



NYC Parks
Sustainable
Parks

A Plan for Sustainable Practices within NYC Parks



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Cover photo: A former concrete mixing plant in the Bronx finds new life as a public park with a waterfront promenade and multi-use recreational path for running, cycling, and rollerblading. Photo credit: Malcolm Pinckney.
Right: Cherry blossoms in Fort Tryon Park, Manhattan. Photo credit: Daniel Avila.



Letter from the Commissioner

The New York City Department of Parks & Recreation (Parks) manages 14 percent of the land in New York City. Our facilities range from recreation centers to playgrounds to expansive green spaces such as Prospect Park and the Staten Island Greenbelt. Parks and open space encompass more than 29,000 acres. We also care for over 2.5 million trees. How we manage this public property greatly affects the quality of life for all New Yorkers. It is essential that we consider the environmental impact of all of our agency's actions and policies. We must operate in a sustainable manner: In a way which can be maintained at a steady level without exhausting natural resources or causing ecological damage.

With this in mind, Parks launched the Sustainable Parks Task Force to advance green efforts related to 21st century park design and construction and innovative natural resource management, and to reduce consumption of fuel, energy, and materials. Through agency-wide education programs and the continued efforts of the Task Force, we are working to reduce our carbon footprint and enhance the current and future livability of New York City. The initiative is a call to action for all employees, and one that we believe will carry over to park patrons and the public at large who interact with our agency. Our goal is to tie together everything we do within Parks and reinforce these practices throughout our agency's culture.

We have already accomplished so much along these lines. We have created and distributed our High Performance Landscape Guidelines to ensure that our landscape designs are done in the most environmentally friendly manner possible. We have created the greenest vehicle fleet in the nation, and we are continuing to enliven some of

our recreation centers with green roofs—the kind that is already growing on our 5-Borough building on Randall's Island. We have developed the NYC Urban Field Station in partnership with the USDA Forest Service Northern Research Station, linking over 150 scientists to our Forestry and Natural Resource Group (NRG) divisions. The Field Station helps ensure that our conservation and restoration techniques will continue to preserve and protect our natural areas.

There is always more work to be done, however, and this plan is meant to stand as a guide that tracks the advances we have already made, as well as those that we must implement as we move forward toward a greener future. I am proud of all that has been accomplished, and I urge everyone who reads this to take every measure possible to make Parks the most sustainable agency it can be. In this way we will continue to ensure that current and future employees are truly the City's Greenest!



A handwritten signature in black ink that reads "Adrian Benepe". The signature is written in a cursive, flowing style.

Adrian Benepe, Commissioner

Executive Summary

In February 2010, Commissioner Benepe called for the creation of an intra-agency task force to create a Sustainability Plan. The plan, called “Sustainable Parks,” ties together our agency’s varied sustainability-related projects, identifies new opportunities, and sets clear goals to measure and promote sustainable practices. This inaugural version of the Plan will serve as a guide as we design and construct parks, offer park programming, and conserve natural areas. It will also serve as a platform for communicating our extensive work in this field. While Parks employs many sustainable practices, this Plan focuses on four main areas, each explained in an extended chapter:

- **Education and Outreach:** *We will promote ways to engage Parks employees and the public through sustainability education and outreach, by appointing “Green Gurus” at agency facilities, and by launching a “green pledge” campaign among Parks employees.*
- **Public Recycling:** *We will expand recycling in parks and at events by installing more recycling bins in parks, by engaging volunteers in recycling operations at citywide special events, and by incorporating recycling storage into new park designs.*
- **Leaf Composting:** *We will increase leaf composting efficiency in parks by installing a new O2 composter in each borough to provide a continuous supply of compost, by expanding leaf mulching in parks, and by increasing capacity for small-scale composting through training and ongoing communications.*
- **Park Design and Construction:** *We will expand sustainable practices across all phases of park*

development by creating a sustainable landscape design checklist, by creating a digital reference library cataloging sustainable park design elements, and by strengthening the dialogue between park designers and park maintenance staff.

Sustainable Parks provides clear indicators to measure progress over time. A metrics scorecard can be found on page 36. Finally, the Plan lists milestones for implementation by 2012. Milestones are detailed in each chapter, and in the chart on page 46.

The goals and indicators described in this Plan provide a starting point for bringing together sustainable practices at Parks into a more cohesive framework. As we work to implement our goals, we will also seek to address additional areas crucial to sustainability, such as energy and water efficiency. We will publish an update to our Plan in early 2012 to evaluate our efforts and establish new goals where needed. Through its agency-wide operations, public programming, and partnerships, Parks can make significant contributions to reduce the city’s impact on the environment.



Introduction

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Central Park, Manhattan

Previous Page: A landscaped traffic median, or Greenstreet, at 1st Avenue and 20th Street. Photo Credit: NYC Parks.

Long before it became a buzzword, sustainability has been central to Parks' mission. Carrying on the great tradition of visionary landscape architect Frederick Law Olmsted, the Parks Department stewards open space throughout the city, for the recreation and enjoyment of all New Yorkers. Central Park, which was designed by Olmsted and his colleague Calvert Vaux in the mid 19th century, today is a world-class park welcoming nearly 40 million visitors annually and attracting tourists from around the globe. Whether it is stewarding world class parks, enhancing natural areas, or caring for urban forests, Parks has long been on the forefront of the environmental and conservation movement. Central Park, along with so many other neighborhood parks, remains a testament to how thoughtfully designed parks can enhance quality of life for generations.

In 1905, Gifford Pinchot, the first Chief of the US Forest Service, spoke about the idea of conservation as providing the greatest good to the greatest number for the longest time.¹ The concept of conservation has continued to evolve over time, and is now echoed within the modern day concept of sustainability. In 1987, the United Nations Brundtland Commission elevated the concept of sustainability into the public dialogue when it issued "Report of the World Commission on Environment and Development: Our Common Future," which stated that sustainable development is development that meets the needs of the present "without compromising the ability of future generations to meet their own needs."²

1. Chapple, C. (1994) "Ecological prospects: scientific, religious, and aesthetic perspectives," Published by State University of New York Press, Albany, p.41.

2. Report of the World Commission on Environment and Development (1987) available at: <http://www.un.org/documents/ga/res/42/ares42-187.htm>.

Today, sustainability is an overarching concept or framework through which one can view the rational, reasonable consumption of the world's resources. Sustainable practices support infrastructure and governance mechanisms that respond to long-term human and ecological needs. Sustainability is generally regarded through three lenses: economy, society and environment. Advocates of sustainability emphasize the importance of establishing linkages among these three dimensions to fully implement sustainable practices.

At Parks, sustainability is, quite literally, the nature of our business. Parks and open space fortify the social, economic, and environmental landscape in New York City, contributing to a better quality of life for future generations. Sustainability provides the lens for addressing many of the agency's most pressing challenges, such as better aligning the design and construction of parks with their long-term maintenance or reducing litter across the park system.

Parks has been and will continue to be on the forefront of environmentalism, with innovative research on urban forestry and restoration ecology, and operating New York City's own native plant nursery to provide genetically diverse seeds and plants for restoring the city's natural areas. We are helping to mitigate climate change and adapt to our changing environment by caring for 2.5 million trees on streets and in parks, which reduce air pollutants, provide oxygen and shade, lower ambient temperatures, and store carbon. We are also designing green infrastructure such as green roofs and Greenstreets to absorb storm water and limit sewage overflow into the city's waterways. We are committed to using as little pesticide as possible and are reducing the need for chemical fertilizers by expanding leaf composting operations. Parks is tasked with conserving 11,000 acres of natural areas in the heart of New York City, composed of forest, woodland, freshwater wetland, and salt marsh ecosystems.

Natural areas provide habitat for a variety of wildlife, which is evidenced by the resurgence of the beaver and alewife in the Bronx River.

Parks are about more than trees and nature – they are public forums that strengthen the social fabric of New York City. New York City's 8.3 million residents flock to parks across the city to engage in sports, fitness, and outdoor recreation; spend time outdoors with friends and family; view public art exhibitions; and enjoy hundreds of free concerts, world-class sporting events, and cultural festivals every year. To cultivate civic engagement, Parks hosts a variety of stewardship activities, whereby we engage the public in the upkeep of their local parks. For example, through the agency's MillionTreesNYC StewCorps program, citizen volunteers can attend free street care workshops and receive toolkits; volunteers can also participate in park clean-ups and community

WHAT IS SUSTAINABILITY AT NYC PARKS?

As we build new parks and renovate existing ones, bring programming into parks and conserve natural areas, we must consider the impact our actions have on the environment, on the economy and on future generations. At Parks, sustainability means:

- *Designing capital projects using long-lasting materials and plants that are easy to maintain.*
- *Conserving and restoring natural areas to protect biodiversity.*
- *Reducing carbon emissions by making our fleet and buildings more energy efficient.*
- *Reducing the impacts of climate change by ensuring our parks can withstand flooding and capture stormwater.*
- *Engaging New Yorkers in the stewardship and care of their parks.*



New Yorkers plant trees in Marine Park, Brooklyn, in April 2011. Photo Credit: Malcolm Pinckney.



Kids cool down at a spray shower in Sweetgum Playground, Bronx. Photo Credit: Daniel Avila.

design sessions through Partnership for Parks. Parks also contribute to the economic sustainability of New York City. Attractive parks can serve as economic lynchpins in neighborhoods, drawing visitors, businesses and residents, and boosting property values. Through the agency's partnerships, we encourage our non-profit partners and concessionaires to "go green." When selecting concessionaires that provide food and services in parks, we take their commitment to sustainable practice into consideration. Several job training programs run by Parks help create a greener workforce. Through the Parks Opportunity Program (POP), one of the nation's largest transitional employment programs, trainees gain skills related to energy efficiency and horticulture. In addition, The MillionTrees Training Program prepares par-

ticipants for careers in ecological restoration and arboriculture.

Sustainable Parks

The ideas and inspiration for a greener Parks Department often come from the thousands of employees across the agency, from park designers to field staff. This widespread enthusiasm and commitment to the environment has served as a driving force behind the agency's varied sustainability initiatives. To ensure that sustainable practices are maximized and implemented consistently across the agency, Commissioner Benepe called for the creation of a sustainability task force in February 2010. The motivation for this call to action was to bring together the many divisions within the agency involved with sustainability to develop a cohesive framework to share best practices and measure the progress of initiatives. The task force builds off of the successes of many existing initiatives and Mayor Bloomberg's PlaNYC projects that Parks has implemented over the past four years.

The present focus on sustainability planning both locally and globally presents an opportunity to cement Parks' leadership as "New York City's Greenest." Our agency offers a wealth of knowledge and expertise in sustainable practices, and our staff is passionate and committed to sustainability. By developing a cohesive sustainability structure, we can empower the agency and serve as a resource for our peers in the field and for the public at large. We will develop strong metrics to assess current initiatives, highlight strengths, benchmark performance, and determine additional needs. Our goal is to inspire and further educate all Parks employees, as well as our park users, to strengthen their commitment to sustainable practices. Working together, we are able to enhance the quality of life in New York City for current and future generations.

The first task force meeting was held on September 16, 2010 with more than 30 staff

NEW YORK CITY PARKS: STRENGTHENING THE SOCIAL DIMENSION OF SUSTAINABILITY

Parks serve as a unique space for shared social activity and public interaction in the city. Nineteenth century landscape designer and co-creator of Central Park Frederick Law Olmsted often spoke about parks as "The Great [American] Experiment... a form of government in which all men are declared to be equal, in which there are no privileged orders; no ruling class." Olmsted designed his parks for "vast numbers of persons" to be "brought closely together." In his words, "The primary purpose of the park is to provide the best practicable means of healthful recreation, for the inhabitants of the city, of all classes."

members from across the agency to identify areas for improvement. Based on the feedback received, six working groups were formed to advance the planning process: communications, training and education, metrics, public recycling, capital design and construction, and leaf composting.

This inaugural sustainability report presents the progress achieved to date by the working groups and sets goals and milestones for future implementation. With an emphasis on the “us” and “able,” the name, Sustainable Parks, captures the idea that Parks employees and the public they serve have the ability and expertise to be more environmentally friendly. In short, we are all able to be sustainable.

Sustainable Parks’ Mission:

- Advance initiatives related to 21st century park design and construction, innovative natural resource management, and the strategic reduction of agency fuel, energy, and materials consumption
- Create awareness about employees’ and the public’s impact of their daily actions on the environment through training and education
- Quantify sustainable efforts at Parks to identify impacts
- Promote and share progress and best practices around sustainability



Sustainable Parks Timeline

2010 Feb	2010 Sep	2010 Oct-Nov	2011 Feb	2011 March	2011 Jul	2012 Jan
Commissioner Benepe calls for the creation of a sustainability task force at “State of the Parks” Speech	Agency sustainability task force kick-off held	Working group formation and goal-setting	Official Sustainable Parks launch at agency-wide Sustainability Summit at The Center for Architecture	Call for Green Pledges Green Guru Identification	Plan release	First bi-annual Sustainable Parks progress update



Education and Outreach

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Education and Outreach

Engage Parks employees and the public through sustainability education and outreach

Overview

Parks' workforce of approximately 10,000 full-time and seasonal staff (at its peak in the summer) encompasses a diversity of talents – we employ blacksmiths, plumbers, park maintenance workers, horticulturists, mechanics, law enforcement staff, and administrative analysts, to name a few.

While the majority of our workforce strives to employ environmentally friendly practices, within every job function there is room to raise the bar. In particular, we aim to open channels of communication to share sustainable best practices. By encouraging Parks employees to think critically about the impact of their daily actions on the environment, we aim to solidify our agency's culture of sustainability.

Parks' diversity in human resources is matched by its variation in work environments. Employees work in both office and field settings, from sandy beaches and indoor ice rinks, to 18th century historical landmarks, WPA-era outdoor pools, and 21st century Leadership in Energy and Environmental Design (LEED)-certified buildings. Each setting presents a unique opportunity to minimize human impact on the environment. However,



Above: A Parks blacksmith grinds the tub of a BBQ grill for a park. Photo Credit: Spencer Tucker.

Previous Page: An Urban Park Ranger shows children an American Kestrel in Central Park. Photo Credit: Daniel Avila.

given the wide range of job functions and work environments at the Parks, there is no one-size-fits-all employee education and outreach strategy. Sustainable Parks is employing creative outreach strategies to broaden all employees' understanding of sustainability and to reinforce how sustainability is central to Parks' mission. Through education and outreach, we will strengthen our workforce's commitment to sustainability so that we can carry out the agency's mission of greening New York City.

Goal One

Provide sustainability training and education for all Parks employees

Challenge: Individual actions, when added up, can make a large impact. Simple steps can be taken at no cost at work to reduce operating costs and improve the quality of life of New York City. Many of these practices, such as unplugging cell phone chargers at the end of the day or regularly checking tire pressure can be replicated and reinforced at home, where the savings are often more tangible.

Opportunity: Parks has launched a review of its facilities to understand operations and determine new greening opportunities. The results of this review will help inform the development of new training and education courses. These training programs will serve as a starting point, and we will seek to expand our training and education offerings to all employees, as well as customize programs for different office buildings. In addition, Parks can leverage a wealth of external resources, such as the Citywide Training Center and the City's GreenNYC campaign in order to provide education on a variety of sustainability topics. Parks can gear sustainability training and education to all Parks employees, from office administrators to field staff. Further, Parks can incorporate green education within the agency's Parks Opportunity Program (POP) to reach seasonal staff.



Progress toward Goal:

- *Increased visibility of sustainable practices through office signage.*
- *Launched questionnaires to determine greening opportunities for office buildings.*
- *Hosted employee training and education activities for office and field staff.*
- *Facilitated employee training through external education offerings.*

Parks' Sustainability Summit in February 2011 provided a new forum to bring together employees who build and maintain parks. Photo Credit: Malcolm Pinckney.

Implementation Milestones for January 2012 Update:

- Increase training and awareness around energy efficiency.
- Develop sustainability checklists for recreation center managers.
- Strengthen sustainability component in Parks' public education programming offered at recreation centers and nature centers.
- Incorporate sustainability training within orientation program for POP participants.

Goal Two

Create a network of Green Guru point people across the agency to support sustainability initiatives

Challenge: Sustainable practices can be confusing without the proper training and guidance. Our agency's challenge is to design education and outreach programs that offer the proper support to employees who come from different backgrounds, offer diverse talents, and work in a variety of settings.

Opportunity: Within every building or in the field, there are employees who are already recognized as leading environmental initiatives or who have demonstrated a passion for the environment. Designating them as a Green Guru formalizes their role and empowers them to provide education and support green initiatives such as recycling and composting. Green Gurus can also make sustainability fun and accessible, and serve as a guide to people who have questions about sustainable practices. We will leverage this network of green enthusiasts across the agency to share best practices and elevate our agency's commitment to sustainability.



Interagency Coordinator and Green Guru Dan Grulich started an alkaline battery recycling program at the Capital Projects headquarters in Queens.
Photo Credit: Mark Kuhn.

DID YOU KNOW?

25 Parks employees have volunteered to be Green Gurus to spread their environmental expertise and passion for sustainability throughout the agency.

Progress toward Goal:

- *Established network of 25 Green Gurus at 14 Parks facilities across the five boroughs.*
- *Instituted monthly meetings to discuss sustainability efforts across the Green Guru network.*
- *Hosted agency-wide Spring Cleaning Day.*
- *Developed new sustainability education formats such as Sustainability 101 Scavenger Hunt.*
- *Launched office composting program at Parks headquarters.*

Implementation Milestones for January 2012 Update:

- *Develop internal agency resource guide for sharing best practices.*
- *Expand recycling at Parks office buildings.*
- *Expand network of Green Gurus.*

Goal Three

Launch Green Pledge Campaign to strengthen the culture of sustainability at Parks

Challenge: Parks employees engage in a variety of sustainable activities throughout the workday. Examples include taking creative steps to reduce paper or energy in the office, biking to work, or reusing old construction materials in the field. The challenge is to create a cohesive community and increase transparency around best practices. An agency-wide forum for sharing these practices would strengthen the culture of sustainability at Parks.

Opportunity: By creating an online platform where employees can voluntarily commit to one envi-

ronmentally friendly action, or Green Pledge, we can inspire employees to “go green,” recognize employees for their commitments, and identify opportunities for further education and improvement. The Green Pledge Campaign provides a forum for creative thinking and inspires dialogue about sustainable practices.

Progress toward Goal:

- *Launched Green Pledge campaign on March 1, 2011.*
- *Collected 502 pledges to date.*
- *Exceeded Earth Day Pledge goal of 300 by 12%.*
- *Developed “How-To” videos showcasing employee pledges.*

Implementation Milestones for January 2012 Update:

- *Collect pledges from 1000 employees, or 10% of Parks’ peak headcount.*
- *Perform research into motivations for pledging.*
- *Increase pledges from Maintenance and Operations staff.*

GREEN PLEDGE

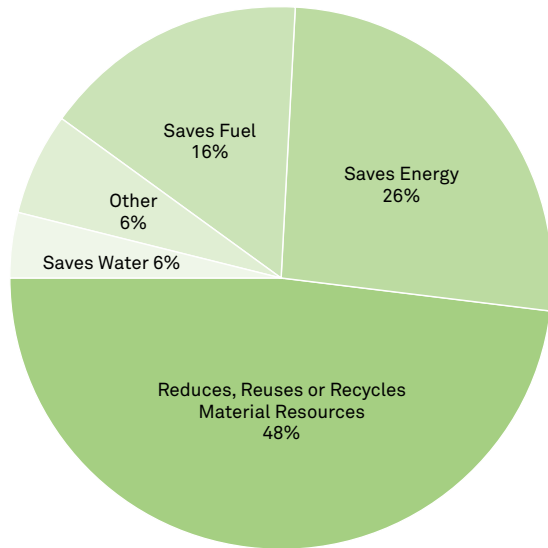
“I will become a Green Guru for my floor, and educate others on what it means to be green.”

Patricia Perone, Grants Analyst, Manhattan

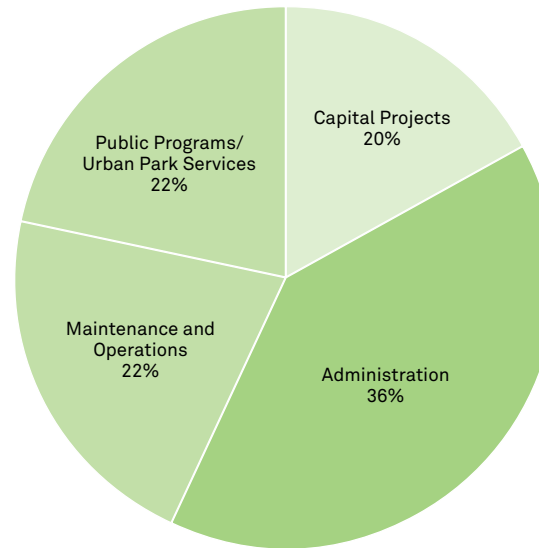
Green Pledge Campaign Progress

The Green Pledge campaign was launched in March 2011 to inspire dialogue about sustainable practices among Parks employees. Each staff member was asked to identify the impact of their pledge when signing up. Look for a few of the 502 pledges received throughout this Plan.

Pledge Impacts



Pledge Participation by Division



Case Study

Spring Cleaning

Used bathroom paper towels generally end up in the trash. In April 2011 at Parks headquarters at the Arsenal, bathroom paper towels that would have ended up in a garbage truck, and eventually in an out-of-state landfill, were collected and brought up the stairs to help create compost for the rooftop garden.

The paper towel composting effort was just one environmentally-friendly activity introduced into Parks' Spring Cleaning Day, an annual tradition that brings together offices to archive files, dust off work spaces, and get organized for the agency's busy summer season. Parks facility management

staff and Green Gurus helped employees reduce, reuse, and recycle. Green-certified cleaning product and reusable rags were made available for the cleaning. At Ranaqua in the Bronx, employees took spring cleaning outside and organized a self-serve car wash for the borough's vehicles.

At the Arsenal, Green Gurus set up an educational display in the gallery with bins for collecting small electronics, batteries, and pens. Tip sheets were distributed on how to make cheap and non-toxic cleaning products at home and how to select the right office plant for cleaning the air. The Parks Commissioner awarded prizes for "Greenest Office" and "Most Improved Office" to recognize the tremendous spring cleaning efforts that spruced up offices in an environmentally friendly way.

Interview with an Expert

Katy Boula, Urban Park Ranger

In college, Urban Park Ranger Katy Boula had dreams to own a restaurant. She credits an environmental studies course with changing the direction of her life. Katy was hired as a seasonal Ranger in 2007, and is currently stationed at Van Cortlandt Park in the Bronx.

Q: What are the challenges of trying to teach people about sustainability?

A: *It seems that it is really difficult for some people to change their way of life, especially when they may not see instant results. That's probably why I love having opportunities to educate children and teens, because they may not have fully formed ideas, and will be responsive to suggestions to help preserve and protect the environment.*

Q: What are the benefits?

A: *The benefits are endless, really: having a neighborhood that treats the park with respect; having less food waste being sent to the landfills; inspiring a home owner to start a green roof; or recruiting volunteers for a tree planting.*

Q: Has teaching others made you increase your own sustainable practices?

A: *I would absolutely state that my profession as an environmental educator has encouraged me to "practice what I preach." Since becoming a Ranger, I have taken many actions to be more environmentally conscious and personally sustainable, including trading in my old vehicle for a hybrid car and setting up a compost bin at home and at work.*

Q: As an educator, what sustainable practices are most important to teach?

A: *I think they are all important, but knowing your audience is key to getting your message across. The most tangible and effective sustainable practice to teach about in the park is to not litter. When people see the shore of a beach lined with trash, it really shows the negative impact of littering.*



Urban Park Ranger Katy Boula shows off compost that has been turned into nutrient-packed mulch.
Photo Credit: Malcolm Pinckney.



Public Recycling

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Public Recycling

Expand recycling in parks and at events

Overview

Parks are New Yorkers' backyards. Each year, millions of New Yorkers and visitors from around the world visit New York City's parks to barbecue, picnic, exercise, or simply relax on a park bench to read the newspaper. While these activities help make parks special to our patrons, they also produce a large volume of trash, much of which is recyclable.

The City spends \$300 million each year to export 3.3 million tons of trash to landfills as far away as South Carolina, Ohio, and Kentucky.³ New Yorkers are required to recycle by law at home. As "backyard" extensions of our homes, parks should be places where the public can easily recycle as well. Existing recycling bins in some parks currently allow park users to "pitch in" to help the environment. New Yorkers' interest in recycling, coupled with the City Council's recently passed legislation expanding recycling in public spaces, can provide a powerful impetus for elevating recycling in parks to new heights.

Parks' public recycling effort involves internal collaboration across many divisions. For example, our capital division can incorporate recycling collection areas into new park designs to help with effective waste management. Our agency can also strengthen collaboration with our sister agencies, such as the Department of Sanitation (DSNY), to expand public recycling. In addition, we can build on the explosive success in recycling at numerous Parks-produced citywide special events each year

Above: Recycling enthusiasts in Union Square Park in Manhattan. Photo Credit: NYC Parks.

Previous Page: New Yorkers planted 10,000 trees in Marine Park, Brooklyn – and recycled their lunch containers. Photo Credit: Malcolm Pinckney.

3. City of New York (2011) "PlaNYC 2.0, update April 2011", p. 137; available online at: www.nyc.gov/planyc

by engaging a group of citizen volunteers to help monitor recycling bins. These events provide the opportunity to divert a large volume of recyclables from landfills and educate the public about waste reduction.

Goal One

Expand public recycling sites to 25% of all city parks and gardens by 2013

Challenge: Recycling in public parks presents unique challenges. We need to ensure that the recycling bins are strategically placed to make monitoring and collection as easy as possible for maintenance staff and DSNY, which collects the bagged material.

Opportunity: New City Council legislation requires DSNY to place over 200 bins in more than 60 parks, and service these directly with pick-ups. In addition, Parks has placed more than 600 new recycling bins at more than 150 parks and 85 Greenthumb gardens. We will use the expansion of public recycling sites as an opportunity to educate the public about proper recycling techniques and about the importance of reducing litter in parks.

Progress toward Goal:

- *Increased public recycling sites in parks from 115 (December 2010) to 250 (May 2011).*
- *Expanded recycling at 85 community gardens.*
- *Trained 175 citizen volunteer Park Greeters in recycling best practices in less than one year.*

Implementation Milestones for January 2012 Update:

- *Increase public recycling sites to 300.*
- *Expand recycling at community gardens from 85 sites to 150 sites.*

- *Evaluate performance of pilot recycling “cage” placed at Rockaway Beach.*
- *Organize public education events to promote recycling and reduce litter.*
- *Encourage concessionaires in parks to recycle through education and site visits.*

Goal Two

Expand and improve recycling at special events in parks

Challenge: Parks and its numerous corporate, non-profit, and government partners host thousands of special events each year, ranging from annual athletic events such as the Citywide Bocce Tournament and the New York City Marathon to a full schedule of outdoor theater performances and concerts. With the high volume of park users that attend these events, it is important to provide easy, accessible recycling opportunities throughout the sites, especially at entrance and exit points and near areas serving food and drinks. Recycling at special events requires additional staffing and a customized plan for taking the recyclables to a DSNY pick-up point.

Opportunity: In 2009, Parks formed the Green-Team Volunteer Corps to assist Special Events and Maintenance and Operations staff in successfully collecting recyclables at Parks-produced events (see case study). There is tremendous opportunity to replicate best practices from these large-scale Parks-produced events at smaller events in parks throughout the city.

DID YOU KNOW?

Parks operates the largest green roof on a New York City government building.

Progress toward Goal:

- *Recruited record number of GreenTeam volunteers (60) to help collect recycling at Winter Jam 2011, a free, special event celebrating winter sports for the public.*
- *Encouraged GreenTeam members to become Parks Greeters to promote recycling education on a wider scale.*
- *Developed and released a survey for all Parks special event producers in the boroughs to collect information about recycling at smaller events.*

Implementation Milestones for January 2012 Update:

- *Collect and analyze survey results related to recycling at smaller special events in parks.*
- *Encourage organizations that obtain a permit to produce events in parks to recycle.*
- *Update “How-to” guide for recycling at privately-produced events.*
- *Create “How-to” guide for recycling at Parks-produced events.*

Goal Three

Incorporate recycling storage into new park designs

Challenge: DSNY generally collects recycling once a week. Because parks can have such high volume of visitors and related waste material, bags of recyclables often build up at park sites before being collected. Without a designated area for local storage, Parks staff must transport the bags of recyclables, sometimes off-site, to maintain the appearance of the park.

Opportunity: A group of stakeholders from Capital Projects and Maintenance and Operations recommended that it would be prudent and feasible to add a dedicated recyclables storage zone to new park designs. We will further explore the possibility of incorporating these storage zones into park design. Recycling storage will be a priority for consideration through the design checklist under development (see page 28).

Progress toward Goal:

- *Assembled a task force of representatives from Parks Capital, Maintenance and Operations, and Citywide Operations divisions to discuss the challenges and best practices of recycling in parks.*
- *Distributed 20-yard containers to the boroughs to facilitate storage.*
- *Began researching recycling bin designs to identify the most economical and user-friendly options.*

Implementation Milestones for January 2012 Update:

- *Conduct waste audits at parks to gauge volume of waste and recyclables to help inform future park designs.*
- *Explore opportunity to leverage existing storage options in parks, such as sheds and fenced-off areas, for recycling storage.*
- *Incorporate storage zones into sustainable design checklist under development.*

GREEN PLEDGE

“I will create an army of Green Teens to remove litter and collect recyclables.”

Rosemary Paul, Deputy Chief of Recreation, Queens



Recycling at the 2009 Street Games event in Thomas Jefferson Park, Manhattan. Photo credit: NYC Parks

Interview with an Expert

**Angela Elie, Center Manager,
Detective Keith Williams Recreation Center**

Angela Elie prides herself on acting in a sustainable manner both at her home and on the job as the Center Manager for the Detective Keith Williams Recreation Center in Queens. As a child, she learned from her father not to waste energy, and ever since, Angela has been trying to carry that lesson forward.

Q: What are some of the sustainability initiatives you employ in the center?

A: *We have a lot of scrap paper, so I use it to make copies. We're energy efficient. We don't turn on lights if the room is unoccupied. A lot of kids ask me "Can we turn the A.C. on?" And a lot of times I say "no". I open the window instead. If I do turn it on, I have it on a comfortable temperature. It's the same with the heat—I set it differently for night. I also use blinds both for aesthetic purposes and to keep the heat and cool air in.*

Q: What does sustainability mean to you?

A: *I have a 22-year-old at home, so for me, sustainability means taking actions that will help his children. The planet needs us to help out... every little bit counts. It's all about small steps. My family at home, they've got it. And here, at the rec center, I'm slowly getting my staff to make those small changes.*

Q: How do you educate children using the center to recycle?

A: *I have an after school program and I serve a snack. The kids think the snacks are trash, but we teach them that juice containers and milk cartons are recyclable. We did a project for Earth Day on the effects on the planet of not*



Angela Elie at the William H. Simmons Garden in Queens. Photo Credit: Daniel Avila.

recycling. I'm hoping that they're going home and saying "Mom, that's recyclable!"

Q: How did you get recycling started in the center?

A: *I was one of the first centers to recycle in this area. At first we had an issue getting bags, so I brought my own, until last fall. Now Parks is supplying the bags. I needed to actually get in touch with the Department of Sanitation to let them know that I'm recycling. I went to community board meetings, talked to the inspector, and let them know where I was dropping the recycled material. And that was three years ago. Now we work hand in hand.*



GreenTeam volunteers at the 2011 Winter Jam in Prospect Park, Brooklyn.

Case Study

The GreenTeam

Since 2009, the Parks Department has deployed a group of citizen volunteers, called the GreenTeam, to help reduce the footprint of Parks special events. At citywide special events like Adventures NYC, Winter Jam, and Pumpkin Festival, GreenTeam volunteers ensure that recycling bins are available to attendees and that all appropriate materials are recycled. The volunteers, mostly high school students, compete in teams to see who can collect the most bags of recyclables.

Winter Jam 2011 in Prospect Park was a huge success for the GreenTeam. Sixty volunteers collected 30 bags of recyclables and organic waste like apple cores for composting.

The GreenTeam also added an education component at Winter Jam. By partnering with different environmental non-profits and community groups, the GreenTeam created an ecological scavenger hunt for attendees, where participants were able to learn about all of the environmental issues and organizations in the local area. Winners of the scavenger hunt were inducted into the “GreenTeam Hall of Fame” and also received prizes. The GreenTeam is looking forward to building on the success of the scavenger hunt and incorporating the program at future events. Parks will also strive to engage GreenTeam volunteers in Greeter Corp activity, promoting recycling education in public parks.



Leaf Composting

NYC Parks
Sustainable
Parks





Compost is a waste product of worm digestion. Photo Credit: Malcolm Pinckney.

Previous Page: Citywide Nursery manager Richie Cabo displays compost from Parks' first O2 composter. Photo Credit: Malcolm Pinckney.

Leaf Composting

Increase leaf composting efficiency in parks across the five boroughs

Overview

The estimated 5.2 million trees comprising New York City's urban forest drop vast quantities of leaves each fall. In the past, safety and aesthetic concerns led Parks to remove the large majority of leaves for transport to distant landfills. The leaf removal robbed nutrients from the environment and required the agency to use extra fertilizer. Over a decade ago, we began to take steps to manage the huge quantity of leaves in the fall and ensure a consistent supply of compost for our parklands.

We have managed leaves in parks using a variety of techniques. Our first priority has been to send only leaves that cannot be separated from trash to landfills. Where appropriate, leaves have been blown into natural areas. Instead of removing leaves from lawns, we have begun to mulch them in place. The Parks Inspection Program (PIP) has modified its ratings standards so that leaves can be left in planting beds. We have also set up more small composting bins in parks, and worked with the Department of Sanitation (DSNY) for years to provide leaves for their composting facilities in exchange for already-made compost. In an effort to tap into one of our greatest resources – nature – and to fortify our sustainable practices related to the nutrient cycle, environmental protection, chemical usage and carbon footprint reduction, Parks will build on these existing leaf management techniques and increase the efficiency of its leaf composting program.

Goal One

Install a new O2 composter in each borough to provide a continuous supply of compost

Challenge: Compostable material at traditional windrow facilities found in Central Park or at DSNY sites is piled in rows. However, these facilities require significant amounts of space, additional skilled staff, and expensive equipment. Our challenge is to expand leaf composting using existing resources.

Opportunity: We will install five new O2 composters in parks, one in each borough. O2 composters will provide a consistent supply of clean compost for each borough and are fairly low-maintenance. We have piloted an O2 composter at the Citywide Nursery in Van Cortlandt Park (see case study to learn more). By the end of 2011, the new units will be producing their first loads of compost to nourish our city's parks.

Progress toward Goal:

- *Identified one site in each borough to receive a new O2 composter.*
- *Started design process to customize O2 composters for each site.*
- *Prepared Parks staff to install and maintain new composters.*

Implementation Milestones for January 2012 Update:

- *Install composters in Manhattan, the Bronx, Staten Island, and Brooklyn by the end of August 2011. Note: The Queens composter will be installed in 2012.*
- *Produce at least one load of compost from each of the four units before January 2012.*

Goal Two

Expand leaf mulching in parks

Challenge: The leaves that blanket our lawns each fall are full of nutrients that over time can break down and nourish the soil if they are properly mulched. However, without mulching, leaves can suffocate the lawn below. For this reason, where we do not have composters, we have traditionally removed leaves from the lawns, which removes a natural nutrient source.



Small-scale composting at Stuyvesant Park, Manhattan. Photo Credit: Malcolm Pinckney.

Opportunity: We will devote new resources to preserve fallen leaves as a natural nutrient source. By adapting old lawn mowers to mulch leaves and purchasing new mulching equipment, we can mulch a much larger quantity of the leaves that fall on lawns. The new equipment consists of mower blades and decks (the attachment to the mower that covers the blades) designed specifically for mulching. An added benefit is that our field staff will have more time to devote to other park maintenance priorities.

Progress toward Goal:

- *Surveyed inventory of existing mulch deck locations in each borough.*
- *Purchased 43 new mulch decks and 15 new mulch blades.*

Implementation Milestones for January 2012 Update:

- *Acquire and distribute 15 new mulch blades and retrofit them onto existing decks by the end of July 2011.*
- *Acquire, install, and distribute 43 new mulch decks at sites in all five boroughs by fall 2011.*



The city's 5.2 million trees drop vast quantities of leaves each fall, many of which can be mulched in place. Photo Credit: Daniel Avila.

Goal Three

Increase capacity for small-scale composting through training and ongoing communications

Challenge: A few different types of small-scale compost operations exist in New York City parks, from wooden bins to fenced-in areas where leaves and weeds are deposited and turned. The challenge is to unify our actions across the agency. A communication forum designed specifically to share information on compost would strengthen existing operations.

Opportunity: We will leverage the tremendous enthusiasm for composting shared by horticulture staff and the New York City community to create a communications framework for sharing knowledge, ideas, and tips. Our monthly Horticulture Bulletin offers an initial forum for information exchange. In addition, we will adapt previous large-scale horticulture trainings to inform new training programs.

Progress toward Goal:

- *Discussed composting at annual horticultural staff working session in November 2010.*
- *Started collecting information on small-scale composting units used at Parks.*

Implementation Milestones for January 2012 Update:

- *Publish first "Compost Corner" item in Horticulture Bulletin.*
- *Complete a guide to types of small scale compost bins in use in Parks.*
- *Include composting class in Winter Horticulture Classes series for winter 2011-2012.*
- *Develop metrics to measure leaf composting in parks.*

GREEN PLEDGE

"I will take the stairs when possible and pick up one piece of litter each day."

Adrian Benepe, Parks Commissioner

Interview with an Expert

Gosha Mosiej, Gardener at Stuyvesant Square Park and Union Square Park

Parks Gardener Gosha Mosiej grew up gardening and farming, in a tradition of absolute respect for fundamental values. Where she comes from, wasting a piece of bread is looked down upon. Looking to transfer those principals to everyday life and work, Gosha created a compost system in Stuyvesant Square Park in Manhattan that routinely returns the park's organic waste in the form of nutrient-rich soil.

Q: Why do you think a good compost system in the park is important?

A: *Compost is a necessary element in the garden; it's one of the links in the chain of a healthy park. If it comes from the garden, why should we spend money to buy compost, and pay to deliver it; isn't it a waste?*

Q: What compost system have you created in your park?

A: *Most of my composting is done in round bins made of black range fence rolled in a cylinder, with no bottom. They're filled mostly with fallen leaves and weeds. Many of the bins are hidden in plant beds, and can't be seen unless you know what to look for. Others are fully visible, serving as great educational tools both for the public, and also for Parks employees.*

Q: What challenges have you overcome in creating this compost system?

A: *At first, my supervisors were hesitant because they feared it would look ugly and attract unwanted creatures, like rats and mice. So in early 2009, I started with one bin in the less visited part of the park, and it worked out great;*



Gardener Gosha Mosiej tends to a compost system in Stuyvesant Square Park, Manhattan. Photo Credit: Malcolm Pinckney.

there were no rodents at all. Since then, I've added more bins, and there are now around 20 bins placed all over the park.

Q: What does sustainability mean to you?

A: *Sustainability means ways or methods of working that have been forgotten and spoiled by abundance – simple ways that were once natural for all of us. Of course, this is a right approach to follow, but it has the most value when translated into a true action and not just words.*



Above: Citywide Nursery Manager Richie Cabo tends to the O2 Composter in Van Cortlandt Park, Bronx.
Photo Credit: Malcolm Pinckney.

Case study

O2 Composter in Van Cortlandt Park

In 2010, Citywide Nursery Manager Richie Cabo installed an O2 composter at the Citywide Nursery in Van Cortlandt Park, Bronx. He was inspired by the system he saw during a visit to the Stone Barns Center for Food and Agriculture in Westchester County, NY. The O2 composter Cabo installed will serve as a model as Parks looks to expand its composting operations.

The O2 system produces compost in one-third of the time of a normal windrow or leaf pile, and is much more compact. It works by pumping air through pipes laid at the bottom of the bin. The air exits through holes drilled the length of the pipes, and rises through the source material piled on top of them. This system allows for consistent and homogenous air flow through the pile, which reduces the need to turn the material. As a result, the system requires less room, fewer staff hours, and less time to reach the final compost product. The heat generated as the compost matures kills parasites, pathogens, and weed seeds. Periodic watering may be needed since the bin is covered to prevent possible flooding from rain. The unit in Van Cortlandt Park has produced all the compost needed at the nursery, reducing operating costs. By the end of 2011, four similar O2 composters will be up and running in other parks around the city.



NYC Parks
Sustainable
Parks

Park Design and Construction



Park Design and Construction

Implement sustainable practices across all phases of park development

Overview

New York City's park system has long been both a paradigm and trendsetter for urban park systems around the world. Thanks to generous funding commitments from Mayor Bloomberg and the City Council, as well as the creation of Mayor Bloomberg's PlaNYC sustainability plan, Parks has been engaged in the greatest period of park building in New York City since the 1930s. The agency's capital design and construction staff engages in more than 100 projects each year. The current expansion and renovation of our parks system comes at a time when we have sharpened



A park designer examines recycled glass fill, which was used as the basis for new pavement at Pearly Gates Park in the Bronx. Photo Credit: NYC Parks.

Previous Page: The mixed plantings comprising the bioswale at Baisley Pond Park in Queens capture stormwater more effectively than the surrounding turf. Photo Credit: Daniel Avila.

our focus on building not only attractive parks, but functional parks that serve as resilient infrastructure to help mitigate the impacts of climate change and support a growing city population. In the true spirit of sustainability, the parks we build must provide environmental, social, and economic benefits long after the ribbon cutting.

While we have incorporated sustainable design practices within capital projects wherever possible, there is an opportunity to devote more resources to evaluate these elements and determine best practices. Even small changes in park materials and construction techniques can have a cumulative impact. In January 2011, we released the nation's first how-to guide for sustainable parks: High Performance Landscape Guidelines: 21st Century Parks for NYC. The manual, a joint effort between Parks and the Design Trust for Public Space, has received much acclaim from the design community in New York City, as well as other municipalities. Our responsibility now is to implement the best practices identified in the guidelines in all capital projects, and encourage our municipal partners to do the same.

Goal One

Create a sustainable landscape design checklist

Challenge: The landscapes we build and maintain have the potential to address important environmental, social, and economic issues. There is no required rating system, however, to guide landscape architects when they weigh the benefits of different materials and practices. Architects have the Leadership in Energy and Environmental Design (LEED) benchmarks to score and evaluate the choices they make when designing a building. This system is now required for new city buildings over a certain cost, increasing the sustainability of the city's buildings. A complementary system for landscapes would encourage the more consistent incorporation of high performance landscape elements into all Parks projects.

Opportunity: The American Society of Landscape Architect's (ASLA) Sustainable Sites Initiative began testing performance benchmarks for landscapes in June 2010. A formal rating system will be released in 2013. The standards award points for criteria such as the use of local materials or the promotion of health and well-being. Parks will create a customized sustainable design checklist using the ASLA standards as a guide. We will develop the checklist as a web-based entry system, allowing us to track features like recycled materials used and to develop performance indicators, such as the amount of stormwater captured and habitat created.

Progress toward Goal:

- *Identified the ASLA Sustainable Sites Initiative as a checklist model to be customized for NYC Parks.*
- *Reviewed all checklist requirements to determine which points are applicable, which need additional tools to implement, and which points apply to all parks.*
- *Researched infrastructure tools to implement the checklist through the web.*

Implementation Milestones for January 2012 Update:

- *Create tools to facilitate in-house use of the checklist, such as recommended plant lists and online calculators.*
- *Create a training program to educate staff on how to use the checklist.*
- *Begin tracking checklist compliance and monitor progress based on data entered for each project.*
- *Compile comments on the applicability of the national standards at Parks for distribution to the ASLA.*



A path from West 83rd to West 91st Streets opened in May 2010. With the opening of this greenway section, New Yorkers can bike, jog and skate continuously along the Hudson River from Battery Park to Dyckman Street. Photo Credit: Malcolm Pinckney.



Goal Two

Create digital reference library cataloging sustainable park design elements

Challenge: Our agency has demonstrated strong leadership and investment in sustainable park design across the five boroughs. For decades, we have designed and built parks with an eye toward long-lasting materials and resource conservation. For example, we typically use recycled plastic lumber in parks as bench slats and reuse local waste glass as drainage material. However, these sustainable design efforts have only been undertaken by individual park designers. Our challenge is to catalog sustainable specifications and details in a comprehensive system to illuminate best practices among all of the agency's park designers.

Opportunity: To highlight sustainable design best practices, we will create a digital library catalog to serve as a resource for designers. We have started to collect, evaluate and organize specifications and details that have been installed over the past couple years. As we refine details, we will also look to determine which, if any, specifications can become a universal standard for all new parks.

Progress toward Goal:

- *Collected and displayed examples of past sustainable design details to solicit staff feedback.*
- *Held listening sessions with park designers on digital library organization and implementation.*
- *Engaged staff to work on detail evaluation and inventory.*

DID YOU KNOW?

The agency's electronic correspondence and asset management systems saved close to 70,000 pages of paper in Fiscal Year 2010.

Implementation Milestones for January 2012 Update: Progress toward Goal:

- *Set up online digital library, working with agency's information technology staff.*
- *Create a working group to evaluate success of sustainable specifications for input into the digital library.*
- *Establish a system for adding future specifications to the library.*
- *Determine which specifications can become a universal standard for all new parks.*
- *Hosted Parks' first Sustainability Summit at the Center for Architecture with 75 landscape designers, horticulturists, maintenance staff, and operations specialists to discuss sustainable design best practices.*
- *Recorded and distributed Sustainability Summit discussion points to all employees.*
- *Initiated discussion between Parks' Capital division and PIP to discuss how new sustainable design elements can be rated within the PIP system.*
- *Park designers and maintenance staff collaborated on a new "Best Plants Guide" to improve plant survival in parks.*

Goal Three

Strengthen dialogue between park designers and park maintenance staff to generate sustainable park solutions

Challenge: Implementing sustainable design successfully is not only achieved through smart design, but through the appropriate maintenance and care. For instance, park designers can incorporate low-flow and on-demand spray showers in parks to reduce water use, but maintenance staff must be trained on how to care for this amenity. Further, there is a need to educate park users on sustainable design techniques; for example, no-mow areas in parks are not untended but rather, intentional sustainable design elements.

Opportunity: We will ensure that sustainable practices are incorporated throughout the life of the park. We will evaluate the success of eco-friendly details and installations in the field in concert with maintenance staff and with the public, to ensure that our work is truly sustainable. We will also further collaboration between park designers and park inspectors from the Parks Inspection Program (PIP) to ensure that sustainable design features do not contrast with the agency's inspection criteria for safety and cleanliness.

GREEN PLEDGE

"I will make an effort to reuse old bench slats instead of throwing them out."

Al Simoncini, Brooklyn Supervisor of Mechanics

Implementation Milestones for January 2012 Update:

- *Conduct on-site evaluations of park design features with teams of park designers and maintenance and OMP inspections staff.*
- *Identify areas to alter Parks contract language to allow for more successful sustainable designs.*
- *Launch a series of forums bringing together park designers and horticultural staff.*



Children pedal stationary bikes to generate electricity and power nearby lighting. Photo Credit: Daniel Avila.

Case Study

Elmhurst Park

Elmhurst Park in Queens opened in spring 2011. The site once housed the Keyspan Newtown Gas Holders, more popularly known as the Elmhurst gas tanks. The tanks were 275-feet in diameter and visible from the highway. In 2005, the Keyspan Company (now National Grid) removed the tanks, cleaned up the contamination, and gave the land to the City.

A multi-disciplinary team of in-house staff developed a design that re-graded the land to both manage storm water runoff and create a rolling landscape for relaxation and play. Native plants such as dogwoods and ferns form a woodland gar-

den within the existing grove of trees. An orchard of crab apples on the hillside facing the Long Island Expressway harkens back to Elmhurst's agricultural heritage.

Parks planted a total of 650 new trees in addition to shrubs, ground covers, and perennials. In the spirit of the energy-storing history of this site, the new playground includes several human-powered play pieces. Children can pedal a stationary bike to generate electricity and turn on a light on a nearby column. An existing building, formerly a gas company office, will be reconstructed and reused as a maintenance headquarters in a later phase of construction. The project won a Big Apple Brownfield Openspace Award from the Mayor's Office of Environmental Remediation.

Interview with an Expert

Sakai Brown, Assistant Borough Director, Brooklyn Construction Division

Sakai Brown joined Parks 10 years ago as a Resident Engineer and Construction Project Manager. In her current role as the Assistant Borough Director of Brooklyn Construction, she is responsible for overseeing a large staff of construction project managers.

Q: How did you get into the world of construction?

A: *I was introduced to the world of engineering and construction in elementary school. My mother worked for a large construction company in Westchester, NY. Her colleague, upon learning of my interest in math and science, suggested I explore engineering. I attended Columbia University's Pre-Engineering Program while I was in high school, and was the only girl in the program. I then studied Civil Engineering at Morgan State University.*

Q: What does sustainability mean to you?

A: *Sustainability means the ability for a project to be designed and maintain some of the existing features of the park or space. It means to enhance a particular park element so that it works better, is maintenance-free to an extent, and has the potential to make a lasting effect on the environment.*

Q: What changes have you noticed in Parks design over the past few years that you would like to see expanded?

A: *Sustainability has become a big emphasis at Parks over the past few years, but some of the goals and techniques have been happening for a long time, such as expanding tree pits and improving drainage. New designs should move*



further towards reducing maintenance by letting nature work on its own as much as possible. More natural plantings that have a “wild” look can be beautiful.

Q: Why is sustainable design and construction important?

A: *Parks should be on the forefront of sustainable design. Because we are in charge of 14% of land in New York City, we can impact the city as a whole with the work that we do. When we pursue these goals, it pushes other cities as well as the manufacturers that we use to move in the same direction. A sustainability statement should be placed in all contract specifications and should be reiterated in the pre-construction information to potential bidders.*

Sakai Brown, Assistant Director for Brooklyn Parks Construction.
Photo Credit: Daniel Avila.



NYC Parks
Sustainable
Parks

Measuring Sustainability at Parks



Measuring Sustainability at Parks

With our acute focus on sustainability, we are developing indicators to quantify our green-ing practices, measure progress and highlight strengths and areas for improvement. We recognize that sustainability is more than a goal to check off. As an agency, we must continually move toward sustainability, and need a distinct set of indicators to gauge whether we are headed in the right direction.

For years, Parks has tracked several sustainability indicators in PlaNYC and in the annual Mayor's

Management Report, particularly related to tree planting and park access. With the launch of Sustainable Parks, we surveyed agency divisions to uncover additional sustainability-related data and create a comprehensive metrics system. We developed four major categories to capture the agency's sustainability initiatives in a way that is engaging and accessible: 1) Fuel and Energy 2) Water 3) Material Resources and 4) Green Partnerships. The indicators below provide a starting point for determining a holistic picture of Parks' environmental impact. Some activities such as leaf composting are more challenging to quantify and will require further research and analysis. Our goal is to develop a strong reporting structure so we can track our progress overtime.

DID YOU KNOW?

Parks has reduced vehicle and facility-related carbon emissions by 12% since 2007. Emissions from facility heating have been reduced by 57% since 2007.



Above: Holiday trees are chipped into mulch at Mulch Fest 2011. Photo Credit: Daniel Avila.

Previous Page: Parks' 5-Boro office building on Randall's Island features 29,000 square feet of green roof and is the largest on a NYC government building. Photo Credit: Daniel Avila.

Sustainable Parks Scorecard

All data and metrics are presented in a Sustainable Parks Scorecard. We prioritized the identification of outcome indicators (highlighted in green below), which measure the cumulative environmental impact of several agency initiatives. Each outcome indicator is supported by a number of process indicators, which measure specific activities and programs. For example, carbon emissions is an outcome indicator that measures the impact of using different types and amounts of fuels in our vehicles and facility heating oil.

While some of the data is available before Fiscal Year 2008 (FY08), we used FY08 as the base year for all indicators. Where possible, we defined a specific numerical target for the indicator. In the future, we intend to define additional numerical targets to increase accountability and elevate our commitment to the environment. See the Appendix for the methodology for all indicators.

GREEN PLEDGE

“I will ride my bike to work at least three times a week.”

Brandon Schmitt, Senior Forester, Staten Island

Material Resources

Indicator (outcome indicators highlighted)	FY08	FY09	FY10	% or Trend of Actual Change (FY08-FY10)	Target Goal/Target Trend
Total Parks Waste to Department of Sanitation Transfer Stations (Tons)	35,035*	32,533*	34,352*	-1.95%	Decrease
Wood chips transported by private vendor for reuse (tons)**	0	0	3,508	Increase	Increase
Number of parks with recycling operations	0	22*	47*	Increase	300
Number of recycling bins in parks	75	100	125	67%	Increase
Recyclables collected at Parks-produced citywide special events (bags)	9	79	230	Increase	Increase
Batteries recycled through in-house collection programs (number of batteries)	1,431	2,336	2,963	Increase	Increase
GreenTeam volunteers and Greeters assisting with recycling (number of individuals)***	0	3	186	Increase	Increase
Parks Opportunity Program (POP) Job Training Participants (JTPs) trained to compost (number of JTPs)	0	57	81	Increase	Increase

* Results are reported by calendar year.

** A significant portion of the wood chips produced by Parks are reused internally within each borough. These figures are not reflected in this indicator.

*** Greeters numbers will be included only from FY11 onward.

Water

Indicator (outcome indicators highlighted)	FY08	FY09	FY10	% or Trend of Actual Change (FY08-FY10)	Target Goal/Target Trend
Total Stormwater Captured by Greenstreets and Green Roofs (gallons)*	2,870,219	5,926,343	8,089,477	Increase	Increase
Stormwater Captured by Standard Greenstreets (gallons)*	2,076,011	4,177,322	5,110,524	Increase	Increase
Number of Greenstreets sites Installed per year	88	79	55	Decrease	Increase
Greenstreets area Installed per year (sq ft)	75,688	86,041	33,828	Decrease	Increase
Stormwater Captured by Stormwater Greenstreets (gallons)**	753,708	1,526,871	2,433,553	Increase	Increase
Number of Stormwater Greenstreets sites Installed per year	6	5	7	Increase	Increase
Stormwater Greenstreets planting area Installed per year (sq ft)	10,597	9,400	8,142	Decrease	Increase
Stormwater Greenstreets catchbasin area added per year (sq ft)	17,771	9,669	26,452	Increase	Increase
Stormwater Captured by Green Roof Systems (gallons)	40,500	222,150	545,400	Increase	Increase
Number of Green Roof systems installed per year	4	12	16	Increase	Increase
Green Roof Systems area Installed per year (sq ft)	2,700	12,110	21,550	Increase	Increase

* Storm water capture is presented here in cumulative gallons per fiscal year since July 1, 2007.

** The difference between standard and stormwater Greenstreets is explained in the Water section of the Methodology (Appendix).

Fuel and Energy

Indicator (outcome indicators highlighted)	FY08	FY09	FY10	% or Trend of Actual Change (FY08-FY10)	Target Goal/ Target Trend
Total Annual CO ₂ Emissions from Vehicles, Facility Heat and Electricity (Metric tons CO ₂ e)	91,408	87,964	80,242	-12%	Decrease
Vehicles - Annual CO ₂ Emissions (Metric Tons CO ₂ e)	16,957	15,843	13,583	-20%	Decrease
Motor gasoline annual usage (gallons)	1,151,175	1,048,693	857,893	-25%	Decrease
Vehicle diesel fuel annual usage (gallons)	607,904*	593,859*	548,444*	-10%	Decrease
Facilities – Annual Heat CO ₂ Emissions (Metric Tons CO ₂ e)**	11,084	8,007	4,752	-57%	Decrease
Facilities heating oil annual usage (gallons)	1,092,000	830,598*	570,933*	Decrease	Decrease
Facilities – Annual Electricity CO ₂ Emissions (Metric Tons CO ₂ e)	63,367	64,114	61,908	-2%	Decrease
Agency annual electricity usage (Kilowatt hours)	71,794,345	72,754,418	72,189,284	0.55%	Decrease

* Contains biodiesel

** Data is not normalized by weather conditions.

Green Partnerships

Indicator (outcome indicators highlighted)	FY08	FY09	FY10	% or Trend of Actual Change (FY08-FY10)	Target Goal/Target Trend
Number of restaurants and snack bars that are members of the Green Restaurant Association (GRA), out of all contracts signed since FY08	0/19	2/34	5/49	5	Increase
Number of concessions planning to install or use Energy Star/Green Seal compliant appliances and products, out of all contracts signed since FY08	9/19	15/34	20/49	11	Increase
Number of concessions planning to use energy efficient light bulbs (CFLs), out of all contracts signed since FY08	7/19	11/34	16/49	9	Increase
Number of concessions planning to utilize alternative energy sources, out of all contracts signed since FY08	6/19	8/34	9/49	3	Increase
Number of concessions planning to implement a system for disposing recyclable waste, out of all contracts signed since FY08	1/19	3/34	6/49	5	Increase
Number of public environmental programs hosted by the Urban Park Rangers per year**	-	2,602	3,389*	Increase	Increase
Number of people attending Urban Park Rangers programs per year**	-	46,455	59,665*	Increase	Increase
Number of green pledges per year	-	-	502***	Increase	1000
Percent of pledges from Maintenance and Operations staff	-	-	22%***	22%	Increase

* As of June 2010.

** Programs included are detailed in the Green Partnerships section of the Methodology (Appendix).

*** Data pertaining to FY 2011.

Behind the Numbers

Many of Parks' signature programs and initiatives are driving the numerical trends described in the Sustainable Parks Scorecard.

Material Resources: Parks has steadily reduced the amount of garbage its fleet delivers to DSNY waste transfer stations. Between 2002 and 2010, we have reduced the amount of waste going to landfills by 20%, or 8,000 tons. We achieved the majority of this decrease by chipping and reusing all forestry wood, either by contract or in-house in Cunningham Park. We continue to explore ways to reuse and recycle wood from parks, including the use of wood chips to generate energy at Flushing Meadows Corona Park pool. Our recycling program expansion will also contribute to the reduction in waste going to landfills. Parks makes battery recycling convenient for employees by having one central collection point for rechargeable batteries.

We will look to expand the collection of batteries and other electronic waste through our Green Guru program.

Water: Since its start in 1996, the Greenstreets program has converted thousands of square feet of paved roadway into pint-sized parks planted with trees, shrubs, and groundcovers. These sites not only beautify the urban landscape, but also calm busy traffic, increase pedestrian safety, provide wildlife habitat, and reduce stormwater run-off by millions of gallons every year. Since 2006, The Greenstreets Division has piloted new techniques to maximize stormwater runoff capture. The success of these pilots led to an award of \$2 million in federal funding, allowing us to focus on stormwater capture in flood-prone neighborhoods.

Green roofs contribute to water quality by keeping stormwater out of the combined sewer

DID YOU KNOW?

Parks' Job Training Participants have weatherized over 200 comfort stations through insulating, caulking and sealing, making them more energy efficient.



A landscaped traffic median, or Greenstreet, captures stormwater runoff at 1st avenue and 20th street in Manhattan. Photo Credit: NYC Parks.

overflow system. Green roofs also reduce the peak flow rate of run-off by replacing impervious roof surfaces with green, pervious plantings. Green roofs have the potential to capture 100% of all rainwater that falls during a 1" rainfall. In spring 2007, Parks' 5-Borough Technical Services Division began installing green roofs of various designs atop its facility headquarters on Randall's Island. To date, the division, working together with Parks' Green Apple Corps, has installed 25 systems covering over 29,000 square feet, making the 5-Borough Office Building the largest municipal green roof in the city. Parks has also installed ten experimental green roof systems on recreation centers citywide.

Fuel and Energy: When Mayor Bloomberg unveiled PlaNYC in 2007, he challenged each City agency to reduce its carbon emissions by 30% by 2017. Since then, Parks has reduced its vehicle and facility carbon emissions by 12%. Our expanded use of B20, a blend of biodiesel with 20% coming from soybeans and 80% ultra low sulfur diesel, has helped reduce carbon emissions from Parks' vehicles by 20% since FY 2008. In 2008, Parks' fleet was recognized as the most environmentally-friendly in the country by the National Association of Fleet Administrators (NAFA).

We have introduced either B20 or B5 biodiesel at all 134 of our facilities. We will transition to using B20 exclusively over the next two years. We will also address maintenance concerns in older heating oil tanks. To ensure that heat and electricity are used efficiently, we have taken aggressive steps to weatherize our facilities, install efficient lighting, upgrade boilers, and paint our facility roofs white to reduce the urban heat island effect. All these efforts have already enabled Parks to reduce its carbon emissions from heating by 57% since FY 2008. Working with the City's Division of Energy Management and Parks' new Energy Manager, we will take steps to further improve the efficiency of our facilities through capital improvements and education for staff.



A Fuel efficient Parks vehicle at Flushing Meadows Corona Park in Queens. Photo Credit: Daniel Avila.

Green Partnerships: Green Partnerships encompass work the agency does with private entities such as concessionaires, but also measures the “green partners” we create through training and education programs. Throughout the five boroughs there are more than 600 concessions operating both year round and seasonally. Since 2008, Parks’ Requests for Proposals (RFPs) have emphasized the importance of sustainable practices in Parks’ selection process to prospective proposers. All operational plans submitted with a proposal must include a detailed description of environmentally-friendly practices planned for the concession. Practices include the installation of Energy Star

certified appliances, the employment of energy efficient and water conservation measures, the use of low toxicity chemicals, and the preservation of natural areas.

Parks’ Urban Park Rangers, the agency’s uniformed stewards, have a long history of administering environmental education programs. Close to 60,000 New Yorkers attended programs in the past year. Our efforts to expand sustainability education programs include the Green Pledge Campaign, training for new field supervisors in recycling and energy, and a workshop in sustainability for POP participants.

DID YOU KNOW?

Close to 500,000 trees have been planted by Parks and other partners since 2007 through the PlaNYC MillionTreesNYC initiative.



Prospective concessionaires must include a description of environmentally friendly practices planned for the concession. Photo Credit: Malcolm Pinckney.



Next Steps

NYC Parks
Sustainable
Parks



Next Steps

During the Sustainable Parks Task Force kick-off meeting on September 16, 2010, two tornadoes ripped through the city, knocking down thousands of trees in parks and on streets in a matter of minutes and creating swaths of destruction in neighborhoods. Also last year, New York City experienced its hottest summer on record and its snowiest January ever. With concerns over climate change and the growing unpredictability of our environment, there is an urgent need for all New Yorkers to reduce their impact on the environment to help preserve our quality of life and that of future generations.

The release of this inaugural Sustainable Parks Plan documents the planning process of the Sustainability Task Force, an initiative launched by Commissioner Benepe in February 2010. The Plan is a starting point for grouping sustainable practices within Parks into a more cohesive framework, and articulating our efforts to the public at large. This document is by no means an end in itself, just as sustainable practice is a constantly evolving and adaptive process. Many of the goals outlined in this Plan build upon existing initiatives. Other goals represent new areas of focus. In the months ahead, we will look to address additional areas crucial to sustainability, such as energy management and water efficiency.

Sustainable Parks will publish a progress update in early 2012 to evaluate our efforts and establish new goals where needed. The goals, milestones, and metrics, described in this Plan will guide our work and help track our progress. As we move farther along in the planning and implementation process, we will continue to solicit feedback from Task Force members as well as the broader Agency. Together, we are able to create a greener culture at Parks and in New York City, and affirm our commitment to being “NYC’s Greenest.”



The September 16th 2010 tornadoes downed thousands of trees around the city. Photo Credit: Daniel Avila.
Previous Page: The Harlem River Park bike path opened in April, 2010. Photo Credit: Daniel Avila.



Appendix

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Implementation and Milestones Chart

Our agency's elevated commitment to sustainability begins with small steps. In Fall 2010, each Sustainability Task Force working group was asked to set two to three goals. The milestones below

outline the actions we will take by January 2012 to help advance or achieve our goals. To ensure continuity and accountability, this chart will form the basis of our plan update in January 2012.

Education and Outreach

Parks' Goal	Lead Department
Provide sustainability training and education for all Parks employees.	
Increase training and awareness around energy efficiency.	5-borough Tech Services
Develop sustainability checklists for recreation center managers.	Recreation/5-Borough Tech Services
Strengthen sustainability component in Parks' public education programming offered at recreation centers and nature centers.	Public Programs
Incorporate sustainability training within orientation program for POP participants.	Parks Academy/POP
Create a network of Green Guru point people across the agency to support sustainability initiatives.	
Develop internal agency resource guide for sharing best practices.	Sustainability Initiatives
Expand recycling at Parks office buildings.	Citywide Operations/Sustainability Initiatives
Expand network of Green Gurus.	Sustainability Initiatives
Launch Green Pledge Campaign to create community.	
Collect pledges from 1000 employees, or 10% of Parks' peak headcount.	Sustainability Initiatives
Perform research into motivations for pledging.	Sustainability Initiative
Increase pledges from M&O staff.	Sustainability Initiatives

Abbreviations

POP: Parks Opportunity Program, **M&O:** Maintenance and Operations, **OMP:** Operations and Management Planning

Public Recycling

Parks' Goal

Lead Department

Expand public recycling sites to 25% of all city parks and gardens by 2013.

Increase public recycling sites to 300.	Citywide Operations
Expand recycling at community gardens from 85 sites to 150 sites.	Citywide Operations
Evaluate performance of pilot recycling “cage” placed at Rockaway Beach.	Queens M&O
Organize public education events to promote recycling and reduce litter.	Citywide Operations/Management and Budget
Encourage concessionaires in parks to recycle through education and site visits.	Citywide Operations/Revenue

Expand and improve recycling at special events in parks.

Collect and analyze survey results related to recycling at smaller special events in parks.	Management and Budget
Encourage organizations that obtain a permit to produce events in parks to recycle.	Citywide Marketing and Special Events
Update “How-to” guide for recycling at privately-produced events.	Citywide Operations/Management and Budget
Create “How-to” guide for recycling at Parks-produced events.	Citywide Operations/Management and Budget

Incorporate recycling storage into new park design.

Conduct waste audits at parks to gauge volume of waste and recyclables to help inform future park designs.	Capital Projects/M&O
Explore opportunity to leverage existing storage options in parks, such as sheds and fenced-off areas, for recycling storage.	Capital Projects/M&O
Incorporate storage zones into sustainable design checklist under development.	Capital Projects

Leaf Composting

Parks' Goal	Lead Department
Install a new O2 composter in each borough to provide a continuous supply of compost.	
Install composters in Manhattan, the Bronx, Staten Island, and Brooklyn by the end of August 2011. Note: The Queens composter will be installed in 2012.	5-borough Tech Services
Produce at least one load of compost from each of the four units before January 2012.	M&O/Borough Horticulture
Expand leaf mulching in parks.	
Acquire and distribute 15 new mulch blades and retrofit them onto existing decks by the end of July 2011.	Citywide Operations
Acquire, install, and distribute 43 new mulch decks at sites in all five boroughs by fall 2011.	Citywide Operations
Increase capacity for small-scale composting through training and ongoing communications.	
Publish first "Compost Corner" item in Horticulture Bulletin.	Central Horticulture
Complete a guide to types of small-scale compost bins in use in Parks.	Central Horticulture
Include composting class in Winter Horticulture Classes series for winter 2011-2012.	Central Horticulture
Develop metrics to measure leaf composting in parks.	Sustainability Initiatives/Central Horticulture

Park Design and Construction

Parks' Goal	Lead Department
Create a sustainable landscape design checklist.	
Create tools to facilitate in-house use of the checklist, such as recommended plant lists and online calculators.	Capital Projects
Create a training program to educate staff on how to use the checklist.	Capital Projects
Begin tracking checklist compliance and monitor progress based on data entered for each project.	Capital Projects
Compile comments on the applicability of the national standards at Parks for distribution to the American Society of Landscape Architects.	Capital Projects
Create digital reference library cataloging sustainable park design elements.	
Set up online digital library, working with agency's information technology staff.	Capital Projects
Create a working group to evaluate success of sustainable specifications for input into the digital library.	Capital Projects
Establish a system for adding future specifications to the library.	Capital Projects
Determine which specifications can become a universal standard for all new parks.	Capital Projects
Strengthen dialogue between park designers and park maintenance staff to generate sustainable park solutions.	
Conduct on-site evaluations of park design features with teams of park designers and maintenance and OMP inspections staff.	Capital Projects/M&O/OMP
Identify areas to alter Parks contract language to allow for more successful sustainable designs.	Capital Projects/OMP
Host first in a series of forums bringing together park designers and horticultural staff.	Capital Projects/Borough Horticulture

Methodology for Indicators

Material Resources

- Total Parks waste to Department of Sanitation (DSNY) transfer stations:** Since April, 2001 Parks waste has been hauled to private waste transfer stations under contract with DSNY. All waste tonnage data is reported by DSNY.
- Wood chips transported by private vendor for reuse:** In 2009, Parks initiated a pilot program with a private vendor to sell woodchips for reuse. This wood comes primarily from parks in Queens and the Bronx and is chipped in-house at our wood chipper in Cunningham Park. The wood chips are weighed before they are carted off by the vendor, and Citywide Operations maintains this data.
- Number of parks with recycling operations:** Citywide Operations tracks the location of recycling bins throughout Parks. More details of Parks' recycling are highlighted in the Public Recycling chapter.
- Recycling bins are placed and tracked by Citywide Operations.
- Recyclables collected at Parks-produced citywide special events, and GreenTeam volunteers and Greeters assisting with recycling:** GreenTeam volunteers track the number of bags of recycling collected. Additional data relating to Special Events, GreenTeam Volunteers, and Parks Greeters is maintained by Management and Budget, Marketing and Special Events, and Citywide Operations.
- Batteries recycled through in-house collection programs:** Employees throughout the agency can send batteries to one centralized location so that they can be properly recycled. Parks' Citywide Operations updates battery recycling data on a monthly basis to reflect new shipments.

- Job Training Participants (JTPs) trained to compost:** The Parks Opportunity Program (POP) operates a specialized green jobs training program called POP Education Horticulture (Ed Hort). In FY09, POP began training its Ed Hort participants in leaf composting through a partnership with the New York Botanical Gardens (NYBG). POP tracks compost training participation.

Fuel and Energy

Emissions From Vehicles (Fuel): Carbon dioxide emissions for vehicles are calculated by multiplying the volume of fuel consumed by the appropriate fuel-specific carbon dioxide coefficient, which varies depending on the type of fuel source. Please see Table I below. The CO2 coefficients are drawn mainly from the US Environmental Protection Agency (EPA) Climate Leaders guidance for mobile combustion sources.⁴

Table I: Carbon Dioxide Coefficients for Vehicle Emissions

Fuel Type	Units	Kg CO ₂ per Unit Volume
Motor Gasoline	gallons	8.81
Diesel Fuel	gallons	10.15
LPG	gallons	5.79
Ethanol	gallons	5.56
Biodiesel	gallons	9.46
Liquefied Natural Gas (LNG)	gallons	4.46
Compressed Natural Gas (CNG)	Sq. Cu. Ft.	0.054

All data for actual facilities fuel usage is taken from Citywide Operations.

In addition, kilograms (kg) of CO2 emissions are converted into metric tons. One metric ton = 1,000 kg. Therefore, 10,000 kg of CO2 emissions equals 10 metric tons.

4. Available at: http://www.epa.gov/climateleaders/documents/resources/mobilesource_guidance.pdf

All data for actual vehicles' fuel usage is taken from Citywide Operations.

Emissions From Facilities (Fuel): Carbon dioxide emissions for facilities are calculated by multiplying the volume of fuel consumed by the emission factor of various fuel sources. Please see Table II below. Carbon dioxide emissions factors are from the US Department of Energy (DOE), US Energy Information Administration.

Table II: Carbon Dioxide Factor for Facility Emissions

Fuel Type	Units	Kg CO ₂ per Unit Volume
Diesel Fuel (D2)	gallons	10.15
Biodiesel (B5)	gallons	9.64
Biodiesel (B20)	gallons	8.12

All data for actual facilities fuel usage is taken from Citywide Operations.

Emissions From Facilities (Electricity): Carbon dioxide emissions for electricity usage in facilities are calculated by multiplying CO₂ coefficients with kilowatt per hour (Kwh) consumed. Please see Table III below. Carbon dioxide emissions factors are from the US Department of Energy (DOE), US Energy Information Administration.

Table III: Carbon Dioxide Factor for Electricity

Fuel Type	Units	Metric lbs CO ₂ per Unit
Electricity	Kwh	1.28
Biodiesel (B20)	gallons	8.12

All data for actual facilities fuel usage is taken from Citywide Operations.

Agency electricity usage: Data based on monthly agency wide electricity usage, which is tracked by 5-Borough Technical Services.

Water

Estimates of stormwater captured by Greenstreets:

Standard Greenstreets can only capture rainfall that falls directly on the planting bed. Stormwater Greenstreets are specifically designed to capture stormwater from the surrounding roadbed and impervious surfaces – which are known as the sub-watershed, or the catchment area.

Our estimate of stormwater captured annually by standard Greenstreets is based on the area of the planting bed, and is calculated using the formula:

$$V = [(X*(i/a)*b)]$$

Our estimate of stormwater captured annually by Stormwater Greenstreets is based on the area of the planting bed and the sub-watershed, and is calculated using the formula:

$$V = [(X*(i/a)*b)] + [(Y*k*(i/a)*b)]$$

where:

V = Amount of stormwater captured (gallons/year)

I = NYC annual precipitation = 44 inches/year⁵

X = area of the planting bed (ft²)

Y = area of the sub-watershed (ft²)

k = Run-off coefficient for impervious catchment areas = 0.95

a = Unit conversion factor = 12 inches/ft

b = Unit conversion factor = 7.48 gallons/ft³

All the calculations were completed using a simplified method. The following assumptions have been made:

- *Overflow is ignored:* due to a typical curb perimeter with 6" ponding depth, it is approximated that rain falling directly on a Greenstreet will be retained.
- *No inlet bypass:* each inlet captures 100% of corresponding sub-watershed area

5. Source: PlaNYC Sustainable Stormwater Management Plan, 2008

Estimates of stormwater captured by green roofs:

Our estimate of stormwater captured annually by green roofs is based on the area of the installed green roof system. Current NYC green roof research⁶ shows that green roofs capture between 10 and 20 gallons per square foot per year, depending on the type of green roof system. For the purposes of these stormwater estimates, we assumed that Parks' green roofs capture 15 gallons of stormwater per square foot per year.

Green Partnerships

Concessionaire Sustainability: Data regarding concessions was derived from our Request for Proposal database and is based on concessionaires reporting at time of the proposal submission to Parks. Data is presented in terms of number of contracts signed each FY that reference the relevant sustainability criteria in the concessionaire's proposed operations out of overall number of concession contracts signed that fiscal year.

Criteria included in the metrics do not cover all references to sustainable operations listed in the proposals such as use of locally grown food, LEED certification, and use of materials from environmentally friendly sources.

Green training programs conducted include four programs overall:

The Natural Classroom (TNC), a series of hands-on, park-based education programs offered by the Urban Park Rangers at nature centers citywide. TNC includes ten distinct programs covering topics such as Conservation, Trees NYC, and Urban Raptors. Programs are designed for students in grades K-8, but can be customized to fit the specific needs of other age groups.

Explorer Programs are offered by the Urban Park

Rangers on weekends at nature centers and their surrounding parklands and waterways. Explorer programs include hiking, birding, coastal clean-ups, canoeing, camping, and plantings.

Ranger Conservation Corps (RCC) is a ten-week urban environmental conservation after-school program that gives participants the opportunity to assist Rangers with valuable environmental conservation and wildlife management projects in the city's parks. RCC provides environmental and scientific career-development experience to high school students from low-income, urban neighborhoods.

Acorns to Oaks (A2O) is a six-month afterschool program that educates students aged 6-13 about the importance of trees and other natural resources. As part of the MillionTreesNYC education initiative, the Urban Park Rangers and GreenApple Corps have teamed up with Central Recreation to offer A2O at five recreation centers.

Green Pledges

Data was derived from Parks' internal online pledges database on May 16th 2011. Most employees logged their pledges directly in the database. Some employees filled out a manual pledge form at a department meeting or special event, which Sustainable Parks then uploaded online. Our goal for January 2012 is to have a total of 1,000 employees make Green Pledges, which represents 10% of Parks' peak headcount.

Pledges are divided by department type (Administration, Maintenance and Operations, Public Programs/Urban Park Services, and Capital Projects) allowing for the percentage breakdown presented in the table. Sustainable Parks aims to increase the percentage of all pledges from Maintenance and Operations staff. Focus on Maintenance and Operations employees is essential considering their proportional size among agency staff (57%, excluding POP staff, as of April 2011).

DID YOU KNOW?

70% of Parks' 2,200+ vehicle fleet runs on alternatives to gasoline, from solar to biodiesel.

6. Source: Gaffin, S. R. et al, 2011. "Stormwater Retention for a Modular Green Roof Using Energy Balance Data" Columbia University, Center for Climate Systems Research.

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Hunt's Point Riverside Park, the Bronx. Photo Credit: Daniel Avila.