

Parks as Essential Infrastructure for Resiliency and Sustainability

An aerial photograph of Columbus, Ohio, featuring the city skyline with prominent skyscrapers like the Schdler Building. The Scioto River flows through the center, with the Franklin Park Conservatory and Botanical Gardens visible on the right. The image is used as a background for the presentation slide.

Columbus, OH
October 26, 2023

Mitchell Silver, FAICP, Hon. ASLA
Principal, Urban Planning, McAdams
President, American Institute of Certified Planners

Email: silver@mcadamsco.com
X, Twitter & Instagram: [@mitchell_silver](#)

****Copyright protected****

NYC Parks By the Numbers

30,000 acres of parkland

10,000 acres of natural areas

1,900 parks

1,000 playgrounds

1,000 buildings

155 miles of coast

14 miles of public beaches

2 million trees in parks

670,000 street trees

67 pools

48 recreational facilities

17 nature centers

1,200 monuments

28 art exhibits

2,500 miles of GreenStreets

1,772 basketball courts

800 athletic fields

600 community gardens

500 tennis courts

13 golf courses

9 ice skating rinks

23 historic houses

14 green roofs

400 concession contracts

1,800 community groups

7,000 Full Time Equivalents (FTEs)

\$600M FY22 Expense Budget

\$1.2B Annual Capital Budget

Over 540 active projects

7+ YEARS AS PARKS COMMISSIONER

- Department of Fun, Health and Happiness
- Completed 850 capital projects
- Prioritized diversity, equity, inclusion and access
- **Elevated parkland as essential infrastructure**
- **Used the system and assets to advance sustainability**
- Increased access to nature
- **Used parkland to combat the threats of climate change**
- **Purpose: Guardians, protectors and healers**
- Led agency with a culture of care





Mid-19th Century:
Gardens



Late 19th to early 20th Century:
Landscape Architecture



1930-1965:
Recreational Facilities Era



Late 20th Century:
Environmental Movement



21st Century Challenges & Emerging Trends

- Graying and browning of America
- Rise of the single person households
- Traditional family is changing
- Aging infrastructure
- Urban sprawl, aging suburbs, shrinking rural areas
- **Climate change, extreme weather events**
- **Droughts, flooding, wildfires**
- Antiquated and exclusionary zoning tools
- Energy
- Affordable and attainable housing
- **Public health crisis**
- **Racial and social justice**
- **Divisive politics**
- **Post-COVID behavior**



A photograph of a park area. In the foreground, there are several wooden benches with black metal frames on a paved walkway. To the left, there is a brick wall and some tall grass. In the background, there are large trees, a river, and a city skyline. A street lamp is visible on the right side.

What's next for parks?

**What role can parks,
green space and
public space play?**

Parks serve many roles

Parks are not just green spaces, but **public spaces for people**

Not just an amenity, but a vital part of the community's **essential infrastructure**

Access to nature and helps **clean the air and water, cool places**

First line of defense against climate change

System to advance sustainability

Physical and mental well being

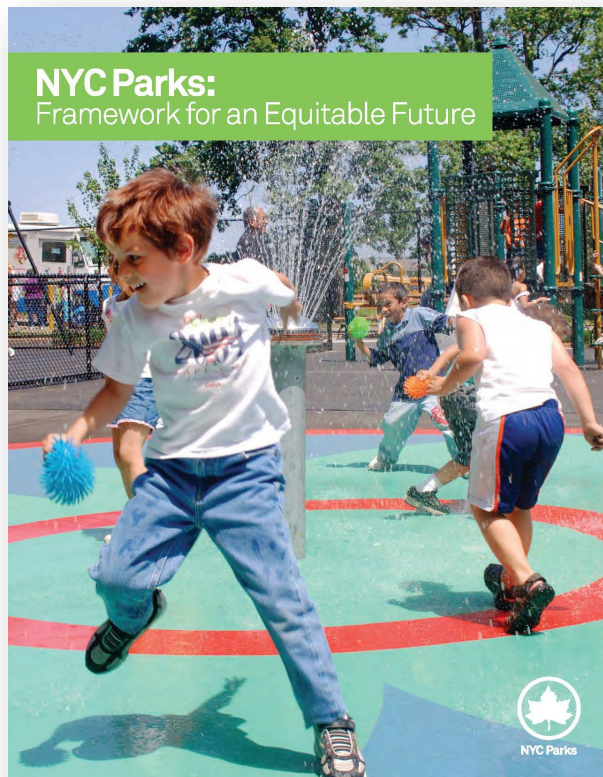
Economic driver for creating great places and increasing value



Purpose-Driven Approach

- 1. Equity, Access and Inclusion**
- 2. Planning & Placemaking**
- 3. Resiliency & Sustainability**
4. Caring for Parks (not just maintenance)
5. Innovation and Technology

Framework for an Equitable Future



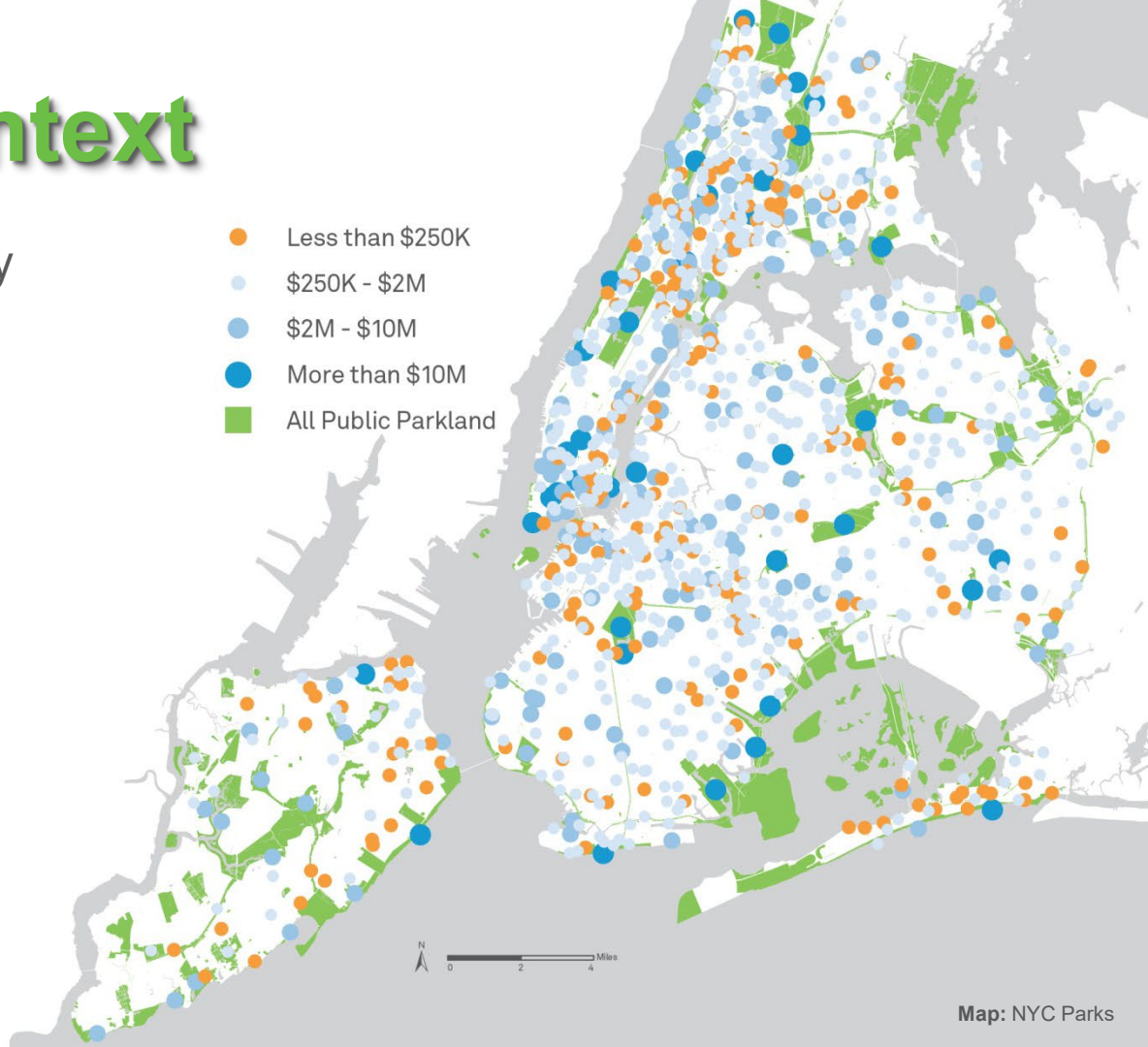
Capital in Context

- NYC Parks spent ~ **\$5.7 billion** on capital improvements over the past two decades
- Acquired **1,168 acres** since 2001
- **81.5%** New Yorkers live within a walk of a park
- Proximity vs. Quality



Equity in Context

- **215 parks** across the city received minimal capital investment - **less than \$250,000 over 20 years**



Community Parks Initiative

CPI Capital Program

Re-create **67 community parks**

Parks+ approach (parks must serve multiple purposes)

Targeted Physical Improvements

136 smaller-scale physical park improvement projects

- All work done with in-house crews
- Repainting/repairing play equipment
- Repainting handball courts and multi-purpose play areas
- Repainting/repairing benches
- Improving horticultural areas and lawn restoration
- Sports coating



FOUNTAIN OF YOUTH PLAYGROUND // THE BRONX



SOUTH PACIFIC PLAYGROUND // BROOKLYN



SEAN'S PLACE // QUEENS



Park or parking lot?



Stockton Playground, Brooklyn

Design Precedent for New Parks



Spray Showers



Adult Fitness

Design Precedent for New Parks



Playground Ages 2-5



Fitness, Handball Courts, Gathering Areas

Design Precedent for New Parks (Parks+)



Planted Areas



Planting/Stormwater Capture

Design Precedent for New Parks



Multi-generational social seating



Garrison Park

The Bronx



Poor Access

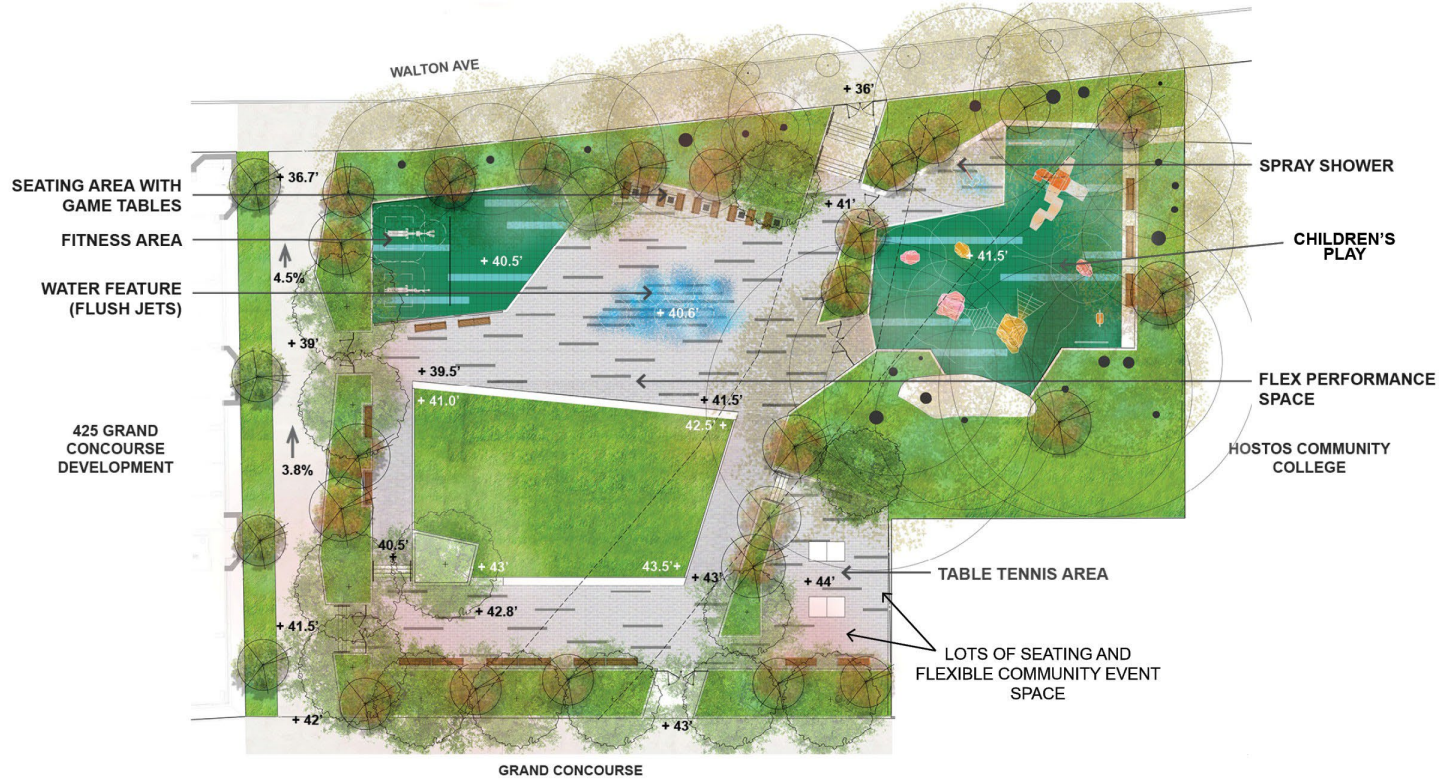


Existing Conditions



Garrison Park

Concept Plan



Multi-Generational Space



Garrison Park







Parks Equity Results

62 of 67 completed. Will improve 70 acres of urban parkland

Established new **“friends of” groups at 82% of CPI parks**

Usership increased by nearly 50% since Parks Equity renovation



Van Alst Playground, Queens

A wide, tree-lined path in a park, likely Central Park in New York City. The path is paved and runs straight into the distance, flanked by tall, mature trees with dense green foliage. Many people are walking along the path, some in groups and some alone. On the left side of the path, there are black metal benches and a black metal fence. A yellow bicycle is parked near the fence in the foreground. The overall atmosphere is peaceful and scenic.

Access

A photograph of a public square. In the foreground, there are red metal chairs and a small table. In the background, a large red and green structure with a central opening is visible. The structure has the text "#MOORE SQUARE" on its side. The scene is outdoors with trees and people in the background.

people may eat + sleep in their homes or apartments,
but **THEY LIVE IN THE PUBLIC REALM.**

Consumer Preferences

Previous generations were **consumers of goods.**

New generations are **consumers of experiences.**

We should not be just designers and planners, **but experience builders**





Reimagine the public space

What about the Public Realm?

Streets, sidewalks, bike lanes, parks, and public spaces are viewed as separate systems and managed by different agencies.

Parks	14%
Streets and sidewalks	26%
NYC Public Realm	40%



Photo: ny.curbed.com



The sidewalk adjacent to the park
should be considered the outer park
- *Frederick Law Olmsted*

Rufus King Park, Queens



Bellrose Playground, Queens

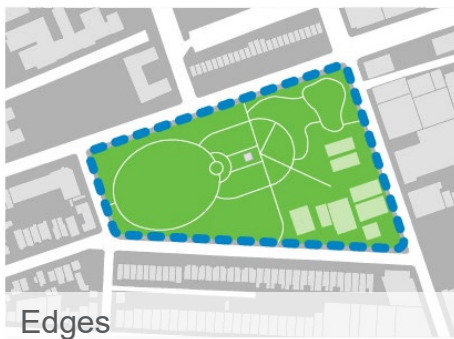


Father Jerry Popieluszko Square, Brooklyn



Parks Without Borders

Parks Without Borders is a **new design approach** focusing on improving the areas where parks and neighborhoods meet: **entrances**, **edges**, and **park-adjacent spaces**.



Entrances

Opening sight lines, removing gates, and adding furnishings and amenities can draw more people into the park.



Before



After

Edges

Allowing better views into the park and making better use of the sidewalk can make neighborhoods more beautiful.



Before



After

Travers Park

Queens

> United States • NY • Queens Co. • Jackson Heights



Capturing Park-Adjacent Spaces



NYC Parks



+



+



=



Travers Park

Existing Edge Condition



Transforming the Edge



Travers Park

Perimeter Amenities



Travers Park





Inclusion

Inclusion

- To be included and not excluded
- **For all people** in design process and community engagement
- Avoid designing **exclusive** parks and public spaces
- Make the spaces and places that are welcoming and safe for all
- Create a sense of belonging. ***"I feel welcome here. I belong here."***



Loitering – to stand or wait around idly or without an apparent purpose –
Oxford Dictionary

In 2017, NYC Parks removed
“loitering” as a park rule as part of
Criminal Justice Reform Act.



Arts in Parks

This booth was informed by the **“Yes Loitering” Project**.

A public space and safety youth initiative that sought:

- to **investigate how teens might be excluded from or targeted in public spaces** and
- develop ideas on **how to create more youth-powered spaces**.



Chat Travieso, *The Boogie Down (Youth) Booth*
June 1, 2019 to May 31, 2020
Keltch Park, Bronx

**No adults except
in the company
of a child**



www.nyc.gov/parks



Reflections on the disruptions

Natural Reactions to Stress

PHYSICAL	EMOTIONAL	BEHAVIORAL	COGNITIVE	SPIRITUAL
Exhaustion	Shock and disbelief	Not acting like yourself	Trouble concentrating	Feelings of emptiness or loss of purpose
Headache	Denial	Emotional outbursts	Memory problems	Questioning basic values and beliefs
Dizziness	Sorrow	Argumentativeness	Trouble making decisions	Withdrawing from or suddenly turning to spirituality
Low Energy	Numbness	Hyperactivity	Raised or lowered alertness	Cynicism
Nausea	Fear	Social withdrawal	Trouble identifying familiar objects	Alienation or loss of connection from others
Sweating, chills	Agitation	Restlessness	Flashbacks or intrusive images	
Rapid Heart Rate	Irritability and anger	Changes in appetite, sex drive or sleep patterns	Confusion	
Trouble Sleeping	Grief and guilt	Smoking or using drugs or alcohol		
Trouble Breathing				<i>Source: NYC Department of Mental Health and Hygiene</i>



Tiny SURVIVAL GUIDE

THE TRAUMA STEWARDSHIP INSTITUTE'S

PROTECT YOUR MORNINGS

[or whenever you wake up]

less cortisol, more intentionality.



GO OUTSIDE

[or look outside]

perspective, context +
something larger than this.



BE ACTIVE

[avoid stagnation]

in body, mind, spirit.

CULTIVATE RELATIONSHIPS

those that are edifying + healthy.

NURTURE GRATITUDE

what is one thing, right now,
that is going well?



DETOX

if navigating addictions
be wise + safe

limit news + social media.

SPEND TIME WITH ANIMALS

↓ stress hormones, ↑ comfort.



METABOLIZE ALL YOU ARE EXPERIENCING

re-regulate your nervous
system.

SIMPLIFY



[less is more]

be aware of decision
fatigue + cognitive overload.

ADMIRE ART

the gift of feeling transported.



LAUGH

pure humor = a sustaining force.

FOSTER HUMILITY & EXTEND GRACE

self-righteousness
+ hubris = unhelpful.



SLEEP

to cleanse + repair brain + body.

CLARIFY INTENTIONS

how can i refrain from causing harm,
how can i contribute meaningfully?

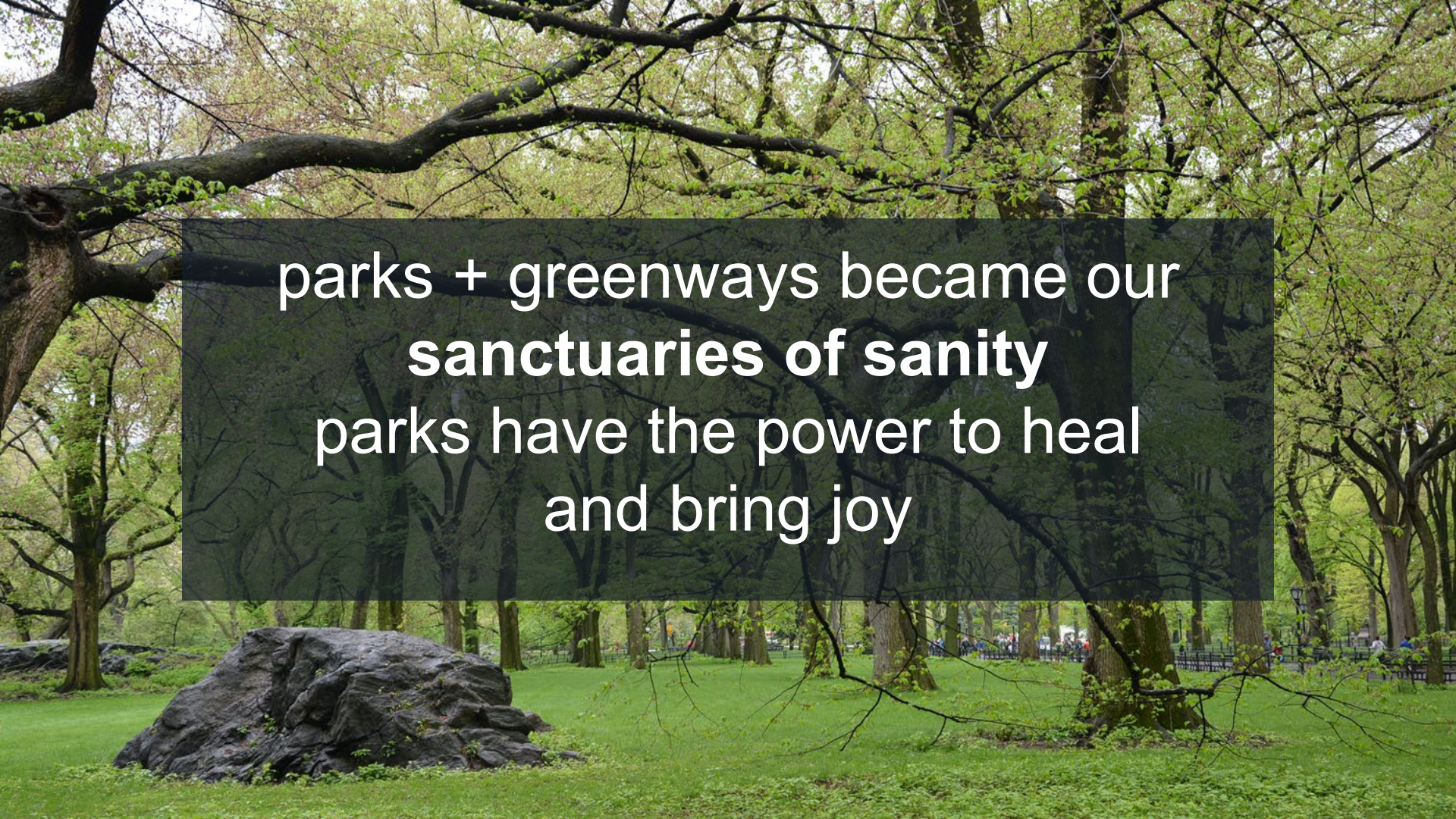
BE REALISTIC + COMPASSIONATE

[with yourself]



be mindful of the quality of your
presence. it means so much
to others.




A photograph of a park scene, likely Central Park in New York City. In the foreground, a large, dark, craggy rock sits on a green lawn. The background is filled with tall, leafy trees with green foliage. A semi-transparent dark rectangle is overlaid in the center, containing white text.

parks + greenways became our
sanctuaries of sanity
parks have the power to heal
and bring joy



**Parks should be considered part
of our healthcare system**

A woman with short blonde hair and sunglasses on her head, wearing a black short-sleeved shirt and a black and white striped skirt, is smiling and hugging a large tree trunk from the left. A man with short grey hair, wearing a dark blue suit jacket, is smiling and hugging the same tree trunk from the right. A bright green rectangular sign is attached to the tree trunk between them. The sign has the text "It's okay to hug me." in white, a small circular logo with a tree and the text "NYC Parks" below it, and the URL "nyc.gov/parks/hugatree" at the bottom right. The background shows a park setting with green trees and a wooden fence.

It's okay
to hug me.



nyc.gov/parks/hugatree











RESILIENCY & SUSTAINABILITY






Greenroofs

A photograph of a park scene. In the foreground, a wooden bench with black metal armrests sits on a paved path. The path is made of reddish-brown bricks and curves into the distance. To the left of the path is a black metal fence and some greenery. To the right is a grassy area with trees. The text "Permeable Pavement" is overlaid on the right side of the image.

**Permeable
Pavement**

A wide-angle photograph of a park. In the foreground, a paved walkway with a brick pattern runs along the left side, lined with green metal benches and young trees. To the right of the walkway is a large, rectangular field of bright green artificial turf. In the background, there is a chain-link fence, more trees, and a colorful playground structure with blue and yellow slides. The sky is clear and blue.

Subsurface Retention



Bioswales



520 miles of coastline

Superstorm Sandy

- Caused over \$725M of damage to 392 Park sites
- Two-thirds of the most vulnerable population live with $\frac{1}{2}$ mile of flood zones



Photo: isglobalwarmingreal.org; dailynews.com

Resilient City

- Neighborhoods
- Buildings
- Infrastructure
- **Coastal Defense**

One New York

The Plan for a Strong and Just City



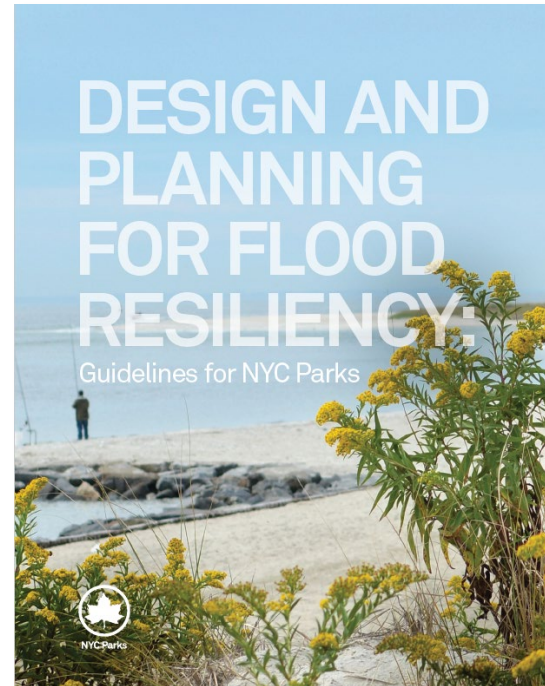
The City of New York
Mayor Bill de Blasio

Anthony Shorris
First Deputy Mayor

NYC



High Performance Landscape
Guidelines (2010)



Design and Planning for Flood
Resiliency: Guidelines for NYC
Parks (2017)

Coastal Resiliency Strategies

- Natural Systems-Based
- Hard Structures-Based
- Integrated Flood Protection Systems





Hunter's Point Park



Hunter's Point Park



East River Park



East River Park



East River Park

RENDERING DEPICTS 2015 MEAN HIGHER HIGH WATER

Tree Canopy

Street Trees

Park Trees

Forest Trees



MillionTreesNYC

- Completed in 8 years, two years ahead of schedule
- A public-private partnership
- Street trees (16%), forest trees (55%), and trees on other public and private property (29%)

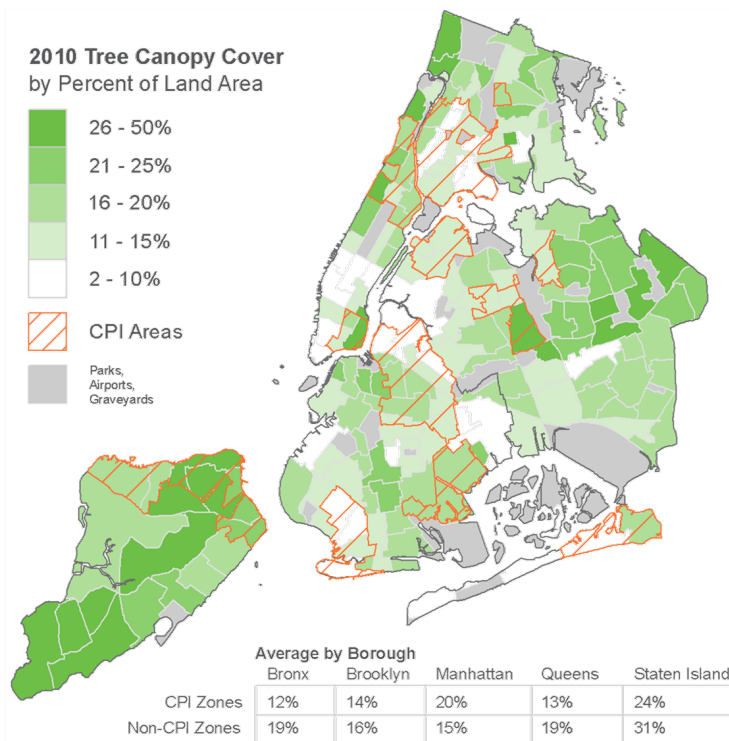
1 0 0 0 0 0 0
TREES PLANTED

milliontreesNYC
A PLANYC INITIATIVE WITH NYC PARKS AND NEW YORK RESTORATION PROJECT



Tree Canopy Benefits

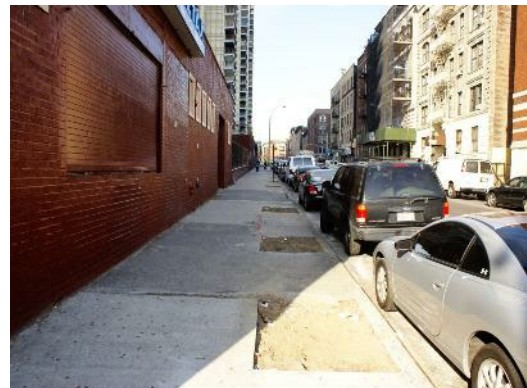
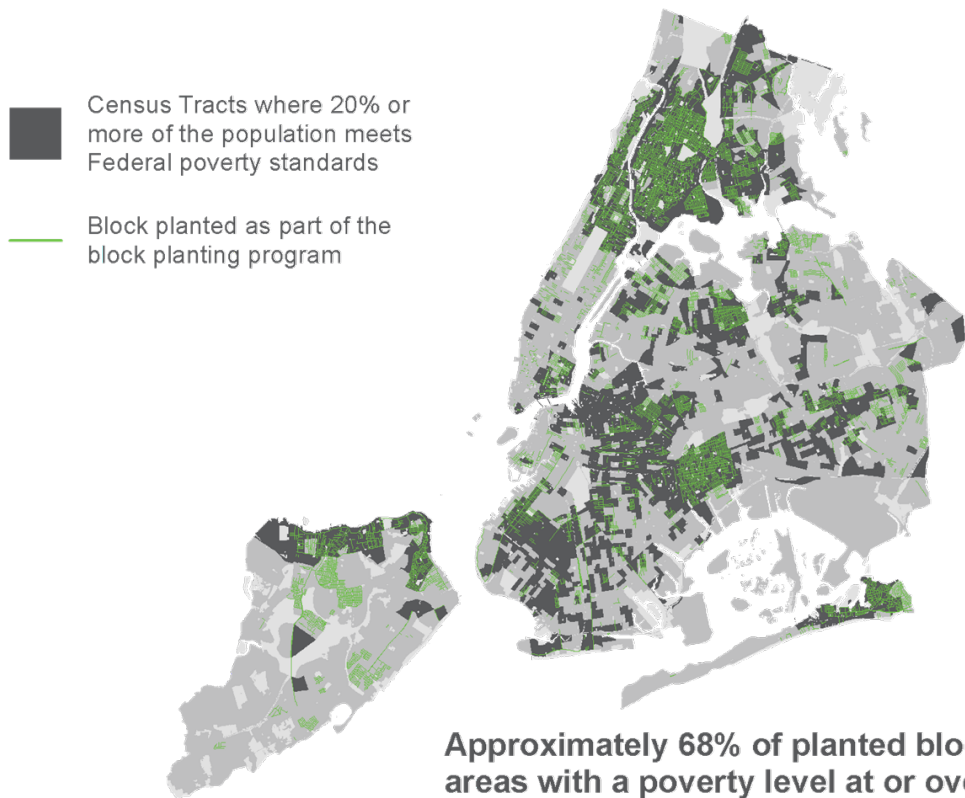
- Removes **1,300 tons** of air pollution each year (valued at \$93.2 million)
- Captures **61,000 tons** of carbon each year (valued at \$7.7 million)
- Reduces energy costs from residential buildings by **\$17.2 million** each year
- Reduces runoff by an estimated **1.9 billion gallons** of water per year (valued at \$1.9 million in avoided treatment costs)
- Stores an estimated **1.2 million tons** of carbon (valued at \$145 million)



* U.S. Forest Service draft NYC i-Tree Eco report to be published in 2016

NYC's tree canopy cover is 21%

Tree Planting and Equity



Cool Neighborhoods

The Heat Vulnerability Index (HVI) is the average of all census tracts for each community board. The estimated number displayed on each community board map represents the required plantings to reach full stocking.

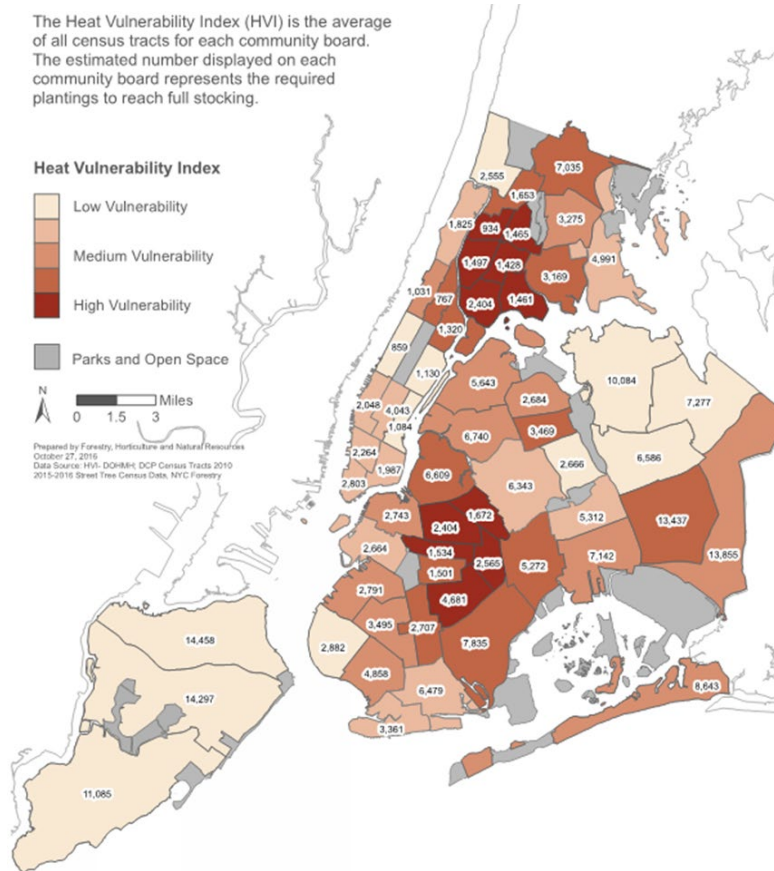
Heat Vulnerability Index



Parks and Open Space



Prepared by Forestry, Horticulture and Natural Resources
October 27, 2016
Data Source: HVI: DOHMH; DCP Census Tracts 2010
2015-2016 Street Tree Census Data, NYC Forestry



We are experiencing significant **disruptions and emerging challenges**

Parks are not just nice amenities, but a vital part of a community's **essential infrastructure and a system to advance sustainability**

Climate change is the most significant threat of our generation. **Let us commit to our purpose and pledge today to be guardians, healers, and protectors of people and the environment.**

Because our communities need us, our country needs us, our planet needs us.



Thank you

