insurance policyholders.

Today's population in the current and projected floodplain

<table>
<thead>
<tr>
<th></th>
<th>2013 (Preliminary FIRM</th>
<th>2050s (Projected)</th>
<th>2080s (Projected)</th>
<th>2100 (Projected)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manhattan</td>
<td>89,100</td>
<td>214,500</td>
<td>275,600</td>
<td>317,700</td>
</tr>
<tr>
<td>Bronx</td>
<td>16,300</td>
<td>52,200</td>
<td>113,900</td>
<td>143,800</td>
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<tr>
<td>Brooklyn</td>
<td>164,800</td>
<td>331,100</td>
<td>466,200</td>
<td>515,400</td>
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<tr>
<td>Queens</td>
<td>99,100</td>
<td>167,200</td>
<td>201,500</td>
<td>219,100</td>
</tr>
<tr>
<td>Staten Island</td>
<td>30,700</td>
<td>44,900</td>
<td>56,300</td>
<td>63,100</td>
</tr>
<tr>
<td>Citywide Total</td>
<td>400,000</td>
<td>808,900</td>
<td>1,113,500</td>
<td>1,259,100</td>
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Today's buildings in the current and projected floodplain

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<tr>
<th></th>
<th>2013 (Preliminary FIRM</th>
<th>2050s (Projected)</th>
<th>2080s (Projected)</th>
<th>2100 (Projected)</th>
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</thead>
<tbody>
<tr>
<td>Manhattan</td>
<td>3,100</td>
<td>5,900</td>
<td>7,600</td>
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<tr>
<td>Bronx</td>
<td>4,500</td>
<td>8,200</td>
<td>13,700</td>
<td>16,500</td>
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<td>Brooklyn</td>
<td>26,900</td>
<td>51,600</td>
<td>70,700</td>
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<td>Queens</td>
<td>25,200</td>
<td>35,800</td>
<td>41,100</td>
<td>44,800</td>
</tr>
<tr>
<td>Staten Island</td>
<td>11,800</td>
<td>16,700</td>
<td>19,800</td>
<td>21,500</td>
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<tr>
<td>Citywide Total</td>
<td>71,500</td>
<td>118,000</td>
<td>152,900</td>
<td>171,700</td>
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</table>

Expanding floodplains due to rising sea levels

There are currently an estimated 400,000 residents and 71,500 buildings in the city’s 100-year floodplain. By the 2050s, the 100-year floodplain will expand to include an area that today has 808,900 residents and 118,000 buildings. This expansion of the floodplain, caused by sea level rise, is expected to continue through the end of the century.

FEMA’s National Flood Insurance Program (NFIP)

Recent changes to the National Flood Insurance Program (NFIP), including the Bigger-Waters Flood Insurance Reform Act of 2012 and the Homeowner Flood Insurance Affordability Act of 2014, will have drastic consequences for the city’s coastal communities, including rising insurance premiums, increasing risks for home foreclosures, and loss of value for affected homes. To address this challenge, the City will continue to invest in risk reduction and work with FEMA to improve four critical aspects of its National Flood Insurance Program:

1. Improve FEMA’s Flood Mapping Process: The City’s new Preliminary Flood Insurance Rate Maps, issued in December 2013, had not been updated since they were first created in 1983, and as a result, when Hurricane Sandy hit, the flood maps severely understated the City’s flood risk. To better communicate and prepare for flood risk, the City seeks to require FEMA to update the maps at least every ten years. Further, the City will call on FEMA to implement a series of technical and process improvements—including exploration of the next generation of coastal flood models—to better represent and communicate flood risk.

2. Improve Risk-Based Pricing: Currently, FEMA does not have the data required to adequately price a majority of New York City policies, such as those deemed to be “negatively-elevated structures.” In addition, FEMA does not, for the most part, offer premium reductions for mitigation approaches other than building elevation. The City is advocating for a broader list of partial mitigation measures that result in reduced risk and premiums.

3. Improve Management of Write Your Own (WYO) Companies: FEMA sells its NFIP products through WYO insurance companies. Recent allegations concerning Sandy claims payments have demonstrated the need for better management and controls within insurance companies and by FEMA. The City will advocate for better oversight of these companies and better training of WYO companies to improve communication to existing and prospective clients.

4. Ensure NFIP Affordability: The City is undertaking two affordability studies to help ensure the NFIP takes into account the specific characteristics of a dense, urban environment in the floodplain for both multi-family and one-to-four family housing.
Infrastructure

Goal: Infrastructure systems across the region will adapt to maintain continued services

Overview

The risks from climate change and other 21st century threats will further challenge the resiliency of the city’s aging infrastructure for years to come. The City aims to adapt infrastructure systems in the city and across the region to withstand the impacts of climate change, to ensure the continuity of critical services in an emergency, and to recover more quickly from service outages.

The City is already implementing a robust portfolio of infrastructure-based recovery and resiliency initiatives as part of a more than $20 billion climate resiliency program—which will reach nearly $30 billion with additional spending by other regional partners.

The City also coordinates closely with its partners in the energy, telecommunications, and transportation sectors across the region to facilitate planning for and investment in the resiliency of their assets. These partners include the Metropolitan Transportation Authority (MTA), the Port Authority of New York and New Jersey (PANYNJ), Con Edison, the Long Island Power Authority (LIPA), National Grid, AT&T, Sprint, T-Mobile, Cablevision, Verizon, and Time Warner Cable, among others.

These publicly and privately owned systems are vulnerable to natural disasters and the impacts of climate change. Without proper investment, our transportation network, water, sewer, and waste infrastructure, energy system, telecommunications assets, and social infrastructure are all at risk.

Transportation: The city’s transportation network is vital to helping New Yorkers recover after a disruptive event. There is a need for focused attention to prepare these facilities and assets for future shocks by making the right investments for adaptation. Our subway system is particularly vulnerable to flooding and power disruption. New York City’s freight infrastructure is not only critical for day-to-day operations, but also serves as a necessary network in emergency response during natural and man-made disasters. The freight network connects New Yorkers to commodities such as food and fuel from areas across the region by air, rail, ship, and road.

Water, Sewer, and Waste: The city’s sewer system can be overwhelmed by heavy downpours that exceed the system’s design capacity, creating flooding and sewer backups, as well as by storm surges, which pose a risk to the city’s wastewater treatment plants and pumping stations. During heavy downpours, partially treated or untreated sewage can spill into waterways around New York City as a relief mechanism to avoid damage to treatment facilities. These events are anticipated to increase as New York City experiences more intense precipitation with more frequent flooding. The capacity of the City to manage its solid waste during and after a shock event is critical to maintaining healthy and safe conditions for communities. However, potential damage of sanitation facilities and assets, the ability to fully staff shifts, and the conditions of roadways, street lights, and other infrastructure in place determine the resiliency of the City’s solid waste management system.

Energy: The city’s underground and overhead energy distribution systems are vulnerable to floodwaters and high winds, as are electricity- and steam-generating facilities and liquid fuel refinery and distribution terminals. Today, 88 percent of the City’s steam-generating capacity lies within the 100-year floodplain. In the electric power system, 53 percent of in-city electricity-generation capacity, 37 percent of transmission substation capacity, and 12 percent of large-distribution substation capacity lie within the floodplain. Heat waves also pose significant challenges to operability of the electrical grid. Of the 39 fuel terminals in the New York metropolitan area, nearly all lie within FEMA’s 100-year floodplain. Extreme weather events would cause direct damage to key liquid fuel assets in the region and disrupt the power infrastructure critical to the functioning of terminals, refineries, and pipelines.

Telecommunications: The ability to communicate reliably is critical, especially in an emergency. More than ever, the resiliency of telecommunications services across the city, including wired and wireless telephone, video, and internet, will affect the city’s capacity to both respond to a major disruptive event and implement a coordinated recovery. These systems rely on a vast infrastructure of over 50 thousand miles of cabling, thousands of cell sites, and nearly 100 critical facilities. By the 2020s, 18 percent of telecommunications infrastructure will lie within the 100-year floodplain. Recent upgrades to the fiber optic network have helped, but more improvements are needed.

Social Infrastructure: Infrastructure that strengthens communities, such as hospitals, community centers, libraries, and schools, can enhance social resiliency and assist in immediate response after a disruptive event. Parks, in particular, can play a role in protecting adjacent neighborhoods from severe weather, and serve as gathering places after an event. But these facilities are as vulnerable to damage or to the interruption of essential services as any other critical facilities. In an emergency, the continuity of operations for buildings, critical vehicles, and telecommunications networks for first responders is a matter of life and death. And hospitals and long-term care facilities, including nursing homes and adult care facilities, are equally crucial to the immediate response and long-term recovery of neighborhoods after a crisis.

Each of these systems requires a specific set of activities to ensure the resiliency of the city.
A Resilient City
Current Investments in Infrastructure and Buildings

- Transportation: $665 million
- Regional Water and Wastewater: $5.5 billion
- Hospitals: $2.9 billion
- Libraries: $10 million
- Schools: $755 million
- NYCHA: $3.2 billion
- Other Resiliency Housing: $60 million
- MTA Fix and Fortify: $10.5 billion
- PANYNJ Storm Sandy Program: $1.1 billion
- Con Edison: $1.0 billion
- Other: $50 million

2013 100-Year Floodplain
2050s 100-Year Floodplain

Flooding Source: FEMA (Current Floodplain) New York City Panel on Climate Change (NPCC) 2015 100-Year Floodplain
Note: NPCC Floodplain is a high-end projection (90th percentile).
All costs are rounded estimates. Not all projects shown.

2013 100-Year Floodplain
2050s 100-Year Floodplain

NYC.gov/Onenyc
One New York: The Plan for a Strong and Just City
Initiative 1

Adapt the region’s infrastructure systems

Infrastructure systems are vital to making our city run. Across the region, New Yorkers rely on infrastructure systems every day to light and heat their homes, obtain drinking water, get to work, and access information. However, these infrastructure assets require regular repairs and upgrades to remain operable and adapt for resiliency. The City will, therefore, continue to pursue programs to coordinate investments across agencies and other infrastructure providers.

The City commits to repairing critical infrastructure systems damaged or destroyed by Hurricane Sandy, while mitigating future climate risks through billions of dollars in funds from FEMA’s public assistance grant program. The City is providing a required local match of funds in order to secure these resources.

Working with other regional partners, the City will invest in the resiliency of its transportation infrastructure, including ferries, tunnels, movable bridges, traffic signals, and streets, through the elevation or dry-proofing of facilities and systems, the hardening of conduits, enhanced continuity of operations planning, and mitigation strategies, such as hardening of street ends and green infrastructure for storm water management.

The City will work to ensure the resiliency of our freight network in the face of climate change by hardening our ports, rail, staging areas, and warehouses. The City is undertaking planning exercises to identify vulnerabilities to the freight network, improve redundancy, and provide resiliency strategies for at-risk infrastructure through partnerships with City agencies and the private sector.

Further, the City is planning for green infrastructure installations across the five boroughs, including bioswales, rain gardens, permeable pavement, and green roofs to reduce the amount of stormwater entering the sewer system, thus helping to keep the sewers from exceeding their capacity. The City is also investing in the resiliency of its wastewater treatment plants and pumping stations by implementing measures such as elevating and flood-proofing equipment, constructing barriers, and installing backup power supplies to ensure continued service in the event of a major storm.

Upstate reservoir dams are critical to our City’s drinking water sources. Given the increased variability in the frequency and magnitude of storms associated with climate change, DEP will go beyond the level of protection currently required by New York State. This guidance requires existing dams to be capable of safely passing half of the probable maximum flood, a standard we already meet. Beyond these requirements, we will commit to ensuring our dams safely pass the full probable maximum flood when capital improvements are made. Finally, while the science suggests New York City’s upstate water supply watersheds will experience increased precipitation due to climate change, we are also preparing for the risk of the opposite extreme: drought. The City commits to protecting our fresh water resources, managing demand, increasing infrastructure investments for greater flexibility, and maintaining a steady supply of water during all weather conditions.

The City’s ability to function during a disaster depends on a resilient information technology infrastructure that keeps critical agency applications running, data accessible and secure, and telecommunications networks operating. The City will do so by populating its backup data center with replication and backup of critical applications, and incorporate this data center into its continuity of operations plans for City agencies. It will also continue hardening network and infrastructure assets to withstand both storm-related power outages and power grid outages, and strengthen the City’s support of mission-critical operations for first responders and essential City services.

In addition, the City will develop strategies to promote and enforce resiliency for telecommunications providers through the franchise renewal process and other agreements with the City. DoITT’s newly created Telecommunications Planning and Resiliency Office is facilitating an ongoing dialogue with telecommunications providers to discuss resiliency initiatives and address barriers to implementation.
The City will also work with wireless carriers to ensure cell sites and networks are hardened and resilient. In some cases, technology upgrades made at cell sites have improved battery backup time (e.g., newer equipment does not draw as much power). We also helped facilitate discussions between one wireless carrier and the Fire Department of New York City that ultimately led to approval of an alternate fuel source option for backup power. The carrier plans to deploy at least two of these units in New York City. And we have also advocated for strong backup power requirements in proceedings before the Federal Communications Commission. Further, LinkNYC will increase access to affordable broadband through a network of public Wi-Fi, and is a model for incorporating resiliency requirements into franchise agreements, ranging from enhancing cyber-security to submitting an annual resiliency plan.

The City will proceed with the retrofit of critical buildings, such as healthcare, hospitals, and long-term care facilities, and other critical municipal assets for long-term resiliency and to help our critical buildings withstand the risks posed by climate change. The City has secured nearly $1.7 billion from FEMA to execute a comprehensive resiliency program across four HHC facilities: Bellevue Hospital, Coney Island Hospital, Metropolitan Hospital, and Coler Rehabilitation and Nursing Care Center. Resiliency upgrades to these facilities will include the installation of backup power systems, the elevation and hardening of building systems, and flood-proofing of lower levels. The City is also working to secure funds from FEMA’s Hazard Mitigation Grant Program for the resiliency of long-term care facilities located in the 100-year floodplain.

**Initiative 2**

**Adopt policies to support infrastructure adaptation**

The City will use the best available climate science, as well as robust research, legislative action, advocacy, and regional coordination to adapt the city’s infrastructure to be resilient against disruption. It is critical to standardize the process by developing and implementing a set of design guidelines for resiliency to ensure what we build adheres to the highest performance standards. By 2018, we aim to have all New York City agencies adopt standardized resiliency design guidelines for streets, transportation, public spaces, utilities, and other infrastructure.

The City will call on regional infrastructure providers and operators, such as the MTA, PANYNJ, ConEdison, National Grid, LIPA, and Verizon to make critical resiliency investments in their systems, coordinated through the Climate Change Adaptation Task Force.

The City will explore, with our State and academic partners, the preparation of a Regional Resiliency Assessment Program with the U.S. Department of Homeland Security on the resiliency of the City’s supply chain for critical commodities such as food, fuels, materials, and consumer goods. NYC EM and Department of Citywide Administrative Services are in development of operational response strategies to address possible fuel disruptions to New York City. In order to prevent and prepare for such disruptions, these agencies and the Mayor’s Office are working in partnership with the Columbia University SIPA Center on Global Energy Policy, as well as state, federal, and private sector partners to develop a liquid fuels resiliency strategy. This may include standardized regulatory waivers, communications protocols, fuel reserves, and hardening of assets for the refinement, storage, and delivery of fuels.

The City will also conduct an analysis and develop recommendations to enhance the resiliency of the city’s food supply chain, which is expected to support further investments at the Hunts Point Food Distribution Center beyond the funds that have already been identified through HUD’s Rebuild by Design competition.
Coastal Defense

Goal: New York City’s coastal defenses will be strengthened against flooding and sea level rise

Overview
Hurricane Sandy vividly demonstrated the city’s vulnerability to coastal storms. With 520 miles of coastline, New York City has been exposed to these risks since its founding. Over the past 400 years, the city’s shoreline has been developed and modified in ways that have contributed to increased risks from coastal storms. Now, a changing climate is adding to the risks.

Our current understanding of flood risk comes from FEMA and its Flood Insurance Rate Maps (FIRMs). These maps were first adopted in 1983 and showed that 33 square miles of the city were in the 100-year floodplain, which includes 218,000 people. Updated maps will show approximately 400,000 people currently in the 100-year floodplain.

These maps do not include projections on rising sea levels. In addition to the approximately 1.1 feet of sea level rise the city has experienced since 1900, current mid-range projections show sea levels will rise another one to two feet by 2050 and two to four feet by 2100. The NPCC shows that due to sea level rise, these floodplains are expected to continue growing and increase the frequency and intensity of citywide flooding. In fact, the floodplain projections provided by the NPCC show 71 square miles will be in the 100-year floodplain in 2050, which includes approximately 808,900 people. This is a 42 percent increase.

Alarming as they are, these projections largely assume that no action will be taken to mitigate this risk. However, the City is continuing to act to reduce the impacts of climate change. We will expand our efforts to adapt coastal communities to the evolving risks of climate change, including flooding and sea level rise. In June 2013, the City released its first-ever comprehensive coastal protection plan, which will significantly reduce the city’s vulnerabilities.

Since 2013, the city has initiated many projects to strengthen our defenses against the risks associated with climate change. These projects include beach nourishment in Coney Island, the Rockaways, and Staten Island; miles of new dunes across the city’s beaches; repairs to bulkheads in low-lying neighborhoods; new investments in Red Hook, the east side of Manhattan, Lower Manhattan, Breezy Point, Howard Beach, and Tottenville; and feasibility studies for flood protection systems for Newtown Creek, Gowanus Canal, East Harlem, the North Shore of Staten Island, and Coney Island Creek.

We are also partnering with U.S. Army Corps of Engineers (USACE) as it implements new coastal resiliency projects, including construction of T-groins at Sea Gate in Coney Island, advancing implementation of the East Shore levee and South Shore investments in Staten Island, and development of the Rockaway Reformulation investments on the Rockaway peninsula beaches and in Jamaica Bay.

All of this work will continue to require funds and new sources of financing. While the City has successfully launched its first phase of a coastal protection program with nearly half of the funding secured, more funds are needed now and in the future to implement this program fully and effectively reduce risk in our coastal communities.
Initiative 1
Strengthen the city’s coastal defenses

Prior to 2013, the City had never adopted a comprehensive coastal protection plan to reduce the risk of coastal flooding and sea level rise. With the release of A Stronger, More Resilient New York, the City now has a comprehensive coastal protection plan in place and has already taken steps to implement its first phase, which includes a $3.7 billion program of infrastructure investments, natural area restorations, and design and governance upgrades. The City will, as funds continue to be identified, make progress on the entire plan.

Over the next ten years, the City will strengthen its coastal defenses by completing many vital projects in all five boroughs, including:

- An integrated flood protection system for the east side of Manhattan and in Lower Manhattan south of Montgomery Street to the northern end of Battery Park City
- Armored levee and stormwater management on the East Shore of Staten Island, in partnership with USACE
- Investments on the Rockaway peninsula beaches and in Jamaica Bay, as part of the USACE Rockaway Reformulation, plus further investments in Breezy Point
- An integrated flood protection system in Red Hook, in partnership with the State
- Coastal and energy resiliency improvements in Hunts Point to protect the city’s food distribution center from flooding and power loss
- Investments to improve low-lying shorelines across the city, including in Coney Island and the South Shore of Staten Island
- Nature-based measures in Jamaica Bay, such as those at Sunset Cove in Broad Channel and Spring Creek in Howard Beach

To deepen public participation in the implementation of this coastal protection plan, the City will also reestablish and expand the Waterfront Management Advisory Board (WMAB) to advise the City on the waterfront, including coastal resiliency, natural resources, and related waterfront topics.

Through a partnership with the NPCC and the Science and Resilience Institute at Jamaica Bay, the City will continue to expand its understanding of the science of resiliency and explore nature-based strategies to enhance resiliency in the city. The City will also continue to explore the implementation of other innovative resiliency programs, including oyster production and education programs.

East Side Coastal Resiliency

In June 2014, the City was awarded $335 million for coastal resiliency investments through HUD’s Rebuild by Design competition, aimed at stimulating the development and funding of innovative resiliency projects in the Sandy-impacted region. Of the total amount, $335 million was earmarked for development of the first phase of an east side integrated flood protection system in Lower Manhattan. This system is expected to stretch from East 23rd Street to Montgomery Street, with enhanced resiliency against flooding while expanding public access to East River Park and its adjacent esplanades. When completed, it will benefit thousands of public housing and other residents of a particularly vulnerable part of Manhattan, and will demonstrate a new model for integrating coastal protection into neighborhoods, consistent with the City’s resiliency vision.
A Resilient City
Coastal Protection Project Status

- Completed
- Study Funded
- Project Funded
- DCP Resilient Neighborhoods Study Areas
- 2013 100-Year Floodplain
- 2050s 100-Year Floodplain

Map showing various coastal defense projects and their costs.
Initiative 2
Attract new funds for vital coastal protection projects

The City’s $3.7 billion coastal protection plan is nearly 50 percent funded and moving forward. But significant portions of the plan still require additional funds for implementation.

To address this need, the City will continue to identify and secure new sources of funds to reduce coastal flooding risk. In partnership with USACE, a new feasibility study for New York Harbor and its tributaries will launch in 2015. It is intended to result in new projects that can be authorized and funded in New York City, in accordance with the City’s coastal protection plan.

To advance elements of its full-build coastal protection plan, the City is conducting its own feasibility studies of several investment opportunities, including at Coney Island Creek, Newtown Creek, Gowanus Canal, and Lower Manhattan. These studies are being conducted to inform future USACE studies, and are intended to strengthen the City’s ability to secure additional funds.

The City will also seek out new sources of funding. HUD is currently running a National Disaster Resilience Competition which will fund innovative resiliency measures that strengthen communities. The City has already submitted its phase one application to this competition. Throughout the rest of 2015, the City will work with community partners and other stakeholder agencies to secure funds through this competition.

In addition, the City will continue to evaluate long-term coastal protection measures, such as a multipurpose levee in Lower Manhattan, particularly where investments could strengthen communities and potentially generate funding to offset construction costs. Finally, the City will continue to explore other innovative financing opportunities.

Initiative 3
Adopt policies to support coastal protection

In order to strengthen the city’s coastal defenses effectively, policies must be aligned and adopted to support the right investments in coastal protection and ensure those investments are operated and maintained effectively.

As new assets are built, it will be necessary for the City to have a more effective management plan for waterfront assets. To address this need, the City will continue to upgrade its waterfront management tools and fund citywide waterfront inspections to assess and better manage its assets.

The City will also explore new governance models to support the completion and long-term operation of integrated coastal resiliency measures, based on national and international best practices.
Diverse and Inclusive Government

One of New York City’s greatest strengths is its diversity. We have always been a city of many cultures, attracting people from across the nation and around the world who seek opportunity in a vibrant, engaging, and supportive urban environment.

City government’s ability to govern effectively and serve all our residents depends on the diversity of our workforce and senior leadership, and maintaining an atmosphere in City workplaces that accepts and embraces diversity.

Diversity helps increase innovation. Research has shown that effective diversity management coupled with an inclusive work environment improves organizational performance and innovation. A diverse workforce also brings different perspectives and solutions to challenges, often resulting in new and creative advances.

City agencies invest large amounts of their budgets in compensation and benefits. The return on this investment significantly increases with a leadership pipeline of diverse individuals that is representative of all New Yorkers. The diversity dividend is maximized when employees perform at their peak. Peak performance can only happen in inclusive, harassment-free environments where workplace policies that enhance retention, produce greater workplace engagement, and further productivity across the organization are in place.

Diversity and inclusion increase an agency’s capacity to serve and protect people with different experiences or backgrounds; they also enhance an agency’s ability to be receptive to different traditions and ideas. A workforce that reflects the City of New York builds trust in government and inspires our residents’ civic engagement. Building on this legacy of improving diversity and inclusion, New York City is now positioned to strengthen its commitment and accelerate our efforts to attract, retain, and develop a diverse workforce. The City is also determined to serve all New Yorkers equally, including representation and participation of minority- and women-owned businesses (M/WBE) in OneNYC and all City initiatives.
Government Workforce

Goal: Build a government workforce reflective of the diversity and inclusion of all New York City communities

Overview

A majority of the City’s current civil workforce is comprised of women and people of color. Given the diversity of our population, we must also diversify our senior leadership. Equitable representation across all levels of City government strengthens the city by increasing efficiency, excellence, and strong delivery of City services; increasing the economic security of previously excluded professionals and their families; growing a diverse middle class; enhancing trust in government with a workforce that reflects the community it serves; and creating a pipeline of young leaders to join New York City government.

Initiative 1

Improve the way New York City recruits a diverse workforce

In order to show that government work is an attractive career path for graduating high school and college students from all backgrounds, we have strong programs and partnerships with organizations, high schools, colleges, and graduate programs to learn from and grow targeted talent recruitment pipelines.

We will launch new programs to recruit administrative talent as we better leverage and publicize our existing programs. In addition to the Public Service Corps, we currently run the Management Academy, a program designed specifically for the city’s new and emerging leaders; the Leadership Institute, which has helped prepare outstanding mid-level agency executives to lead organizational change initiatives; and the Urban Fellows program, which was designed to introduce America’s finest college students and graduates to local government and public service.

We will study the potential of three new programs: the Mayoral Leadership Institute for mid-level administration leaders to partner with a local university; the Mayoral Public Sector Fellowship to provide graduate school opportunities for high performing mid- and senior-level officials; and the Smart Government Initiative partnership with Cornell Tech for entry- and junior-level public sector professionals.

The City’s Public Service Corps program is the nation’s first and largest off-campus internship program for college students. It provides undergraduate and graduate students with opportunities to serve their communities, build professional skills, and learn about careers in the public sector. The Department of Citywide Administrative Services (DCAS) and Department of Education (DOE) currently partner to provide internships, training, and other support to the City’s automotive high schools, led by the Brooklyn Automotive High School. This successful partnership has improved educational opportunities and led to direct employment for automotive high school participants.

DCAS offers training courses designed to strengthen test-taking skills and workforce readiness, and assists students in matching their education and experience with City jobs and highlighting potential exams from the exam schedule.
**Initiative 2**

**Improve the way New York City retains a diverse workforce**

Recruiting a diverse workforce is only part of the story. Unless the City provides workplaces that embrace diversity and provide equitable opportunities for all City workers to grow and succeed, we will struggle to both recruit and maintain that diversity.

This means the City must take steps to ensure it is diverse at every level and that people from all backgrounds have opportunities across disciplinary areas. This is the 21st century. It’s no longer acceptable for our teaching corps to be all female or our firefighters all male.

To improve the way New York City retains a diverse workforce, City agencies have formed diversity work groups and internal councils to develop and share best practices and address the underrepresentation of various demographic groups in certain areas. For example, the Department of Design and Construction has established a cross-divisional task force to focus on hiring and succession planning within their agency. Meanwhile, the Law Department has established a mentoring initiative called the Coaching Collaborative, which meets on a regular basis to discuss ways to enhance the work environment. And the Fire Department is planning a specific initiative to recruit talented women firefighters as part of its broader diversity agenda.

The opportunity to increase diversity is particularly ripe at this moment, with large segments of the City workforce soon eligible to retire. DCAS will lead a project to integrate workforce analytics into succession planning to promote career opportunities that exist, and utilize long-range planning to map retirement trends and establish New York City government workforce needs and hiring imperatives for the future. In the next two years, DCAS plans to conduct an annual Employee Engagement survey; deploy onboarding and exit interview guidance; issue a full Workforce Profile Report; identify workforce trends; issue an updated Risk Assessment Tool to enable each agency to analyze its own workforce, turnover rates, and attrition risks; develop a retirement predictor analysis and incorporate findings into exam planning and attrition risk assessments; and analyze training records to identify training efficacy and impact on career mobility.

**Initiative 3**

**Improve the way New York City develops a diverse workforce**

New York City is undertaking a disparity study in accordance with Local Law 1. The results of this study will help inform M/WBE goals, which will be included in the future OneNYC progress update. For the first time since 2005, DCAS, in cooperation with the Mayor’s Office, issued a revised citywide Equal Employment Opportunity (EEO) policy that included diversity and inclusion leadership best practices for commissioners. Agencies are currently participating in the Managing Diversity and Inclusion Leadership Initiative (MDLI), which focuses on 15 best practices including commitment statements from commissioners, quarterly reviews of workforce data on the diversity of senior leadership candidate slates, mentoring, succession planning, identification of high potential talent, structured interviewing, and measuring the establishment of employee resource groups. Seventy percent of agencies have already incorporated a focus on ten of the best practices into their annual diversity and EEO plans. NYPD is the top performer engaged in or exploring all 15 best practices.

DCAS developed and promotes Everybody Matters, the City’s flagship diversity and inclusion training program available to all agencies. Between January and April 2015, DCAS has trained more than 6,000 employees.

To further expand our diversity, we will focus on recruiting and including populations that historically have not been measured in our multicultural and multi-generational workforce. These populations include disabled, veterans, and LGBT residents. We will also expand vocational skills and training programs in public service, which are expected to help the City reach populations that have previously been under-represented in government jobs that require vocational skills. These programs will be developed with our union partners to address the skills gap. We will also establish clear career pathways and mentoring programs, enhance our talent development framework, and include budget allocations for agencies to enhance diverse recruiting practices.
Minority and Women-owned Business Enterprise

Goal: Increase total City spending with Minority and Women-owned Business Enterprises (M/WBEs) to $16 billion over the next ten years

Overview

Minority and Women-owned Business Enterprises (M/WBEs) are some of the strongest drivers of local economic growth because they tend to hire from within New York City’s diverse communities and keep money and investments flowing back into our communities. By awarding contracts to M/WBEs, the City will not only help close the inequality gap when it comes to wealth creation, but also support sustainable and diverse communities and local economic growth.

New York City is currently a leader in M/WBE inclusion, but there is still significant room for improvement. Contracts have not historically been awarded to M/WBEs at a level commensurate with their representation in the marketplace. That is changing as the City undertakes a range of efforts to boost M/WBE participation. For example, under Local Law 1, in Fiscal Year 2014 the City awarded $690 million to certified M/WBEs in all prime and subcontracts, for a 57 percent increase over Fiscal Year 2013.

But this is not enough. In addition to increasing M/WBE program participation, the City can further increase M/WBE participation, even when not subject to Local Law. The City will aim to continue our positive trend and spend more than $16 billion with M/WBEs over the next ten years. This target assumes that there will not be major downward deviations in economic conditions and that the City is able to win the changes in state and local law that we seek to give us the legal flexibility necessary to boost M/WBE participation to these levels. To be clear, this goal is a floor, not a ceiling, and includes all City contracts—not just those subject to the M/WBE program.

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<td>3,700</td>
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<td>2014</td>
<td>3,783</td>
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Initiative 1

Increase the number of certified M/WBEs

As of July 2014, there were 3,783 certified M/WBEs in New York City—a slight increase from 3,700 in July 2013. The City sponsored 20 certification workshops in Fiscal Year 2014, with community partners supplementing this outreach with marketing workshops, networking events, and business development services. However, there are significant opportunities for increased support during the certification process, which the City continues to streamline. These include the use of the recently-launched New York City online certification portal and increased outreach to firms that could be eligible. We will engage in a marketing push to attract M/WBEs, with a special focus on those that could support OneNYC initiatives. These efforts will be undertaken in conjunction with Small Business First and efforts to reform procurement processes in the City.

Initiative 2

Increase the rates at which agencies utilize M/WBEs

Across contracts of all sizes, M/WBEs are still underutilized. Increasing agency utilization will require support from the City. We will provide agencies with additional tools to support their utilization of M/WBEs and hold them accountable for using them. We will invest in additional capacity building services for M/WBEs, and increase the use of strategies proven to support M/WBEs, including prequalified lists and pre-bid conferences. We will negotiate modifications to the City’s Project Labor Agreements that will be more M/WBE-friendly and, where appropriate, encourage agencies to elevate the role of M/WBE officers and identify and cultivate M/WBEs’ relationships with contracting agencies.

Initiative 3

Expand legal tools to induce greater usage of M/WBEs

New York City is undertaking a disparity study in accordance with Local Law 1. The results of this study will help inform M/WBE goals, which will be included in the future OneNYC progress update. The City will seek to amend local and policy barriers to greater M/WBE awards in City procurement, including seeking State legislative changes designed to increase M/WBE participation, and presenting proposed changes to the Procurement Policy Board (PPB) rules to expand “best value” as a basis for procurement.
Performance Tracking

Goal: Systematically track performance of equity outcomes to ensure OneNYC is making a positive and equitable impact on all New York City communities

Overview

New York City does not have a consistent and centralized way to ensure physical interventions—such as those called for by OneNYC—have an impact on all residents in an equitable way. Collecting data at a population-wide level, rather than disaggregating it, can mask deep problems and deprive the City of the ability to identify when initiatives may have unintentionally disparate impacts on certain communities. For example, tracking marijuana arrests by race allowed the City to see that African-American and Latino New Yorkers were being arrested at far higher rates than white New Yorkers even though research has shown that, across racial groups, people use marijuana at roughly similar rates. This led to policy reform.

Going forward, the City will systematically track metrics on opportunity, progress, and livability across all of New York City’s traditionally disadvantaged groups. We will establish a cross-agency group to oversee the collection, analysis, and internal reporting of the data at the agency level. The City will use this data to support agencies in making decisions around OneNYC and other initiatives designed to better support equitable outcomes.

Initiative 1

Issue an Executive Order requiring regular compilation and use of equity metrics

We will issue a Mayoral Executive Order requiring the Social Indicator Report, which analyzes the social, economic, and environmental health of the city, to break out measurements by traditionally disadvantaged groups and to gather that data where it is not currently being collected. This and additional reports, such as those being developed by the Young Men's Initiative, DOHMH, and others, will also bring attention to disparities. Through these reports, we can ensure that policy decisions advance the Mayor’s equity platform.
### HOUSING AND NEIGHBORHOODS

#### CREATE CAPACITY FOR NEW HOUSING

<table>
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<tr>
<th>Initiative</th>
<th>Initiative Status</th>
<th>Initiative Status Description</th>
<th>2014 Milestone</th>
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<td>1</td>
<td>In Progress</td>
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<td>2</td>
<td>In Progress</td>
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<td>3</td>
<td>In Progress</td>
<td>Enable new and expanded housing models to serve evolving population needs</td>
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**HOUSING AND NEIGHBORHOODS**

**Chapter:** Initiative Number

**Initiative:** Initiative

**Status:** Initiative Status

**Initiative Status Description:** Initiative Status Description

**2014 Milestone:** 2014 Milestone

**Milestone Status:** Milestone Status

#### FINANCE AND FACILITATE NEW HOUSING

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<th>Initiative</th>
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<th>Initiative Status Description</th>
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<td>4</td>
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<td>Develop new neighborhoods on underutilized sites</td>
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**FINANCE AND FACILITATE NEW HOUSING**

**Chapter:** Initiative Number

**Initiative:** Initiative

**Status:** Initiative Status

**Initiative Status Description:** Initiative Status Description

**2014 Milestone:** 2014 Milestone

**Milestone Status:** Milestone Status
5 Create new units in existing neighborhoods
In Progress
In total, 3,200 new construction units in the Melrose Commons LPA have been completed and occupied. Since 2004, NYCHA has completed more than 2.2 million units of affordable housing. For more information related to this initiative, refer to the City’s comprehensive housing plan, Housing New York: A Ten-Year, Five-Borough Plan.

- Develop 20,000 new units by 2024 under the New Housing Marketplace Plan
- Complete construction of over 3,000 units in Melrose Commons Urban Renewal Area
- Complete construction on 1,840 units and begin and finish construction on 1,800 affordable units in NYCHA sites
- Explore modification of parking requirements for affordable housing to lower construction costs and facilitate housing creation

ENCOURAGE SUSTAINABLE NEIGHBORHOODS

6 Develop new housing units in existing City properties
In Progress
Construction and marketing have commenced at Artpace PS 159 in East Harlem. The City is exploring the development of the West 209th St. site as public open space in additional to the continued creation of affordable housing in CB 4. For more information related to this initiative, refer to the City’s comprehensive housing plan, Housing New York: A Ten-Year, Five-Borough Plan.

- Start construction of housing units in the former PS 159 in Harlem

HOUSING AND NEIGHBORHOODS

7 Foster the creation of Greater Green Communities pilot
Completed
This initiative was completed in 2015. The City continues to encourage green communities through various programs.

- Launch Greener, Greater Communities pilot

8 Increase the sustainability of City-funded and public housing
In Progress
Since July 2014, more than 40 HPD-funded projects consisting of nearly 200 buildings and over 5,000 dwelling units applied for Enterprise Green Communities (EGC) certification. Additionally, 13 HPD-funded projects were LEED certified. Also in 2014, HPD conducted on Green Owners Night for small and medium sized building owners, providing best practices on green energy, water, materials, and community issues. In 2014 HPD rolled out new “green” standardized specifications for preservation projects. Incorporating best practices in sustainable building material selection into all of the agency’s sponsored rehab projects. In April 2015, Mayor de Blasio, HUD Secretary Julian Castro and NYCHA announced the launch of the largest comprehensive housing plan, Housing New York: A Ten-Year, Five-Borough Plan.

- Certify 40 affordable housing projects with Enterprise Green Communities every year

TARGET HIGH IMPACT PROJECTS IN NEIGHBORHOODS UNDERSERVED BY PARKS

9 Promote walkable destinations for retail and other services
In Progress
The City continues to promote neighborhood shopping districts. In Staten Island, two additional Race for Space businesses opened and a third is expected to open in 2015. In June 2014, a 14,000 square foot Fine Fare supermarket was located in the Melrose section of the Bronx was approved for FRESH benefits. In October 2014, a FRESH Shoprite supermarket was opened in East New York, Brooklyn. At 63,000 square feet, this is the largest supermarket in New York City. A FRESH Western Beef store located in the South Bronx section of the Bronx is expected to open in 2015. To date, FRESH benefits have incentivized the relocation, expansion, or creation of approximately 585,000 square feet of supermarket selling area and represent a private investment of over $80 million in supermarket development for healthy food in underserved neighborhoods. The City, through the FRESH program, continues to explore challenges and opportunities in improving food retail access in the most underserved neighborhoods.

- Promote neighborhood shopping districts

10 Preserve and upgrade existing affordable housing
In Progress
In April 2015, Mayor de Blasio, HUD Secretary Julian Castro and NYCHA announced the launch of the largest energy savings program for any public housing authority in the country. Through a series of competitive Energy Performance Contracts, it is estimated that at least $100 million in work will occur across nearly 300 NYCHA developments to upgrade and retrofit thousands of buildings, dramatically reducing greenhouse gas emissions and generating less than millions of dollars in cost savings, as well as creating more than 500 jobs. For more information related to the preservation of affordable housing refer to the City’s comprehensive housing plan, Housing New York: A Ten-Year, Five-Borough Plan.

- Preserve 34,000 affordable units by 2024 under the New Housing Marketplace Plan

11 Proactively protect the quality of neighborhoods and housing
In Progress
This initiative was completed in 2014. For more information related to this initiative, refer to the City’s comprehensive housing plan, Housing New York: A Ten-Year, Five-Borough Plan.

- Proactively conduct field studies in 1,000 buildings at risk for dilapidation or decline
Chapter Initiative
PARKS AND PUBLIC SPACE

3 Facilitate urban agriculture and community gardening

In Progress
A study to identify potential urban agriculture or community garden sites on City-owned property was completed in 2014. Local Law 46 of 2011 requires the New York City Department of Citywide Administrative Services (DCAS) to create an online, public database of vacant City-owned property that includes an assessment of the land’s suitability for urban agriculture projects. It also provides GrowThumb contact information for those interested in gardening on the plot. In the process of developing an inventory of usable land, more than 100 properties have been identified as potentially suitable for urban agriculture.

Five vertical farm operators turned NYCEDC’s East River Industrial site in November 2014 and an operator is expected to move onto the site in June 2015. Forty-five new community gardens were constructed on NYCCHA sites in 2014, with 70 additional sites projected for 2015. In addition, two urban farms have been created on NYCCHA property, one at Frederick Douglass Houses in the spring of 2012 on a tennis court and another was created in the spring of 2013 as the first “large scale” urban farm on NYCCHA Property at Red Hook West Houses. DPR has established five farmers markets at community garden sites. The number of volunteers increased 14 percent from 2013 to 2014, bringing the total to 14,050. With more than 14,000 volunteers, the number of community volunteers registered with GrowThumb has increased by more than 25% since 2011. DPR is currently exploring expansion of the Building Healthy Communities (BHC) initiative with the Mayor’s Fund. The BHC focuses on the 352 gardens registered with GreenThumb has increased by more than 14,000 volunteers, the number of community volunteers increased 14 percent from 2013 to 2014, bringing the total to 14,050. With more than 14,000 volunteers, the number of community volunteers registered with GrowThumb has increased by more than 25% since 2011. DPR is currently exploring expansion of the Building Healthy Communities (BHC) initiative with the Mayor’s Fund. The BHC focuses on the 352 gardens that are included in the 326 gardens throughout the Community Parks Initiative zone in underserved neighborhoods.

Launch study to identify potential urban agriculture or community garden sites on City-owned properties unsuitable for other development

Plant 12 new community gardens on NYCCHA sites

Create one urban farm on a NYCCHA site

Establish five additional farmers markets at community garden sites

Increase number of community volunteers registered with GrowThumb by 25%

Register 25 new school gardens with Serve to Learn NYC per year, and retain at least 75% of registered school gardens year to year

Reduce impediments to agriculture in relevant laws and regulations

CREATE DESTINATION-LEVEL SPACES FOR ALL TYPES OF RECREATION

2 Create and upgrade flagship parks

In Progress
Work continues on the Ocean Breeze Park Field House. The restoration of bridge and access paths within Highland Park is approximately 85% complete, with full completion by July 2015. The third and final section of the Highline, from 39th Street to 34th Street, was completed in 2014. Phase 3 of Fort Washington Park, which includes a 1.3-mile greenway to north of the George Washington Bridge was opened in June 2014. The final phase of construction, which includes pedestrian and ADA access, greenway connections, and shore stabilization and Dyckman Street is 75% complete and is expected to be completed by July 2015. Phase 1 of Soundview Park, including the running track, was opened to the public in spring 2014. The Rosewell amphitheater and McCarren pool open in Spring 2015. The McCarren playground comfort station is still under construction and a completion date is pending. Package 3 of the East River Esplanade was opened to the public in April 2014. This portion of the park is located underneath the FDR between Park Ave and Rutgers Slip it contains active recreational uses including basketball courts, petanque courts, and exercise equipment. Phase 1 of Governors Island park and public space project was opened to the public in May 2014. In addition, infrastructure investment is complete, potable water, electric, seawall, maritime and historic building stabilization projects are complete, on-time and on-budget. One additional parcel for Bushwick Inlet Park was acquired by the City in December 2014 and another parcel is expected to be acquired in June 2015. Together, these parcels comprise 15.5 acres and include the actual inlet at the mouth of Bushwick Creek. In addition, the 70-acre Southpoint Park, which is located between the north shore of the East River and the Belt Parkway, is under development. This park includes 10 miles of bike paths and 15 acres of wetlands.

Top 500-acre park

Highland Park: Complete renovations including reservoir perimeter lighting, path restoration, and new entry points

McCann Park: Complete construction of pool and year-round recreation center

Ocean-Breeze Park: Complete construction of pool and year-round recreation center

Hightbridge Park: Restores bridge and access paths within park to improve connectivity between Northern Manhattan and the Bronx

The High-Line: Construct Section 3 (20th to 30th streets) and pursue acquisition of Section 3

Deer-Offerman Park (Sulvex Vaux Park): Construct new sports fields, lighting, and pedestrian paths as part of Phase 1 construction

Fort Washington Park: Complete Phase I construction

Soundview Park: Complete construction of McCarren Playground, Rosewell Amphitheater, and McCarren Track & Field

Rockaway Park: Complete construction of Phase I

Brooklyn Bridge Park: Complete Phase 5, with open Empire Fulton Ferry Park and Squibb Bridge

Transmitter Park: Construct 1.5-acre site, including a playground, benches, and trees

East River Park Esplanade: Substantially complete park elements

East River Park: Complete construction of pool and pedestrian pathways

Governors Island: Complete parkland and infrastructure development

Hunters Point, Queens: Complete construction of a new five-acre park

Bushwick Inlet Park: Complete phased acquisition, remediation, and development of parks

Chapter Initiative
PARKS AND PUBLIC SPACE

4 Continue to expand usable hours at existing sites

In Progress
Construction of the 19th lighting installation is expected to begin in 2015.

Complete 26 multi-purpose fields

Complete 19 new lighting installations

One New York: The Plan for a Strong and Just City
Chapter Initiative Initiative Status Description 2014 Milestone

PARKS AND PUBLIC SPACE

6 Convert former landfills into public space and parkland

In Progress

Over 10,000 people visited Freshkills Park in 2014 through organized events and tours. Construction of North Park and Phase 1 of East Park, comprising an additional 600 acres in total, are funded. Designs for North Park are completed and construction services will be procured in 2015. Design for East Park are expected to be completed by June 2015. Construction services would be procured as soon as the design is complete for that area.

Freshkills Park: Develop the first public access area extending Main Creek and continue capping and closing of east and west mounds

Partially Completed

Bethlehem Beach: Replenish with clean sand, and expand the South Jetty

Completed

Long Island City, Queens: Complete design and reconstruction of pier in the Anable Basin

Partially Completed

Hudson/River Park: Construct an uptown esplanade in Tribeca and reconstruct Pier 97

Completed

Bush Terminal: Complete remediation of open space and advance Phase I of park

Completed

7 Increase opportunities for water-based recreation

In Progress

DPR continues to pursue funding to complete the expansion of launch platform at Hunts Point–Riverways Park and for the repair and replacement of floating docks at Dyckman Street Marina.

Develop multi-agency backforce to assess opportunities for expanding the blue network across the city for water-based recreation

Completed

Complete expansion of launch platform at Hunts Point–Riverways Park

Partially Completed

Complete repair and replacement of floating docks at Dyckman Street Marina

Partially Completed

Activate West Harlem Piers Park's excursions boat park and ferry barge

Completed

RE-IMAGINE THE PUBLIC REALM

8 Activate the streetscape

In Progress

Since the inception of the plazas program, DOT has initiated 63 plaza projects throughout the city, 43 of which are currently open to the public. Ten plaza capital projects have been completed, with another two in planning, 20 in design, and 12 in construction. Another 32 places have been opened with interim materials. This program involves a comprehensive outreach process and enjoys broad community support. To date, DOT has installed more than 1,200 benches throughout the five boroughs, exceeding the 2011 goal by more than 100%. The City continues to encourage the revitalization of underutilized arcades in Lower Manhattan with new active uses including the Water Street POPS 2014 Summer Events Programming. A zoning text amendment is expected to be referred in 2015. DOT's The Street Seats program enables seasonal public open spaces, generally including seating and tables, at locations where sidewalk seating is not available. To date, four Street Seats have been installed, two in Manhattan and two in Brooklyn.

Install 500 benches throughout the city

Completed

Approve the urbanSEED Design Competition winning design. Work with City agencies, boards, owners, contractors and professionals on adoption of the new design

Completed

Release recommendations to further streamline the permitting process for sidewalk cafes

Completed

Amend zoning to facilitate revitalization of underutilized arcades in Lower Manhattan with new active uses

Completed

Conduct five joint research projects via the NYC Urban Field Station

Partially Completed

Align pathways, hours of operation, and bicycling rules on neighboring park sites

Partially Completed

Continue to build and expand greenway waterfront network including Brooklyn Waterfront Trail, Queens East River Trail, Soundview Greenway, South Bronx Greenway, Staten Island South Shore greenway and Manhattan waterfront greenway

Partially Completed

Release update to Streets Design Manual that contains guidance on landscaping and the use of other sustainable elements

Completed

9 Improve collaboration between City, state, and federal partners

In Progress

DPR and the Natural Areas Conservancy (NAC) continue to advance and pursue projects with other agencies, non-profits, and universities to study urban systems. The US Forest Service Urban Field Station is currently engaged in over 20 joint research projects with various other institutions. In addition, the NAC ecological and social assessments were completed this fall, painting a vivid picture of the social and ecological services provided by natural areas in NYC.

Open four new pop-up cafes

Partially Completed

Amend zoning to facilitate revitalization of underutilized arcades in Lower Manhattan with new active uses

Completed

Conduct five joint research projects via the NYC Urban Field Station

Partially Completed

Align pathways, hours of operation, and bicycling rules on neighboring park sites

Partially Completed

Continue to build and expand greenway waterfront network including Brooklyn Waterfront Trail, Queens East River Trail, Soundview Greenway, South Bronx Greenway, Staten Island South Shore greenway and Manhattan waterfront greenway

Partially Completed

Release update to Streets Design Manual that contains guidance on landscaping and the use of other sustainable elements

Completed

10 Create a network of green corridors

In Progress

In 2014, DPR completed an additional 0.8 bare miles of the Soundview Greenway along Lohud Drive in Soundview. DPR also completed three bare miles of the Manhattan Waterfront Greenway from 187th Street to the northern tip of Manhattan on the West Side. Construction began on Randall's Island Connector and ongoing construction on Food Center Drive as part of completion of Phase I of South Bronx Greenway. DOT's Greenways program includes the Brooklyn Waterfront Greenway, Bronx River and South Bronx Greenways, the Manhattan Waterfront Greenway (ECO/DOT/DPR), the Jamaica Bay Greenway (DOT/DOB/HPW), and the Harlem River Greenway. Two Brooklyn Waterfront Greenway capital projects will begin construction in 2015: flushing Avenue and West Street. An additional six segments of this greenway, which totals six miles, are in design at DOT. The Bronx River Greenway was extended to the Broadway Avenue Pedestrian Bridge. The Concrete Plant Park and Starlight Park are permanently linked. Capital projects are in development for these segments of the Bronx River Greenway. The 2nd edition of the Street Design Manual was released in October 2015. DOT has distributed over 675 copies of the new Manual (including 113 through CityStreets) and made presentations to all relevant City agencies. DOT will continue to update the manual on a regular basis.

Complete construction on 13 plazas

Completed

Install 500 benches throughout the city

Completed

Approve the urbanSEED Design Competition winning design. Work with City agencies, boards, owners, contractors and professionals on adoption of the new design

Completed

Release recommendations to further streamline the permitting process for sidewalk cafes

Completed

Amend zoning to facilitate revitalization of underutilized arcades in Lower Manhattan with new active uses

Completed

Conduct five joint research projects via the NYC Urban Field Station

Partially Completed

Align pathways, hours of operation, and bicycling rules on neighboring park sites

Partially Completed

Continue to build and expand greenway waterfront network including Brooklyn Waterfront Trail, Queens East River Trail, Soundview Greenway, South Bronx Greenway, Staten Island South Shore greenway and Manhattan waterfront greenway

Partially Completed

Release update to Streets Design Manual that contains guidance on landscaping and the use of other sustainable elements

Completed

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### PROMOTE AND PROTECT NATURE

<table>
<thead>
<tr>
<th>Initiative</th>
<th>2014 Milestones</th>
<th>Initiative Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>11 Plant one million trees</td>
<td>Plant a total of 695,000 trees</td>
<td>Completed</td>
</tr>
<tr>
<td>12 Conserve natural areas</td>
<td>Explore the establishment of a natural area conservation to preserve the city’s remaining wild lands</td>
<td>Completed</td>
</tr>
</tbody>
</table>

### ENSURE THE LONG-TERM HEALTH OF PARKS AND PUBLIC SPACE

<table>
<thead>
<tr>
<th>Initiative</th>
<th>2014 Milestones</th>
<th>Initiative Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>13 Support ecological connectivity</td>
<td>Complete 82 greenways per year</td>
<td>Completed</td>
</tr>
<tr>
<td>14 Support and encourage stewardship</td>
<td>Expand access to tree care workshops and tool kits to stewardship groups across the five boroughs</td>
<td>Completed</td>
</tr>
</tbody>
</table>

### PARKS AND PUBLIC SPACE

<table>
<thead>
<tr>
<th>Initiative</th>
<th>2014 Milestones</th>
<th>Initiative Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>15 Incorporate the design and maintenance of all public space when practical.</td>
<td>Develop digital library tracking system for cataloging sustainable aspects of capital projects</td>
<td>Completed</td>
</tr>
<tr>
<td>16 Stewardship initiatives</td>
<td>Develop sustainable design checklists to be used with DPR capital projects that comply with national Sustainable Sites standards</td>
<td>Completed</td>
</tr>
<tr>
<td>17 Conserve natural areas</td>
<td>Develop indicators to measure existing and new sustainability initiatives at DPR related to water, material resource, energy, fuel, and partnerships</td>
<td>Completed</td>
</tr>
</tbody>
</table>

### DEVELOP PROGRAMS TO ACCELERATE BROWNFIELD CLEANUP AND REDEVELOPMENT

<table>
<thead>
<tr>
<th>Initiative</th>
<th>2014 Milestones</th>
<th>Initiative Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 Increase the capacity of small businesses and mid-size developers to conduct brownfield cleanup and redevelopment</td>
<td>To increase the capacity of small businesses and mid-size developers to conduct brownfield cleanup and redevelopment</td>
<td>Completed</td>
</tr>
<tr>
<td>3 Enable the identification, cleanup, and redevelopment of brownfields</td>
<td>OER strengthened cleanup standards for waterfront industrial properties to achieve social equity goals by minimizing environmental impact in environmental justice communities associated with severe storm events. OER is engaging community and industry experts in Community Brownfield Planning Areas, community development organizations, and the Brownfields Industry Task Force to improve OER programs and get feedback on improvements to SPEED, our online environmental research engine. OER established the Look Back Review and Stand-Still review for endorsement in the VCP and approved cleanup plans for first projects using each mode. OER also launched workshops to train the environmental industry to effectively navigate the VCP. OER has institutionalized exit interviews with volunteers completing cleanup projects in the VCP and have used the feedback to improve program delivery. OER is currently building the EPIC (Environmental Project Information Center) online interface for community members and volunteers using the BCP and are targeting launch in Fall 2015. OER collaborated on the “Developing Site Cleanup in NYC” report with DPR to illustrate the use of TooL approaches on VCP projects.</td>
<td>Completed</td>
</tr>
</tbody>
</table>
### Chapter Initiative

<table>
<thead>
<tr>
<th>Initiative</th>
<th>Initiative Status</th>
<th>Initiative Description</th>
<th>2014 Milestone</th>
<th>Initiative Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Build upon existing state and federal collaborations to improve the City's brownfield programs</td>
<td>Completed</td>
<td>The State delegated authority to OER to operate the NYC Clean Soil Bank to free existing expanse of clean native soil to achieve cost savings and remediation, and improve social equity by achieving affordable housing and community projects. OER has established a program to unlock abandoned properties in disinvested neighborhoods through a case-by-case waiver of State environmental laws with NYC DBR and NYC Office of the State Comptroller, and we are now enabling these sites to proceed to auction. OER has extended the Memorandum of Agreement between New York State and the City for operation of the VCP and delegation of State liability protection and petroleum cleanup oversight to OER until 2016. OER has advocated for legislation to enable full statewide liability release for VCP cleanup and has advocated for and obtained State legislation that provides a waiver of State hazardous waste disposal laws and fees for VCP projects which will greatly lower cost of cleanup in the VCP. OER has received recognition from EPA that provides comfort on federal environmental liability for volunteers using the VCP and enables VCP cleanups to qualify for EPA grants, and worked with EPA to allow property owners near federal superfund sites to acquire federal liability protection for cleanup and redevelopment.</td>
<td>Develop stronger liability protection at the state level</td>
<td>Completed</td>
</tr>
<tr>
<td>STRENGTHEN INCENTIVES FOR BROWNFIELDS CLEANUP AND REDEVELOPMENT</td>
<td>Completed</td>
<td>OER is pursuing unique research that will evaluate the social and environmental justice benefits of brownfield cleanup and redevelopment in the VCP in low-income and disinvested communities in NYC. OER has completed the financial analysis of the first three years of over 200 cleanup projects to assess the amount of affordable housing that will be created (3,850 new units), job creation in 500 permanent new jobs and 18,250 construction jobs leveraging of private investment ($4.6 billion in new investment). Assess the fiscal and employment benefits of brownfield redevelopment in New York City</td>
<td>Completed</td>
<td></td>
</tr>
<tr>
<td>Leverage the NYC Volunteer Cleanup Program to establish funding and other incentives for cleanup and redevelopment</td>
<td>Completed</td>
<td>OER has established a series of programs to achieve social equity goals including the Affordable Housing Cleanup Fund using EPA grants to support cleanup of affordable housing projects in the VCP. OER established Preferred Community Development Grants to prioritize City funding for cleanup of affordable housing, community facilities, and community-supported projects. OER established the NYC Green Property Certification Program to encourage more developers to work with government on cleanup to ensure that disadvantaged communities with a disproportionate number of brownfields are better protected from environmental pollution. We received $500,000 from the NYC Regional Economic Development Council to fund cleanup of VCP projects to promote affordable housing and economic development in disadvantaged communities. OER launched the Brownfield Certification program in collaboration with NYC DOE to enable small businesses and community development corporations to claim Federal BRS tax deductions for brownfield cleanup costs incurred under the VCP. OER is advocating in Congress for reauthorization of these deductions which expired in 2011. OER's pre-application meetings include discussions of available financial and technical assistance to communities to drive toward redevelopment of individual projects. Additionally, OER will launch the Financial Assistance Search Tool (FASST) to help CBDCs, community developers, and others find available grants in our Brownfield Incentive Grant (BIG) program. Develop programs that align incentives for neighborhood housing or infrastructure revitalization with brownfield initiatives</td>
<td>Completed</td>
<td></td>
</tr>
<tr>
<td>DEEPEN OUR COMMITMENT TO COMMUNITIES FOR BROWNFIELD CLEANUP, PLANNING, EDUCATION, AND SERVICE</td>
<td>Completed</td>
<td>OER has designated 19 place-based Community-Brownfield Planning Areas and has established nine additional areas for designation under this plan. OER plans to continue to expand into new neighborhoods. The Pilot incorporated brownfield remediation and, are developing a brownfield management reference manual for CBDCs that provides best management practices. OER has advocated for reforms to BDA designation and for continued State funding of the VCP &amp; Community Planning grant program.</td>
<td>Completed</td>
<td></td>
</tr>
<tr>
<td>7 Support community-led planning efforts</td>
<td>In Progress</td>
<td>OER has established a program to build capacity of CBDCs and other community brownfield planners by sharing lead management practices for brownfield planning, assisting CBDCs in working with city agencies, and helping them navigate the VCP. OER has acquired HUD funding to continue the preferred online community planning portal to help CBDCs achieve their revitalization goals. Working with NYC Department of State, OER is encouraging development of new community brownfield planning areas in neighborhoods of Creative Development with heavily impacted by Superstorm Sandy and other CBOs with less experience on brownfield remediation, and expanding our public contact lists to these contacts at each stage of cleanup. A pilot incorporated brownfield remediation into early stages of redevelopment planning with East New York Sustainable Communities project. Establish Place-Based Community-Brownfield Planning Areas</td>
<td>Completed</td>
<td></td>
</tr>
<tr>
<td>8 Support local and area-wide community brownfield planning efforts</td>
<td>In Progress</td>
<td>OER has established a program to build capacity of CBDCs and other community brownfield planners by sharing lead management practices for brownfield planning, assisting CBDCs in working with city agencies, and helping them navigate the VCP. OER has acquired HUD funding to continue the preferred online community planning portal to help CBDCs achieve their revitalization goals. Working with NYC Department of State, OER is encouraging development of new community brownfield planning areas in neighborhoods of Cultural Development with heavily impacted by Superstorm Sandy and other CBOs with less experience on brownfield remediation, and expanding our public contact lists to these contacts at each stage of cleanup. A pilot incorporated brownfield remediation into early stages of redevelopment planning with East New York Sustainable Communities project. Establish Place-Based Community-Brownfield Planning Areas</td>
<td>Completed</td>
<td></td>
</tr>
<tr>
<td>9 Increase the transparency and accessibility of brownfield cleanup plans</td>
<td>Completed</td>
<td>OER has developed a wide variety of programs to promote transparency including provisions for New York City’s three library systems to assist patrons with online access to VCP project information and OER educational information. OER established an online repository of documents for all projects in the VCP. A public contact list is developed for each VCP project, and OER publishes three fact sheets for release to these contacts at each stage of cleanup. A Community Protection Statement is developed for each cleanup project in the VCP and is written in six languages to promote wider dissemination of plans for community protection. OER established the BrownfieldWorking program to place workforce development graduates on cleanup projects in the VCP. OER expanded our grant program to fund salaries for BrownfieldWorking trainees and launched a professional mentoring program by OER staff to assist trainees in getting full time jobs. OER produced a professional mentorship program by OER staff to assist trainees in getting full time jobs. OER produced a professional mentorship program by OER staff to assist trainees in getting full time jobs. OER produced a professional mentorship program by OER staff to assist trainees in getting full time jobs. Expand the NYC BrownfieldWorking training program</td>
<td>Completed</td>
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One New York: The Plan for a Strong and Just City
## Chapter 11 Initiative
### WATERWAYS

#### Promote green space
- **Completed**
- DEP established the authority by NY State to establish the NYC Clean Soil Bank to promote recycling of clean soil from VCP redevelopments. The Clean Soil Bank promotes social equity and economic development goals including cost-free reuse on affordable housing projects, wetland restoration, climate change resiliency projects and City capital construction projects.
- OER established Climate Resiliency and Green Remediation Surveys that are performed free of charge to ensure their clean-up and redevelopment projects in the VCP are prepared for the impacts of climate change and will minimize future community environmental impact during severe storm events.
- Completed Status: In all cleanup reports to promote green remediation and development. Recycled concrete aggregate is now reused for backfill on many VCP projects. Hundreds of new trees have been planted as part of that development on VCP projects approved in the first three years of operation to support Million Trees and also provide groundwater quality buffering. High efficiency stormwater management techniques and green infrastructure education are provided by Climate Resiliency and Green Remediation Surveys performed by OER for projects in the VCP.

#### Upgrade wastewater treatment plants to reduce nitrogen discharges
- **Completed**
- DEP completed a $237 million upgrade to the Tallman Island Wastewater Treatment Plant as of May 2011, the City certified that Newtown Creek treatment plants to reduce nitrogen discharges. The upgrade met secondary treatment standards and expand green infrastructure implementation and ended remediation of remediated brownfields.
- Completed Status: Create three Pocket Parks in collaboration with community planning organizations.
- Completed Status: Create design for state-of-the-art community gardens on remediated brownfields.

## Chapter 14 Initiative
### WATERWAYS

#### Clean 138 miles of interceptor sewers
- **Completed**
- DEP implemented more efficient works practices and used in-house staff to expand our sewer cleaning operations. In 2011, the City finishing impacting all 138 miles of interceptor sewers and in 2014, DEP completed the first two-year cycle of interceptor cleaning. In total, DEP removed 30 million gallons of rainfall, lining up storage capacity of 5.06 million gallons. Collectively, this translates into a reduction of combined sewer overflows of 102 million gallons per year in addition, in 2012, DEP improved the remaining 213 tidal gates and replaced or repaired those deemed necessary. Reported sewer backups continue to decline. In 2013, DEP cleaned more than 760 miles of sewers and continues to expand several programs to address sewer backups, including programmatic de-grading and improved sewer backup response practices. In addition, DEP expanded the pilot to evaluate treatment methods and installed additional devices for a total of 64 throughout the City. These sensors measure the elevation of water in the sewer and send real-time data to the DEP's computer systems, allowing DEP to dispatch crews promptly and fix the problem before it results in a sewer backup. In November, the City released a new report on sewer conditions which includes key performance indicators for sewer maintenance and construction for each borough.

#### Use green infrastructure to manage stormwater
- **Completed**
- DEP has continued to develop the Springfield Gardens Bluebelt in southeast Queens and accomplished a critical milestone for the Mid-Island Bluebelt by completing the first Generic Environmental Impact Statement. The first capital project in the Mid-Island Bluebelt is scheduled to start construction in Fall 2014 and will involve the restoration of New Creek’s west branch. In addition, the City has advanced a second Mid-Island Bluebelt project called Last Chance Pond, estimated at approximately $35 million.

## Chapter 16 Initiative
### BROWNFIELDS

#### Expand design for state-of-the-art community gardens on remediated brownfields
- **Completed**
- DEP completed the shotcreting of an old brick sewer line estimated at approximately $35 million.

#### Expand the sewer network
- **In Progress**
- Completed Status: Expand the sewer network to project design and bid projects in the Ten Ponds Area, Shellbank Avenue Area, and Richard Avenue area. These projects will install new sanitary and sewer storm infrastructure areas and the Ten Ponds project will have Bluebelt components. In 2013, the City also initiated a program to advance sewer construction plans where possible to alleviate flooding in targeted areas affected by repeat events. Two accelerated construction projects were completed in late 2013, with studies underway for similar projects in southeast Queens.

#### Optimize the existing sewer system
- **Completed**
- DEP implemented more efficient works practices and used in-house staff to expand our sewer cleaning operations. In 2011, the City finishing impacting all 138 miles of interceptor sewers and in 2014, DEP completed the first two-year cycle of interceptor cleaning. In total, DEP removed 30 million gallons of rainfall, lining up storage capacity of 5.06 million gallons. Collectively, this translates into a reduction of combined sewer overflows of 102 million gallons per year in addition, in 2012, DEP improved the remaining 213 tidal gates and replaced or repaired those deemed necessary. Reported sewer backups continue to decline. In 2013, DEP cleaned more than 760 miles of sewers and continues to expand several programs to address sewer backups, including programmatic de-grading and improved sewer backup response practices. In addition, DEP expanded the pilot to evaluate treatment methods and installed additional devices for a total of 64 throughout the City. These sensors measure the elevation of water in the sewer and send real-time data to the DEP’s computer systems, allowing DEP to dispatch crews promptly and fix the problem before it results in a sewer backup. In November, the City released a new report on sewer conditions which includes key performance indicators for sewer maintenance and construction for each borough.

## Chapter 17 Initiative
### WATERWAYS

#### Clean 138 miles of interceptor sewers
- **Completed**
- DEP completed the shotcreting of an old brick sewer line estimated at approximately $35 million.
<table>
<thead>
<tr>
<th>Initiative</th>
<th>Initiative Status Description</th>
<th>Status</th>
<th>2014 Milestone Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>7</td>
<td>Build public green infrastructure</td>
<td>In Progress</td>
<td>Partially Completed</td>
</tr>
<tr>
<td></td>
<td>By the end of 2014, DEP and the Departments of Parks and Recreation, Design and Construction and the Economic Development Corporation had initiated construction on multiple area-wide contracts covering approximately 27,000 acres of the City. DEP is currently in construction in or final design phase on approximately 2,000 bikeways and stormwater greenwalls.</td>
<td>28 GI sites have been completed, with an additional 5 substantially completed.</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Engage and enlist community stakeholders in sustainable storm water management</td>
<td>Completed</td>
<td></td>
</tr>
<tr>
<td></td>
<td>By 2015, DEP committed over $13 million to 23 green stormwater infrastructure projects. In 2014, DEP also conducted a targeted outreach campaign to property owners that would be eligible for the Grant Program, and accepted applications in both the spring and the fall. In addition, DEP investigated a pilot mini-grant program for homes and small properties. DEP continued to meet with the Water Infrastructure Stewarding Committee (formerly the Green Infrastructure Stewarding Committee) and the range of storm manager management and water quality issues, including resiliency and the Long Term Control Plan process. DEP also continued to engage with a broad range of stakeholders including neighborhood associations, community boards, elected officials, schools and environmental organizations.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Modify codes to increase the capture of storm water</td>
<td>In Progress</td>
<td></td>
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<tr>
<td></td>
<td>Throughout 2014, the City continued to track compliance with the 2012 stormwater performance standard for “stormwater rules” for new development and significant redevelopment. Compliance is tracked through house connection and sewer connection processes.</td>
<td>Requisite greater on-site detention and infiltration for new development and redevelopment. Requisite greater storm water runoff controls from construction sites. Study potential code changes to incorporate blue roofs on existing buildings. Develop new design standards for sidewalks. Study improved regulation of open industrial uses to reduce runoff.</td>
<td>Completete Completete Completete Completete Completete</td>
</tr>
<tr>
<td>10</td>
<td>Provide incentives for green infrastructure</td>
<td>Completed</td>
<td></td>
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<tr>
<td></td>
<td>First initiated in 2011, DEEP’s Parking Lot Stormwater Pilot Program generates revenue for operation and maintenance of the City’s seawater system. The program applies a stormwater discharge fee to stand-alone parking lots that contribute runoff to the City’s seawater system, but that do not receive City water service. DEP’s stormwater charge increased from $0.08 per square foot in 2013 to $0.12 in 2014, to account for rate structure increases. In 2014, DEP billed 587 accounts for $301,862.68. Parking lot owners who implement green infrastructure practices are exempt from the stormwater discharge fee. The Green Roof Tax Abatement program was fully in place and available to property owners for only three to four months of 2014, therefore DEP will gather another year of data to determine the efficacy of the program.</td>
<td>Evaluate the feasibility of using price signals to reduce stormwater runoff. Evaluate the efficacy of the green roof tax abatement.</td>
<td>Completete</td>
</tr>
</tbody>
</table>

**WATERWAYS**

<table>
<thead>
<tr>
<th>Initiative</th>
<th>Initiative Status Description</th>
<th>Status</th>
<th>2014 Milestone Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>11</td>
<td>Actively participate in stormwater clean-up efforts</td>
<td>In Progress</td>
<td></td>
</tr>
<tr>
<td></td>
<td>The City worked with other responsible parties throughout 2014 to ensure that the implementation of the selected remedial measures contamination results in a clean and safe waterfront, and incorporates principles of social justice. In 2014, the City conducted sampling of groundwater and point sources in Newtown Creek, including stormwater and CSOs, providing more data to support the Superfund investigation. In 2014, the DEP Governor Canal maintenance dredging project was supervised by the National Grid dredge of the entire canal. Application to dredge CSO mound in Flushing Creek were prepared for submittal. Completion of dredging in Paerdegat Basin certified by DEC in Nov. 18, 2014 and approved by DEC on Dec. 1, 2014. Completion of dredging in Hendrix Creek certified by DEP on October 17, 2011 and approved by DEC on May 3, 2012.</td>
<td>Participate in the Superfund investigation and feasibility study in the Gowanus Canal. Participate in the Superfund investigation in Newtown Creek. Submit application to dredge CSO mound for Governor Canal and Flushing Creek. Begin CSO dredging in Paerdegat Basin. Complete dredging in Hendrix Creek.</td>
<td></td>
</tr>
</tbody>
</table>

**PROTECT AND RESTORE WETLANDS, AQUATIC SYSTEMS, AND ECOLOGICAL HABITAT**

<table>
<thead>
<tr>
<th>Initiative</th>
<th>Initiative Status Description</th>
<th>Status</th>
<th>2014 Milestone Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>12</td>
<td>Enhance wetlands protection</td>
<td>In Progress</td>
<td></td>
</tr>
<tr>
<td></td>
<td>In 2014, the City continued to develop wetlands resources, including the one-foot Digital Elevation Model (DEM) of wetland areas, which has been completed. This information will be used in discussions with state and federal partners to develop our strategy for wetland maps and the methodology to produce them. The City is also working with federal and state partners through the USAEC’s Rockaway/Reformation in Jamaica Bay and the NY Rising Program, which are currently executing proposals that will help protect existing infrastructure and increase the resiliency of coastal ecosystems.</td>
<td>Transfer at least five City-owned wetlands to DEP; Work with state and federal partners to develop wetland maps on Randall’s Island and on former industrial sites in the Rockaways.</td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>Restore and create wetlands</td>
<td>In Progress</td>
<td></td>
</tr>
</tbody>
</table>
|            | Major construction in the Paerdegat Basin was completed in December 2013, and the project has moved into the monitoring and maintenance phase. Restoration construction of Pugley Creek Park was completed in summer 2013; restoration construction of Soundview Park was completed in fall 2013. Bronx River fish passage construction was completed at River Park, at the 182nd Street Dam, to allow upstream access for spawning for river herring. Both fish passage were opened the first time the migration season began in spring 2015. The USAEC has redeveloped the river Ecosystems Feasibility Study. Construction documents for Randall’s Island Shoreline restoration are nearing completion. Presentation to Public Design Commission is expected in January 2015 and construction is expected to begin in 2015. Restoration construction of Decker Overflow Park was completed in the summer of 2013. Meadow Lake restoration contract was been bid and awarded and is expected to begin construction in 2015. Franklin North Park restoration construction was completed in summer 2013. DPR is undertaking the Spring Creek and Sunset Cove projects, which together total over $15 million. The projects will restore manmade and upland forest to improve the bay’s ecological function and resiliency to coastal storms as well as create new recreational opportunities. DEP has already invested $9 million to complete the restoration of Yellow Bar, Black Wall and Roult Bar, with an additional $7 million expected to be allocated based on recommendations in the USAEC, Jamaica Bay Reformation Study due in April 2015. | Complete Randall’s Island Shoreline Restoration. Complete Soundview Park Restoration. Complete Soundview Park Restoration. Complete Brooklyn River Restoration - all phases. Complete Randall’s Island Shoreline Restoration. Complete Meadow Lake Restoration. Complete Meadow Lake Restoration. Complete Meadow Lake Restoration. Complete Meadow Lake Restoration. Complete Meadow Lake Restoration. Complete Meadow Lake Restoration. Complete Meadow Lake Restoration. Invest $15 million in wetlands restoration in Jamaica Bay. | Complete Completed Completed Completed Completed Completed Completed Completed Completed
Chapter Initiative Initiative Initiative Status Initiative Status Description 2014 Milestone 2014 Milestone

### WATER SUPPLY

#### Chapter Initiative

1. **Continue the Watershed Protection Program**
   - In Progress
   - New York State Department of Health released the final version of the Revised 2007 Filtration Avoidance Determination (FAD) on May 7, 2014. DEP continues to implement the watershed protection program including the land acquisition program.
   - Partially Completed

2. **Protect the water supply from hydrofracking for natural gas**
   - Completed
   - On December 17, 2014, Governor Cuomo announced his intention to prohibit natural gas extraction using high-volume hydrofracking in New York State.
   - Completed

3. **Complete the Catskill/Delaware Ultraviolet (UV) Disinfection Facility**
   - Completed
   - In October 2013, DEP announced the completion of the Catskill/Delaware Ultraviolet Disinfection Facility. The $1.3 billion Catskill/Delaware UV Facility will provide an added layer of protection against pathogens and other harmful microorganisms for the drinking water consumed by more than 9 million residents of New York City and portions of Westchester County.
   - Completed

4. **Complete the Croton Water Filtration Plant**
   - In Progress
   - Construction of the above grade structures continues. Startup and testing of both Plants A & B continued. Modifications of Valve Loops in Plants A & B were completed. DEP continues to leverage grant funds to support aquatic habitat improvement projects. DEP was awarded a $1 million grant from the Department of Interior to expand the oyster restoration efforts at the Head of Bay - Jamaica Bay. The City is contributing an additional $275,000 to the project, bringing the total to $1.375 million. Design will begin in spring 2015 with expected completion in fall 2015. The oyster restoration project is being carried out in partnership with Cornell Cooperative Extension, Hudson River Foundation, and the New York Harbor School.
   - Partially Completed

5. **Repair the Delaware Aqueduct**
   - In Progress
   - Design of the bypass tunnel and Wavemanning repairs was completed in late 2014 and public bidding for construction commenced in January 2015. The bypass tunnel contract was bid on March 7, 2015. This contract is expected to be awarded in May 2015 and registered in July 2015. The project continues to be on schedule and on budget. The New Croton Aqueduct was completed on June 30, 2013. The Jamaica groundwater system design has been decomposed into four groups. The first three groups have passed through facility planning, and the Basis of Design Reports are approved. Design will progress to 30 percent complete for the last group by the end of 2015.
   - Partially Completed

6. **Connect the Delaware and Catskill Aqueducts**
   - In Progress
   - By late March 2014, all seven hoses were coiled into the Catskill Aqueduct. Meetings have been held with the DEP and design consultant is in charge of startup and flow testing for the development of standard operating protocols and procedures. Substantial completion is anticipated on, or about, June 30, 2015 with a final completion date, on, or about, June 29, 2016.
   - Partially Completed

7. **Pressure Test the Catskill Aqueduct**
   - In Progress
   - In 2014, DEP refined project objectives and reached consensus on capacity requirements supporting release of a Final Facility Plan in February 2015 that identifies the need for a secondary pressure tunnel between Keranso and Eastview. The project will commence a Basis of Design effort during 2015, with active design to commence in 2016. Construction is anticipated to commence in 2019.
   - Partially Completed

8. **Maintain and upgrade dam**
   - In Progress
   - The reconstruction of Gibbs Dam in 95% complete. Design for the new levee outlet and Schoharie Release Chamber was completed and the pre-bid meeting was recently held and construction is anticipated to commence in 2015. All engineering assessments as required by SEQ were completed. Engineering studies are underway for the rehabilitation of the Ashokan Reservoir dam and slide, which is phase one of the reconstruction of the New Croton Dam began in July 2013 and is expected to be substantially completed in July 2015. This work includes the mechanical replacement and other structural repair to the outlet works.
   - Completed

### MODERNIZE IN-CITY DISTRIBUTION

9. **Complete City Water Tunnel No. 3**
   - In Progress
   - In October 2013, the City announced the activation of the Manhattan portion of Stage 2 of City Tunnel No. 3. The Brooklyn-Gateway section is scheduled for completion in 2018.
   - Completed

10. **Build a backup tunnel to Staten Island**
    - In Progress
    - In 2013, in partnership with the Port Authority of New York and New Jersey and the New York City Economic Development Corporation, DEP launched tunneling operations for construction of the Staten Island Tunnel. During Hurricane Sandy, the Staten Island shaft site was inundated with water and the tunnel boring machine was damaged, delaying the project for approximately one year. The tunnel boring machine has been refloated from the flooding, and tunneling operations resumed in April 2014.
    - Partially Completed

11. **Upgrade water main infrastructure**
    - In Progress
    - DEP initiated construction in Cony Island and continues to make substantial progress on key water supply projects in targeted areas, such as the Rockaways. Some major improvements were also made citywide. Completed projects include a trunk water main replacement in Atlantic Avenue, Brooklyn, valued at $14.5 million and a trunk water main project on Elizabeth Street, Manhattan, Community Board 9, valued at $3.5 million. The project was a key component in the activation of City Water Tunnel No. 3, connecting Shaft 318 to the distribution network. Finally, DEP invested over $375,000 in three distribution water main projects in Queens, improving water quality and distribution in Community Board 4, 6, 9 and 13.
    - Completed

### MAINTAIN AND ENHANCE THE INFRASTRUCTURE THAT DELIVERS WATER TO NEW YORK CITY

12. **Repair the Croton Aqueduct**
    - In Progress
    - Design of the bypass tunnel and Wavemanning repairs was completed in late 2014 and public bidding for construction commenced in January 2015. The bypass tunnel contract was bid on March 7, 2015. This contract is expected to be awarded in May 2015 and registered in July 2015. The project continues to be on schedule and on budget. The New Croton Aqueduct was completed on June 30, 2013. The Jamaica groundwater system design has been decomposed into four groups. The first three groups have passed through facility planning, and the Basis of Design Reports are approved. Design will progress to 30 percent complete for the last group by the end of 2015.
    - Partially Completed
Chapter Initiative

Chapter Initiative Status Description

**IMPROVE THE EFFICIENCY OF THE WATER SUPPLY**

<table>
<thead>
<tr>
<th>Initiative</th>
<th>Initiative Status</th>
<th>Initiative Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>12</td>
<td>Completed</td>
<td>Increase operational efficiency with new technology</td>
</tr>
<tr>
<td></td>
<td></td>
<td>As of January 2015, the City has installed Automated Meter Reading (AMR) devices for over 37 percent of customers. In February 2012, the City expanded the Leak Notification Program to proactively notify large building owners of potential leaks and enables owners and managers to quickly respond and fix leaks before they become a costly problem. Since starting the program in March 2011, more than 72,000 customers have saved an estimated $8 million in otherwise wasted water or damaging leaks. Since January 2012, DWP staff have replaced over 19,000 underperforming meters.</td>
</tr>
<tr>
<td>13</td>
<td>In Progress</td>
<td>Increase water conservation</td>
</tr>
<tr>
<td></td>
<td></td>
<td>In Progress The following SBS corridors have been launched:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Completed</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Replace 10,000 large water meters</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Optimise delivery by integrating forecasting models into operations</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Complete the installation of AMR devices citywide</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Complete</td>
</tr>
</tbody>
</table>

**IMPROVE AND EXPAND SUSTAINABLE TRANSPORTATION INFRASTRUCTURE AND OPTIONS**

<table>
<thead>
<tr>
<th>Initiative</th>
<th>Initiative Status</th>
<th>Initiative Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>In Progress</td>
<td>Improve and expand bus service throughout the city</td>
</tr>
<tr>
<td></td>
<td></td>
<td>The following SBS corridors have been launched:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Completed</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Launch Nostrand Ave., Brooklyn SBS Comtor</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Launch Lefferts, Queens SBS Comtor</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Launch 34th Street, Manhattan SBS Comtor</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Launch Eliza Blvd., Staten Island SBS Comtor</td>
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<tr>
<td></td>
<td></td>
<td>Launch initial Woodhaven Blvd. Comtor</td>
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<tr>
<td></td>
<td></td>
<td>Launch bus operations improvements on all routes, with transit signal prioritization on eleven routes in five boroughs</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Install bus Time on all 31 bus routes in Staten Island and B63 in Brooklyn</td>
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<tr>
<td></td>
<td></td>
<td>Improve bus priority of Ed Koch Queensboro Bridge and approaches</td>
</tr>
</tbody>
</table>

**TRANSPORTATION**

<table>
<thead>
<tr>
<th>Initiative Number</th>
<th>Initiative Status</th>
<th>Initiative Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>In Progress</td>
<td>Improve and expand subway and commuter rail service</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Construction of the 7 Line Extension is nearly complete and is scheduled to open for revenue service Q2 2015. The first phase of Second Avenue Subway is scheduled to be completed in December 2016. The major remaining work involves station finishes and systems. Construction continues on East Side Access, with revenue service expected to begin in December 2022.</td>
</tr>
<tr>
<td>3</td>
<td>Completed</td>
<td>Expand for-hire vehicle service throughout our neighborhoods</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TLC issued the first Street Hall Livery (SHL) permit in June 2013 and by November 2013 had issued all 6,000 permits in the program’s first year. By March 2014 over 4,300 Boro Taxis, including nearly 250 wheelchair accessible Boro Taxis, were already in service providing call-ahead and street hail service in Brooklyn, Bronx, Queens, Staten Island, and Northern Manhattan neighborhoods that had previously lacked access to safe, convenient and legal street hail service. TLC has commissioned the second issuance of SHL Permits.</td>
</tr>
<tr>
<td>4</td>
<td>Completed</td>
<td>Promote car-sharing</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Alexa car-sharing potential for City fleet vehicles</td>
</tr>
<tr>
<td>5</td>
<td>In Progress</td>
<td>Expand and improve ferry service</td>
</tr>
<tr>
<td></td>
<td></td>
<td>The City will launch a New Citywide Ferry Service that will knit together existing East River routes with new landings and services to Astoria, the Rockaways, South Brooklyn, Sunset Park and the Lower East Side. Service will launch in 2017. Further expansion to Stapleton and Coney Island will constitute a second phase of expansion, pending additional funding. The project will include the construction of multiple new ferry landings.</td>
</tr>
<tr>
<td>6</td>
<td>Completed</td>
<td>Make bicycling safer and more convenient</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Double bike commuting from 2007 levels</td>
</tr>
<tr>
<td>7</td>
<td>Completed</td>
<td>Enhance pedestrian access and safety</td>
</tr>
</tbody>
</table>
|                   |                    | Install 32 Safe Routes to School projects, including 28 new Safe Routes to School projects, including 28 new

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## TRANSPORTATION

**Improve freight**

<table>
<thead>
<tr>
<th>Initiative</th>
<th>Status</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Expand ParkSmart program to three new neighborhoods</td>
<td>Partially Completed</td>
<td>DOT is engaged in outreach to neighborhoods across the City to expand the use of the agency’s innovative curb-management tools. In January 2013, NYC DOT completed a conversion of the parking meter system to multi-space pay stations. In total, the system has over 13,000 Muni-Meters. In addition, by Winter 2015, the Department will have modernized all meters to state-of-the-art Smart meters. DOT expanded Middex Motion, an ITS compliant conversion project, from 34 St. to 57 St., river to river. DOT also installed cameras and traffic detection equipment on select coastal storm evacuation routes including Woodhaven Blvd, Flatbush Avenue and Flyn Blvd.</td>
</tr>
</tbody>
</table>

**Modify parking regulations to balance the needs of neighborhoods**

<table>
<thead>
<tr>
<th>Initiative</th>
<th>Status</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Modify parking regulations in May, 2013, Manhattan Core Text Amendment was adopted, enabling improvements to off-street parking regulations to ensure that the right amount of parking spaces is being provided to support Manhattan Core businesses, residents and visitors while also addressing the city’s sustainability objectives to encourage transit travel and reduce energy use and greenhouse gas emissions.</td>
<td>Completed</td>
<td>Explore modifications to Manhattan Core parking regulations</td>
</tr>
<tr>
<td>Explore solutions to off-street parking requirements in areas close to the Manhattan Core</td>
<td>Completed</td>
<td>Explore solutions to off-street parking requirements in areas close to the Manhattan Core</td>
</tr>
</tbody>
</table>

**Reduce truck congestion on city streets**

<table>
<thead>
<tr>
<th>Initiative</th>
<th>Status</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reduce truck congestion on city streets</td>
<td>In Progress</td>
<td>The City has received $450,000 in grants from FHWA and DEP to implement off-hour delivery programs modeled after the NYC’s off-hour delivery program. In addition, DOT has received a NYERDA Grant Funding Award of $112,500 to pursue low noise truck tests and $262,000 in FHWA funds to expand the program. DOT expanded paid commercial parking with the installation of 375 Muni-Meters in the Financial District, the Meatpacking District, and sections of Broadway.</td>
</tr>
<tr>
<td>Implement new peak and off-peak delivery windows in congested areas</td>
<td>Partially Completed</td>
<td>Implement new peak and off-peak delivery windows in congested areas</td>
</tr>
<tr>
<td>Implement commercial paid parking at high-demand loading zones citywide</td>
<td>Partially Completed</td>
<td>Implement commercial paid parking at high-demand loading zones citywide</td>
</tr>
<tr>
<td>Improve landside access to the New York Container Terminal</td>
<td>Completed</td>
<td>Improve landside access to the New York Container Terminal</td>
</tr>
</tbody>
</table>

**Improve freight movement**

<table>
<thead>
<tr>
<th>Initiative</th>
<th>Status</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improve freight movement</td>
<td>In Progress</td>
<td>The City is in the process of procuring a consultant to assist in a freight system resiliency study. This study is expected to be completed in 2015. Work has begun on revitalization of truck serving Hunt Point cooperative warehouses; trucking for Building B is complex. Doubling of lead truck and transloaded platforms are currently in design. The City is working to expand transloading operations.</td>
</tr>
<tr>
<td>Study the Sheridan-Commuter in the Bronx</td>
<td>Completed</td>
<td>Study the Sheridan-Commuter in the Bronx</td>
</tr>
<tr>
<td>Launch a study of New York City’s food distribution pathways</td>
<td>Partially Completed</td>
<td>Launch a study of New York City’s food distribution pathways</td>
</tr>
<tr>
<td>Accommodate more inbound freight trains at Hunt Point</td>
<td>Partially Completed</td>
<td>Accommodate more inbound freight trains at Hunt Point</td>
</tr>
<tr>
<td>Establish new rail transfer hubs in Brooklyn and Staten Island</td>
<td>Completed</td>
<td>Establish new rail transfer hubs in Brooklyn and Staten Island</td>
</tr>
<tr>
<td>Increase rail and waterborne freight deliveries to the South Brooklyn Marine Terminal</td>
<td>Completed</td>
<td>Increase rail and waterborne freight deliveries to the South Brooklyn Marine Terminal</td>
</tr>
</tbody>
</table>

**Improve our gateways to the nation and the world**

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<thead>
<tr>
<th>Initiative</th>
<th>Status</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improve our gateways to the nation and the world</td>
<td>In Progress</td>
<td>The City continues to advocate for improved aviation traffic control, including investments in NextGen technology in the New York Region. The JFK Air Cargo Study was released in 2013. NYCEDC in conjunction with the Port Authority of New York and New Jersey has begun work on a market and commodity assessment and strategic plan for the JFK focused industry. EDC, in conjunction with City DOT and the PortWings conducted a series of outreach meetings in the fall of 2014 with local community boards, selected officials and trade groups regrettting a change to PortWings regulations that would allow the industry-stabbed 53 foot trailers to access cargo facilities at JFK Airport. City DOT published a draft rule and solicited public input on the proposed change. (DOT) The City adopted a traffic rule change to allow 53-foot trailers to access the JFK Airport as long as they used major highways and did not enter local streets. Public hearings were held in October 2014. The rule will be confirmed effective in March 2015. CCTV cameras will be installed as key access points to JFK to monitor compliance.</td>
</tr>
<tr>
<td>Advocate for federal investment in VCPs and improved aviation traffic control</td>
<td>Partially Completed</td>
<td>Advocate for federal investment in VCPs and improved aviation traffic control</td>
</tr>
<tr>
<td>Launch study of JFK air cargo industry</td>
<td>Completed</td>
<td>Launch study of JFK air cargo industry</td>
</tr>
<tr>
<td>Improve truck access to JFK</td>
<td>Partially Completed</td>
<td>Improve truck access to JFK</td>
</tr>
</tbody>
</table>

**Maintain and improve our mass transit network**

<table>
<thead>
<tr>
<th>Initiative</th>
<th>Status</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Seek funding to maintain and improve our mass transit network</td>
<td>In Progress</td>
<td>In Progress The City has received $450,000 in grants from FHWA and $112,500 to pursue low noise truck tests and $262,000 in FHWA funds to expand the program. DOT expanded paid commercial parking with the installation of 375 Muni-Meters in the Financial District, the Meatpacking District, and sections of Broadway. Public Solicitation for statutory review. At that time it was vetoed without prejudice. MTA awaits CPRB direction for readmission. The City continues to draw the need to fully fund the MTA’s 2015-2019 Capital Plan and to urge our federal and state partners to develop a funding solution for the City’s transit infrastructure.</td>
</tr>
<tr>
<td>Maintain and improve our roads and bridges</td>
<td>In Progress</td>
<td>DOT owns, operates, and maintains 789 bridges and tunnels throughout New York City. Over the past four yearsDOT has spent more than $1 billion on the bridge capital program. In 2014, DOT repaired 1,000 lane miles of city streets and filled over 254,000 potholes. Legislation for joint bidding of public works projects was signed by the Governor in summer 2014.</td>
</tr>
</tbody>
</table>

## IMPROVE ENERGY PLANNING

**Increase and coordinate in order to promote clean, reliable, and affordable energy**

<table>
<thead>
<tr>
<th>Initiative</th>
<th>Status</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Increase the City’s incentives for clean energy</td>
<td>Completed</td>
<td>The City continues to advocate for clean, reliable, and affordable energy with multiple stakeholder groups, as part of its 80 x 50 plan to reduce greenhouse gas emissions by 80 percent by 2050 and a 50 percent reduction in building-based emissions. One City: Built Last, released in September 2014, is a ten-year plan that will help New York City reduce citywide energy use in buildings and promote the adoption of cleaner energy and innovative building technologies. Following the release of One City: Built Last, the City launched a technical working group of experts in real estate, architecture, engineering, and affordable housing to help inform the direction of future policies.</td>
</tr>
</tbody>
</table>

## ENERGY

**Improve our energy efficiency**

<table>
<thead>
<tr>
<th>Initiative</th>
<th>Status</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Complete the development of rules and guidelines and fully enforce the Greenenergy Buildings Plan</td>
<td>Partially Completed</td>
<td>Complete the development of rules and guidelines and fully enforce the Greenenergy Buildings Plan</td>
</tr>
<tr>
<td>Complete an annual analysis and report on benchmarking results</td>
<td>Partially Completed</td>
<td>Complete an annual analysis and report on benchmarking results</td>
</tr>
<tr>
<td>Complete the implementation of energy performance requirements.</td>
<td>Partially Completed</td>
<td>Complete the implementation of energy performance requirements.</td>
</tr>
<tr>
<td>Improve our codes and regulations to increase the sustainability of our buildings</td>
<td>In Progress</td>
<td>Green Code Task Force proposals enacted into law include: requirements for commissioning of energy systems; increased boiler efficiency; standards for attaching rooftop solar PV panels, standards for mold prevention, increased lighting efficiency on Construction sites; and required insulation of pipes exposed during construction. The 2014 NYC Energy Conservation Code update was enacted with significant improvements to energy performance requirements.</td>
</tr>
</tbody>
</table>

**Increase the City’s energy efficiency**

<table>
<thead>
<tr>
<th>Initiative</th>
<th>Status</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improve our energy efficiency</td>
<td>Completed</td>
<td>Increase the City’s energy efficiency</td>
</tr>
<tr>
<td>Work with multiple energy stakeholders to encourage clean energy supply investments, effective incentive programs, shared data collection and management, and coordinated energy forecasting.</td>
<td>Partially Completed</td>
<td>Work with multiple energy stakeholders to encourage clean energy supply investments, effective incentive programs, shared data collection and management, and coordinated energy forecasting.</td>
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<tr>
<td>Chapter</td>
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<td>Initiative Status</td>
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<tr>
<td>4</td>
<td>Improve compliance with the energy code and track green building improvements citywide</td>
<td>In Progress</td>
</tr>
<tr>
<td>5</td>
<td>Improve energy efficiency in smaller buildings</td>
<td>In Progress</td>
</tr>
<tr>
<td>6</td>
<td>Improve energy efficiency in historic buildings</td>
<td>In Progress</td>
</tr>
<tr>
<td>7</td>
<td>Provide energy efficiency financing and information</td>
<td>In Progress</td>
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<tr>
<td>8</td>
<td>Create a 21st century green building workforce</td>
<td>In Progress</td>
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<tr>
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</thead>
<tbody>
<tr>
<td>9</td>
<td>Make New York City a knowledge center for energy efficiency and emerging energy strategies</td>
<td>In Progress</td>
<td>In 2014, the New York City Economic Development Corporation partnered with New York University to open the Urban Future Lab, a business incubator in Downtown Brooklyn that supports startup companies, showcases innovation, and provides programming focused on sustainable infrastructure and urban resiliency. The creation and ongoing operation of the Urban Future Lab is expected to generate over 9,000 new jobs by 2025. With the release of One City: Built to Last, the City committed to creating an Energy and Water Retrofit Accelerator to help building owners implement energy efficiency projects and navigate the complex market for energy services and to engage new communities in developing more energy efficient and resilient communities. As part of the Retrofit Accelerator, the City will support the creation of a website for information on energy efficiency. Finally, the City is working with Broadway theaters, museums, and other iconic cultural institutions to deepen their commitment to improving energy efficiency.</td>
<td>Fully Completed</td>
</tr>
<tr>
<td>10</td>
<td>Provide energy efficiency leadership in City government buildings and operations</td>
<td>In Progress</td>
<td>With the release of One City: Built to Last, the City updated the SHG reduction goal for City-owned buildings to a 35 percent reduction by 2025. As part of this goal, DCAS has implemented the new Accelerated Conservation and Efficiency Leadership (ExCEL) program that rigorously evaluates agency-identified energy projects and provides funding for cost-effective greenhouse gas reduction projects that agencies implement using their own funds. The City continues to explore opportunities for alternative contracting vehicles in order to increase our capacity to implement the most impactful energy efficiency projects across our diverse building portfolio.</td>
<td>Partially Completed</td>
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<tbody>
<tr>
<td>11</td>
<td>Expand the NYC Carbon Challenge to new sectors</td>
<td>In Progress</td>
<td>The NYC Carbon Challenge continues to expand. With the release of One City: Built to Last, the City committed to expand the Challenge to new sectors, increase the number of participants in existing sectors, and encourage participants to commit to deeper carbon reductions.</td>
<td>Fully Completed</td>
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</table>
Chapter Initiative Initiative Initiative Status Description 2014 Milestones Maturity Status

Chapter Initiative Initiative Initiative Status Description 2014 Milestones Maturity Status

**ENERGY**

12 Support cost-effective repowering or replacement of our most inefficient and costly in-city power plants

In Progress The City continues to work with the New York State electric utility market to ensure that the entry of cleaner and more efficient generation sources, and extend appropriate preferences to renewable power in recognition of its value in advancing our public policy goals. The City has provided comments to the FERC in response to NYISO’s application of Buy-Sale mitigation rules that appear to be dislocating entry of new generation.

Advocate for a wholesale energy market design that does not discourage sensible repowering and new generation projects

Partially Completed

**ENERGY**

13 Encourage the development of clean distributed generation

In Progress The City installed a 15 MW cogeneration plant at Rikers Island, which was operational as of January 2015, and a 100 kW fuel cell at City Hall. DEP has led the first of several advanced contracts related to the installation of a new 12 MW cogeneration plant at the North River WWTP and will complete design in 2015. DEP is evaluating the feasibility of developing cogeneration at the Wheatland WWTP and, in partnership with DCAS, conducted a preliminary analysis of cogeneration potential at 29th Ward Wastewater Treatment Plant. DCAS also completed a cogeneration feasibility study of Woodhill Hospital. In June 2014, NYCEDC completed a Smart Grid demonstration project at the Brooklyn Army Terminal, as part of the DOE’s Smart Grid Demonstration Program (administered by Con Ed).

The NYC Mayor’s Office of Sustainability (MOSS) has submitted comments to the Public Service Commission regarding Standard Interconnection Requirement tariffs, which streamline permitting and utility interconnection processes for small systems. In particular the City has called for increasing the threshold from 2 MW to 5 MW, greater enforcement of interconnection review deadlines, increased transparency in interconnection costs and feeder capacities.

The City has raised barrier issues with NYSEDA as part of their Clean Energy Fund development and is developing comments regarding NYS PSC Stand-by Rate rules that currently create a barrier to expanded DG development. In addition, DEP and Con Ed have coordinated on gas distribution pipeline replacement planning.

The City has submitted comments to the Public Service Commission supporting the State Reforming Energy Vision Initiative ("REVI"). The goal of REV is to change the paradigm of central generating facilities as the majority component of energy generation to include a much higher component of distributed energy generation resources to increase grid reliability. In its comments, the City has made recommendations to enhance the REV process, the Clean Energy Fund and the Green Bank development. The City is a member of the REV Market Design working group.

Launch at least two new Carbon Challenges

Completed

Under the leadership of CUNY, the City, NYSEDA, NYPY, and the utilities are working together to expand the NY Solar Map and Portal with support from the US Department of Energy. An expanded tool is expected to be launched in September 2015. Through the NYC Solar America Cities Partnership, NYCEDC continues to work with MOSS, Sustainable CUNY, Con Edison and multiple City and State agencies to develop and pilot innovative tracking software designed to streamline the permitting process, both speeding up solar adoption in NYC and reducing the "soft costs" of installation.

With the release of One City: Built in the Last, the City committed to installing 150 MW of solar PV installations on City-owned buildings property by 2025. So far, the City has committed to constructing and interconnecting substantial solar PV projects at an additional 24 schools by 2016; in which 2 MW of new solar PV is a comes in scheme in building. Design on the success of the solar PV, DCAS is also developing a large-scale solar PPAs. In June 2014, NYCECD completed a Smart Grid Demonstration Project at the Brooklyn Army Terminal, as part of the DOE’s Smart Grid Demonstration Program (administered by Con Ed). The project includes 125 kW of solar PV and a 170kW 940 battery. Under a joint solar Power Purchase Agreement (PPA) led by DCAS, 2 MW of solar PV was installed at four sites across the city including two high schools, a maintenance facility and a wastewater treatment plant, with DEP's pilot wind farm at Windmill Hill will be the largest solar PV system on City property.

The City has selected SunEdison to develop solar at the Fresh Kills Landfill. Under a pilot solar Power Purchase Agreement (PPA) led by DCAS, 1.8 MW of solar is being installed at five sites across the city, and will be completed by 2016.

**ECONOMY**

14 Foster the market for byproduct of the wastewater treatment process, as a fuel source.

In Progress The North River Wastewater Treatment Plant that will use biogas, generated as a byproduct of the wastewater treatment process, as a fuel source. DEP is also in design on a 12 MW cogeneration system at the North River WWTP. The system is expected to be operational in Winter 2015.

**ECONOMY**

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### MODERNIZE OUR TRANSMISSION AND DISTRIBUTION SYSTEM

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<tr>
<th>Initiative Number</th>
<th>Initiative Status</th>
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<th>2014 Milestone Status</th>
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<th>2014 Milestone Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>In Progress</td>
<td>Ensure reliability of New York City power delivery</td>
<td>Partially Completed</td>
<td>Explore opportunities to leverage City-wide communication assets to assist utilities in conducting automated meter reading for power and gas customers</td>
<td>Partially Completed</td>
</tr>
<tr>
<td>11</td>
<td>In Progress</td>
<td>Enhance efficiency of natural gas transmission and distribution system</td>
<td>Completed</td>
<td>Explore opportunities to leverage City-wide communication assets to assist utilities in conducting automated meter reading for power and gas customers</td>
<td>Partially Completed</td>
</tr>
<tr>
<td>12</td>
<td>In Progress</td>
<td>Enhance the New York-New Jersey Interconnection</td>
<td>Completed</td>
<td>Consider opportunities to safely ensure the supply of natural gas</td>
<td>Completed</td>
</tr>
<tr>
<td>13</td>
<td>In Progress</td>
<td>Increase ability of City buildings to shoulder peak demand periods and emergency events to 50 MW</td>
<td>Completed</td>
<td>Complete natural gas acquisitions and development partnerships</td>
<td>Completed</td>
</tr>
<tr>
<td>14</td>
<td>In Progress</td>
<td>Increase reliability of New York City power delivery</td>
<td>Partially Completed</td>
<td>Complete automatic meter reading for wholesale electricity markets</td>
<td>Partially Completed</td>
</tr>
<tr>
<td>15</td>
<td>In Progress</td>
<td>Ensure the reliability of the New York City power grid</td>
<td>Completed</td>
<td>Complete installations of advanced technology for natural gas transmission</td>
<td>Completed</td>
</tr>
<tr>
<td>16</td>
<td>In Progress</td>
<td>Increase ability of City buildings to shoulder peak demand</td>
<td>Completed</td>
<td>Complete installations of advanced technology for natural gas transmission</td>
<td>Completed</td>
</tr>
<tr>
<td>17</td>
<td>In Progress</td>
<td>Ensure the reliability of the New York City power grid</td>
<td>Partially Completed</td>
<td>Complete installations of advanced technology for natural gas transmission</td>
<td>Partially Completed</td>
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### ENERGY

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<tr>
<th>Initiative Number</th>
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</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>In Progress</td>
<td>Monitor and model neighborhood-level air quality</td>
<td>Completed</td>
<td>Support Con Edison’s efforts to capitalize on seasons learned in smart-grid demonstration projects and to scale up cost-effective technologies that will help reduce consumption or improve grid reliability</td>
<td>Partially Completed</td>
</tr>
<tr>
<td>2</td>
<td>In Progress</td>
<td>Reduce, replace, retrofit, and refuel vehicles</td>
<td>Completed</td>
<td>Work with regulators, utilities, building owners, and energy companies to encourage deeper participation by commercial and industrial consumers in market-based programs to reduce peak demand</td>
<td>Partially Completed</td>
</tr>
<tr>
<td>3</td>
<td>In Progress</td>
<td>Reduce transportation emissions</td>
<td>Completed</td>
<td>Reduce the City’s fleet by at least 5%</td>
<td>Completed</td>
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</tbody>
</table>

### AIR QUALITY

<table>
<thead>
<tr>
<th>Initiative Number</th>
<th>Initiative Status</th>
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<th>2014 Milestone Status</th>
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<th>2014 Milestone Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>In Progress</td>
<td>Understand the scope of the challenge</td>
<td>Completed</td>
<td>Expand the methods and pollutants measured to look more closely at specific types of emissions and exposure settings</td>
<td>Completed</td>
</tr>
<tr>
<td>5</td>
<td>In Progress</td>
<td>Reduce transportation emissions</td>
<td>Completed</td>
<td>Complete upgrades of 420 vehicles through existing Congestion Mitigation and Air Quality (CMAQ) and other funding sources</td>
<td>Completed</td>
</tr>
<tr>
<td>6</td>
<td>In Progress</td>
<td>Reduce, replace, retrofit, and refuel vehicles</td>
<td>Completed</td>
<td>Install Diesel Particulate Filters (DPFs) on 680 buses</td>
<td>Completed</td>
</tr>
</tbody>
</table>

### ONE NEW YORK: THE PLAN FOR A STRONG AND JUST CITY

nyc.gov/onenyc

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nyc.gov/onenyc

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### Chapter Initiative

<table>
<thead>
<tr>
<th>Initiative Number</th>
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<th>Measure Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>Facilitate the adoption of electric vehicles</td>
<td>In Progress</td>
<td>DOT is participating in the EV advisory-committee, a five year initiative that commenced in 2014. This committee will provide an annual report to City Council. In addition, EDC is exploring the use of the Skyport parking garage as a potential charging station for multiple vehicle fleets.</td>
<td>Work with Con Edison and auto manufacturers to streamline the installation process for home EV chargers</td>
<td>Completed</td>
</tr>
</tbody>
</table>

**In Progress** The City continues to work with PANYNJ on the Clean Air Initiative.

- DOT is participating in the EV advisory committee, which provides technical, educational, and financial assistance to property owners to convert to clean fuels at a faster pace than required by regulation. The program goal is a 50 percent reduction of the particulate matter emissions (PM 2.5) from the use of heavy heating. The program helped more than 1,200 buildings convert their heavy heating of a cleaner fuel by the year's end, and the City is working to help all buildings convert their # 5 & # 6 to a cleaner fuel by July of 2015. 

- Launch a program to encourage and support the early phase of new #4 and #6 fueling opportunities. 

- Release Requests for Proposals to enter into energy performance contracts for City schools. 

### UPDATE CODES AND STANDARDS

<table>
<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>9</td>
<td>Update our codes and regulations to improve indoor air quality</td>
<td>In Progress</td>
<td>Local Law 72 mandates minimum filtration requirements for mechanical ventilation systems in buildings. Local Law 72 established limits on volatile organic compounds in carpet and carpet cushion in the city. Title 15 of the NYC Rules removes obstacles to seismically resistant buildings.</td>
<td>Proposal to regulate and reduce exposure to building materials.</td>
<td>Completed</td>
</tr>
</tbody>
</table>

**In Progress**

- Local Law 72 mandates minimum filtration requirements for mechanical ventilation systems in buildings. Local Law 72 established limits on volatile organic compounds in carpet and carpet cushion in the city. Title 15 of the NYC Rules removes obstacles to seismically resistant buildings.

- Update the NYC Air Code.

### REDUCE WASTE BY NOT GENERATING IT

<table>
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<tr>
<th>Initiative Number</th>
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<th>Initiative Status Description</th>
<th>2014 Milestones</th>
<th>Measure Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Promote waste prevention opportunities</td>
<td>In Progress</td>
<td>GreeNYC partnered with GrowNYC to promote the use of reusable packaging items. More than 150 million pounds of material from the waste stream were diverted, contributing to a reduction of more than 10,000 metric tons of greenhouse-gas emissions and an energy savings of 150 billion BTUs.</td>
<td>Partially Completed</td>
<td></td>
</tr>
</tbody>
</table>

**In Progress**

- GreeNYC partnered with GrowNYC to promote the use of reusable packaging items. More than 150 million pounds of material from the waste stream were diverted, contributing to a reduction of more than 10,000 metric tons of greenhouse-gas emissions and an energy savings of 150 billion BTUs.

- Implement public education campaigns to reduce litter, encourage switching to reusable bags and reusable beverage bottles for tap water, and to encourage New Yorkers to reduce paper consumption.

### REDUCE WASTE BY NOT GENERATING IT

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<tr>
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</thead>
<tbody>
<tr>
<td>2</td>
<td>Increase the reuse of materials</td>
<td>Completed</td>
<td>GreeNYC partnered with GrowNYC to promote the use of reusable bags at all greenmarkets through signage, platforms to encourage and support the reduction of waste.</td>
<td>Completed</td>
<td></td>
</tr>
</tbody>
</table>

**In Progress**

- GreeNYC partnered with GrowNYC to promote the use of reusable bags at all greenmarkets through signage, platforms to encourage and support the reduction of waste.

- Implement public education campaigns and leverage online platforms to encourage and increase reuse of materials.

### SOLID WASTE

<table>
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<tr>
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<th>Measure Status</th>
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</thead>
<tbody>
<tr>
<td>3</td>
<td>Incentivize recycling</td>
<td>In Progress</td>
<td>CSNY has a number of programs in place to help incentivize recycling including expansion of public recycling bins and revising commercial recycling rules to simplify recycling for businesses.</td>
<td>Encourage businesses, institutions, and individuals to use recyclables and recycled materials through corporate challenges, partnerships, or recognition programs.</td>
<td>Partially Completed</td>
</tr>
</tbody>
</table>

**In Progress**

- CSNY has a number of programs in place to help incentivize recycling including expansion of public recycling bins and revising commercial recycling rules to simplify recycling for businesses.

- Implement new residential recycling penalties.

- Implement new residential recycling rates.

- Increase access to residential waste generation and diversion rate data.

- Encourage businesses to recycle, and use recyclable and recycled materials through corporate challenges, partnerships, or recognition programs.

- Partially Completed
# Chapter Initiative

## Initiative Initiative Status Description

### 2014 Milestones

### 2015 Milestone Status

**SOLID WASTE**

<table>
<thead>
<tr>
<th>Initiative</th>
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</tr>
</thead>
<tbody>
<tr>
<td>4 Improve the convenience and ease of recycling</td>
<td>In Progress</td>
<td>In 2014, DSNY increased the number of public space recycling baskets to more than 3,000 across the City. DSNY is prioritizing neighborhoods with historically low diversion rates for the placement of new public space recycling baskets to increase public awareness about recycling in those neighborhoods. On January 1, 2015, DSNY issued a determination that expanded polystyrene foam, commonly known as “styrofoam,” is not recyclable in the City’s metal, glass, and plastic recycling programs. As of July 1, 2015, foam food service products and packaging wastes will be banned in New York City, eliminating this non-recyclable product from the waste stream. DSNY and the Department of Small Business Services will conduct outreach to small businesses to help them find affordable and sustainable alternative products. Ramming non-recyclable materials from the waste stream makes recycling simpler and more streamlined.</td>
<td>Increase recycling in public spaces and parks</td>
<td>Partially Completed</td>
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<tr>
<td>5 Revise City codes and regulations to reduce construction and demolition waste</td>
<td>In Progress</td>
<td>As part of the New York City Building Code update passed on December 30, 2013, a provision was added through Local Law 141 of 2013 that increases the proportion of alternative cemenitious material to Portland cement in concrete exposed to deicing chemicals from 25 percent to 35 percent for a single alternative material. For multiple alternative materials, the total amount must not exceed 50 percent.</td>
<td>Require use of recycled content in building materials</td>
<td>Completed</td>
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<tr>
<td>6 Create additional opportunities to recover organic material</td>
<td>In Progress</td>
<td>DSNY has expanded the curbside organics collection program to service more than 100,000 households, 700 schools, and several agencies and institutions. In Spring 2015, DSNY is adding an additional 40,000 households. DSNY continues to support the expansion of community compost sites and food waste drop-off sites in all five boroughs, giving New Yorkers the opportunity to compost in their neighborhoods. DSNY is continuing to look for opportunities to recover energy from its biosolids in a financially responsible manner. Although we have contracts to beneficially use approximately 30 percent of the biosolids the City produces, the vendor’s compost facility has run into some regulatory problems. As such, no biosolids are currently being reused beneficially. It is expected that the beneficial reuse contractor will resolve their regulatory problems in 2015 and beneficial use can resume. Pilot program to take in food waste from schools and process it into a bioreactor for anaerobic digestion at the Newtown Creek WWTP were completed in May 2014. Construction for a 250 tons per day system is beginning in 2015.</td>
<td>Require recycling of building materials</td>
<td>Partially Completed</td>
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<tr>
<td>7 Identify additional markets for recycled materials</td>
<td>In Progress</td>
<td>DSNY’s use of road renovation spoils (RAP) increased with the rebuilding of the Brooklyn Municipal asphalt plant. DSNY increased RAP use to 30 percent from 45 percent at the Brooklyn facility, which supplies half of DOT’s asphalt need. DSNY continues to explore and identify additional markets for recycled materials.</td>
<td>Expand opportunities for communities to compost food waste</td>
<td>Partially Completed</td>
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<tr>
<td>8 Pilot conversion technologies</td>
<td>Cancelled</td>
<td>Proposals were received to develop a conversion technology facility to dispose of waste. The RFP was cancelled in 2014 because none of the proposals were cost-effective, there were also strong concerns raised by elected officials and residents.</td>
<td>Solid proposals to develop conversion technology facilities to dispose of waste</td>
<td>Cancelled</td>
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**IMPROVE THE EFFICIENCY OF THE WASTE MANAGEMENT SYSTEM**

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</tr>
</thead>
<tbody>
<tr>
<td>9 Reduce the impact of the waste system on communities</td>
<td>In Progress</td>
<td>With the construction of the Sims recycling facility at the South Brooklyn Marine Terminal, DSNY expanded the City’s metal, glass, and plastic recycling program to include all rigid plastics. This change has contributed to an increase in curbside diversion rates from 47 percent in the first four months of FY14 to 53.5 percent in the same period in FY15. After a year of operation, the North Shore MTS will begin accepting commercial waste in limited quantities. Investments in railroad development and rail access at transfer stations in the Bronx, Queens, and Brooklyn have created opportunities for those communities to export some commercial waste in sealed railcars.</td>
<td>Achieve significant progress toward completion of the Hamilton/Brooklyn and North Shore (Queens) Marine Transfer Stations</td>
<td>Completed</td>
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<tr>
<td>10 Improve commercial solid waste management data</td>
<td>In Progress</td>
<td>DSNY and BIC are working together to simplify commercial recycling rules and streamline the data submission process for carriers and transfer stations. DSNY has also published the 2012 Commercial Waste System study and continues to explore opportunities to improve NYC’s commercial waste system.</td>
<td>Promote export of commercial waste by barge and rail</td>
<td>Partially Completed</td>
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<tr>
<td>11 Remove toxic materials from the general waste stream</td>
<td>In Progress</td>
<td>On January 1, 2015, a state law banning the curbside disposal of electronic waste took effect. DSNY has engaged in extensive public education and outreach to help New Yorkers comply with this law, including issuing warnings to residents who improperly sell electronics for curbside collection. In April 2015, DSNY established a rule allowing Sanitation Officers and Enforcement agents to issue tickets to residents for improper disposal of electronic waste. As of April 2015, more than 4,000 buildings in all five boroughs have applied to participate in the e-cycleNYC, an electronic recycling program DSNY created in partnership with Electronics Recycling International for buildings with 10 or more units. More than 900 of those buildings currently participate, and DSNY is working with GEMA NYC to bring additional buildings into the program. New York can also recycle electronic waste at more than 95 drop-off locations citywide. DSNY has opened a new Household Hazardous Waste Site in Manhattan and extended hours at sites in all five boroughs. In 2015, DSNY will expand the number of safe disposal events to 10 from 5 in each borough. In 2014, New Yorkers brought nearly 700,000 pounds of electronics, pharmaceuticals, and household hazardous waste to SAFE Disposal events for proper recycling, handling, and disposal. DSNY continues to support programs and policies that encourage extended producer responsibility of hazardous and toxic products. In 2015, DSNY established new rules that allow the Department to bill the manufacturers of CFC-containing items for the cost of refrigerant recovery.</td>
<td>Expand Household Hazardous Waste collection program</td>
<td>Partially Completed</td>
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**REDUCE THE CITY GOVERNMENT’S SOLID WASTE FOOTPRINT**

<table>
<thead>
<tr>
<th>Initiative</th>
<th>Initiative Status</th>
<th>Description</th>
<th>2014 Milestones</th>
<th>2015 Milestone Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>12 Reduce City government procurement practices</td>
<td>In Progress</td>
<td>Continue to research procurement best practices to reduce solid waste.</td>
<td>Develop best practices that address solid waste reduction for procurement and incorporate into Environmentally/Preferable Purchasing</td>
<td>Partially Completed</td>
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One New York: The Plan for a Strong and Just City

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One New York: The Plan for a Strong and Just City

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<table>
<thead>
<tr>
<th>Initiative</th>
<th>Initiative Status</th>
<th>Initiative Status Description</th>
<th>2014 Milestone</th>
<th>Initiative Status</th>
<th>Initiative Status Description</th>
<th>2014 Milestone</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>In Progress</td>
<td>The City released its most recent annual inventory of greenhouse gas emissions in November 2014, demonstrating a 10 percent decrease in emissions.</td>
<td>Expand GHG inventory to include neighborhood level analysis and reporting</td>
<td>Completed</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>In Progress</td>
<td>The City has adopted a goal to reduce greenhouse gas emissions 80% by 2050.</td>
<td>Complete study to determine strategies to reduce citywide GHG emissions by 80% below 2005 levels by 2050</td>
<td>Completed</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>In Progress</td>
<td>The City continues to assess climate change projections on a regular basis. For further updates on this initiative, refer to the City’s resiliency program updates.</td>
<td>Institutional New York City Panel on Climate Change, NYCPC, and establish process to regularly update its climate projections.</td>
<td>Completed</td>
<td></td>
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</tr>
<tr>
<td>4</td>
<td>In Progress</td>
<td>The City continues to partner with FEMA to update the City’s flood insurance rate maps. For further updates on this initiative, refer to the City’s resiliency program updates.</td>
<td>Release draft updated Digital Flood Insurance Rate Maps (DFIRM) for public comment</td>
<td>Completed</td>
<td></td>
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</tr>
<tr>
<td>5</td>
<td>In Progress</td>
<td>The City continues to develop tools to measure the city’s current and future climate exposure. For further updates on this initiative, refer to the City’s resiliency program updates.</td>
<td>Develop a climate risk assessment tool</td>
<td>Completed</td>
<td></td>
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</tr>
<tr>
<td>6</td>
<td>In Progress</td>
<td>The City has updated regulations to increase the resiliency of buildings. For further updates on this initiative, refer to the City’s resiliency program updates.</td>
<td>Conduct study of the urban implications of enhanced flood protection for buildings.</td>
<td>Completed</td>
<td></td>
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</tr>
<tr>
<td>7</td>
<td>In Progress</td>
<td>The City continues to work with the insurance industry to develop strategies to encourage the use of flood protections in buildings. For further updates on this initiative, refer to the City’s resiliency program updates.</td>
<td></td>
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</tr>
<tr>
<td>8</td>
<td>In Progress</td>
<td>The City continues to work to protect the city’s critical infrastructure. For further updates on this initiative, refer to the City’s resiliency program updates.</td>
<td>Complete Climate Change Adaptation Task Force assessment and report and begin to implement its recommendations</td>
<td>Completed</td>
<td></td>
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</tr>
<tr>
<td>9</td>
<td>In Progress</td>
<td>The City continues to identify, evaluate, and implement citywide coastal protection measures.</td>
<td>Develop an inventory of best practices for enhancing climate resilience in coastal areas.</td>
<td>Completed</td>
<td></td>
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</tr>
<tr>
<td>10</td>
<td>In Progress</td>
<td>The City continues to mitigate the urban heat island effect. For further updates on this initiative, refer to the City’s resiliency program updates.</td>
<td>Cost an additional two million square feet of cool roofs</td>
<td>Completed</td>
<td></td>
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</tr>
<tr>
<td>11</td>
<td>In Progress</td>
<td>The City continues to enhance its understanding of the impacts of climate change on public health. For further updates on this initiative, refer to the City’s resiliency program updates.</td>
<td>Complete study on the impact of climate change on public health</td>
<td>Completed</td>
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</tbody>
</table>

REDUCE AND TRACK GREENHOUSE GAS EMISSIONS

1. Release an annual inventory of greenhouse gas emissions
   - In Progress
   - The City released its most recent annual inventory of greenhouse gas emissions in November 2014, demonstrating a 10 percent decrease in emissions.
   - Expand GHG inventory to include neighborhood level analysis and reporting
   - Completed

2. Assess opportunities to further reduce greenhouse gas emissions by 80% by 2050
   - In Progress
   - The City has adopted a goal to reduce greenhouse gas emissions 80% by 2050.
   - Complete study to determine strategies to reduce citywide GHG emissions by 80% below 2005 levels by 2050
   - Completed

ASSESS VULNERABILITIES AND RISKS FROM CLIMATE CHANGE

3. Regularly assess climate change projections
   - In Progress
   - The City continues to assess climate change projections on a regular basis. For further updates on this initiative, refer to the City’s resiliency program updates.
   - Completed

4. Partner with the Federal Emergency Management Agency (FEMA) to update Flood Insurance Rate Maps
   - In Progress
   - The City continues to partner with FEMA to update the City’s flood insurance rate maps. For further updates on this initiative, refer to the City’s resiliency program updates.
   - Completed

5. Develop tools to measure the city’s current and future climate exposure
   - In Progress
   - The City continues to develop tools to measure the city’s current and future climate exposure. For further updates on this initiative, refer to the City’s resiliency program updates.
   - Completed

INCREASE THE RESILIENCE OF THE CITY’S BUILT AND NATURAL ENVIRONMENT

6. Update regulations to increase the resilience of buildings
   - In Progress
   - The City has updated regulations to increase the resiliency of buildings. For further updates on this initiative, refer to the City’s resiliency program updates.
   - Completed

7. Work with the insurance industry to develop strategies to encourage the use of flood protections in buildings
   - In Progress
   - The City continues to work with the insurance industry to develop strategies to encourage the use of flood protections in buildings. For further updates on this initiative, refer to the City’s resiliency program updates.
   - Completed

8. Reduce and track greenhouse gas emissions
   - In Progress
   - The City continues to work to protect the city’s critical infrastructure. For further updates on this initiative, refer to the City’s resiliency program updates.
   - Completed

9. Identify and evaluate citywide coastal protective measures
   - In Progress
   - The City continues to identify, evaluate, and implement citywide coastal protection measures. For further updates on this initiative, refer to the City’s resiliency program updates.
   - Completed

10. Mitigate the urban heat island effect
    - In Progress
    - The City continues to mitigate the urban heat island effect. For further updates on this initiative, refer to the City’s resiliency program updates.
    - Completed

11. Enhance our understanding of the impacts of climate change on public health
    - In Progress
    - The City continues to enhance its understanding of the impacts of climate change on public health. For further updates on this initiative, refer to the City’s resiliency program updates.
    - Completed
### INCREASE CITY’S PREPAREDNESS FOR EXTREME CLIMATE EVENTS

<table>
<thead>
<tr>
<th>Initiative Number</th>
<th>Initiative Status</th>
<th>Initiative Status Description</th>
<th>2014 Milestone Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>12</td>
<td>In Progress</td>
<td>The City continues to integrate climate change projections into emergency management and preparedness. For further updates on this initiative, refer to the City’s resiliency program updates.</td>
<td>Completed</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Integrate climate change projections into the City's emergency management and preparedness plans and procedures</td>
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<td></td>
<td>Launch a process to include climate change as a hazard assessed under the Natural Hazard Mitigation Plan</td>
<td>Completed</td>
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### CREATE RESILIENT COMMUNITIES THOUGH PUBLIC INFORMATION AND OUTREACH

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<tr>
<th>Initiative Number</th>
<th>Initiative Status</th>
<th>Initiative Status Description</th>
<th>2014 Milestone Status</th>
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</thead>
<tbody>
<tr>
<td>13</td>
<td>In Progress</td>
<td>The City continues to work with communities to increase their climate resiliency. For further updates on this initiative, refer to the City’s resiliency program updates.</td>
<td>Completed</td>
</tr>
<tr>
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<td>Ensure that outreach efforts target appropriate communities and provide up-to-date climate risk information</td>
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<tr>
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<td>Improve the access to publicly-available data on the locations of hazardous material storage in flood zones throughout the city</td>
<td>Completed</td>
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</table>
## 2013 Resiliency Initiatives

### CLIMATE ANALYSIS

<table>
<thead>
<tr>
<th>Initiative</th>
<th>Initiative Status</th>
<th>Initiative Status Description</th>
<th>2014 Milestone</th>
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<tbody>
<tr>
<td>1</td>
<td>Work with FEMA to improve the flood-mapping process</td>
<td>In Progress</td>
<td>The City continues to work with FEMA to improve the flood mapping process and provided expert analysis in FEMA’s most recent release of Preliminary Floods. The first Technical Mapping Advisory Council meeting, on which the City sits, was held in September 2014. The next one will be held in May 2015.</td>
</tr>
<tr>
<td>2</td>
<td>Work with FEMA to improve the communication of current flood risks</td>
<td>In Progress</td>
<td>The City has partnered with the Center for New York City Neighborhoods (CNYNC) on its interactive website (floodhelpny.org), which was launched in September 2014. Additionally, the City is conducting a consumer education campaign and developing tools for explaining flood risks and the changes that are coming to the maps and insurance programs. Finally, the City continues to advise FEMA on its local flood risk messaging and online tools.</td>
</tr>
<tr>
<td>3</td>
<td>Call on the State and Federal governments to coordinate with the City on local climate change projections</td>
<td>Completed</td>
<td>NGAA and the USACE have agreed to incorporate the most recent NPCC projections into their climate models.</td>
</tr>
<tr>
<td>4</td>
<td>Continue to refine local climate change projections to inform decision-making</td>
<td>Completed</td>
<td>The City released expanded NPCC projections to include humidity and new projections through 2100. NPCC’s will focus on the following: enhancing coordination across the entire New York metropolitan region, looking at a neighborhood scale, and studying the interactions of mitigation, adaptation, and equity.</td>
</tr>
<tr>
<td>5</td>
<td>Explore improved approaches for mapping future flood risks, incorporating sea level rise</td>
<td>In Progress</td>
<td>The City, with Stevens Institute of Technology, has completed its study of Sea Level Rise mapping, which was incorporated into the NPCC’s most recent report. NPCC has also developed future flood maps to show the projected floodplains.</td>
</tr>
<tr>
<td>6</td>
<td>Launch a pilot program to identify and test strategies for protecting vulnerable neighborhoods from extreme heat health impacts</td>
<td>In Progress</td>
<td>The City, in partnership with the Nature Conservancy, has launched a new urban heat island working group to develop new monitoring methods and tools for mitigating heat risk.</td>
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### INCREASE COASTAL EDGE ELEVATIONS

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<th>Initiative</th>
<th>Initiative Status</th>
<th>Initiative Status Description</th>
<th>2014 Milestone</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Continue to work with the USACE to complete emergency beach nourishment in Coney Island</td>
<td>Completed</td>
<td>Over 500,000 cubic yards of sand have been placed on Coney Island.</td>
</tr>
<tr>
<td>2</td>
<td>Continue to work with the USACE to complete emergency beach nourishment on the Rockaway Peninsula</td>
<td>Completed</td>
<td>Over 3,500,000 cubic yards of sand have been placed on the Rockaway Peninsula.</td>
</tr>
<tr>
<td>3</td>
<td>Complete short-term beach nourishment, dune construction, and shoreline protection on Staten Island</td>
<td>Completed</td>
<td>Over 20,000 linear feet of shoreline protection and reinforced dunes have been installed on Staten Island. Additional reinforced dune projects are expected to be installed in Tottenville with State funds.</td>
</tr>
<tr>
<td>4</td>
<td>Install armor stone shoreline protection (revetments) in Coney Island</td>
<td>In Progress</td>
<td>The City launched a feasibility study that will generate specific recommendations for investments in shoreline protection along Coney Island Creek. The study is expected to be finished in December 2015, leading to design and construction, with over $30 million in funds already available.</td>
</tr>
<tr>
<td>5</td>
<td>Install armor stone shoreline protection (revetments) on Staten Island</td>
<td>In Progress</td>
<td>The City launched a feasibility study that will generate specific recommendations for investments in shoreline protection along the South Shore of Staten Island. The assessment is expected to be finished in December 2015, leading to design and construction, with over $30 million in funds already available. This work will be coordinated with other Federal and State Investments underway on the South Shore.</td>
</tr>
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### Chapter Initiative: COASTAL PROTECTION

#### MINIMIZE UPLAND WAVE ZONES

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<th>Initiative</th>
<th>Initiative Status</th>
<th>Initiative Status Description</th>
<th>2014 Milestones</th>
<th>Initiative Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>In Progress</td>
<td>The City launched a shoreline assessment of low-lying shorelines that will generate specific recommendations for investments in shoreline protection across the city.</td>
<td>Launch study of low-lying neighborhoods, begin implementation</td>
<td>Partially Completed</td>
</tr>
<tr>
<td>7</td>
<td>Completed</td>
<td>Emergency repairs were completed in 2013.</td>
<td>Complete bulkhead repairs</td>
<td>Completed</td>
</tr>
<tr>
<td>8</td>
<td>In Progress</td>
<td>Construction of all bulkhead repairs and related drainage improvements is expected by Summer 2015.</td>
<td>Complete bulkhead repairs and related drainage improvements</td>
<td>Partially Completed</td>
</tr>
<tr>
<td>9</td>
<td>Completed</td>
<td>Emergency floodgate repairs were completed.</td>
<td>Complete floodgate repairs</td>
<td>Completed</td>
</tr>
<tr>
<td>10</td>
<td>In Progress</td>
<td>The City expects to receive approximately $5 million in FEMA funds for this initiative and will launch the tide gate repair study upon approval by FEMA.</td>
<td>Study tide gate repairs</td>
<td>Partially Completed</td>
</tr>
<tr>
<td>11</td>
<td>In Progress</td>
<td>The City continues to work with the USACE to complete existing shore protection projects for Rockaway Peninsula and implement coastal protection projects.</td>
<td>Study to identify alternative coastal protection projects</td>
<td>Completed</td>
</tr>
<tr>
<td>12</td>
<td>In Progress</td>
<td>The City expects to receive approximately $58 million in FEMA funds for this initiative and will launch the dune system design study upon approval by FEMA.</td>
<td>Begin study of flood risk reduction projects; complete identified short-term dune improvements</td>
<td>Completed</td>
</tr>
<tr>
<td>13</td>
<td>In Progress</td>
<td>In partnership with the city, the State has launched a study to evaluate offshore breakwater designs for Great Kills Harbor. The study is currently underway and anticipated to be completed in 2015.</td>
<td>Begin study</td>
<td>Partially Completed</td>
</tr>
<tr>
<td>14</td>
<td>In Progress</td>
<td>Design is already underway for wave attenuation investments in Howard Beach at Spring Creek and in Street Channel at Sunset Cove, with funds already available for construction.</td>
<td>Begin study</td>
<td>Completed</td>
</tr>
<tr>
<td>15</td>
<td>In Progress</td>
<td>The State was awarded $60 million through HUD’s Rebuild by Design program for implementation of the project.</td>
<td>Begin study</td>
<td>Completed</td>
</tr>
<tr>
<td>16</td>
<td>Completed</td>
<td>In partnership with DRI, the project was completed by the USACE in 2014.</td>
<td>Complete construction</td>
<td>Completed</td>
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#### PROTECT AGAINST STORM SURGE

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<tr>
<th>Initiative</th>
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<th>2014 Milestones</th>
<th>Initiative Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>17</td>
<td>In Progress</td>
<td>The City, through DEP, has completed the installation of a floating wave attenuator adjacent to a tidal wetland at Brant Point, Queens</td>
<td>Complete construction</td>
<td>Completed</td>
</tr>
<tr>
<td>18</td>
<td>In Progress</td>
<td>Construction is underway and is expected to be completed in 2015.</td>
<td>Complete construction</td>
<td>Partially Completed</td>
</tr>
<tr>
<td>19</td>
<td>In Progress</td>
<td>The City was awarded $20 million through HUD’s Rebuild by Design program for continued design and implementation of a pilot project, and the City subsequently allocated an additional $20 million to the project.</td>
<td>Begin design</td>
<td>Completed</td>
</tr>
<tr>
<td>20</td>
<td>In Progress</td>
<td>The City has allocated $1 million to begin planning and preliminary design for this project, which will begin in 2015.</td>
<td>Begin design</td>
<td>Not Completed</td>
</tr>
<tr>
<td>21</td>
<td>In Progress</td>
<td>The City was awarded $345 million through HUD’s Rebuild by Design program for continued design and implementation of the project, which is currently in design north of Montgomery Street.</td>
<td>Begin design</td>
<td>Completed</td>
</tr>
<tr>
<td>22</td>
<td>In Progress</td>
<td>The City is no longer pursuing an integrated flood protection system for Hospital Row. In its place, the three primary hospitals between 23rd Street and 34th Street are investing in higher levels of flood protection and storm-hardening measures, and has secured hundreds of millions in FEMA funds at Bellevue Hospital alone.</td>
<td>Launch competition; begin design</td>
<td>Completed</td>
</tr>
<tr>
<td>23</td>
<td>In Progress</td>
<td>The City and State have each committed $50 million for an integrated flood protection system in Red Hook. The City has released an RFP for design services and expects to begin construction in 2015.</td>
<td>Begin design</td>
<td>Partially Completed</td>
</tr>
<tr>
<td>24</td>
<td>In Progress</td>
<td>The USACE is now expected to complete its draft feasibility study for Phase 1 in May 2015, with a goal of starting construction in 2017. The City and State also allocated $5.66 million in additional funds to begin design and construction of a coastal flood protection system in Red Hook.</td>
<td>Complete design</td>
<td>Partially Completed</td>
</tr>
<tr>
<td>25</td>
<td>In Progress</td>
<td>Through a settlement with ConEd, the State, and the City, ConEd is investing in storm hardening at critical substations across the city, as part of its $1 billion storm hardening program.</td>
<td>File comments on site case</td>
<td>Completed</td>
</tr>
<tr>
<td>26</td>
<td>In Progress</td>
<td>The City has launched a feasibility study for a Newtown Creek local storm surge barrier.</td>
<td>Begin study</td>
<td>Completed</td>
</tr>
</tbody>
</table>
### IMPROVE COASTAL DESIGN AND GOVERNANCE

<table>
<thead>
<tr>
<th>Initiative No.</th>
<th>Initiative Status Description</th>
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<th>2014 Milestones</th>
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</tr>
</thead>
<tbody>
<tr>
<td>27</td>
<td>Continue to work with the USACE to complete its comprehensive flood protection study of New York Harbor</td>
<td>Completed</td>
<td>The USACE released its North Atlantic Coast Comprehensive Study in January 2015. The City is now working with the USACE to launch a new feasibility study for NY Harbor and its tributaries, with the expectation that it will result in projects ready for authorization by Congress.</td>
<td>Completed draft study, recommending projects ready for authorization by Congress.</td>
<td>Completed</td>
</tr>
<tr>
<td>28</td>
<td>Implement the WAVEs Action Agenda</td>
<td>In Progress</td>
<td>All of the recommendations from the WAVEs Action Agenda have been completed or reconsidered</td>
<td>Complete scheduled projects</td>
<td>Completed</td>
</tr>
<tr>
<td>29</td>
<td>Implement citywide waterfears inspections to better manage the City's waterfears and coastal assets</td>
<td>In Progress</td>
<td>The City has allocated funds to update its portfolio of waterfront assets within its Waterfears Facilities Maintenance Management System and is revising its Inspection Guidelines Manual to better account for new coastal protection assets.</td>
<td>Implement program</td>
<td>Partially Completed</td>
</tr>
<tr>
<td>30</td>
<td>Study design guidelines for waterfront and coastal assets to better mitigate the effects of flooding</td>
<td>In Progress</td>
<td>The City, through DPF, has launched a study to evaluate resiliency design guidelines for waterfront and coastal structures. This study will be completed in 2015.</td>
<td>Complete study</td>
<td>Partially Completed</td>
</tr>
<tr>
<td>31</td>
<td>Evaluate soft infrastructure for flood protection and study innovative coastal protection techniques</td>
<td>In Progress</td>
<td>In partnership with the City, the State has completed and released a study to evaluate the effectiveness of new natural and nature-based features as part of its coastal protection initiatives, and the City, in partnership with NPS, has launched a CUNY-led Science and Resilience Institute at Jamaica Bay to research innovative resiliency measures.</td>
<td>Partner with the planned Jamaica Bay Science and Resilience Institute and others to begin studies</td>
<td>Completed</td>
</tr>
<tr>
<td>32</td>
<td>Evaluate the city’s vulnerability to drainage pipe flooding and identify appropriate solutions to minimize those risks</td>
<td>In Progress</td>
<td>The City has allocated funds for the construction of wetland restoration in Saw Mill Creek as part of a pending mitigation banking program. Construction is expected to begin in 2015.</td>
<td>Complete study of mitigation banking projects</td>
<td>Completed</td>
</tr>
<tr>
<td>33</td>
<td>Evaluate strategies to fund wetland restoration and explore the feasibility of wetland mitigation banking structures</td>
<td>In Progress</td>
<td>The City, through NYCEDC, is gathering information on all relevant waterfront permit processes from federal, state and local regulatory partners and is in the early stages of website design that will make permitting more predictable.</td>
<td>Launch website</td>
<td>Partially Completed</td>
</tr>
<tr>
<td>34</td>
<td>Work with agency partners to improve the in-water permitting process</td>
<td>In Progress</td>
<td>The City, through NYCECC, is gathering information on all relevant waterfront permit processes from federal, state and local regulatory partners and is in the early stages of website design that will make permitting more predictable.</td>
<td>Launch website</td>
<td>Completed</td>
</tr>
<tr>
<td>35</td>
<td>Enhance waterfront compliance and enforcement by strengthening the City’s waterfront permit and dockmaster units</td>
<td>In Progress</td>
<td>Additional personnel have been added to the Waterfront Permit Unit and new procedures have improved the permit filing process. The City continues to explore methods to enhance waterfront permitting.</td>
<td>Explore options to enhance waterfront permitting and dockmaster function</td>
<td>Completed</td>
</tr>
<tr>
<td>36</td>
<td>Identify a lead entity for overseeing the implementation of coastal flood protection projects</td>
<td>Completed</td>
<td>The Office of Recovery and Resilience (ORR) has been designated as the lead entity for the City’s coastal protection initiatives.</td>
<td>Identity lead entity</td>
<td>Completed</td>
</tr>
<tr>
<td>37</td>
<td>Call on and work with the USACE and FEMA to collaborate more closely on flood protection project standards</td>
<td>In Progress</td>
<td>The City has convened FEMA and USACE to ensure that projects are coordinated.</td>
<td>Identify risk reduction standards</td>
<td>Completed</td>
</tr>
</tbody>
</table>

### STRENGTHEN NEW AND SUBSTANTIALLY REBUILT STRUCTURES TO MEET THE HIGHEST RESILIENCE STANDARDS MOVING FORWARD

<table>
<thead>
<tr>
<th>Initiative No.</th>
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<th>2014 Milestones</th>
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</tr>
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<tbody>
<tr>
<td>1</td>
<td>Improve regulations for flood resiliency of new and substantially improved buildings in the 100-year floodplain</td>
<td>In Progress</td>
<td>The City has adopted changes to the zoning code, including a new Flood Resilience Zoning Text Amendment. This action clarified building and mechanical equipment evaluation and measurement, seawall, alternative uses of ground floor spaces, and parking issues; these zoning text changes are now in effect. Sixteen updates were made to the building code, including Local Law 83, which is designed to prevent the backflow of sewage; Local Law 98, regarding the adoption of best available flood maps; and Local Law 96, which allows the alteration of certain building systems in flood-prone areas including telecommunications cabling and fuel storage tanks.</td>
<td>Adopt changes to the building Code and zoning</td>
<td>Completed</td>
</tr>
<tr>
<td>2</td>
<td>Rebuild and repair housing units destroyed and substantially damaged by Sandy</td>
<td>In Progress</td>
<td>As of April 2015, the Mayor’s Office of Housing Recovery Operations (HRO), through its Build It Back program, has made over $300 million offers to homeowners, started construction on 1,159 homes, and granted 2,358 reimbursement checks amounting to over $85 million. As part of the Build It Back multiplicity program, run jointly with HRC, HRO has provided over $24 million in repairs and reimbursements to multifamily buildings, benefiting over 6,400 households. HRO is quadrupling its design and engineering capacity in 2015 and has introduced a number of new initiatives, including temporary rental assistance to homeowners in targeted neighborhoods and citywide strategies.</td>
<td>Disburse funds to rebuild and repair 500 buildings</td>
<td>Completed</td>
</tr>
<tr>
<td>3</td>
<td>Study and implement zoning changes to encourage retrofit of existing buildings and construction of new resilient buildings in the 100-year floodplain</td>
<td>In Progress</td>
<td>The City launched its Land Use Resiliency Studies (Bedford Park, Edgewater Park, West Chelsea, East Village/Lower East Side/Two Bridges, Canarsie, Gateway Beach, Sheepshead Bay, Old Howard Beach/Hamilton Beach/Broad Channel, Rockaway Beach/Beach 99 area, Park, Staten Island) in 2014. Additionally, the City released a report Retrofitting Buildings for Flood Risk to offer guidance to building owners that are making resiliency investments.</td>
<td>Begin study for 5-10 neighborhoods and citywide strategies</td>
<td>Completed</td>
</tr>
<tr>
<td>4</td>
<td>Launch a competition to encourage development of new, cost-effective housing types to replace vulnerable stock</td>
<td>In Progress</td>
<td>The City is no longer pursuing this competition. In its place, HRC has developed prototypes for new cost-effective housing to replace vulnerable structures.</td>
<td>Launch and award Phase I of competition and launch Phase II</td>
<td>Completed</td>
</tr>
<tr>
<td>5</td>
<td>Work with New York State to identify eligible communities for the New York Smart Home Buyout Program</td>
<td>In Progress</td>
<td>The City continues to coordinate with the State on its buyout program in Oakdale Beach, Ocean Breeze, and Graham Beach.</td>
<td>Identify all projects and complete transactions</td>
<td>Partially Completed</td>
</tr>
</tbody>
</table>

### RETROFIT AS MANY BUILDINGS AS POSSIBLE SO THAT THEY WILL BE SIGNIFICANTLY MORE RESILIENT THAN THEY ARE TODAY

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<tr>
<th>Initiative No.</th>
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<tbody>
<tr>
<td>7</td>
<td>Encourage existing buildings in the 100-year floodplain to adopt flood resiliency measures through an incentive program and targeted requirements.</td>
<td>In Progress</td>
<td>The City released a report Retrofitting Buildings for Flood Risk to other guidance to building owners that are making resiliency investments. The City continues to seek funding for a building resiliency incentive program.</td>
<td>Implement code changes and launch incentive program</td>
<td>Partially Completed</td>
</tr>
<tr>
<td>8</td>
<td>Establish Community Design Centers to assist property owners in developing design solutions for reconstruction and retrofitting, and connect them to available City programs</td>
<td>Completed</td>
<td>In 2014, the City, in collaboration with Pratt University and other local partners, held a series of events in the Rockaways, Brighton Beach, Coney Island, Staten Island, and Canarsie to assist property owners in developing design solutions for reconstruction and retrofitting, insurance issues and provide an opportunity to connect with other related City programs.</td>
<td>Launch centers in targeted neighborhoods</td>
<td>Completed</td>
</tr>
<tr>
<td>BUILDINGS</td>
<td>Initiative</td>
<td>Initiative Status</td>
<td>Initiative Description</td>
<td>2014 Milestones</td>
<td>Milestone Status</td>
</tr>
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</tr>
<tr>
<td>8 Launch Neighborhood Game Changer Competition</td>
<td>Completed</td>
<td>The Neighborhood Game changer competition is a competition to increase flood resiliency in existing buildings.</td>
<td>Issue written guidance</td>
<td>Completed</td>
<td></td>
</tr>
<tr>
<td>9 Retrofit public housing units damaged by Sandy and increase future resiliency</td>
<td>In Progress</td>
<td>NYCCHA has secured over $3 billion of FEMA funds to make resiliency investments across all of its Sandy-damaged developments. Design has begun for over 30 developments.</td>
<td>Install backup generation in vulnerable buildings; launch planning efforts for undermined but vulnerable buildings</td>
<td>Partially Completed</td>
<td></td>
</tr>
<tr>
<td>10 Launch sales tax abatement program for flood resiliency in industrial buildings</td>
<td>Completed</td>
<td>A sales tax abatement for flood resiliency in industrial buildings was approved by the DA board in 2013, providing 1-2 story buildings with at least 4 feet between their actual ground elevation and the applicable base flood elevation.</td>
<td>Launch program</td>
<td>Completed</td>
<td></td>
</tr>
<tr>
<td>11 Launch a competition to increase flood resiliency in building systems</td>
<td>In Progress</td>
<td>The City launched a competition and expects to award $30 million to deploy innovative resiliency technologies to small business locations. In August 2014, RISE - NYC selected 27 technological solutions as finalists in the program. These finalists had the opportunity to participate in a public Technology Demo Night on October 7, 2014. Following the Technology Demo Night, the RISE - NYC evaluation team expects to select winning proposals in early 2015.</td>
<td>Launch competition and select winners</td>
<td>Partially Completed</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ECONOMIC RECOVERY</th>
<th>Initiative</th>
<th>Initiative Status</th>
<th>Initiative Description</th>
<th>2014 Milestones</th>
<th>Milestone Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Launch Business Recovery and Resilience Programs</td>
<td>In Progress</td>
<td>The City is no longer pursuing the Business Resiliency Investment Program. In place, the City, through SBS, will launch a new $3 million Business PRIP program in 2015 to assist small businesses making resiliency investment and operational changes.</td>
<td>Launch program and begin disbursing funds</td>
<td>Partially Completed</td>
<td></td>
</tr>
<tr>
<td>2 Launch Neighborhood Game Changer Competition</td>
<td>Completed</td>
<td>The Neighborhood Game Changer competition is a competition to increase flood resiliency in existing buildings.</td>
<td>Launch RFP and select winning proposals</td>
<td>Completed</td>
<td></td>
</tr>
<tr>
<td>3 Launch Neighborhood Reinvestment Program</td>
<td>In Progress</td>
<td>The City is only pursuing the Business Resiliency Investment Program. In place, the City, through SBS, will launch a new $3 million Business PRIP program in 2015 to assist small businesses making resiliency investment and operational changes.</td>
<td>Launch Business Incentive Rate for retail and approved applications</td>
<td>Completed</td>
<td></td>
</tr>
<tr>
<td>4 Support local merchants in improving and promoting local commercial corridors</td>
<td>In Progress</td>
<td>The City, through the SBS, is currently providing ongoing support to local merchants in Sandy-affected areas through capacity building, retail façade and streetscape improvements, and marketing/business attraction activities. The new Business PRIP program will expand these services.</td>
<td>Provide technical assistance and funding</td>
<td>Completed</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SUPPORT COMMUNITY AND ECONOMIC RECOVERY IN IMPACTED AREA</th>
<th>Initiative</th>
<th>Initiative Status</th>
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<tr>
<td>1 Launch Business Recovery and Resilience Programs</td>
<td>In Progress</td>
<td>The City is no longer pursuing the Business Resiliency Investment Program. In place, the City, through SBS, will launch a new $3 million Business PRIP program in 2015 to assist small businesses making resiliency investment and operational changes.</td>
<td>Launch program and begin disbursing funds</td>
<td>Partially Completed</td>
<td></td>
</tr>
<tr>
<td>2 Launch Neighborhood Game Changer Competition</td>
<td>Completed</td>
<td>The Neighborhood Game Changer competition is a competition to increase flood resiliency in existing buildings.</td>
<td>Launch RFP and select winning proposals</td>
<td>Completed</td>
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<tr>
<td>3 Launch Neighborhood Reinvestment Program</td>
<td>In Progress</td>
<td>The City is only pursuing the Business Resiliency Investment Program. In place, the City, through SBS, will launch a new $3 million Business PRIP program in 2015 to assist small businesses making resiliency investment and operational changes.</td>
<td>Launch Business Incentive Rate for retail and approved applications</td>
<td>Completed</td>
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</tr>
<tr>
<td>4 Support local merchants in improving and promoting local commercial corridors</td>
<td>In Progress</td>
<td>The City, through the SBS, is currently providing ongoing support to local merchants in Sandy-affected areas through capacity building, retail façade and streetscape improvements, and marketing/business attraction activities. The new Business PRIP program will expand these services.</td>
<td>Provide technical assistance and funding</td>
<td>Completed</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>INSURANCE</th>
<th>Initiative</th>
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<th>Initiative Description</th>
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</tr>
</thead>
<tbody>
<tr>
<td>5 Continue to support the FRESH program to increase the number of full-time gigs in under served neighborhoods</td>
<td>In Progress</td>
<td>The City continues to advance the FRESH program. Additional FRESH stores seeking benefits for new construction, expansion, and renovation have received approval and authorization. FRESH continues to pursue the most under served neighborhoods throughout the city.</td>
<td>Pursue FRESH programs in Sandy-impacted neighborhoods</td>
<td>Completed</td>
<td></td>
</tr>
<tr>
<td>6 Reassess commercial property ciudadies to reflect post-Sandy market values</td>
<td>Completed</td>
<td>For Fiscal Year 2014, DOP recognized Sandy’s impact by making downward adjustments to the market values of more than 80,000 properties. These adjustments led to tax reductions for more than 50,000 properties affected by the storm. For the Fiscal Year 2015 assessment roll, DOP impacted 5,400 properties that had received physical reductions on the Fiscal Year 2014 roll in order to evaluate the current status of the properties. Market values for properties in the surge zones will remain at the Fiscal Year 2014 levels, unless the properties have been repaired or rebuilt.</td>
<td>Establish new market values and lower property taxes</td>
<td>Completed</td>
<td></td>
</tr>
<tr>
<td>7 EXPAND PRICING OPTIONS FOR POLICYHOLDERS</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8 INCORPORATE RESILIENCE STANDARDS IN INSURANCE UNDERWRITING</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>TARGET AFFORDABILITY SOLUTIONS TO LOW-INCOME POLICYHOLDERS</th>
<th>Initiative</th>
<th>Initiative Status</th>
<th>Initiative Description</th>
<th>2014 Milestones</th>
<th>Milestone Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Support Federal efforts to address affordability issues related to reform of the NFIP</td>
<td>In Progress</td>
<td>The City provided input on the Homeowners Flood Insurance Affordability Act of 2014, allowing the steep increases in flood insurance premiums. While the National Academy of Sciences affordability study is underway, the City is conducting its own affordability studies to better understand the impacts of recent reforms on New York City’s neighborhoods and residents. These studies are expected to be completed in 2015.</td>
<td>Complete affordability study</td>
<td>Partially Completed</td>
<td></td>
</tr>
</tbody>
</table>

nyc.gov/onenyc One New York: The Plan for a Strong and Just City
**Chapter: Utilities**

### IMPROVE AWARENESS AND EDUCATION ABOUT INSURANCE

**No.** 7  
Support the goals of the NYSL 2100 Commission to protect New York State, consumers, and businesses  
In Progress  
The City continues to coordinate and support DFS with the implementation of its NYSL 2100 Commission goals.  
Support State efforts  
Completed

**No.** 8  
Call on New York State to improve policymakers awareness at the point of sale or renewal  
In Progress  
The City advocated and provided technical assistance for the Homeowners Flood Insurance Affordability Act of 2013, which includes provisions regarding establishing an insurance advocate to support public outreach. In addition, the City has met with insurance associations to develop ways of improving point-of-sale communications. The City will continue to advocate for improved agent training by Fema and will utilize its consumer education campaign to improve policymaker awareness.  
Support State efforts to improve policymaker awareness  
Completed

**No.** 9  
Launch a consumer education campaign on flood insurance  
In Progress  
The City continues to coordinate with the Center for New York City Neighborhoods on resources for the public around flood risk and flood insurance. This includes working closely with the Center on a flood risk website (floodhelpny.org). The City’s consumer education campaign will launch in Summer 2015.  
Complete citywide campaign  
Partially Completed

**No.** 10  
Launch an engagement campaign targeting insurers  
In Progress  
The City, in cooperation with DFS, has hosted a forum to engage private insurance companies to discuss flood products and mitigation strategies. The City continues outreach to insurers to discuss flood products and mitigation strategies.  
Establish regular meetings with leading insurers  
Partially Completed

### REDESIGN THE REGULATORY FRAMEWORK TO SUPPORT RESILIENCE

**No.** 1  
Work with utilities and regulators to develop a cost-effective system upgrade plan to address climate risks  
In Progress  
ConEd continues to harden critical infrastructure under a PSC-approved program. In addition, $144 million worth of work is scheduled in 2016 and all work is scheduled to be completed by 2021. The PSC recently approved National Grid’s request for recovery of incremental capital costs for improvements in the Rockaway Peninsula that will increase system resiliency and replace leak-prone gas main. The City is assessing LIPA’s storm hardening initiatives for the Rockaways and will provide testimony as to its adequacy in N-LIPA’s 2015 Rate Case.  
ConEd’s first $1 billion storm hardening program was approved by the PSC and is currently underway across the City, which includes efforts to underground a portion of its overhead lines and to employ other measures to increase the resiliency of overhead lines in high-risk areas. In addition, the City completed and released a study in 2013 assessing the relative value and cost of selectively undergrounding power lines. The City is assessing LIPA’s storm hardening initiatives for the Rockaways, including overhead lines, and will provide testimony as to its adequacy in N-LIPA’s 2015 Rate Case.  
Completed

**No.** 2  
Work with utilities and regulators to reflect climate risks in system design and equipment standards  
In Progress  
ConEd’s $1 billion storm hardening program was approved by the PSC and is currently underway across the City, which includes provisions to plan for climate risks based on the most recent NIPCC climate projections. National Grid’s replacement of leak-prone pipe also addresses climate risks by reducing methane emissions. The City is assessing LIPA’s storm hardening initiatives for the Rockaways and will provide testimony as to its adequacy in N-LIPA’s 2015 Rate Case.  
ConEd’s $1 billion storm hardening program was approved by the PSC and is currently underway across the City, which includes efforts to harden key electric transmission and distribution infrastructure against flooding. The City is assessing LIPA’s storm hardening initiatives for the Rockaways and will provide testimony as to its adequacy in N-LIPA’s 2015 Rate Case.  
Completed

**No.** 3  
Work with utilities and regulators to establish performance metrics for climate risk management and track progress  
In Progress  
The PSC introduced a statewide standard to measure utilities’ performance in preparation for, and restoration from, major outage events. There were no major storms in 2014, therefore the scorecard was not used.  
The PSC introduced a statewide standard to measure utilities’ performance in preparation for, and restoration from, major outage events. There were no major storms in 2014, therefore the scorecard was not used.  
Completed

### HARDEN EXISTING INFRASTRUCTURE TO WITHSTAND CLIMATE EVENTS

**No.** 4  
Work with power suppliers and regulators to harden key power generators against flooding  
In Progress  
ConEd is proceeding with plans to harden generating facilities. Discussions are ongoing at the NYSERDA and at the Public Service Commission to develop potential compensation mechanisms for power suppliers.  
Launch effort with stakeholders  
Completed

**No.** 5  
Work with the PSC to harden key electric transmission and distribution infrastructure against flooding  
In Progress  
ConEd’s $1 billion storm hardening program was approved by the PSC and is currently underway across the City, which includes efforts to harden key electric transmission and distribution infrastructure against flooding. The City is assessing LIPA’s storm hardening initiatives for the Rockaways and will provide testimony as to its adequacy in N-LIPA’s 2015 Rate Case.  
ConEd’s $1 billion storm hardening program was approved by the PSC and is currently underway across the City, which includes efforts to harden key electric transmission and distribution infrastructure against flooding. The City is assessing LIPA’s storm hardening initiatives for the Rockaways and will provide testimony as to its adequacy in N-LIPA’s 2015 Rate Case.  
Completed
13. Work with utilities and regulators to speed up service restoration via pre-connections for mobile substations

In Progress

The PSC introduced a statewide Scorecard to measure utilities’ performance in preparation for, and restoration from, major outage events. There were no major storms in 2014, therefore the scorecard was not used.

Complete Con Edison rate case proceeding
Complied

14. Work with pipeline operators to expand and diversify natural gas supply

In Progress

The City continues to work with the PSC and the two delivery utilities to ensure a safe natural gas infrastructure supplying the five boroughs.

Continue ongoing efforts
Complied

15. Work with utilities and regulators to strengthen the in-city gas transmission and distribution system

In Progress

The City continues to work with the PSC and the two delivery utilities to ensure a safe natural gas infrastructure supplying the five boroughs.

Complete Con Edison rate case proceeding
Complied

16. Launch energy infrastructure resiliency competition

In Progress

The City launched a competition and expects to award $30 million to deploy innovative resiliency technologies to small business locations. In August 2014, RISE - NYC selected 27 technologies as finalists in the program. The RISE - NYC evaluation team has selected winning proposals to be announced in Spring 2015.

Select winner of competition
Partially Complied

REDUCE ENERGY DEMAND

19. Work with utilities and regulators to expand city’s demand response programs

In Progress

The City is working with the PSC, ConEd, and the NYISO to make the in-City demand response program more robust and to ensure continuity of such programs.

Complete Con Edison rate case
Complied

20. Work with government and private sector partners to expand the energy efficiency of buildings

In Progress

In September 2014, the City worked with government and private sector partners to release a ten-year citywide energy efficiency plan, One City, Built to Last. As part of this plan, the City committed to an 85% reduction in greenhouse gas emissions by 2050. To put New York City on this pathway, the City also set a 30% reduction target for building emissions by 2025 and a 35% reduction target for government buildings by 2030. These targets will be met through leadership by example, resident empowerment to take action, high energy performance standards, equitable benefits to all neighborhoods, and approaches informed by data analysis and stakeholder feedback. The City is committing $1 billion to energy efficiency improvements in municipal buildings. The City is also launching a retrofit accelerator to assist the private sector in making these same improvements.

Launch Green Light New York Center
Complied

DIVERSITY CUSTOMER OPTIONS IN CASE OF UTILITY OUTAGE

21. Work with public and private partners to scale up distributed generation (DG) and micro-grids

In Progress

The City continues to participate in the Reforming Energy Vision proceeding, which includes efforts to support distributed generation and microgrids. The City is also working with ConEd and the PSC on revisions to ConEd’s standby tariffs that would lessen economic impediments to distributed generation, and is working with the PSC and NYSERDA on funding opportunities for distributed generation and micro-grids.

Launch micro-grid feasibility study
Complied

22. Incorporate resiliency in the design of City electric vehicle initiatives and pilot storage technologies

In Progress

The City continues to monitor the development of electric vehicle-to-grid / vehicle-to-building standards, which are still only in limited pilot projects.

Continue ongoing efforts for implementation and for pilot at Brooklyn Army Terminal
Complied

23. Improve backup generation for critical customers

In Progress

The City is currently finalizing the contracting for 45 mobile generator units.

Expand City emergency generator fleet by 20 to 30 units
Partially Complied

SEEEK TO HARDEN THE LIQUID FUELS SUPPLY INFRASTRUCTURE

1. Call on the Federal government to convene a regional working group to develop a fuel infrastructure hardening strategy

In Progress

Working closely with the Columbia University Center on Global Energy Policy, the City has convened relevant stakeholders, including Federal and State agencies, the National Petroleum Council, and private industry to discuss opportunities for a coordinated and regional liquid fuels infrastructure resiliency plan. A report will be released in October 2015.

Develop regional strategy
Partially Complied

2. Develop a reporting framework for fuel infrastructure operators to support post-emergency restoration

In Progress

The City, through NYCEDC, has developed a database of liquid fuel assets in the New York metropolitan region. NYCEDC expects to pilot this database with relevant governmental agencies and begin input of data in industry in 2015.

Ensure development of IT systems and information reporting framework
Partially Complied

3. Work with Buckeye and New York State to safely build pipeline booster stations in New York City to increase supply and withstand extreme weather events

In Progress

The City will continue to consider opportunities to safely ensure the supply of liquid fuels.

Ensure booster stations to withstand climate change impacts
Partially Complied

4. Work with New York State to provide incentives for the hardening of gas stations to withstand extreme weather events

In Progress

In 2015, New York State adopted into law a requirement that all gas stations within a half-mile of a major highway or evacuation route to build generator transfer switches and be able to source generators during a power outage. NYSERDA also offered incentives for generator transfer switches.

Assist in regulatory incentive program
Not Completed

5. Ensure that a subset of gas stations and terminals have access to backup generators in case of widespread power outages

In Progress

In 2013, the State launched its Fuels Plan to ensure that gas stations meeting a certain criteria within a half-mile of a highway or hurricane evacuation route now required to have quick-connects for generators.

Ensure creation of a generator pool and pre-event planning positioning
Partially Complied

ENHANCE THE ABILITY OF THE SUPPLY CHAIN TO RESPOND TO DISRUPTIONS

6. Explore the creation of a transportation fuel reserve to temporarily supply the private market during disruptions

In Progress

The Federal government created a 22 million gallon gasoline fuel reserve in NY Harbor. The State created a 3 million gallon pilot gasoline fuel reserve on Long Island. For emergency diesel needs, fuel oil from the federal Home Heating Oil Reserve can be used, if appropriate emergency waivers are obtained. In 2015, the City will continue to work to advocate for a fuel supply chain resiliency strategy for NYC, in partnership with State and industry partners, that will focus on protecting critical assets. The City will also explore funding for a Regional Resiliency Assessment Program with the U.S. Department of Homeland Security on the supply chain of fuels and other critical commodities.

Evaluate regulatory and cost
Partially Complied

7. Call on New York State to modify price gouging laws and allow flexibility of gas station supply contracts to increase fuel availability during disruptions

In Progress

The City continues to pursue regulatory opportunities to ensure the protection of consumers during fuel shortages following emergency events. This initiative can be carried out through legislation, or directly through executive action by the Governor and New York Attorney General, and will be included in the regulatory waiver playbook.

Secure passage of legislation
Partially Complied

8. Develop a package of City, State, and Federal regulatory actions to address liquid fuel shortages during emergencies

Completed

The City, through OEM, is enhancing its playbook with a robust Climate Change Emergency Fuel Operations Plan. This plan will provide a strategy for fueling priority vehicles and equipment in the event of a disruption to the supply chain. It will also include NY National Guard pre-scripted mission requests to provide site security. OEM anticipates completing the Climate Change Emergency Fuel Operations Plan in 2015.

Complete regulatory plan and package of regulatory waivers
Completed
**HEALTHCARE**

**REDUCE BARRIERS TO CARE DURING AND AFTER EMERGENCIES**

9. Harden primary care and mental health clinics
   - Initiative Status: Not Started
   - Milestone: The City continues to pursue funding to complete this initiative.

10. Improve pharmacies' power resiliency
    - Initiative Status: Not Started
    - Milestone: The City continues to pursue funding to complete this initiative.

**ENSURE CRITICAL PROVIDERS’ OPERABILITY THROUGH REDUNDANCY AND THE PREVENTION OF PHYSICAL DAMAGE**

1. Reduce barriers to construction of new hospitals
   - Initiative Status: Completed
   - Milestone: The City has enacted several local laws to improve the design and construction of new hospitals in the floodplain.

2. Require the retrofitting of existing hospitals in the 100-year floodplain
   - Initiative Status: In Progress
   - Milestone: Amend Construction Codes

3. Support the Health and Hospitals Corporation effort to protect public hospital emergency departments (EDs) from flooding
   - Initiative Status: In Progress
   - Milestone: The City, through HHC, has secured nearly $17.1 billion in recovery and resiliency funding from FEMA to protect Bellevue, Metropolitan, Cook, and Cony Island Hospitals. Design for these projects will begin in 2015.

4. Improve the design and construction of new nursing homes and adult care facilities
   - Initiative Status: Completed
   - Milestone: The City has enacted several local laws to improve the design and construction of new nursing homes and adult care facilities in the floodplain.

5. Require the retrofitting of existing nursing homes in the 100-year floodplain
   - Initiative Status: In Progress
   - Milestone: Amend Construction Codes

6. Require the retrofitting of existing adult care facilities in the 100-year floodplain
   - Initiative Status: In Progress
   - Milestone: Amend Construction Codes

7. Support nursing homes and adult care facilities with mitigation grants and loans
   - Initiative Status: In Progress
   - Milestone: The City expects to receive approximately $19 million in FEMA funds for this initiative and will launch the nursing homes and adult care facility mitigation grants program upon approval by FEMA.

8. Increase the air conditioning capacity of nursing homes and adult care facilities
   - Initiative Status: In Progress
   - Milestone: Prior efforts to advance this initiative have proven ineffective. The City will identify alternative mechanisms for achieving the goals of this proposal, and will explore using the nursing home and adult care facility mitigation grant program to advance this initiative.

**IMPROVE THE CITY’S ABILITY TO FUEL FIRST RESPONDERS AND PRIVATE CRITICAL FLEETS**

1. Require the retrofitting of generator units of hospitals
   - Initiative Status: In Progress
   - Milestone: DCAS has ordered 35 fuel trucks. The pilot inspection unit has arrived and arrival of all units is expected by the end of 2015. DCAS is currently finalizing workshops for hospitals to train on use of these trucks.

2. Support the NYC Health and Hospitals Corporation effort to protect public hospital emergency departments (EDs) from flooding
   - Initiative Status: In Progress
   - Milestone: Amend Construction Codes

3. Support the Department of Buildings’ Public Service Infrastructure Mitigation Grant program
   - Initiative Status: In Progress
   - Milestone: The City, through HHC, has secured nearly $1.7 billion in recovery and resiliency funding from FEMA to protect Bellevue, Metropolitan, Cook, and Cony Island Hospitals. Design for these projects will begin in 2015.

4. Support the construction of new nursing homes and adult care facilities
   - Initiative Status: Completed
   - Milestone: The City has enacted several local laws to improve the design and construction of new nursing homes and adult care facilities in the floodplain.

5. Require the retrofitting of generator units of hospitals
   - Initiative Status: In Progress
   - Milestone: Amend Construction Codes

**COMMUNITY PREPAREDNESS**

**TELECOMMUNICATIONS**

**INCREASE ACCOUNTABILITY TO PROMOTE RESILIENCE**

1. Establish an office within DoITT to focus on telecommunications regulation and resiliency planning
   - Initiative Status: In Progress
   - Milestone: This office has been established at DoITT.

2. Establish new resiliency requirements for providers using scheduled renewals of the City’s franchise agreements
   - Initiative Status: In Progress
   - Milestone: The City has begun to review existing franchise agreements and amended planning for framework of new resiliency requirements. A new public communications structure (PCS) franchise included resiliency and disaster recovery requirements. DoITT is developing a framework of new resiliency requirements for franchise renewals and continuing to explore opportunities for incorporating resiliency and disaster recovery requirements in new franchises and contracts.

3. Request business continuity plans from current City franchises as permitted under existing franchise agreements
   - Initiative Status: In Progress
   - Milestone: Business continuity plans have been requested and obtained. Planning for annual follow-up meetings with franchises is underway. Regular meetings with franchises are ongoing.

4. Develop flood protection standards for placement of telecommunications equipment in buildings
   - Initiative Status: In Progress
   - Milestone: The City has enacted several local laws to improve the design and construction of telecommunications infrastructure in buildings.

5. Use the DoITT Franchise agreements to ensure hardening of all critical facilities
   - Initiative Status: In Progress
   - Milestone: The City has begun to review franchisee’s hardening measures and plans for critical facilities, which includes site visits. Audit critical facilities and provide guidance for hardening.

6. Work with cell providers to encourage hardening of cell sites
   - Initiative Status: In Progress
   - Milestone: The City conducts regular meetings with cell providers. Discussions of carriers’ plans and efforts for hardening cell sites are ongoing. DoITT will continue to encourage carriers to continue undertake hardening measures at cell sites and to assist in clearing any barriers to implementation within the City.
CREATE REDUNDANCY TO REDUCE RISK OF OUTAGES

TELECOMMUNICATIONS

8 Continue implementation of ConnextNYC

9 Add telecommunications provider quality and resiliency to the WeBnYCd and NYC Broadband Map ratings

PROTECT ASSETS TO MAINTAIN SYSTEM OPERATIONS

1 Reconstruct and realign key streets damaged by Sandy

2 Integrate climate resiliency features into future capital projects

3 Elevate traffic signals and provide backup-electrical power

4 Protect NYC DOT tunnels in Lower Manhattan from flooding

5 Install watertight barriers to protect movable bridge machinery

6 Protect Staten Island Ferry and private ferry terminals from climate change-related threats

7 Integrate resiliency into planning and project development

8 Call on non-City agencies to implement strategies to address climate change threats

PREPARE THE TRANSPORTATION SYSTEM TO RESTORE SERVICE AFTER EXTREME CLIMATE EVENTS

10 Identify critical transportation network elements and improve transportation responses to major events through regular resiliency planning exercises

11 Develop standard plans for implementing High-Dissipancy Vehicle (HDV) requirements

12 Plan for and install new pedestrian and bicycle facilities to improve connectivity to key transportation hubs

13 Construct new ferry landings to support private ferry services

14 Deploy the Staten Island Ferry’s Außen Class vessels on the East River Ferry and during transportation disruptions

15 Improve at all levels communications about the restoration of transportation services

IMPLEMENT NEW AND EXPANDED SERVICES TO INCREASE SYSTEM FLEXIBILITY AND RESILIENCE

16 Expand the city’s Select Bus Service network

17 Expand the network of bus priority strategies on arterial highways

18 Expand ferry services in locations critical to service

Chapter 6
Chapter 7
Chapter 8
### ADAPT PARKS AND EXPAND GREEN INFRASTRUCTURE TO SHIELD ADJACENT COMMUNITIES FROM THE IMPACTS OF EXTREME WEATHER EVENTS

<table>
<thead>
<tr>
<th>Initiative No.</th>
<th>Initiative</th>
<th>Status</th>
<th>Initiative Status Description</th>
<th>2014 Milestones</th>
<th>Milestone Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Restore city beaches</td>
<td>In Progress</td>
<td>All City beaches were opened to the public in time for the 2013 summer season and included new comfort stations to replace those damaged by Sandy. DPR continues to improve recreational opportunities and amenities at city beaches, including reconstruction of damaged boardwalks.</td>
<td>Engage community and begin design options</td>
<td>Completed</td>
</tr>
<tr>
<td>2</td>
<td>Harden or otherwise modify shorelines, parks and adjacent roadways to protect adjacent community (Coastal Protection Initiative 20)</td>
<td>In Progress</td>
<td>DPR, working with NYCDCC, has launched a new waterfront inspection program and is developing design guidelines for the flood zone to better enable parks to serve as a buffer for adjacent areas.</td>
<td>Complete preliminary design investigation for pilot</td>
<td>Partially Completed</td>
</tr>
<tr>
<td>3</td>
<td>Reinforce or redesign bulkheads in coastal parks (Coastal Protection Initiative 6; see Coastal Protection Initiative 20)</td>
<td>In Progress</td>
<td>DPR, working with NYCDCC, has launched a new waterfront inspection program and will use the results of those inspections to better manage its waterfront assets.</td>
<td>Impact damage to bulkheads and develop plan</td>
<td>Completed</td>
</tr>
<tr>
<td>4</td>
<td>Expand the City’s green streets plan, including for Jamaica Bay</td>
<td>In Progress</td>
<td>The City, through DPR, and in partnership with CR, secured a NPB grant awarded to DPR for green infrastructure in Brighton Beach, issued RFP for engineering services.</td>
<td>Expand program to areas around Jamaica Bay</td>
<td>Completed</td>
</tr>
</tbody>
</table>

### RETROFIT OR HARDEN PARK FACILITIES TO WITHSTAND THE IMPACTS OF CLIMATE CHANGE

<table>
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<tr>
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</thead>
<tbody>
<tr>
<td>5</td>
<td>Fortify marinas and piers</td>
<td>In Progress</td>
<td>The City, through DPR, has secured FISAA funds to upgrade and fortify the 76th Street Boat Basin, Willoughby’s Marina, Sheepshead Bay Piers, Bay Ridge Marina, Lamon Creek, Hammonds Cove, and Paerdegat Basin marinas.</td>
<td>Complete preliminary design investigation</td>
<td>Completed</td>
</tr>
<tr>
<td>6</td>
<td>Relocate or increase the resiliency of playgrounds and athletic fields</td>
<td>In Progress</td>
<td>The City, through DPR, continues to assess and upgrade playgrounds and athletic fields in all neighborhoods for increased resiliency. These include Tiffany Street Field, Brighton Park, Linwood Baseball Field, Red Hook Baseball Field, Fort Washington, Mccrull Field, Rockaway Beach Hockey Rink, Sandpipers Playground, New Dorp Soccer Field, Manresa Field, Kaiser Park, and the Ocean Breeze Fishing Area.</td>
<td>Complete preliminary design investigation</td>
<td>Completed</td>
</tr>
<tr>
<td>7</td>
<td>Protect mechanical systems at major park facilities and buildings</td>
<td>In Progress</td>
<td>The City, through DPR, will begin design in 2015 at Tony DePietro Recreation Center and in 2015 will complete design for the Alice Levy Recreation Center boathouse. As funding is made available, DPR will continue to assess and upgrade its facilities.</td>
<td>Complete preliminary design investigation</td>
<td>Completed</td>
</tr>
<tr>
<td>8</td>
<td>Move or protect critical operations centers</td>
<td>In Progress</td>
<td>At the Olmsted Center, DPR has completed procurement and begun construction of flood mitigation measures, including the incorporation of berms, stormwater detention areas, a flood gate, flood vents, concrete wall panels, tide gates, and elevation of the Annex.</td>
<td>Begin to construct protective measures</td>
<td>Completed</td>
</tr>
</tbody>
</table>

### PROTECT WETLANDS, OTHER NATURAL AREAS, AND THE URBAN FOREST

<table>
<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>9</td>
<td>Work with the Federal government to transform Jamaica Bay</td>
<td>In Progress</td>
<td>The City continues to work with its Federal government partners and outside institutions to improve and transform Jamaica Bay. The General Management Plan was completed with a Record of Decision in Summer 2014. The Science and Resilience Institute at Jamaica Bay is developing a research and policy agenda and recently hired an executive director to lead the scientific work in Jamaica Bay.</td>
<td>Continue to advance partnerships and launch transformation</td>
<td>Completed</td>
</tr>
<tr>
<td>10</td>
<td>Increase the health and resiliency of the Bronx River, including Tibbetts Brook</td>
<td>In Progress</td>
<td>The City, through DPR in partnership with CR, secured a NPB grant to develop Tibbetts Brook. DPR will issue an RFP for designing Tibbetts Brook in 2015. Additionally, a final draft of the May Creek Watershed Plan was completed. A Bronx River fish passage was constructed and the first phase of a pilot stormwater capture program was completed at Shoelace Park.</td>
<td>Launch projects in May Creek and Bronx River watersheds and tidal wetlands in Staten Island, Bruckner, and Going.</td>
<td>Completed</td>
</tr>
</tbody>
</table>

### DEVELOP TOOLS FOR COMPREHENSIVE CLIMATE ADAPTATION PLANNING AND DESIGN

<table>
<thead>
<tr>
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<th>Milestone Status</th>
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<tbody>
<tr>
<td>11</td>
<td>Improve the health and resiliency of the city’s urban forest</td>
<td>Completed</td>
<td>The City, through DPR, has hired 20 foresters to improve the health and resiliency of the city’s urban forest. Tree Trust, through the City Parks Foundation, has expanded several hundred trees citywide this year. DPR will continue to increase pruning capacity and operations and expand tree beds.</td>
<td>Hire and train 10 foresters</td>
<td>Completed</td>
</tr>
<tr>
<td>12</td>
<td>Increase growth of local plant material for restoration work</td>
<td>Completed</td>
<td>Production of beachgrass at Floyd Bennett Field has been completed for 2014. The grass was harvested at the end of 2014 and will be made available for sale at pasture plants. The production field will be replanted for the next growing season.</td>
<td>Launch improvements to Greenbelt Native Plants Center</td>
<td>Completed</td>
</tr>
<tr>
<td>13</td>
<td>Establish a center for resiliency and restoration efforts in the Jamaica Bay–Rockaways Park</td>
<td>Completed</td>
<td>The Science and Resilience Institute at Jamaica Bay launched in 2013 with a scientific consortium led by CUNY. In 2014, the Institute played a key role in the City’s efforts to work with the USACE in Jamaica Bay. The Institute’s first executive director was hired in 2014.</td>
<td>Launch initial operations of center</td>
<td>Completed</td>
</tr>
<tr>
<td>14</td>
<td>Quantify the benefits of the city’s ecocapacity and green infrastructure</td>
<td>In Progress</td>
<td>The City, through DPR, continued its work to quantify the benefits of green infrastructure, including stormwater retention, infiltration and sewer flow, evapotranspiration, and pollutant removal.</td>
<td>Commission studies on the impact of the city’s green infrastructure programs</td>
<td>Completed</td>
</tr>
<tr>
<td>15</td>
<td>Create climate adaptation plans for all parks in the 100-year floodplain</td>
<td>In Progress</td>
<td>The City, through DPR, has mapped parks in the 100-year floodplain and continues to implement improvements based on its high-future landscape guidelines, which are currently being revised.</td>
<td>Map and catalogue vulnerable sites</td>
<td>Completed</td>
</tr>
<tr>
<td>16</td>
<td>Map the city’s overhead utilities and street trees</td>
<td>In Progress</td>
<td>The City, through DPR, has mapped its street trees and will work with ConEd to look toward working with ConEd to complete the necessary analysis.</td>
<td>Launch mapping effort</td>
<td>Completed</td>
</tr>
</tbody>
</table>

### PROTECT SITES WITH HAZARDOUS SUBSTANCES AND ENCOURAGE BROWNFIELD REDEVELOPMENT

<table>
<thead>
<tr>
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<th>Milestone Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Identify cost-effective measures to safeguard exposed substances in the 100-year floodplain</td>
<td>Completed</td>
<td>The City’s Open Industrial Uses study was completed in 2014, identifying measures that can be undertaken to safeguard open industrial uses, including those in the floodplain.</td>
<td>Complete Open Industrial Uses study</td>
<td>Completed</td>
</tr>
<tr>
<td>2</td>
<td>Develop a catalogue of best practices for storing enclosed hazardous substances in the 100-year floodplain</td>
<td>In Progress</td>
<td>Building on the results of the Open Industrial Uses Study, the City, through OER has launched a study to evaluate measures to improve resiliency in industrial zones. The study is expected to be completed in 2016.</td>
<td>Begin process of developing best practices</td>
<td>Completed</td>
</tr>
<tr>
<td>3</td>
<td>Accelerate brownfield cleanup in the 100-year floodplain to prevent release of pollutants</td>
<td>Completed</td>
<td>To accelerate cleanup of flood-prone areas, OER expanded the NYC Brownfield Incentive Grant program to establish a new Climate Change Resilience Bonus Cleanup Grant fund with funding from the New York State Regional Economic Development Council and city sources, to provide up to $10,000 in bonus grants for cleanups in the NYC Voluntary Brownfield Cleanup Program in the 100-year floodplain.</td>
<td>Launch expansion of existing Brownfield Incentive Grant program</td>
<td>Completed</td>
</tr>
<tr>
<td>4</td>
<td>Explore strengthened cleanup standards on industrial waterfront brownfields</td>
<td>Completed</td>
<td>OER established new regulations to strengthen standards for cleanup of waterfront industrial properties. The impact of future storms on communities in coastal industrial areas will be lessened by reducing the level of contaminants that can be left on waterfront brownfield sites, especially environmental justice neighborhoods that are already greatly overburdened by pollution.</td>
<td>Examine existing cleanup standards and evaluate how to strengthen protections</td>
<td>Completed</td>
</tr>
<tr>
<td>5</td>
<td>Launch brownfield climate change resiliency audits and improve storm preparedness</td>
<td>Completed</td>
<td>OER is now performing resiliency surveys at no charge for developers of brownfield sites in the Brownfield Cleanup Program. These surveys educate developers on the most protective building design practices to lower vulnerability to seawater storms and other effects of climate change and on incentives to achieve these goals. After completing approximately 20 surveys, OER will publish a report on findings and best management practices to educate the broader development community.</td>
<td>Begin audits of brownfield cleanup and publish report findings</td>
<td>Completed</td>
</tr>
<tr>
<td>Initiative No.</td>
<td>Initiative Description</td>
<td>Status</td>
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</tr>
<tr>
<td>1</td>
<td>Adopt a wastewater facility design standard for storm surge and sea level rise</td>
<td>Completed</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Harden pumping stations</td>
<td>In Progress</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Harden wastewater treatment plants</td>
<td>In Progress</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Explore alternatives for the Rockaway Wastewater Treatment Plant</td>
<td>In Progress</td>
<td></td>
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</tr>
<tr>
<td>5</td>
<td>Develop cogeneration facilities at North River Wastewater Treatment Plant</td>
<td>In Progress</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>6</td>
<td>Explore opportunities to expand cogeneration and other energy measures</td>
<td>In Progress</td>
<td></td>
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</tr>
<tr>
<td>7</td>
<td>Encourage regional resiliency planning</td>
<td>In Progress</td>
<td></td>
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</tr>
<tr>
<td>8</td>
<td>Reduce combined sewer overflows with Green Infrastructure</td>
<td>In Progress</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Reduce combined sewer overflows with high-level storm sewers citywide</td>
<td>In Progress</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Continue to implement and accelerate investments in Bluebelts across the city</td>
<td>In Progress</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>Build out stormwater sewers in areas of Queens with limited drainage systems</td>
<td>In Progress</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>Periodically review rainfall trends and implications for stormwater infrastructure</td>
<td>Completed</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>Repair the leak in the Delaware Aqueduct</td>
<td>In Progress</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>Improve interconnection between the Catskill and Delaware aqueducts and maximize capacity to deliver water from the Catskill-Delaware system using Delaware Aqueduct</td>
<td>In Progress</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>Continue the Watershed Protection Program to maintain drinking water quality</td>
<td>In Progress</td>
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</tbody>
</table>

**Chapter Initiative: Protect Wastewater Treatment Facilities from Storm Surge**

- **1.** Adopt a wastewater facility design standard for storm surge and sea level rise. DEP will continue to implement these guidelines in new capital projects.
- **2.** Harden pumping stations.
- **3.** Harden wastewater treatment plants.
- **4.** Explore alternatives for the Rockaway Wastewater Treatment Plant.
- **5.** Develop cogeneration facilities at North River Wastewater Treatment Plant.
- **6.** Explore opportunities to expand cogeneration and other energy measures.
- **7.** Encourage regional resiliency planning.

**Chapter Initiative: Improve and Expand Drainage Infrastructure**

- **8.** Reduce combined sewer overflows with Green Infrastructure.
- **9.** Reduce combined sewer overflows with high-level storm sewers citywide.
- **10.** Continue to implement and accelerate investments in Bluebelts across the city.
- **11.** Build out stormwater sewers in areas of Queens with limited drainage systems.
- **12.** Periodically review rainfall trends and implications for stormwater infrastructure.
- **13.** Repair the leak in the Delaware Aqueduct.
- **14.** Improve interconnection between the Catskill and Delaware aqueducts and maximize capacity to deliver water from the Catskill-Delaware system.

**Chapter Initiative: Promote Redundancy and Flexibility to Ensure Constant Supply of High-Quality Water**

- **15.** Continue the Watershed Protection Program to maintain drinking water quality.
FOOD SUPPLY

IDENTIFY AND HARMONIZE CRITICAL FOOD DISTRIBUTION ASSETS

1 Study the food distribution system to identify other prospective vulnerabilities
   In Progress The City is in the process of procuring a consultant to assist in a food system resiliency study. This study is expected to be completed in 2016.
   Launch study Completed

2 Expand upon prior energy studies, to explore options for cost-effective, continuous power for the Hunts Point Food Distribution Center
   In Progress The study has been completed and will inform ongoing energy resiliency work in Hunts Point.
   Expand current study Completed

IMPROVE THE RESILIENCY OF CONSUMER ACCESS

3 Call on New York State to issue preparedness guidelines to retailers in anticipation of extreme weather events
   Completed The City, in cooperation with the State, has drafted and released preparedness guidelines.
   Disseminate State-based preparedness guidelines Completed

4 Call on the State legislature to pass City-sponsored legislation mandating electric generators for food retailers
   In Progress Legislation was introduced and has stalled at the State level. DEP will explore other options.
   Advance legislation Completed

5 Continue to support the FRESH program to increase the number of full line grocers in underserved neighborhoods
   In Progress The City continues to advance the FRESH program. Additional FRESH stores seeking benefits for new construction, expansion and renovation have received approval and authorization. FRESH continues to pursue the most underserved neighborhoods throughout the city.
   Pursue FRESH programs in Sandy-impacted neighborhoods Completed

6 Implement procedures to quickly procure food in large-scale power outages
   Completed SCAS has registered a contract with Greater Environmental Services effective July 1, 2014 which provides for emergency procurement and delivery of meals ready to eat, other food products, and mass feeding service in response to emergency conditions.
   Begin expansion of suppliers Completed

7 Implement procedures to quickly procure food in large-scale power outages
   Completed This initiative is completed. Waivers for immediate submission have been completed.
   Prepare waiver for immediate submission if necessary Completed

PROTECT SOLID WASTE FACILITIES AND DISPOSAL NETWORKS

1 Harden critical City-owned facilities
   In Progress In 2014, DSNY completed flood mitigation assessments of six major facilities – the Manhattan borough repair shop, the Manhattan district 5 garage on Pier 36, a DSNY-owned office building at 44 Beaver Street, the Brooklyn 11 district garage, the DSNY general supply warehouse in Greenpoint and the Breez 12 district garage. As a result of these assessments, DSNY has developed mitigation project proposals that will be included in future facility capital upgrades. DSNY will continue to incorporate resiliency measures in repairs and capital projects as appropriate.
   Incorporate resiliency measures in repairs and capital projects Completed

2 Work with third-party owners to protect critical assets and networks
   In Progress All long-term refuse and recycling vendors have taken steps to reduce vulnerability to coastal flooding. In addition, DSNY has identified and catalogued potential system vulnerabilities, including those in the region’s transportation network, that could pose a threat to the City’s solid waste management system and developed contingency plans to operate in the case of an emergency.
   Develop an inventory of critical system vulnerabilities and catalogue known risks Completed

SOLID WASTE

COASTAL PROTECTION

1 Work with the Port Authority to continue a study of innovative coastal protection measures using clean dredge material in Southeast Brooklyn
   In Progress The City continues to work with the Port Authority on coastal protection measures in Red Hook, as part of the City’s efforts to implement an integrated food protection system.
   Complete study and launch pilot measures Partially Completed

2 Call on and work with the USACE to develop an implementation plan and preliminary designs for a local storm surge barrier along the Gowanus Canal
   In Progress The City has launched a feasibility study for a Gowanus Canal local storm surge barrier.
   Complete preliminary feasibility study and design and launch USACE study Partially Completed

3 Implement strategies to protect Brooklyn Bridge Park and DUMBO
   In Progress Construction of the John Street section of the Park is nearing completion. A developer has been designated and construction of the development site is expected to be completed in 2016.
   Beginning construction of the park; designate developer for John St. lower site; complete study of DUMBO resiliency measures Partially Completed

4 Support private investments that reduce flood risks along Newtown Creek
   In Progress The City expects to serve businesses along Newtown Creek through its new Business PREP program, which will launch in 2015.
   Advertise support to businesses; provide technical assistance Partially Completed

5 Create an implementation plan for comprehensive flood protection improvements on public and private property along the Williamsburg, Gowanus, and Long Island City coastlines
   In Progress The City will continue to work with the USACE to advance projects in vulnerable locations citywide, including the Williamsburg, Gowanus, and Long Island City coastlines. At new waterfront development occurs, the City looks to leverage opportunities created by new construction to advance flood protection.
   Commence study Completed

BUILDINGS

6 Implement planned upgrades to vulnerable City-owned, industrial properties
   In Progress The City is implementing upgrades to City-owned industrial properties including electrical equipment elevation at Brooklyn Army Terminal and Bush Terminal.
   Commence property upgrades and substantially complete Completed

CRITICAL INFRASTRUCTURE

7 Improve connections between Red Hook and the rest of Brooklyn
   Completed DOT has completed work at this location to allow a better flow of pedestrian traffic and public transit at this location. Enhancements to Mil Street connection and BQE underpass are complete.
   Complete enhancements to Mil Street connection and BQE underpass Completed

8 Call for the MTA to explore Red Hook-Queens (B) and BQE bus connections
   In Progress The City will launch a new Citywide Ferry Service that will include Red Hook. Service will launch in 2017.
   Complete assessment Partially Completed

9 Implement expanded free summer weekday ferry service from Manhattan to Red Hook in 2013
   Completed The City will launch a new Citywide Ferry Service that will include Red Hook. Service will launch in 2017.
   Complete summer 2013 service and evaluate results Completed
Chapter Initiative Initiative Status Initiative Status Description 2014 Milestone Milestone Status

BROOKLYN-QUEENS EAST AND SOUTH SHORES OF STATEN ISLAND

COMMUNITY AND ECONOMIC RECOVERY

10 Create and implement a revitalization strategy for improved retail and community spaces within Red Hook Houses
Not Started The City continues to pursue funding to begin this work. Complete assessment Not Completed

11 Implement planned and ongoing investments by the City and private partners
In Progress The City continues to implement investments to increase resiliency along the Brooklyn-Queens Waterfront. Complete first phase of Bush Terminal Park Completed

COASTAL PROTECTION

1 Call on and work with the USACE to study the construction of a floodgate at Mill Creek
In Progress The City will continue to work with the USACE on its South Shore phase 2 feasibility study and possibly through its CAP program to advance projects in vulnerable locations along the South Shore, including at Mill Creek. Commence study Completed

BUILDINGS

2 Assist Staten Island University Hospital (SIUH) in applying for hazard mitigation funding
Completed The City committed $28 million to both SIUH campuses to upgrade the facilities against future climate risks. Prior to this, the City provided technical assistance to SIUH in submitting their HMGP grant application to the State for HMGP funding, resulting in a State award of $12M in HMGP funding to protect critical infrastructure at the North Campus. Provide technical support to SIUH Completed

CRITICAL INFRASTRUCTURE

3 Implement and expedite critical infrastructure projects in the South Shore areas
In Progress NYCDEP is currently working on 13 street reconstruction projects in the South Shore areas. Commence sewer enhancement and paving projects; complete interaction improvements Partly Completed

4 Call on and work with the MTA to create an implementation plan for the relocation of Richmond Valley SIR station to Page Avenue
In Progress The City has called on the MTA to secure funding for this study. Commence relocation feasibility study Not Completed

COMMUNITY AND ECONOMIC RECOVERY

5 Study potential new ferry routes serving Staten Island and issue a Request for Expressions of Interest (RFI) to gauge market interest
In Progress NYCEDC is working to lease City-owned land adjacent to the planned New York Wheel and Empire Outlets development for a ferry landing to serve smaller vessels coming from various locations across the harbor. In addition, further expansion to Stapleton could constitute a second phase of expansion in the recently announced Citywide Ferry Service, subject to the availability of additional funding. Ferry Service to all boroughs was examined in NYCEDC’s Comprehensive Citywide Ferry Study. Commence Comprehensive Citywide Ferry Study Completed

6 Secure available Federal funding to implement the Community Wildfire Protection Plan for the-prone areas on the East Shore
In Progress The City, through DPR, continues to seek funds for this initiative. Apply for relevant funding Completed

7 Launch the first capital project for the Mid-Island Bluebelt in Midland Beach
In Progress Construction of the first capital project for the Mid-Island Bluebelt in Midland Beach is expected to start in 2015. Finalize Environmental Impact Statement; obtain all necessary permits; begin property acquisition

8 Explore expansion of the City’s mitigation banking pilot as a funding mechanism to facilitate the construction of the Mid-Island and South Shore Bluebells
Not Started Upon successful demonstration of the Saw Mill Creek mitigation banking pilot, the City will explore expanding mitigation banks to other locations citywide. Develop pilot mitigation banking structure Completed

EAST AND SOUTH SHORES OF STATEN ISLAND

9 Issue a Request for Expressions of Interest (RFI) for new concessions and services at City-controlled beaches in the East Shore
Completed An RRFI for concessions on City-controlled beachfront leased in 2014 yielded several activations over the summer including: Staten Island Beach; 7 weekends of programming and activations at Midland Beach; and, Fantasy Shore Amusement Park at Midland Beach and the Sunset Festival. Issue RRFI; activate subject to RRFI response Completed

10 Create a comprehensive revitalization plan for Great Kills Harbor to increase resiliency and to access additional investment
In Progress The City submitted an application to NFWF for this project but was not awarded funding. The City will continue to identify possible funding alternatives for this initiative. Complete plan Not Completed

11 Create a strategic plan for public recreational land, including the beachfront recreation areas and open space
In Progress As part of a strategic East Shore planning exercise, DPR anticipates leading a conceptual recreation planning process for the East Shore of Staten Island in 2015. Complete plan Not Completed

12 Implement planned and ongoing investments by the City and private partners
In Progress Ocean Breeze construction is ongoing. The New Stapleton Waterfront construction commenced in early 2014 and is on schedule for 2016 completion. A Brielle Avenue developer was selected and is a preparing ULURP application. Complete Ocean Breeze track and field athletic complex; select respondent for Brielle Avenue municipal site Partially Completed

SOUTH QUEENS

1 Call for USACE to develop an implementation plan to mitigate inundation risks through Rockaway Inlet, exploring a surge barrier and alternative measures
In Progress The City continues to work with the USACE through the Rockaway Reformulation study to evaluate a Rockaway Inlet storm surge barrier that would reduce risk, as part of a comprehensive strategy, in all vulnerable neighborhoods surrounding Jamaica Bay. Launch study Completed

2 Develop an implementation plan to address frequent tidal inundation in Broad Channel and Hamilton Beach, incorporating international best practices
In Progress The City continues to evaluate resiliency options in Broad Channel through CEP’s Resilient Neighborhoods study. Complete study Partially Completed
Chapter Initiative Initiative Description Initiative Status 2014 Milestone Status

3 Complete short-term dune improvements on the Rockaway Peninsula In Progress Short-term dune improvements were completed in 2014. The City continues to work with the USACE on the Rockaway Resiliency Study. Implementation options range from planting dunes to rock-based structures on the beachfront and in Jamaica Bay. The City is currently evaluating, with final selection of preferred alternatives expected in 2015. Complete dune improvements Completed

4 Develop a commercial revitalization strategy for Far Rockaway In Progress The City continues to work with the USACE on the Rockaway Resiliency Study. Implementation options range from planting dunes to rock-based structures on the beachfront and in Jamaica Bay. The City is currently evaluating, with final selection of preferred alternatives expected in 2015. Complete dune improvements Completed

5 Complete design competition to enhance resiliency of planned Arverne East Project Completed The winners of the Arverne East resiliency enhancement design competition were announced in October 2013 and the City is working with the developer and winning team to pursue implementation. Complete competition and announcement of winning submission Completed

6 Complete a comprehensive strategy for the Rockaway Peninsula Completed The City will launch a new Citywide Ferry Service that will connect the Rockaways, the Rockaways, South Brooklyn, Soundview and the Lower East Side. Service will launch in 2017. Complete strategy Completed

7 Develop a multi-specialty ambulatory surgical center on the Rockaway Peninsula Completed NYCEDC sold the Rockaway Courthouse to a private developer in March 2015. The site will be redeveloped and reopened as a medical center, providing new health care services to the Rockaways. Partially Completed

8 Optimize Parks and Recreation opportunities throughout the Rockaways. Partially Completed The City continues to implement investments to increase community engagement in Rockaway Parks. Partially Completed

9 Support CUNY launch of Israel facility Completed HHC is building a temporary clinic on an HPD site near the former Ida G. Israel facility. The site will be renovated and reopened as a medical center, providing new health care services to the Rockaways. Partially Completed

10 Develop a comprehensive strategy for the Rockaway Peninsula Completed The City continues to work with the USACE on the Rockaway Resiliency Study. Implementation options range from planting dunes to rock-based structures on the beachfront and in Jamaica Bay. The City is currently evaluating, with final selection of preferred alternatives expected in 2015. Complete plan Partially Completed

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CRITICAL INFRASTRUCTURE

5 Build a new multi-specialty ambulatory surgical center on the Rockaway Peninsula In Progress NYCEDC sold the Rockaway Courthouse to a private developer in March 2015. The site will be redeveloped and reopened as a medical center, providing new health care services to the Rockaways. Partially Completed

6 Expand ferry service to the Rockaway Peninsula In Progress The City will launch a new Citywide Ferry Service that will connect the Rockaways, South Brooklyn, Soundview and the Lower East Side. Service will launch in 2017. Complete strategy Completed

7 Support CUNY launch of Israel facility Completed HHC is building a temporary clinic on an HPD site near the former Ida G. Israel facility. The site will be renovated and reopened as a medical center, providing new health care services to the Rockaways. Partially Completed

8 Optimize Parks and Recreation opportunities throughout the Rockaways. Completed The City continues to implement investments to increase community engagement in Rockaway Parks. Partially Completed

COMMUNITY AND ECONOMIC RECOVERY

7 Get New Yorkers "Back to the Beach" for summer 2013 Completed All City beaches were opened to the public in time for the 2013 season and included new comfort stations to replace those damaged by Sandy. DPR continues to improve recreational opportunities and amenities at city beaches. Complete strategy Completed

8 Explore opportunities for long-term activation of the beachfront Completed The City continues to implement investments to increase community engagement in Rockaway Parks. Partially Completed

9 Develop a commercial revitalization strategy for the Beach 108th Street corridor Completed The City continues to foster the revitalization of the Rockaway Peninsula through investments such as the upcoming launch of Citywide Ferry Service as well as pursuing funding opportunities, jointly with the State, for targeted infrastructure and resiliency improvements in key commercial corridors throughout the Rockaways, including Beach 108th Street, Beach 118th Street, Mott Avenue, and surrounding business districts. Complete strategy Partially Completed

10 Develop a comprehensive strategy for the Rockaway Peninsula Completed The City continues to work with the USACE on the Rockaway Resiliency Study. Implementation options range from planting dunes to rock-based structures on the beachfront and in Jamaica Bay. The City is currently evaluating, with final selection of preferred alternatives expected in 2015. Complete plan Partially Completed

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12 Launch a satellite Workforce1 Career Center in Far Rockaway Completed A Workforce1 Career Center satellite launched in Far Rockaway in August 2013. SBS released an RFP for the Far Rockaway Economic Development Initiative in 2014. In addition, SBS, in collaboration with NYCHA, CEO, and CHI Community Development, is also launching a $1.1 million investment to expand place-based economic empowerment and mobility and connect Far Rockaway residents to high-quality, full-time employment. Complete and open Center Completed

13 Implement planned and ongoing investments by the City and private partners In Progress This City to continue to implement investments to improve resiliency in South Queens. Complete strategy Completed

COASTAL PROTECTION

1 Call on and work with the USACE to study additional Sea Gate cofferdam protections In Progress The City will continue to work with the USACE on its NY Harbor study to advance projects in vulnerable locations citywide, including Sea Gate. FEMA funding. Complete and open Center Completed

2 Study options to ensure Beach 108th Street oceanfront protections In Progress The City will continue to work with the USACE on its NY Harbor study to advance projects in vulnerable locations citywide, including Cayne Island and Brighton Beach. Partially Completed

3 Study options to ensure Beach 108th Street oceanfront protections In Progress The City will continue to work with the USACE on its NY Harbor study to advance projects in vulnerable locations citywide, including Sea Gate. Bulkheads will be improved in Sea Gate and the City will work with the USACE to advance projects in vulnerable locations citywide, including Sea Gate. Bulkheads will be improved in Sea Gate

4 Study options to ensure Beach 108th Street oceanfront protections In Progress The City will continue to work with the USACE on its NY Harbor study to advance projects in vulnerable locations citywide, including Sea Gate. Bulkheads will be improved in Sea Gate

SOUTHERN BROOKLYN

8 Study additional resiliency initiatives for ground-floor housing within NYCHA buildings In Progress NYCHA has assessed 1007 ground/first floor apartments in approximately 250 Sandy damaged buildings. Design of dry flood-proofing measures has commenced. NYCHA will continue to develop plans to protect ground/first floor apartments with FEMA funding. Complete outreach process and study Partially Completed

CRITICAL INFRASTRUCTURE

7 Support CUNY launch of study and pilot of new technologies for high-rise buildings Not Started The City will support CUNY in its efforts. CUNY to identify site and launch study and pilot Not Started

8 Study options to ensure Beach 108th Street oceanfront protections in the area Not Started The City will continue to pursue future resiliency opportunities and work to secure funding for any necessary studies. Launch study Not Started

9 Construct new Coney Island Hospital outpatient clinic to replace the destroyed Ida G. Israel facility Not Started The City will continue to pursue future resiliency opportunities and work to secure funding for any necessary studies. Launch study Not Started

10 Develop a comprehensive strategy for the Rockaway Peninsula Not Started The City continues to work with the USACE on the Rockaway Resiliency Study. Implementation options range from planting dunes to rock-based structures on the beachfront and in Jamaica Bay. The City is currently evaluating, with final selection of preferred alternatives expected in 2015. Complete and open Center Completed

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SOUTH QUEENS

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SOUTHERN BROOKLYN

8 Study additional resiliency initiatives for ground-floor housing within NYCHA buildings In Progress NYCHA has assessed 1007 ground/first floor apartments in approximately 250 Sandy damaged buildings. Design of dry flood-proofing measures has commenced. NYCHA will continue to develop plans to protect ground/first floor apartments with FEMA funding. Complete outreach process and study Partially Completed

CRITICAL INFRASTRUCTURE

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NYCHA has assessed 1007 ground/first floor apartments in approximately 250 Sandy damaged buildings. Design of dry flood-proofing measures has commenced. NYCHA will continue to develop plans to protect ground/first floor apartments with FEMA funding. Complete outreach process and study Partially Completed
## NAOMI NEW HARBOR

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<tr>
<td>10 Call the USACE to develop an implementation plan for the reinforcement of existing Belt Parkway edge protections</td>
<td>In Progress</td>
<td>The City will continue to work with the USACE to finalize the NY Harbor coastal protection study to enhance projects in vulnerable locations citywide, including along the Belt Parkway.</td>
<td>Partially Completed</td>
</tr>
<tr>
<td>11 Restore recreational infrastructure along Southern Brooklyn Beaches</td>
<td>In Progress</td>
<td>DPR continues to restore recreational infrastructure along Southern Brooklyn beaches.</td>
<td>Partially Completed</td>
</tr>
<tr>
<td>12 Complete planned drainage improvements in Coney Island to mitigate flooding</td>
<td>In Progress</td>
<td>The first capital project in Coney Island is currently in construction. The project includes the installation of a new outerfall at West 15th Street, new storm sewers, replacement of existing sanitary sewers, replacement and upgrading of existing tank and distribution water mains in West 15th Street between Hart Place and Surf Avenue, as well as the replacement of existing storm sewers in a portion of Surf Avenue between Stillwell and West 17th Streets.</td>
<td>Completed</td>
</tr>
<tr>
<td>13 Provide technical assistance to support SeaGate in repairing Sandy-damaged infrastructure</td>
<td>In Progress</td>
<td>The City is in conversations with SeaGate leadership on opportunities to assist its infrastructure repairs and is working actively with the USACE to complete coastal protections in SeaGate. The City will continue to work with SeaGate Association to study private infrastructure and prepare scope for repairs.</td>
<td>Work with SeaGate Association to study private infrastructure and prepare scope for repairs</td>
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### COMMUNITY AND ECONOMIC RECOVERY

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<tr>
<td>14 Work with Brooklyn Chamber of Commerce to assist in organizing Sheepshead Bay Neighborhood Alliance</td>
<td>In Progress</td>
<td>Sheepshead Bay neighborhood was not eligible for AvenuesNY funding, as it is too low to moderate income, thus Brooklyn Alliance did not apply for funding.</td>
<td>Assistance local merchant organizing efforts Not Completed</td>
</tr>
<tr>
<td>15 Support area recovery through the rebuilding and expansion of the entertainment district</td>
<td>In Progress</td>
<td>Coney Island entertainment district had a historic season in 2014, attracting millions of visitors. The new roller coaster—the Thunderbolt—opened in June to great acclaim, and the Aquarium commenced work on their Ocean Wonders expansion project, as planned, and received key approvals from FEMA for major repair efforts for damage from Sandy. Further investments in the Coney Island entertainment district, including new rides and attractions, are planned by private developers and a city. The City will continue to support the Aquarium expansion on the completion of the Ocean Wonders expansion project which is anticipated to be completed in 2016.</td>
<td>Complete phase 5 of amusement area expansion with new roller coaster; commence Aquarium expansion. Partially Completed</td>
</tr>
<tr>
<td>16 Study opportunities along Coney Island Creek to generate economic activity and facilitate resiliency investments</td>
<td>In Progress</td>
<td>The City has a flexibility study for a Coney Island Creek tidal barrier. As part of that study, NYCEDC continues to seek feedback from local stakeholders on related economic development opportunities.</td>
<td>Study of economic development opportunities. Partially Completed</td>
</tr>
<tr>
<td>17 Implement planned and ongoing investments by the City and private partners</td>
<td>In Progress</td>
<td>There have been continued investments over the past year in Coney Island’s recreational and amusement attractions. NYC Parks Department has continued to progress renovations at Coney Island Park. A second phase of the West 86th Street Access Project is under construction, further improving pedestrian connections from the subway station to the Boardwalk via a new place at West 10th Street. Construction will soon commence on the Seaside Park and Community Arts Center project, which will bring new open space and a cultural attraction to a long-neglected waterfront building on the Boardwalk at West 31st Street. The City continues to work with private partners to advance the restoration of the Coney Island’s entertainment district, building on last year’s opening of a state-of-the-art roller coaster and including progress on major efforts such as the expansion of the New York Aquarium.</td>
<td>Complete Coney Island’s Ocean Wonders expansion. Partially Completed</td>
</tr>
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## SOUTHERN BROOKLYN

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<tr>
<td>18 Implement planned and ongoing improvements to the City and private partners</td>
<td>In Progress</td>
<td>The City continues to implement planned investments in Resiliency in Southern Manhattan.</td>
<td>Complete strategy for economic development.</td>
</tr>
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### CRITICAL INFRASTRUCTURE

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<tbody>
<tr>
<td>19 Complete phase 3 of Coney Island's stormwater management system</td>
<td>In Progress</td>
<td>The City completed this feasibility study, demonstrating that the concept of a multipurpose levee was feasible. The City will continue to pursue protection against long-term climate change impacts.</td>
<td>Complete initial feasibility study</td>
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## COASTAL PROTECTION

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<tr>
<td>20 Complete phase 2 of Coney Island’s stormwater management system</td>
<td>In Progress</td>
<td>The City, with support from the State, allocated $6.75 million in additional funds to conduct preliminary design and planning south of Montgomery Street to Battery Park City. In addition, the City allocated $8 million in capital funds for the implementation of the first phase of construction in Battery Park. The City continues to pursue additional funds for further implementation, building on the Federal Flood Design and Planning process.</td>
<td>Commerce design and construction study Completed</td>
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### COMMUNITY AND ECONOMIC RECOVERY

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<tr>
<td>21 Expand existing green infrastructure</td>
<td>In Progress</td>
<td>DOT made several safety improvements to Water Street, including the creation of an expanded pedestrian plaza, and an increase in time allowed for pedestrian street crossing.</td>
<td>Complete temporary improvements and design permanent improvements.</td>
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<tr>
<td>22 Complete phase 1 of Coney Island’s stormwater management system</td>
<td>In Progress</td>
<td>The City completed this feasibility study, demonstrating that the concept of a multipurpose levee was feasible. The City will continue to pursue protection against long-term climate change impacts.</td>
<td>Complete initial feasibility study</td>
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## SOUTHERN MANHATTAN

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<tr>
<td>23 Complete phase 2 of Coney Island’s stormwater management system</td>
<td>In Progress</td>
<td>The City completed this feasibility study, demonstrating that the concept of a multipurpose levee was feasible. The City will continue to pursue protection against long-term climate change impacts.</td>
<td>Complete initial feasibility study</td>
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<tr>
<td>24 Complete phase 3 of Coney Island’s stormwater management system</td>
<td>In Progress</td>
<td>The City completed this feasibility study, demonstrating that the concept of a multipurpose levee was feasible. The City will continue to pursue protection against long-term climate change impacts.</td>
<td>Complete initial feasibility study</td>
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<tr>
<td>25 Complete phase 1 of Coney Island’s stormwater management system</td>
<td>In Progress</td>
<td>The City completed this feasibility study, demonstrating that the concept of a multipurpose levee was feasible. The City will continue to pursue protection against long-term climate change impacts.</td>
<td>Complete initial feasibility study</td>
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### COMMUNITY AND ECONOMIC RECOVERY

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<tr>
<td>26 Complete phase 2 of Coney Island’s stormwater management system</td>
<td>In Progress</td>
<td>The City completed this feasibility study, demonstrating that the concept of a multipurpose levee was feasible. The City will continue to pursue protection against long-term climate change impacts.</td>
<td>Complete initial feasibility study</td>
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</table>
Acknowledgments

OneNYC is the product of the tremendous dedication, hard work, and input from nearly all City offices and agencies, as well as the immense number of community and non-profit organizations, elected officials, experts, academics, and private sector leaders who contributed their time and energy to share their knowledge of the city, helping us shape the innovative strategies and initiatives in OneNYC. We want to thank the exceptionally hardworking and talented team at NYC & Company for all of their assistance. And finally, OneNYC would not have been possible without the help of over 10,000 New Yorkers who voiced their opinions at town hall meetings and online, providing invaluable insights and ideas about our city. OneNYC is for them—and for future generations.

We would especially like to thank the following:

Steering Committee
Anthony Shorris, Chair, First Deputy Mayor
Larain Angeles, First Deputy Director, Office of Management and Budget
Richard Buery, Deputy Mayor for Strategic Policy Initiatives
William Goldstein, Senior Advisor to the Mayor for Recovery, Resiliency, and Infrastructure
Mindy Tarlov, Director, Office of Operations
Carl Weisbrod, Chairman, New York City Planning Commission; Mayor’s Office of Recovery and Resiliency, and Infrastructure

Project Director
Nilda Mesa, Director, Office of Sustainability
OneNYC Team

The incredibly hardworking staffs at the following City offices and agencies:

Office of the First Deputy Mayor, Office of the Deputy Mayor for Health and Human Services, Office of the Deputy Mayor for Housing & Economic Development, Office of the Deputy Mayor for Strategic Policy Initiatives, Administration for Children’s Services, Business Integrity Commission, Center for Economic Opportunity, Civilian Complaint Review Board, Commission on Human Rights, Community Affairs Unit, Department for the Aging, Department of Buildings, Department of City Planning, Department of Citywide Administrative Services, Department of Consumer Affairs, Department of Correction, Department of Cultural Affairs, Department of Design and Construction, Department of Education, Department of Environmental Protection, Department of Finance, Department of Health and Mental Hygiene, Department of Homeless Services, Department of Housing Preservation and Development, Department of Information Technology and Telecommunications, Department of Investigation, Department of Parks and Recreation, Department of Probation, Department of Records and Information Services, Department of Sanitation, Department of Small Business Services, Department of Transportation, Department of Youth and Community Development, Health and Hospitals Corporation, Human Resources Administration, Landmarks Preservation Commission, Law Department, Mayor’s Office for Food Policy, Mayor’s Office for People with Disabilities, Mayor’s Office of Administrative Trials and Hearings, Mayor’s Office of Appointments, Mayor’s Office of Contract Services, Mayor’s Office of Criminal Justice, Mayor’s Office of Environmental Remediation, Mayor’s Office of Housing Recovery Operations, Mayor’s Office of Intergovernmental Affairs, Mayor’s Office of International Affairs, Mayor’s Office of Labor Relations, Mayor’s Office of Management and Budget, Mayor’s Office of Media and Entertainment, Mayor’s Office of Operations, Mayor’s Office of Recovery and Resiliency, Mayor’s Office of Strategic Partnerships, Mayor’s Office of Sustainability, Mayor’s Office of Technology & Innovation, Mayor’s Office of Veteran’s Affairs, Mayor’s Office to Combat Domestic Violence, NYC & Company, NYC DOHMH, NYC Economic Development Corporation, NYC Emergency Management Department, NYC Fire Department, NYC Housing Authority, NYC Housing Development Corporation, NYC Police Department, NYC Service Office, Office of the Chief Medical Examiner, Public Design Commission, Recovery, Resiliency and Infrastructure, School Construction Authority, Taxi and Limousine Commission

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We would like to thank the many City employees who provided the photos for this report.

Endnotes:

The incredibly hardworking staffs at the following City offices and agencies:

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