Who We Are

The mission of The Nature Conservancy is to conserve the lands and waters on which all life depends.
Vegetative Cover
Temperature
Particulate Matter (PM 2.5, 2018)
Social Vulnerability
Roofs: An untapped asset
>1 Million Buildings

40,000 acres
Green Roof Benefits

• 21-26% Reduction in Building Energy Use
• Significant Stormwater Absorption
• Reduced Air Temperatures and Air Pollution
• Multi-functional Space
• Extends Roof Lifespan
First Assessment of Green Roofs in NYC

How Many?
736

Where?
Mostly Midtown and Downtown Manhattan

What Types of Buildings?
Primarily Privately Owned Residential & Institutional
Only 0.07% of all rooftops have a green roof
Inequitable Distribution: Heat

Green Roofs

Heat Vulnerability

Heat Vulnerability Index by Community District

- 0
- 1 - 10
- 10 - 35
- 35 - 65
- 65 - 90
- 1
- 2
- 3
- 4
- 5
- Unpopulated
Inequitable Distribution: Social Vulnerability

Green Roofs
Green Roofs per Community District
- 0
- 1 - 10
- 10 - 35
- 35 - 65
- 65 - 90

Social Vulnerability
Social Vulnerability by Community District
- Low
- High

The Nature Conservancy
Urban Forest
NYC Trees: the Basics

- Approximately 7 million trees
- 666,134 street trees
- 22% percent of land covered by tree canopy
- At least 138 Species of Trees in NYC
- Spread across a variety of land uses and ownership types
## NYC Trees: Annual Services

<table>
<thead>
<tr>
<th>Service Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Replacement value (one-time)</td>
<td>$5.7 billion</td>
</tr>
<tr>
<td>Store 1.2 million tons of carbon (4.2 m tons of CO$_2$)</td>
<td>$153 million</td>
</tr>
<tr>
<td>Absorb 51,000 tons of carbon annually (186,000 tons CO$_2$)</td>
<td>$6.8 million</td>
</tr>
<tr>
<td>Remove 1,100 tons of air pollution annually</td>
<td>$78 million</td>
</tr>
<tr>
<td>Reduce residential energy costs annually</td>
<td>$17.1 million</td>
</tr>
<tr>
<td>Reduce runoff by 69 million cubic feet annually</td>
<td>$4.6 million</td>
</tr>
</tbody>
</table>
Canopy Change Over Time
By Borough
Canopy Change Over Time
By Neighborhood Tabulation Area and Community District
Tree Canopy and Heat Vulnerability

**Tree Canopy**

- % Canopy by Community District
  - 2%
  - 78%

**Heat Vulnerability**

- Heat Vulnerability Index by Community District
  - 1
  - 2
  - 3
  - 4
  - 5
  - Unpopulated

*Figure Credit: New York City Environmental Justice Alliance and The Nature Conservancy*
Our Just Nature NYC Partnership with NYC Environmental Justice Alliance advocates more nature-based solutions, especially trees, across New York City to support climate justice and equity.
NYC Trees: Challenges Faced

- No powerful advocates/leadership
- Disparate management & inequitable distribution
- Lack protection
- Climate change
- Pests and pathogens
Budget Challenges

- MillionTrees/Cool Neighborhoods Initiatives: ~$20M
- Anticipated post-2021 Funding: ~$6.5M

Annual Tree-Related Capital Commitments
Recommendations

• Ensure rules and incentives to promote justice, equity, expansion and better distribution of green roofs
• Preserve and increase funds for urban forestry, both capital and operational
• Advance and expand Cool Neighborhoods program
• Play Fair for Parks: ensure adequate funding for parks and green jobs for New Yorkers
Thank you!

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