

# Parks and Public Space





# Together we can

Target high impact projects in neighborhoods underserved by parks

Create destination-level spaces for all types of recreation

Re-imagine the public realm

Promote and protect nature

Ensure the long-term health of parks and public space



Parks range from the simplest form for kids to the most complex form like wetlands that have wildlife and rare species. You have constituencies that can enjoy all of these, and it's right here in our community.

Alex Zablocki // Staten Island



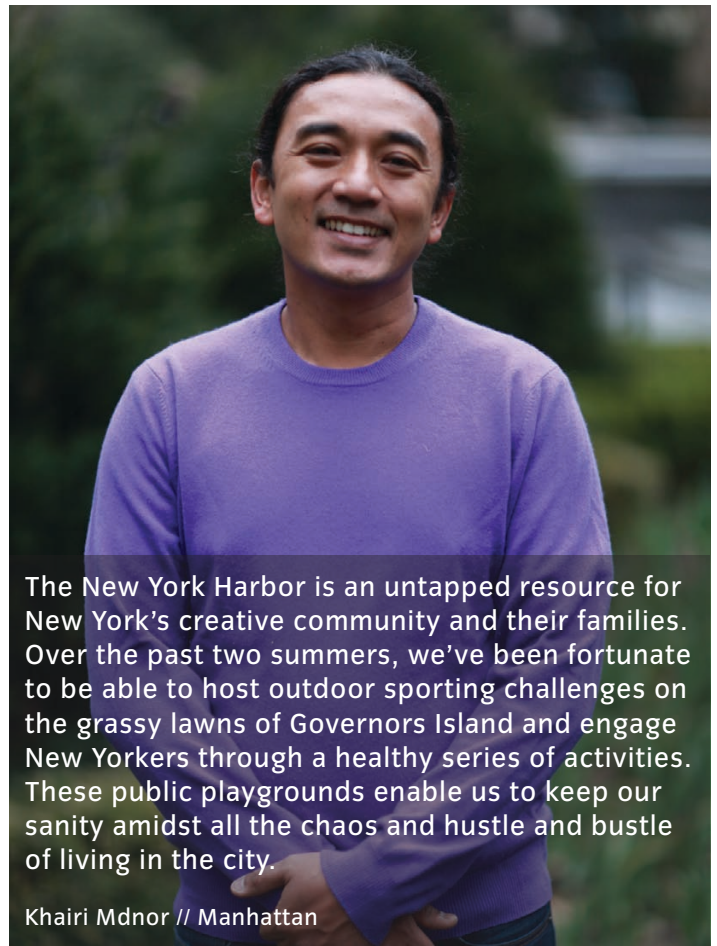
I think the playground [we designed] is great for little kids, teenagers, and senior citizens. I even saw my grandma reading at the playground. That makes me feel very happy to see people enjoying the school's playground.

Samantha Brito // Queens



I felt excited to help in the playground [design]. We are the ones who planned out the whole thing. People love this playground. I can tell by a lot of people coming to the playground.

Seana Edwin // Queens



The New York Harbor is an untapped resource for New York's creative community and their families. Over the past two summers, we've been fortunate to be able to host outdoor sporting challenges on the grassy lawns of Governors Island and engage New Yorkers through a healthy series of activities. These public playgrounds enable us to keep our sanity amidst all the chaos and hustle and bustle of living in the city.

Khairi Mdnor // Manhattan



# Parks and Public Space

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

For generations, parks have been among New York's most cherished forms of public infrastructure. From internationally-renowned flagship parks such as Central and Prospect Parks, to neighborhood playgrounds, to emerging recreational areas on our waterfront, parks provide vital public spaces for New Yorkers. All together, our city boasts more than 52,000 acres of City, state and federal parkland, representing 25% of the city's area.

Parks and public space play indispensable roles in our neighborhoods. They provide places to exercise. They are community forums for formal and informal interactions. They serve important ecological functions. They are also an important catalyst for economic development, raising property values and breathing life into neighborhoods.

Despite parks' importance, over two million New Yorkers still live more than a 10-minute walk from one. And the need for a variety of parks and public space will only become more acute as our population increases. As New Yorkers' recreation interests grow to include cricket pitches and kayak launches, we must also make sure our parks evolve.

To respond to this growing demand for more parks and public space, we have embarked on what has become New York's third great era of park building. The first era began in the second half of the 19th century, when Frederick Law Olmsted and his partner Calvert Vaux designed over 1,900 acres of city parkland including our most iconic open space, Central Park. The second great era began with the appointment of Robert Moses as City Parks Commissioner in 1934. Taking advantage of New Deal funding, he more than doubled park acreage in the city. But in the 1970s, our parks were poorly maintained. Dangerous and unkempt, they lay neglected. In 1981, Mayor Edward Koch started a turnaround with a capital plan to rebuild our system. In the last 10 years, we have accelerated our progress into the third great era of parks transformation,

including the historic investment in parks and public spaces made in 2007, heralded by the launch of PlaNYC.

Because the supply of vacant land and capital budgets are both finite, creating new parks will require creative new strategies. We will continue to reuse unconventional sites such as Concrete Plant Park in the Bronx, where a former industrial concrete mixing plant has been transformed into a striking new waterfront park, or the High Line, which transformed an abandoned elevated freight rail line into one of Manhattan's star attractions.

We must also work to protect the great investment in parks and public spaces that we have made. The long-term health of our parks and public spaces requires continued maintenance, stewardship, and attention.

We have made substantial progress. Since 2007, we have improved access to parks and public space, ensuring more than a quarter million more New Yorkers live within a 10-minute walk of a park. This new wave of construction includes almost 180 Schoolyards to Playgrounds sites and nearly 260 Greenstreets. Construction has begun on four of eight new destination parks. We have planted over 430,000 new trees.

But simply having access to parks is not enough; the type and quality of parks and public space matter as well. To accommodate our diverse open space needs, we have begun to re-imagine what the public space outside of parks can be, as well as design sustainable, high-performance open spaces that have the potential to enhance ecosystems.

## Our Plan

To meet the quality and access needs of all New Yorkers, we must continue to improve our existing parks, identify new opportunities to transform underutilized sites throughout the city, and enhance stewardship of our public space.

We will target high-impact projects in the neighborhoods with the greatest open space needs. These projects will include community gardens and urban agriculture opportunities, which enrich many of the city's neighborhoods least served by parks. We will continue to create and renovate parks such as Calvert Vaux Park in Brooklyn and Soundview Park in the Bronx that will attract people from all over the city.

We will reconceptualize and green our streets. And because vibrant open spaces both need and support biodiversity, we will increase the health and vitality of natural areas. Finally, we will ensure the long-term health of our open spaces and protect the great investments we have made through expanded stewardship and care.

Collectively, we estimate that by 2030 we will acquire or upgrade more than 4,700 acres of parkland and public space throughout the five boroughs. By 2030, every New Yorker will live within a 10-minute walk of a park.

## Target high-impact projects in neighborhoods underserved by parks

In many of the neighborhoods most in need of parks and public space, there are schoolyards, lightly-trafficked streets, vacant lots, and athletic fields that have not realized their full potential. Through targeted investments that use existing land better, these spaces can become valuable community resources.

, high-value projects such as Schoolyards to Playgrounds have been vital in increasing access to usable parks and public spaces close to where people live. We must identify the next generation of these projects and where they should be located.

### INITIATIVE 1 Create tools to identify parks and public space priority areas

Challenging economic times and the demands of an increasing population require that we make the most out of our funding for parks and public space projects. To do this, we need new tools for assessing new project proposals.



Escaping the heat at Sweetgum Playground in the Bronx

Credit: NYC Dept. of Parks and Recreation/Daniel Wjila

We will create a scorecard that will use a weighted system across selected criteria, including demographic data, environmental factors, physical condition, community need and support, and conformity with the goals of programs like PlaNYC. It will take into account funding needs for ongoing maintenance and seek to increase partnerships with local community groups for stewardship. These criteria will help us gauge how well the investment will

be maintained over the long term and strategically target our limited dollars where they get the highest return.

We will also use new methods for assessing New Yorkers' distance from parks, looking at the street network and actual access routes to a park instead of simply looking at distance as the crow flies.

## Our plan for parks and public space:

### Target high impact projects in neighborhoods underserved by parks

- 1 Create tools to identify parks and public space priority areas
- 2 Open underutilized spaces as playgrounds or part-time public spaces
- 3 Facilitate urban agriculture and community gardening
- 4 Continue to expand usable hours at existing sites

### Create destination-level spaces for all types of recreation

- 5 Create and upgrade flagship parks
- 6 Convert former landfills into public space and parkland
- 7 Increase opportunities for water-based recreation

### Re-imagine the public realm

- 8 Activate the streetscape
- 9 Improve collaboration between City, state, and federal partners
- 10 Create a network of green corridors

### Promote and protect nature

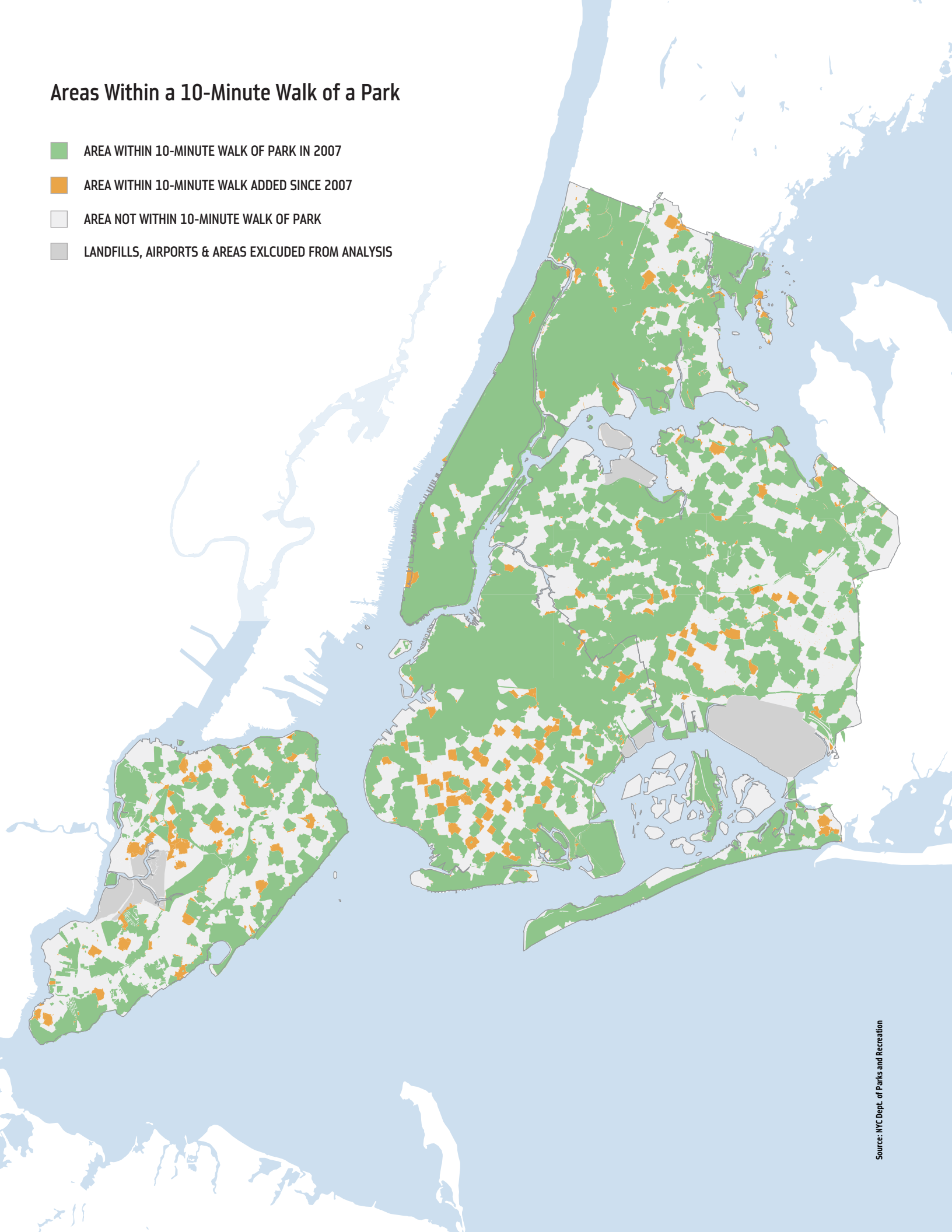
- 11 Plant one million trees
- 12 Conserve natural areas
- 13 Support ecological connectivity

### Ensure the long-term health of parks and public space

- 14 Support and encourage stewardship
- 15 Incorporate sustainability through the design and maintenance of all public space

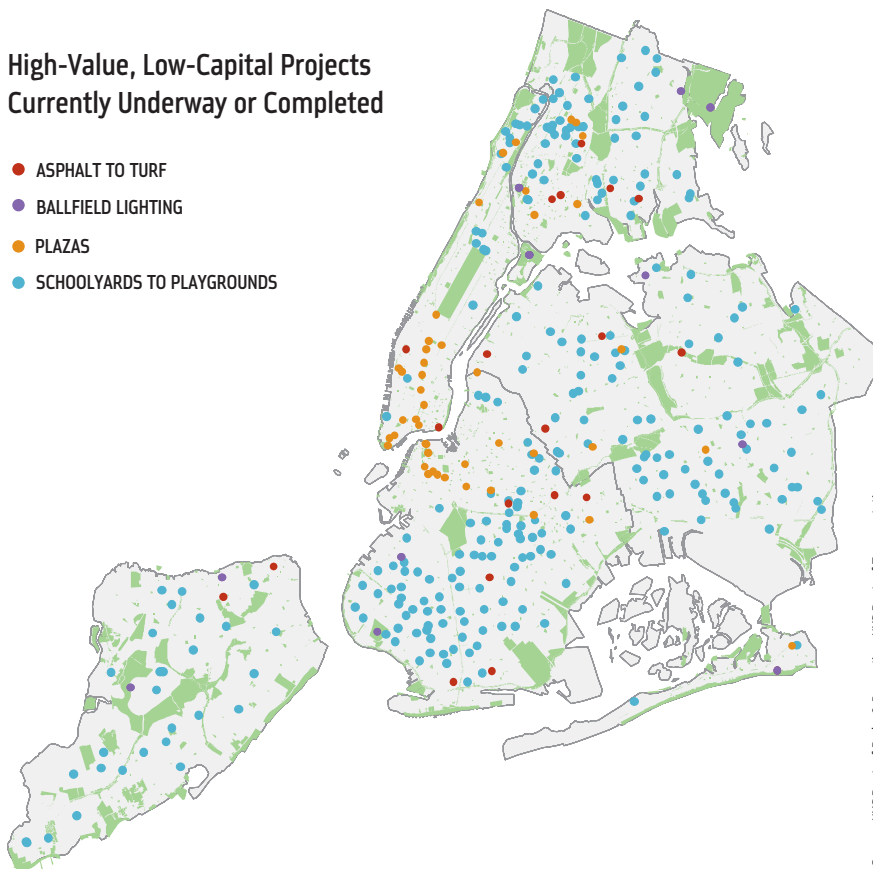
## Areas Within a 10-Minute Walk of a Park

- AREA WITHIN 10-MINUTE WALK OF PARK IN 2007
- AREA WITHIN 10-MINUTE WALK ADDED SINCE 2007
- AREA NOT WITHIN 10-MINUTE WALK OF PARK
- LANDFILLS, AIRPORTS & AREAS EXCLUDED FROM ANALYSIS



## High-Value, Low-Capital Projects Currently Underway or Completed

- ASPHALT TO TURF
- BALLFIELD LIGHTING
- PLAZAS
- SCHOOLYARDS TO PLAYGROUNDS



Source: NYC Dept. of Parks & Recreation, NYC Dept. of Transportation

More than 1,000 community gardens exist in the city. More than 600 are on sites maintained by the New York City Housing Authority (NYCHA), and nearly 500 are registered with the City's GreenThumb program. To support and enhance well-established gardens throughout the city, we will increase the number of registered GreenThumb volunteers by 25%.

Approximately 80% of the city's community gardens grow food. Most food-producing gardens are located in neighborhoods with limited open space and inadequate access to fresh produce and other healthy foods. To increase public access to fresh foods, including produce grown in community gardens, we will partner with the non-profit organization, Just Food, to establish five additional farmers' markets at community garden sites. We will also explore additional ways to support farmers markets.

We are also working in partnership with GrowNYC, a non-profit, private organization, to support gardens at our schools. Already 70 school gardens have registered with Grow to Learn NYC, the Citywide School Gardens Initiative, and are actively educating students about healthy food choices and environmental stewardship. Through 2013, we will retain 75% of registrants annually and register 25 new gardens with a goal of reaching 150 registered school gardens throughout the city. Furthermore, 50 school gardens participate in the Garden to School Café program that helps school cafeterias serve food grown in those gardens.

We are also exploring ways to increase the number of gardens and urban farms. We will take a full inventory of municipal land and identify properties that could be suitable for urban agriculture. We will also review existing regulations and laws to identify and remove unnecessary barriers to the creation of community gardens and urban farms. For example, only green roofs that use drought-resistant plants are currently eligible for the New York State green roof tax abatement. Broadening this legislation to include agricultural plants could encourage an increase in green roofs and urban food production.

NYCHA will also expand its urban agriculture program, creating at least one urban farm and 129 community gardens on its grounds.

### INITIATIVE 4 Continue to expand usable hours at existing sites

Today the city does not have enough grass fields to accommodate the growing demand for soccer, field hockey, cricket, and rugby. Those that we do have are quickly worn by intensive use.

### INITIATIVE 2 Open underutilized spaces as playgrounds or part-time public spaces

In 2007, we identified 290 schoolyards in areas underserved by parks that could be better utilized. While neighborhoods lacked play space, schools with empty lots or playgrounds were closed throughout the summer, on weekends, and in the evenings.

We launched the Schoolyards to Playgrounds program to renovate these spaces and open them to the community when school is not in session. Sixty-nine of these sites needed no additional capital investment and were opened almost immediately. For the remaining sites, we partnered with the Trust for Public Land (TPL) and instituted a participatory design process, in which students and community members selected amenities they wanted in their new playgrounds. Since 2007, we have built and improved more than 100 sites, bringing the total to nearly 180 sites open so far—equaling over 130 acres—and putting us well on the way to completing over 230 sites by 2013.

We are also creating temporary play places for the times of the year when the need for play space is even more acute. For example, as part of the Summer Streets program, we transformed Park Avenue in Manhattan into something that

lives up to its literal name: a lively place to play, walk, or bike for three Saturdays each summer. We will continue to do so each year.

We have also created programs that enable community groups to recommend, apply for, and manage part-time play spaces in our streets. Local organizations in all five boroughs have managed Weekend Walks, which close streets to vehicular traffic on summer weekends. The city hosted 17 of these in 2010 and will conduct them at 20 locations in 2011.

Through our Play Streets program we have permitted non-profits and schools to temporarily close off streets, giving children safe and supervised places to play and learn. In partnership with non-profit organizations, we will work to open 15 Play Streets each year where they are needed most. We will also provide 40 schools with access to a Play Street so children have places to play during recess.

### INITIATIVE 3 Facilitate urban agriculture and community gardening

We are committed to promoting community gardens and other forms of urban agriculture. We recognize the important role they serve in building communities, supporting local cultural heritage, and bringing individuals together around the vital issue of access to healthy food.



To meet demand, we will accelerate the conversion of 26 multi-purpose asphalt fields to synthetic turf. Since 2007, 12 fields have been completed and opened to the public. These turf fields require less maintenance and can remain open more days every year. They host a greater range of games, including contact sports, and can withstand frequent and intensive use.

To address possible health and safety issues with synthetic turf, we will consult with an advisory committee prior to using new turf technologies in parks. The committee was organized in response to local legislation in 2010.

We also have dozens of high-quality fields that are unusable after the sun sets. By placing additional lights around our athletic fields, we can allow two additional hours of use for each field during the summer and four additional hours during the spring and fall. We will install lighting at 19 fields within the next two years.

## Create destination-level spaces for all types of recreation

In addition to targeted investments at the neighborhood level, we are also focused on enhancing access to larger, “destination-level” parkland.

Large regional parks are the most visible end of our continuum of public land. The larger parks provide a full range of experiences—recreational, cultural, and educational—for every resident in the city. Adding nearly one million more residents means that we need to update and create new destination parks that cater to diverse recreational needs.

Only a handful of spaces are big enough to create such destination-level parks in our developed city. Particular opportunities along our 520-mile waterfront can transform neighborhoods. We can turn previously inaccessible places into vibrant community areas that provide for recreation and encourage commerce and economic growth. Nearly half of our waterfront is part of our parks and public space network thanks to new public and private investments, as well as more effective waterfront zoning regulations. Recent improvements in waterfront access and quality have also increased opportunities for in-water recreation. Boating, fishing, and, in some areas, swimming can increasingly be part of the way New Yorkers enjoy our waterfront.



Cyclists relax at Brooklyn Bridge Park in Brooklyn

### INITIATIVE 5 Create and upgrade flagship parks

Recreational sites across the city have the potential to become destination-level parks. With additional investment, these parks could have the space and features to serve a large amount of people from around the city. For each of these sites we have or will engage in an extensive planning effort with the surrounding community.

In McCarren Park in Brooklyn, we are rebuilding McCarren Pool as both an outdoor Olympic-size pool and a year-round recreation center. We are constructing a 2,500-seat field house in Staten Island's Ocean Breeze Park, creating the city's third indoor track and field facility. Spanning the Harlem River, a rebuilt High Bridge will once again provide Bronx residents with access to the parks along the northern Manhattan greenbelt, including the High-bridge Pool and Recreation Center. Highland Park in Queens will be improved with the construction of new reservoir perimeter lighting, path restoration, and new entry points for wheelchair users. On Manhattan's High Line, we will open a new section of the former rail line to the public.

Since 2002, the City has also acquired more than 373 acres of waterfront land for parks. Under the direction of the recently released Comprehensive Waterfront Plan (CWP) we will continue to help New Yorkers reconnect with a waterfront once underused and obstructed by infrastructure, regulations, fencing, and private uses.

On our waterfront, at Calvert Vaux Park in Brooklyn, we are constructing new fields and bicycle paths. Also in Brooklyn, we are constructing Brooklyn Bridge Park, the most significant major park to be built in that borough since Prospect Park was built 135 years ago. At Fort Washington Park in Manhattan, we are improving entrances and pathways. In Soundview Park in the Bronx, we are restoring 15 acres of natural areas, adding new seating and pathways, and upgrading sports facilities. At Hunter's Point in Queens, we are completing construction of a new 5-acre site featuring new courts, green stormwater infrastructure, and public ferry access. In Stapleton, Staten Island, we have begun construction of a 6-acre esplanade. We will also commit \$260 million toward improving Governors Island, modernizing critical infrastructure, upgrading the Historic District landscape, planting thousands of trees, and transforming the desolate southern part of the island into the new Hammock Grove and Play Lawn. On Randall's Island, improved pathways and environmental restoration projects will complement recently-constructed tennis courts, new and lighted playing fields, and track and field facilities.

These destination-level parks will increase access to open space and the water, help meet our diverse recreational needs, and improve the quality of our outdoor experiences.



A kayaker launches his boat from a pier at the Downtown Boat Basin in Manhattan

## CASE STUDY Fresh Kills

At 2,200 acres, Freshkills Park will be almost three times the size of Central Park and the largest park developed in New York City in over 100 years. Along with this massive scale comes massive opportunity.

At its peak, Fresh Kills was the world's biggest landfill, receiving as much as 29,000 tons of waste each day, making it an example of wastefulness, excess, and environmental neglect.

Its transformation into a productive and beautiful cultural destination will make the park a symbol of renewal and an expression of how we can restore balance to our landscape.

The park's plan, which will be built in phases over 30 years, matches this vision of restoration and renewal. Visitors to the park will be able to mountain bike, run on trails, kayak, and horseback ride—uncommon activities in an urban park. The park's design, ecological restoration, and cultural and educational programming will emphasize environmental sustainability and a renewed public concern for our human impact on the earth. The park will serve as a living laboratory, articulating a new relationship with the land as a source of recreation, habitat for native plant and seed nurseries, a source of renewable and alternative energy, and the site of botanical and ecological research.

The New York City Department of Parks & Recreation has begun implementing the master plan developed by the landscape architecture firm James Corner Field Operations. Initial development has focused on providing public access to the interior of the park and showcasing its unusual combination of natural and engineered beauty. The park's ecosystem has already begun to restore itself, as birds, wildlife, and native habitat thrive. Visitors can learn about this transformation through a public tour and education program.

Over 150 years ago, Central Park brought nature into the lives of New Yorkers; Freshkills Park will provide 21st century New Yorkers with a new park filled with exciting recreational activities that integrate nature into city living.

### INITIATIVE 6

## Convert former landfills into public space and parkland

In the early 20th century, the huge dumping ground in Northern Queens was famously characterized as “a valley of ashes” in F. Scott Fitzgerald's *The Great Gatsby*. Since then, we have transformed this space into the 1,255 acre Flushing Meadows Corona Park, one of the most actively used spaces in our park system.

Today, some of the best opportunities to create parks exist in former landfills, huge swaths of open space undergoing transformative care and adaptive reuse. By decommissioning and remediating them to assure public health, we can eventually turn them into places for New Yorkers to relax and play.

Chief among these will be Freshkills Park in Staten Island. At 2,200 acres, it will be almost three times the size of Central Park. When fully developed, it will be the largest park developed in New York City in more than 100 years.

We will also remediate the Brookfield Avenue Landfill in Staten Island, Ferry Point in the Bronx, and Edgemere Landfill in Queens with impermeable landfill caps. This will transform these former landfills into several hundred acres of sprawling natural area. Our first challenge is to ensure contaminants are fully remediated, a necessary precaution which is painstaking and time-consuming. But over time, we will continue to invest in safely converting these landfill sites into parks.

### INITIATIVE 7

## Increase opportunities for water-based recreation

With its diverse water bodies, from winding rivers and creeks to expansive sandy beaches and narrow tidal straits, New York City offers a variety of possibilities for water-based recreation like kayaking and canoeing. Improvements in water quality and access to the waterfront have spurred participation in water-based recreation. One of the most successful catalysts for the recreational waterways is the New York City Water Trail, which we run in conjunction with the New York City Water Trail Association. Capitalizing on the surge in popularity of human-powered boating, this program established launch sites for kayaks, canoes, and rowboats and provides online maps for guidance on routes to take.

To meet increases in demand, we will need to add still more access points, docks, and onshore facilities to ensure that New Yorkers can both reach and use the water. In concert with the CWP, we will complete an expansion of the launch platform for small boats at Hunts Point-Riverside in the Bronx, build a multi-use “Eco Dock” in Bay Ridge, Brooklyn, and make improvements to the West Harlem Pier in Manhattanville and to the floating docks at the Dyckman Street Marina in Inwood, both in Manhattan.

The need for recreation must be balanced with the need for commercial uses of our water, as well as concerns for user safety and water quality. A multi-agency task force will assess opportunities for expanding the blue network for water-based recreation. These improvements will create better access to the water and balance the needs for recreation and commerce on our waterfront.

# Destination Parks Upgrades and Improvements

- DESTINATION PARKS UPGRADES UNDERWAY
- LANDFILL REMEDIATION PROJECTS UNDERWAY



## Highbridge Park



Restore bridge and add new entry points for wheelchair users

## Randall's Island



Complete Living Shoreline Recreation Area and improvements to pathways

## Soundview Park



Construct three-mile bike loop, new playground, fields, and amphitheatre

## The High Line



Open Section 2 (20th to 30th Streets) and pursue acquisition of land for Section 3

## East River Park Esplanade



Complete construction of 8.5 acres of East River Esplanade Park South, featuring water uses, educational uses, and café

## McCarren Park



Construct new swimming pool, shaded pavilions, and recreation center

## Governors Island



Modernize infrastructure and transform South Battery into acres of lawn and shrubs

## Brooklyn Bridge Park



Re-open Empire-Fulton Ferry Park; complete construction on piers 4 and 5 and on upland areas of Piers 3 and 5

## Rockaway Beach



Construct performance venue and lawn area, new courts, football field, skate park, and climbing wall

## Freshkills Park



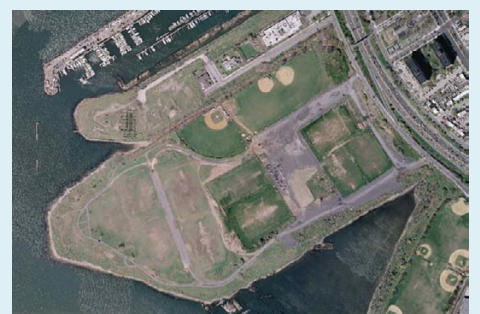
Develop the first public access areas overlooking Main Creek

## Ocean Breeze Park



Construct 2,500 seat, world-class indoor track and field house

## Calvert Vaux Park



Renovate lighted soccer fields, improve pathways, and restore wetlands

## CASE STUDY Flatiron Plaza

Before 2008, the intersection surrounding the Flatiron Building was a maze of streets and cars crossing from six directions. With traffic turning from some of Manhattan's busiest streets and few places for pedestrians to stop, the intersection did not work well for cars or people.

Today, the intersection has been redesigned to improve traffic flow and create new spaces that have themselves become destinations. A triangular plaza brings 41,700 square feet of public space to the bustling streets of the Flatiron district. Pedestrians, people-watchers, residents, and workers from nearby office buildings can now enjoy spectacular views of one of New York City's most photographed buildings while eating their lunch in a plaza surrounded by planters and shaded by umbrellas.

The new public spaces and redesigned streets have enhanced pedestrian safety and traffic flow. The wide streets, once so difficult for people and cars to cross, have been narrowed by adding pedestrian islands. Bus routes through the intersection are simpler, reducing passenger travel time; and bike lanes on Broadway and 5th Avenue provide alternative ways to move around the city.



DOT worked with the Flatiron Business Improvement District to fill the plazas with plantings, tables, chairs, and umbrellas. The group maintains the plazas for the city through a public/private partnership agreement.

Throughout New York City, plazas like the one by the Flatiron Building are transforming our streets

and creating spaces for recreation and relaxation in unlikely places. A survey conducted by the Flatiron Business Improvement District found that 84% of people surveyed enjoyed the new plazas. For a tired shopper, a harried office worker, or a person taking a stroll on a Saturday afternoon, the plazas offer a place of respite in a busy city.

## Re-imagine the public realm

Providing access to parks is about more than simply having them near where people live. We will also re-imagine our streets, sidewalks, and other public spaces as places in their own right. By using greenways, plazas, street trees, and other measures we will bring a park experience to nearly every corner of the city. These features will provide shade and color, clean our air, and increase property values.

### INITIATIVE 8 Activate the streetscape

Maintaining a strong quality of life is one of the keys to the city's vibrancy and competitiveness. Transforming our streets from utilitarian corridors for vehicles into great places for people improves the everyday experience of the millions who use them and has clear economic benefits. Attractive and walkable streets increase foot traffic and retail sales, improve safety, and encourage the use of sustainable modes of transportation.

We are moving on multiple fronts to make our streets more attractive places for a wide range of users. We are building plazas within public rights-of-way to create multi-use open spaces. These plazas are bringing residents together and extending outdoor opportunities beyond our parks and into our neighborhoods.

Through the NYC Plaza Program, not-for-profit organizations apply to create new or enhanced existing pedestrian plazas, focusing on neighborhoods that are least served by parks. We select the best sites and partner with organizations to redesign parts of streets into successful neighborhood plazas.

Fourteen different sites from Plaza de Las Americas in Washington Heights, Manhattan, to Marcy Plaza in Bedford Stuyvesant, Brooklyn are currently in some phase of planning, design, or construction. This is in addition to other public spaces that the City has developed at iconic crossroads like Times Square and Madison Square in Manhattan, Fordham/Kingsbridge Plaza in the Bronx, and Willoughby Plaza in Brooklyn.

All of these sites create or enhance public spaces and increase pedestrian safety. We will continue to develop these enhancements by completing construction on 13 plazas by 2013.

We are also opening up a new type of space—pop-up cafés—to provide outdoor public seating in the curb lane during warm months. We are working with community boards to permit the opening of at least four of these in the coming year, building on a successful pilot in 2010. We will also streamline rules to make it easier for private café owners to open up a sidewalk café.

We will also make it easier for New Yorkers to enjoy life on our sidewalks. Our sidewalks currently provide few spaces to stop. To remedy this, we will initiate our CityBench program and, in coordination with community stakeholders, install over 500 benches throughout the city in key locations where sidewalk space permits, such as bus stops that can't accommodate a shelter.

We will also build on the recently held international urbanSHED Design Competition that developed a standard alternative to current sidewalk sheds. Sidewalk sheds, protective scaffolding put up when façade work is being performed, keep New Yorkers safe, but also represent ugly and dark intrusions on our sidewalks. The city currently has 6,000 of these sheds, spanning nearly one million linear feet. The winning design, Urban Umbrella, will keep New Yorkers safe while also promoting attractive and walkable streets. We will work with City agencies, buildings owners, contractors, and professionals to adopt the new design.

We will also continue to activate our streetscape by allowing movable tables and chairs in arcades on Water Street in Lower Manhattan. Street furniture will help activate these privately-owned, publicly accessible areas that currently diminish vitality along this important pedestrian corridor.

## INITIATIVE 9

### Improve collaboration between City, state, and federal partners

Over 40% of our city's 52,000 acres of parks is not owned by the City, but by other entities, mostly the state and federal governments. Though many of these spaces are side by side, they often have different rules that prevent our parks and public spaces from operating as a continuous network.

We will strengthen our collaboration with state and federal agencies to improve connections between our city's public spaces. For example, state parks in New York City don't allow dogs or bicycles and typically have more limited hours. This disparity has led to numerous issues; in Brooklyn, a fence had to be built to separate East River State Park from the City's Bushwick Inlet Park because of the differing rules and hours. Plans for a greenway along the Bronx side of the Harlem River will need to stop short of Roberto Clemente State Park unless we can work with the State to change its rules prohibiting cycling.

We will also collaborate closely with state and federal agencies through the New York City Urban Field Station (UFS). The UFS is a joint enterprise of the U.S. Department of Agriculture Forest Service's Northern Research Station and the Department of Parks & Recreation located at historic Ft. Totten in Queens. The UFS is modeled after the Forest Service's experimental forest research stations, this one with a unique focus on issues relevant to urban forestry. Going forward, we will foster partnerships that combine research and practice to improve the health, promote conservation, and strengthen stewardship of our parks and public space.

## INITIATIVE 10

### Create a network of green corridors

Streets and other dedicated paths perform multiple functions, including promoting recreation, capturing stormwater, and cleaning our air. We will seek opportunities to create a network of green corridors.

Greenways are multi-use pathways for non-motorized transportation along linear spaces such as rail and highway rights-of-way, river corridors, waterfront spaces, parklands and, where necessary, city streets.

In 1993, the City released *A Greenway Plan for New York City*, which identified the essential structure for the creation of a citywide system

of greenways. Since then, we have been building out this network, and efforts are under way in each borough to further expand it.

For example, we are constructing the Brooklyn Waterfront Greenway which, when completed, will be a 14-mile-long bicycle and pedestrian path stretching along the Brooklyn waterfront from Greenpoint to the Shore Parkway. It is envisioned as a path for both commuters and recreational users that will knit neighborhoods together and enhance access to the waterfront. We will also complete improvements to the Bronx River Greenway and South Bronx Greenway, Queens East River Trail, Soundview Greenway, Staten Island South Shore Greenway, and Manhattan Waterfront Greenway.

In addition to promoting greenways, we seek to continue to transform our streets. Over the past few years, we have made significant strides in improving the design and functionality of our right-of-ways. We no longer treat streets solely as vehicular conduits, but also as vital public spaces, promoters of mobility by a variety of modes, and as ecological assets.

We must do more to make our streets live up to their full potential. Every street is different, so the effort must begin by understanding which functions—whether it be automobile movement or stormwater capture—different streets should incorporate and prioritize.

By using green infrastructure funding and coordinating street improvements being done throughout the city, we can design a template for what the complete streets of the future will look like.

To illustrate this, we will release an updated version of the Street Design Manual, a comprehensive resource for promoting higher-quality street designs and more efficient project implementation. The updated version will include a landscape chapter on the use and maintenance of green infrastructure, street trees, and other plantings to help guide the transformation of our streets. These elements are already being employed in capital projects throughout the city, and include block plantings of street trees and the construction and planting of Greenstreets on reconfigured roadbed.

## CASE STUDY

### Meeting the Needs of a Dynamic Urban Forest

When most Americans think of the U.S. Forest Service (USFS), they might think of Smokey the Bear or the secluded mountains of Montana. Now they should also think of Queens.

Urban forestry is a complex and rapidly-evolving science. To be on the leading edge, in September 2010 the City and the U.S. Forest Service jointly opened the New York City Urban Field Station (UFS) at Ft. Totten in Queens. The UFS is modeled after the Forest Service's century-old experimental forest research stations across the nation, but this one has a unique attribute: it's within the limits of the biggest city in the U.S. and focuses on the specific conditions inherent to trees in urban areas.

UFS scientists conduct long-term research, sharing knowledge to support PlaNYC initiatives like MillionTreesNYC, parks improvements, and urban ecosystem management.

For example, they study bioindicators, organisms that provide clues to ecosystem health. Their research on salamanders is helping managers gauge forest health in Van Cortlandt Park and Inwood Hill Park, because salamanders' health is an indicator of forest health.

Researchers are also examining how urban restoration affects ecosystem structure and human health, and they are quantifying the benefits trees create for air quality and neighborhood cooling. To aid this analysis, researchers will use a new land cover map that will measure New York City's tree canopy using LiDAR (Light Detection And Ranging) technology. This information may influence how the City uses street trees to maximize the benefits they provide.

This research partnership between the City of New York and the U.S. Forest Service is producing useful information to keep New York City trees, parks, and natural areas healthy.

## Promote and protect nature

New York City's ecological systems are unique, as the city sits on the border between southern climates in the Mid-Atlantic and northern climates in New England. This geographical and climatological overlap allows for a special mix of species and habitats. The health of these systems is critical to supporting the natural functions and systems that give New York clean air, clean water, and rich, abundant nature.

### INITIATIVE 11 Plant one million trees

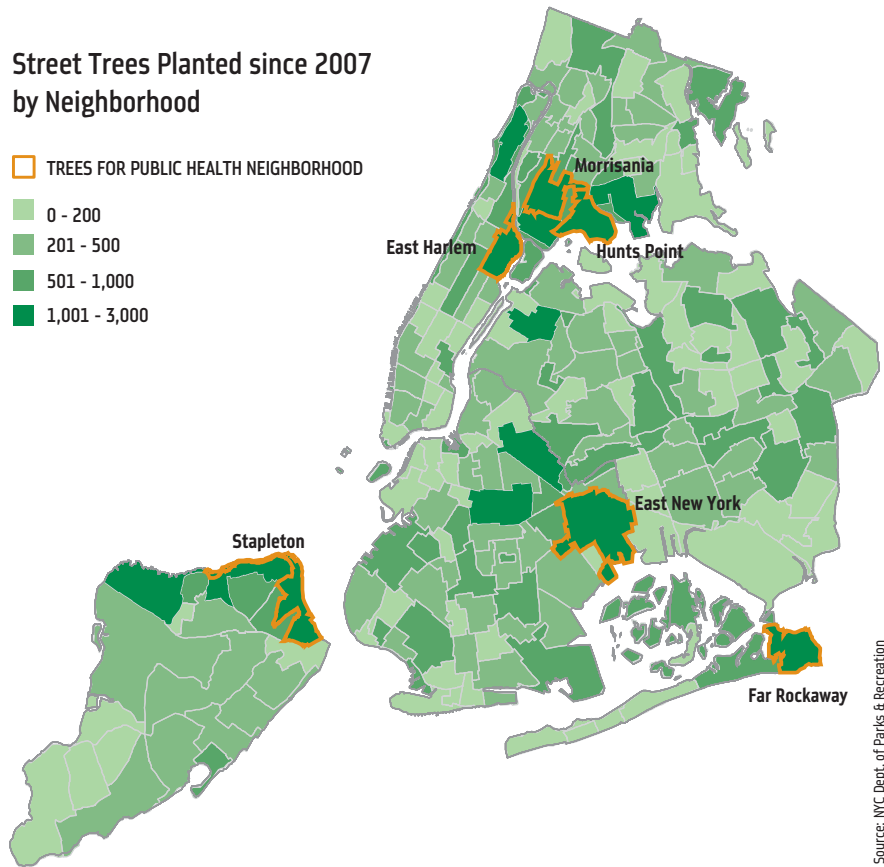
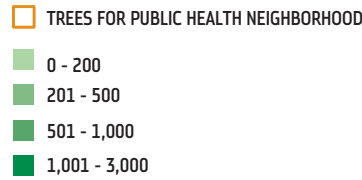
We are becoming more and more aware of the multiple benefits of urban trees. Today, a growing body of knowledge identifies trees as assets to a city's economic and environmental health. City trees cool summer air temperatures, filter air pollution, conserve energy by providing shade, and reduce stormwater runoff. In fact, New York City's trees are considered so valuable that it is illegal to damage, destroy, perform unauthorized tree work, or otherwise harm a street or park tree.

In 2007, in collaboration with the New York Restoration Project, we started MillionTreesNYC, an ambitious campaign to plant one million trees throughout the city. We targeted more than 60,000 of these plantings in six "Trees for Public Health" neighborhoods with particularly low street tree stocking levels and high asthma hospitalization rates for children aged 0-4.

We have already planted over 430,000 trees. By the end of 2013, we will have planted another quarter-million, bringing the number to nearly 650,000.

We will research ways to ensure the long-term health of our newly expanded urban forest by identifying built environment factors that affect the mortality rates of young planted street trees, and pilot new planting techniques that optimize street tree growing conditions. By continuing to track and monitor trees that were a part of the Young Street Tree Mortality Study we will be able to better understand the long-term viability of these trees. We are monitoring tree survival in our MillionTreesNYC reforestation sites and implementing experimental research plots to help us assess forest restoration strategies. We are also conducting additional research on the long-term outcomes of forest restoration projects implemented two decades ago.

### Street Trees Planted since 2007 by Neighborhood



Source: NYC Dept. of Parks & Recreation

### INITIATIVE 12 Conserve natural areas

Our city is home to 11,000 acres of natural areas, from the Ramble in Manhattan to Alley Pond Park Preserve in Queens.

Fifty-one preserves have been specifically designated as Forever Wild sites. Each site represents the gold standard of natural habitat in the city, and in some cases features species of plants and animals that are endemic to that site. These sites include more than 8,700 acres of towering forests, vibrant wetlands, and expansive meadows. They are home to thousands of species, including flying squirrels, Great Horned Owls, and rare plants. They are critical natural elements in the city's infrastructure and give New Yorkers and visitors the chance to walk in the woods, paddle on a stream, or observe thousands of species of wildlife in their natural states.

To conserve these areas, we will explore the creation of a natural area conservancy. It will promote an integrated approach to the restoration, conservation, and ongoing management of our wild ecosystems.

### INITIATIVE 13 Support ecological connectivity

We will also seek to promote ecological connectivity—closely linked green spaces that increase opportunities for people, flora, and wildlife to transition more easily between fragmented natural spaces.

In 2007, the City committed to expanding Greenstreets, a program that has successfully transformed hundreds of acres of unused road space into vibrant green assets. We have already planted nearly 260 Greenstreets. We will build 80 additional sites each year. Greenstreets capture stormwater and improve water quality, while also serving as important ecological respites within the urban landscape.

We are also seeking to expand the role of green roofs in our city. Green roofs have the potential to create ecological links between fragmented ecosystems and habitats. They can reduce the urban heat island effect and energy costs for buildings and help retain stormwater. We will conduct a study to determine best practices for promoting biodiversity in green roof design and construction.

We will also restore landscapes on the Belt Parkway in Brooklyn to promote ecological connectivity and ecosystem restoration.

Finally, we will study other ways that building sites can support the city's ecology. Building sites represent nearly half the land area in the city and have a great potential to mitigate the urban heat island effect, increase biodiversity, retain stormwater, and perform other critical ecological functions. We will address this issue comprehensively, for the first time, by developing a framework to address landscape issues on buildings sites in City codes. We will lead by example by building on the City's Urban Site Design Manual. We will create a set of standards and a design handbook for sustainable site design and construction practices for all municipal construction projects.

## Ensure the long-term health of parks and public space

The greatest period of park building since the 1930s is appropriate at a time when parks are being called on to provide numerous ecological, economic, and social functions and serve more people. The demands on our parks system will only become greater given the challenges of an increasing population coupled with global climate change. Maintenance considerations must be incorporated into the planning and design process. Stewardship—engaging citizens and community groups in the upkeep of their parks—must be fostered by involving the public early in the park development process.

### INITIATIVE 14

#### Support and encourage stewardship

The long-term health of our parks and public space is dependent on our collective effort to care for it. The City will continue to build on its long history of working with non-profit, volunteer organizations, and “friends of” parks groups to maintain these essential elements of our city.

Through the Catalyst for Neighborhood Parks program, we combine City-funded capital improvements with the City Parks Foundation's privately-funded arts, sports, and education programs. The Catalyst Program connects ideas, people, and networks to help care for targeted parks and provides stewardship training with the goal of increasing attendance at park events and programs. The current round of catalyst parks is focused on sustaining stewardship at Soundview Park in the Bronx, East River Park in Manhattan, and Calvert Vaux and Kaiser Parks in Brooklyn. The program will train 20 groups on park maintenance and stewardship and increase attendance at park events to more than 15,000 a year.

We will also build off of a successful series of Park Network Meetings, which bring together relevant community groups and advocates to support local parks. The first meetings were instituted in Manhattan and we will now expand this pilot to four parks in each borough.

Our focus on ongoing maintenance and care necessarily extends to our tree canopy, where we have added over 430,000 new trees in the last four years alone. To increase tree stewardship, we created the MillionTreesNYC Stewardship Corps. The Stewardship Corps will continue to recruit community-based organizations and individuals and offer them stewardship and community organizing training, including free tree care workshops and tool kits.

Our relationship with TPL, which helped build and design many of our Schoolyards to Playgrounds sites, is serving those sites as well. Over the next three years, TPL will host seven stewardship workshops to teach communities how to care for their playgrounds. TPL will disburse nearly 100 grants to promote onsite stewardship on new playgrounds, and deliver plantings to approximately 60 schools twice each year.

Through our partnership with the U.S. Forest Service, we will contribute to the New York City Stewardship Mapping and Assessment Project, an online database of environmental stewardship groups. This citywide database will support community-based efforts to maintain our public spaces and help connect those groups to each other and to City agencies.

Every plaza project also has a community partner involved in the maintenance and programming of the space. And Weekend Walks are initiated by community groups. These programs are rooted in a value system that partners with neighborhoods in the programming and care for the public realm.

### INITIATIVE 15

#### Incorporate sustainability through the design and maintenance of all public space

In addition to engaging the broader community in stewardship, we will increasingly view design and construction through the lens of ongoing maintenance by continually updating our internal practices. We are developing training and education programs for our staff, tying together sustainability-related practices and setting targets for improvements. Because 14% of city land is City parkland, even small changes in the sustainability of operations will have a huge impact.

We will base many of our internal practices on the High Performance Landscape Guidelines, a joint effort between the City and the Design Trust for Public Space. This manual is the first of its kind in the nation. It recognizes that parks must function as climate-resilient landscapes that enable recreation, detain stormwater, and function as ecological corridors. We will instill these principles into our design, construction, and operations practices for years to come.

To implement these new guidelines, we will develop a digital library tracking system to catalog sustainable aspects of capital projects. We will also develop a design checklist for designers to set a baseline for performance and create achievable goals.

We will also ensure compatibility between the City's Parks Inspection Program's ratings and the functions of capital projects to ensure our standards measure the right outcomes. For example, what might be viewed as a poorly draining area by the current rating system may actually be a well-functioning rain garden. In addition, ecological restorations and native plantings may require different types of maintenance, such as meadows being mown annually rather than complying with the more frequent standards applicable to turf.

## Conclusion

Through these initiatives, we will continue to advance toward our goal of ensuring all New Yorkers live within a 10-minute walk of park. However, the challenge of connecting New Yorkers goes beyond access alone. We must also ensure the quality of our parks and public space by providing for evolving recreational needs, along the continuum of park types from the newly-planted street tree on the corner, to the dazzling urban square, forested hillside, or quiet wetland.

We will re-imagine the public realm by envisioning public space beyond park walls, extending down parkways and greenstreets, and creating public plazas in our communities. We will link City, state, and federal parks into a cohesive network of open space that can be used more seamlessly by all people.

Finally, we will partner with New Yorkers to maintain our open space. By implementing new sustainable design guidelines, promoting biodiversity, and engaging communities and volunteers to care for the health of our urban ecosystems, we can ensure that our parks and public space can survive for future generations.