RHODE ISLAND URBAN FORESTS
FOR
CLIMATE & HEALTH

2020 RI Land & Water Conservation Summit
ABOUT AMERICAN FORESTS

• Founded in 1875

• Oldest conservation organization in the nation

• Mission: To Inspire and Advance the Conservation of forests, which are essential to life.

• We do this by Protecting and Restoring threatened forest ecosystems, Promoting and Expanding urban forests, and Increasing Understanding of the importance of forests.
PROJECT BACKGROUND
WHY RHODE ISLAND?


Rising temperatures in the last century. Rhode Island has warmed twice as much as the rest of the contiguous 48 states. Source: EPA, Climate Change Indicators in the United States.

America’s hot spots: R.I. among the fastest-warming states in U.S.
MONEY DOES NOT GROW ON TREES

TREES GROW ON MONEY
Heat and Health in American Cities

As Rising Heat Bakes U.S. Cities, The Poor Often Feel It Most

December 2, 2019 - 5:00 AM ET

Read on All Things Considered

IES ANDERSON  SCANTHONYN

0 Minute Listen
TREE EQUITY = HEALTH EQUITY
## The Rhode Island Health Equity Measures

Developed through the RIDOH Community Health Assessment Group

<table>
<thead>
<tr>
<th>Domain</th>
<th>Determinant</th>
<th>Measure</th>
<th>Data Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Integrated Healthcare</td>
<td>Healthcare Access</td>
<td>Percentage of adults who reported not seeking medical care or dental care due to cost (2 measures)</td>
<td>Behavioral Risk Factor Surveillance System (BRFSS)</td>
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<tr>
<td></td>
<td>Social Services</td>
<td>Ratio: Number of individuals receiving to number of individuals eligible for SNAP benefits, based on income</td>
<td>Supplemental Nutrition Assistance Program (SNAP), US Census Bureau</td>
</tr>
<tr>
<td></td>
<td>Behavioral Health</td>
<td>Ratio: Number of naloxone kits distributed to number of overdose deaths</td>
<td>RIDOH, Prevent Overdose RI website</td>
</tr>
<tr>
<td>Community Resiliency</td>
<td>Civic Engagement</td>
<td>Percentage of registered voters participating in the most recent presidential election</td>
<td>Rhode Island Board of Elections</td>
</tr>
<tr>
<td></td>
<td>Social Vulnerability</td>
<td>Index score that reflects the social vulnerability of communities</td>
<td>Centers for Disease Control and Prevention (CDC) Social Vulnerability Index, Agency for Toxic Substances and Disease Registry (ATSDR)</td>
</tr>
<tr>
<td></td>
<td>Equity in Policy</td>
<td>Ratio: Number of low to moderate-income housing units to households with moderate-income households</td>
<td>HousingWorks RI, Comprehensive Housing Affordability Strategy</td>
</tr>
<tr>
<td></td>
<td>Natural Environment</td>
<td>Percentage of overall landmass with tree canopy cover</td>
<td>US Department of Agriculture (USDA) Forest Service i-Tree Tools</td>
</tr>
<tr>
<td></td>
<td>Transportation</td>
<td>Index score that reflects the affordability of transportation for renters</td>
<td>US Department of Housing and Urban Development (HUD) Low-Cost Transportation Index</td>
</tr>
<tr>
<td></td>
<td>Environmental Hazards</td>
<td>Number and percentage of children with blood lead levels higher than 5 micrograms per deciliter</td>
<td>RIDOH Environmental Lead Program</td>
</tr>
</tbody>
</table>
RI URBAN FORESTS FOR CLIMATE & HEALTH
STATE TREE PLANTING GOAL

1. Climate & Health Forestry Action Tool
2. Climate & Health Action Guide
3. City Forest Credits
4. Policy & Financing
5. Public Engagement & Training
1. CLIMATE & HEALTH FORESTRY ACTION TOOL

- Tree Equity Score (assess/goal setting)
- Map-based tool (select)
Where does need overlap with opportunity?

What is the climate & health impact of our work?

Where do we want to be in X years?

Where are we now and what can we expect?

What does need overlap with opportunity?

Where do we want to be in X years?

Where are we now and what can we expect?

What is the climate & health impact of our work?

CLIMATE & HEALTH FORESTRY ACTION TOOLS

1. Assess

2. Set Goals

3. Select

4. Measure Impact

Right Tree(s), Right Place(s)
ASSESS

Utilize simple metrics across social, health, and climate data.

- Setting a standard for nationwide work with Tree Equity Score
- Climate projections, threats, sequestration potential, sea level rise
- Health data & impacts
- Applied at multiple scales: State, City, Health Equity Zone, Neighborhood (Block Group), Parcel.
MAP-BASED TOOL

Allow users to compare opportunity parcels that achieve their climate & health needs as informed by the assessment (tree equity score).
TREE EQUITY SCORE: DEFINED

TREE EQUITY SCORE is a way to measure how well a neighborhood, municipality or state is ensuring the benefits of urban tree canopy are reaching populations that are particularly susceptible to extreme heat and other conditions.
TREE EQUITY SCORE METHODOLOGY

1. NEIGHBORHOOD GOAL

2. NEIGHBORHOOD CANOPY GAP***

3. EQUITY INDEX

4. TREE EQUITY SCORE

*** WE WILL USE THIS AS A BASELINE FOR SETTING THE STATEWIDE GOAL.
1. NEIGHBORHOOD GOAL

<table>
<thead>
<tr>
<th>Population Density (ppl/km²)</th>
<th>Target Canopy Adjustment factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very low (&lt;2k)</td>
<td>1.2</td>
</tr>
<tr>
<td>Low (2k-4k)</td>
<td>1</td>
</tr>
<tr>
<td>Moderate (4k-8k)</td>
<td>0.8</td>
</tr>
<tr>
<td>High (&gt;8k)</td>
<td>0.5</td>
</tr>
</tbody>
</table>
2. NEIGHBORHOOD CANOPY GAP
3. EQUITY INDEX

FOUR EQUALLY WEIGHTED CHARACTERISTICS
4. TREE EQUITY SCORE

The Tree Equity Score prioritizes tree planting across neighborhoods with canopy gaps.
SET GOALS

- **Canopy & Carbon Goals by State, Municipality, Block Group**
- **Through the lens of Tree Equity and Climate projections.**
- **Incorporates Opportunity**
- **Ambitious, but achievable**
STATE TREE PLANTING GOAL

1. Climate & Health Forestry Action Tool
2. Climate & Health Action Guide
3. City Forest Credits
4. Policy & Financing
5. Public Engagement & Training
2. CLIMATE & HEALTH ACTION GUIDE

- Climate informed tree species selection
- Urban forest management strategies to enhance climate adaptations and support carbon mitigation goals and improve public health outcomes
- Urban wood re-use strategies
STATE TREE PLANTING GOAL

1. Climate & Health Forestry Action Tool
2. Climate & Health Action Guide
3. City Forest Credits
4. Policy & Financing
5. Public Engagement & Training
3. CITY FOREST CREDITS

VOLUNTARY CARBON+ MARKET THAT NOT ONLY MEASURES CARBON SEQUESTRATION BUT ALSO CALCULATES RAINFALL INTERCEPTION, AIR QUALITY BENEFITS AND ENERGY SAVINGS
STATE TREE PLANTING GOAL

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RESILIENT RHODY
AN ACTIONABLE VISION FOR ADDRESSING THE IMPACTS OF CLIMATE CHANGE IN RHODE ISLAND

POLICY & FINANCING
5. PUBLIC ENGAGEMENT & TRAINING

Funds Raised to Date for Capstone Tree Planting

- DDCF: 15,000
- RIDOH: 15,000
- RI Foundation: 10,000
- Bank of American: 44,250
CORE PROJECT PARTNERS
MEASURE IMPACT

**How does this contribute to statewide goals?**

**How much carbon will be sequestered by the project?**

**How much stormwater infiltrated?**

**Measureable impacts on Public Health?**

**Impact on Air Quality?**
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