Reimagining the Metropolis:
Visions for a Near Future

Pratt Institute - Manhattan Campus

April 26, 2011
PlaNYC

- Housing and Neighborhoods
- Parks and Public Space
- Brownfields
- Waterways
- Water Supply
- Transportation
- Energy
- Air Quality
- Solid Waste
- Climate Change

Updated April 2011
Strategic Plan: 100 Goals and Initiatives

- Provide effective and responsive customer service
- Operate a safe, high-performing water utility at the lowest possible cost
- Make cost-effective capital investments
- Achieve a sustainable quality of life for all New Yorkers
Infrastructure Projects

City Water Tunnel No. 3

Croton Water Filtration Plant

Catskill/Delaware UV Disinfection Facility

Newtown Creek Wastewater Treatment Plant
Near Real-Time Leak Notification

Daily usage for February 2011

- Actual Consumption
- Average Cons
- Read Not Available
- Zero Cons
- Total Cons

11,400 CF
Moving Toward Web-Based, Paperless Systems

Data as of April 24, 2011

"My DEP Account" Total User Enrollment

- Jul-10
- Aug-10
- Sep-10
- Oct-10
- Nov-10
- Dec-10
- Jan-11
- Feb-11
- Mar-11
- Apr-11

114,710

Paperless Billing Total User Enrollment

- Nov-10
- Dec-10
- Jan-11
- Feb-11
- Mar-11
- Apr-11

10,865
NYC Green Infrastructure Plan

1. Build cost-effective grey infrastructure
2. Optimize the existing wastewater system
3. Control runoff from 10% of impervious surfaces through green infrastructure and other source controls
   - Many opportunities in roads and sidewalks, rooftops and new development
   - Modular, scalable, and adaptable
   - Targeted to specific watersheds
4. Institutionalize adaptive management, model impacts, measure CSOs, and monitor water quality
5. Sustain stakeholder engagement
Portfolio for Water as a Waste and a Resource

Paerdegat Detention Facility

Staten Island Bluebelt

Catch Basins

Stormwater Tree Pit
Additional Benefits of Green Infrastructure

<table>
<thead>
<tr>
<th>Annual benefits of green infrastructure per acre</th>
<th>Acres of planted green infrastructure in 2030</th>
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<tbody>
<tr>
<td>Reduced energy demand: $5,513</td>
<td>25% planted green infrastructure 1,085 acres</td>
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<td>Increased property value: $4,725</td>
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<tr>
<td>Improved air quality: $759</td>
<td>75% planted green infrastructure 3,255 acres</td>
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<tr>
<td>Reduced carbon dioxide: $117</td>
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![Graph showing the increase in total benefits over time](image-url)

- **Total Benefits - Millions of 2010 Dollars**
  - 2010: $0
  - 2015: $50
  - 2020: $100
  - 2025: $200
  - 2030: $450

**Implementation Year**

- 2010
- 2015
- 2020
- 2025
- 2030
DEP energy costs expected to almost double within 5 years due to 53% demand growth and double-digit rate increase due to New York Power Authority cost of service.

373 million kWh
Greenhouse Gas Emissions

- Electricity demand growth drives GHG strategy: a 30% GHG reduction target becomes an effective 47% reduction
- Electricity outlook is crucial for capital investment strategy

**GHG Emissions Profile**

*FY17 emissions forecast assumes no additional ADG use or energy efficiency investments other than what is currently in the 10-year Capital Plan.*
Energy Supply Projects

Type of Project (Planned or Under Construction):
- Green: Cogeneration
- Orange: Solar
- Blue: Hydro
- Purple: Wind
- Red: ADG-to-Gas-Grid
- Cyan: Combined Cycle or Combustion Turbine
- Circle: 3rd Party Developer

Projects:
- Port Richmond WWTP
- North River WWTP
- Wards Island WWTP
- Luyster Creek (CC)
- Newtown Creek WWTP
- Bayonne Energy Center (CT)
- Oakwood Beach WWTP
- Deepwater Wind/SMRT Line
- LI-NYC Offshore Wind
- Rikers Island
- Police Academy
- Astoria Energy II (CC)
- South Pier Improvement (CT)
For more information visit [www.nyc.gov/dep](http://www.nyc.gov/dep)

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