Tree Equity



Jad Daley





Here Today to Share and Learn from You!



On Urban & Community Forests from the Beginning!

www.americanforests.org/our-history



1875

Concerned citizens found the American Forestry Association (now American Forests) to address rapid postwar development and intense wildfires.

1921

Alongside Lady Florence Harding, American Forests launches memorial tree campaign in cities across the U.S.

1989

American Forests publishes "Shading Our Cities", a seminal compilation on how to manage urban heat with urban trees.

2022

The Inflation Reduction Act includes \$1.5 billion for equity and climate-focused grants through the USFS Urban & Community Forestry Program—the largest such investment in world history.

1905

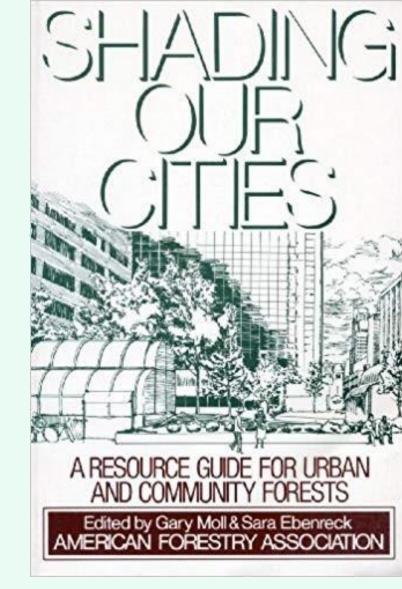
American Forests hosts the 2nd American Forest Congress, which catalyzes the eventual establishment of the US Forest Service to serve as a national leader in caring for all the nation's trees and forests.

1982

American Forests hosts the first National Urban Forest Conference.

2021

American Forests launches Tree Equity Score, a tool for all urbanized areas to use as a guide for where trees are needed most.









Yes, We Even Created a Mascot

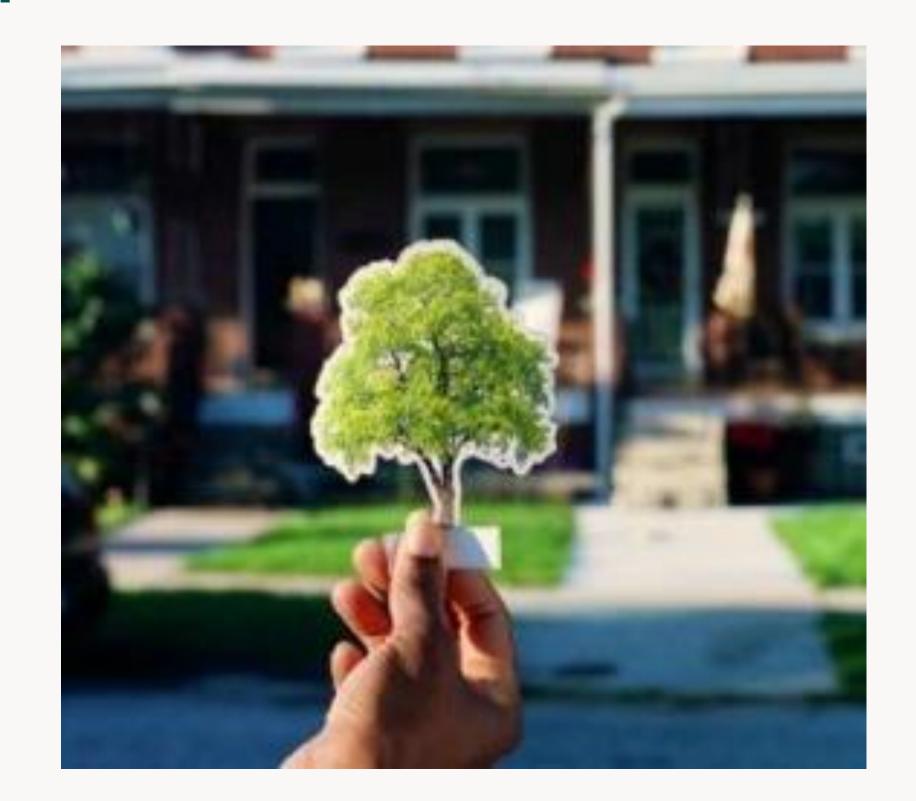


9/10/81 Rudy -I need a young Lynamic "City Squirrel" it will be the Symbol for our Urban Forestry Program. Weblike our character dressed in regular "blue-jeans"
young looking - maybe a T-Shirt with AFA on the front and a hat that resembles an acorn cap (333) at least that's been 100000 suggested and Adidas running "tennis-Shoes. NAME: SPUNKY SQUIRREL Swerry Hank



Outline for Today's Presentation

- The case for urban trees in a changing world
- Tree Equity as a focusing framework for urban forestry
- Tools and approaches for building a Tree Equity program
- A vision for Canada-US collaboration for Tree Equity







Extreme heat is an intersectional threat to urban public health that hits hardest on the most vulnerable.

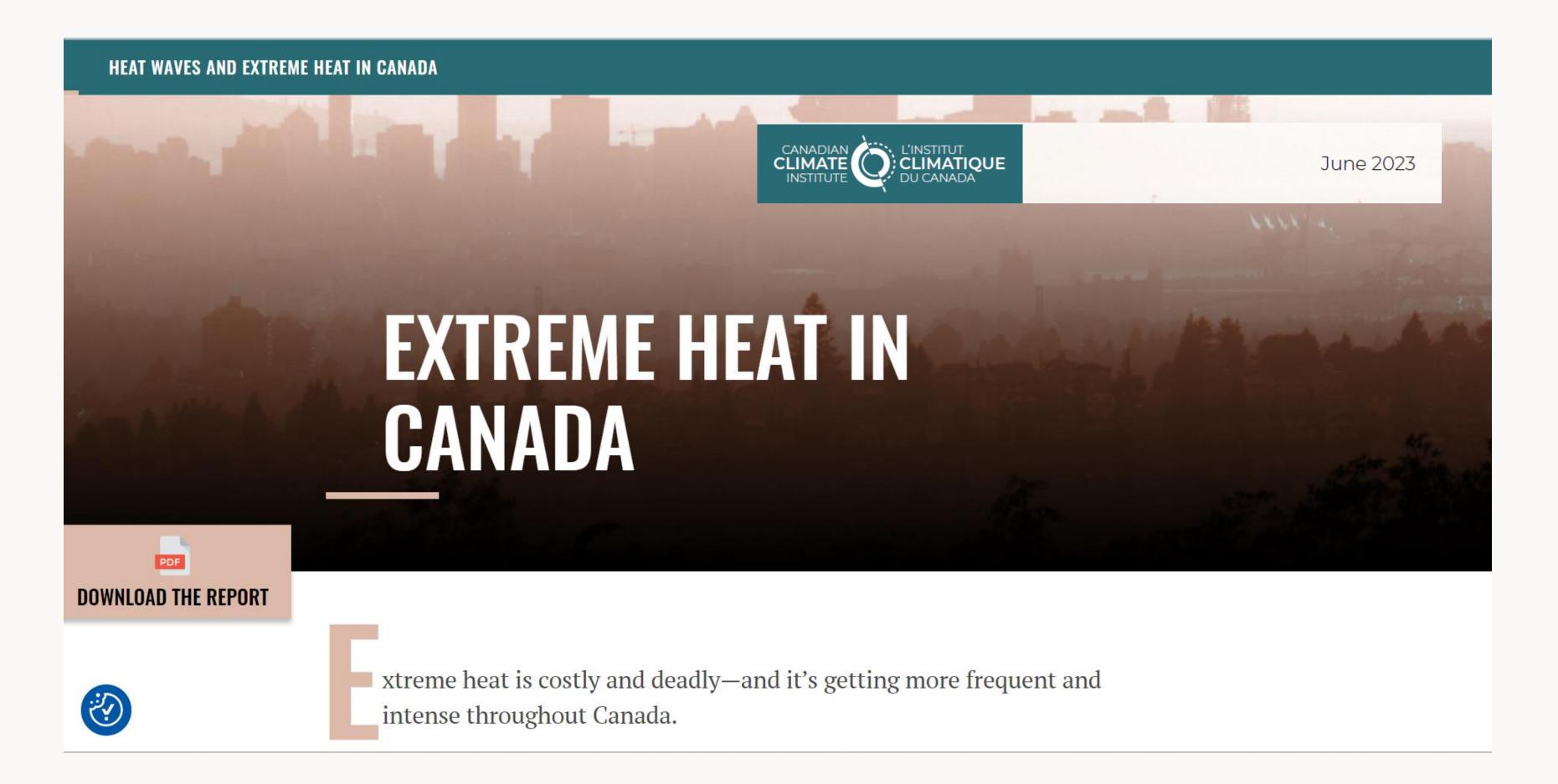
Heat-resilient cities are the key to sustaining future urban health.

americanforests.org



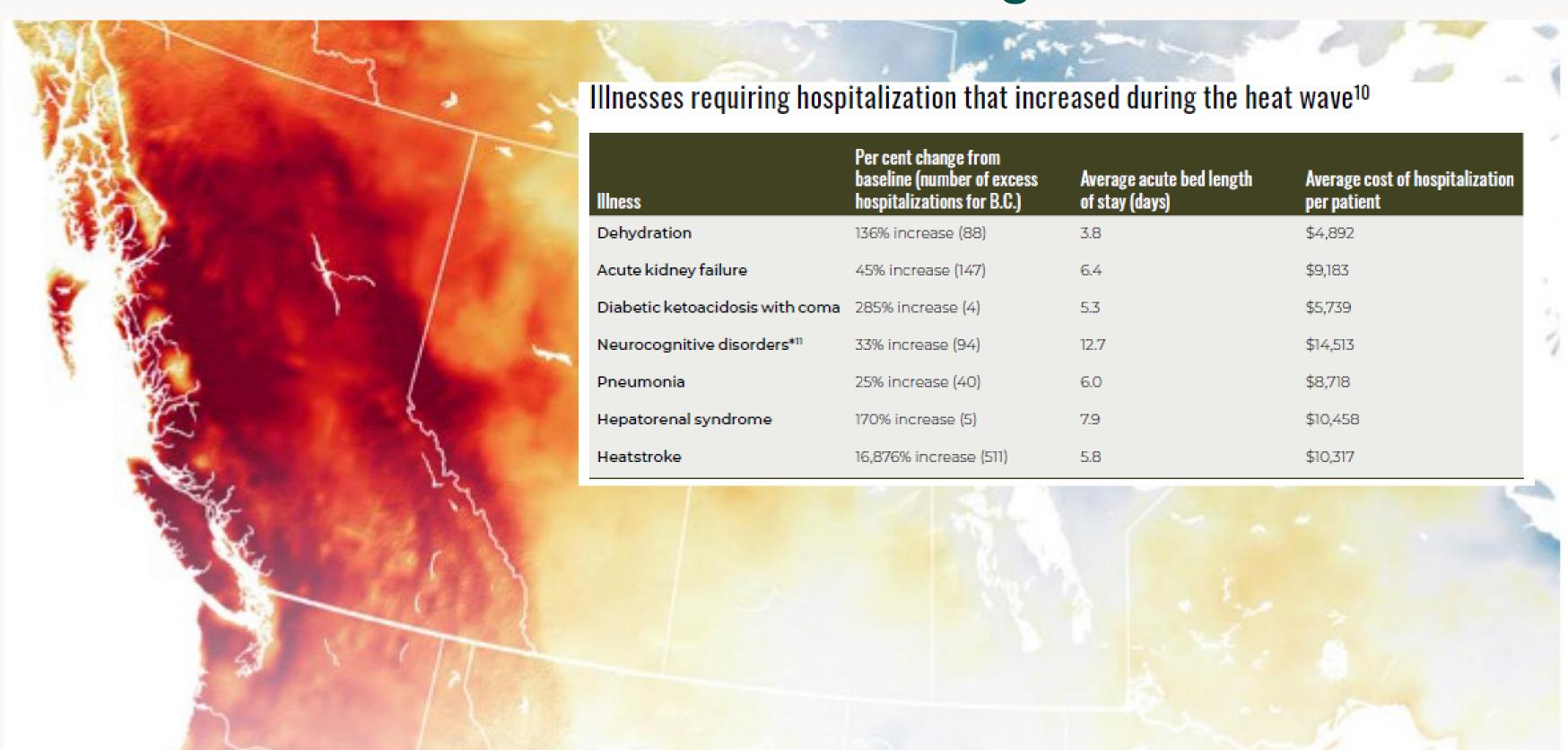








Heat-Related Deaths & Illness Are Rising



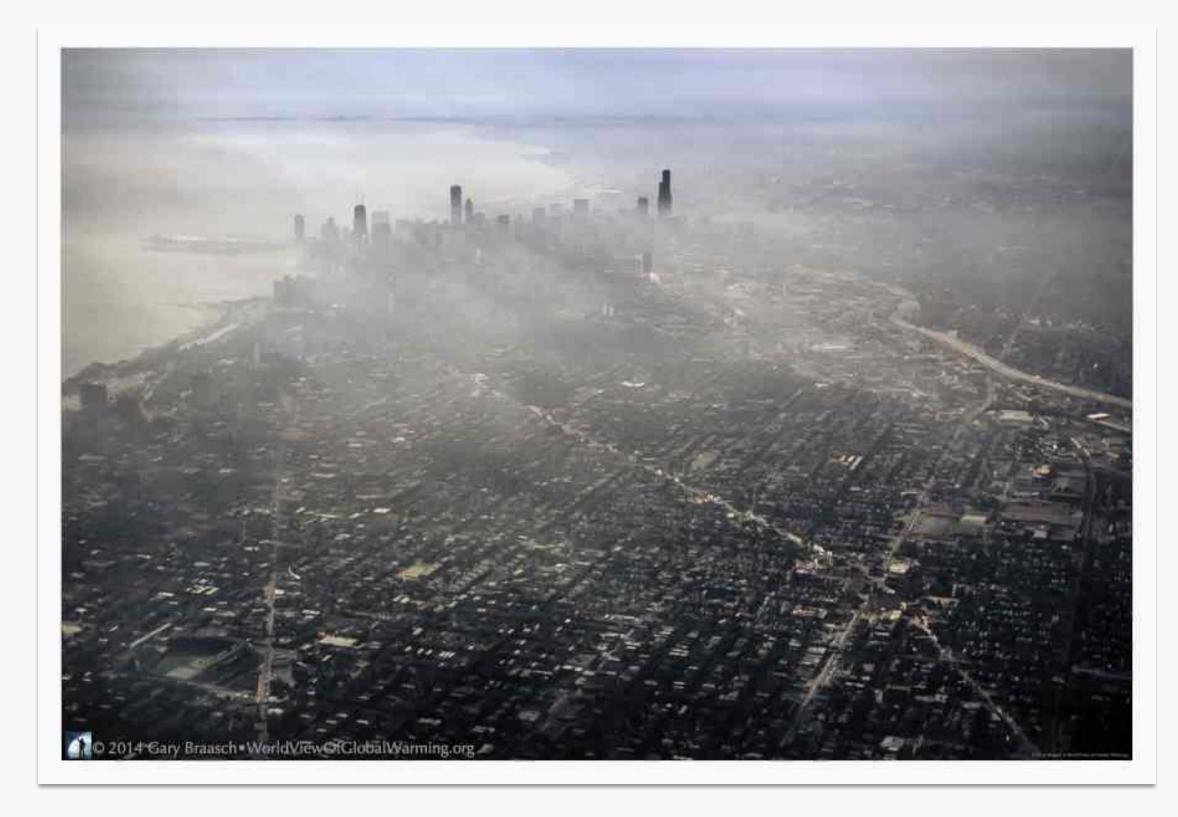


Using AC to Beat the Heat Worsens Climate Change





Extreme Heat Worsens Air Pollution



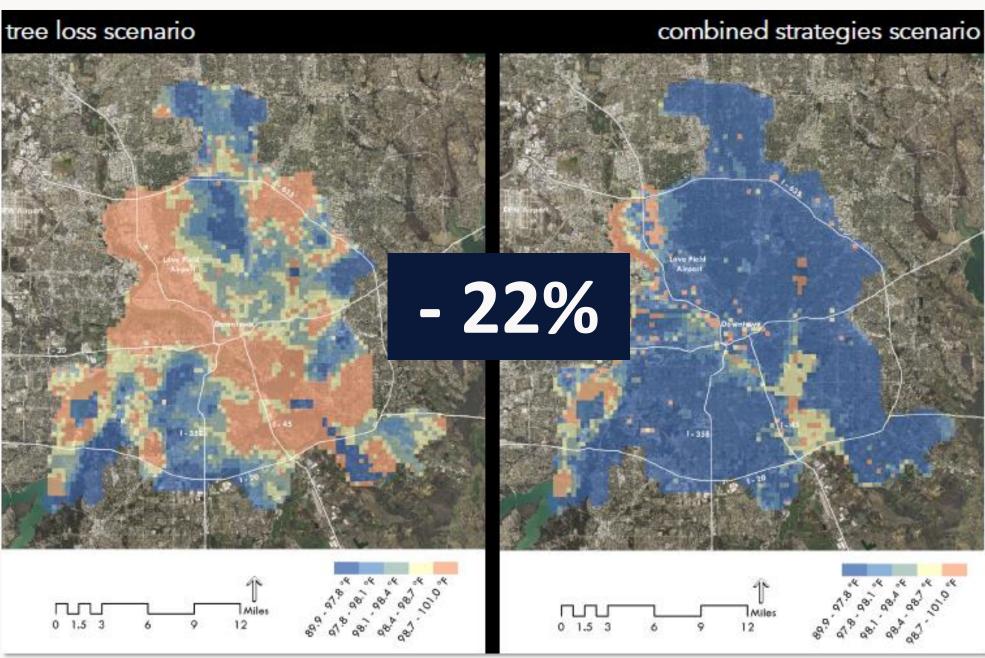






Using Nature's Air Conditioning Will Save Lives







While Also Saving GHG Emissions & Money



Sequestration: Trees in U.S. cities & towns capture nearly 130 Million Mt/CO2e/Year.

Energy Savings: Trees in U.S. cities & towns save 38.8 Million MWh & 246 MMBtus of energy use for heating and cooling.

Nowak et al. 2017

https://research.fs.usda.gov/treesearch/53420





ABOUT GREEN INFRASTRUCTURE

WHAT WE DO



Tree Benefits Estimator



Welcome to the Ontario Residential Tree Benefits Estimator

This online tool estimates the energy savings and other environmental benefits provided by your existing tree. It can also help you to decide where to plant new trees around your home.

Roll your cursor over words that appear in blue for more information.

Click to Begin

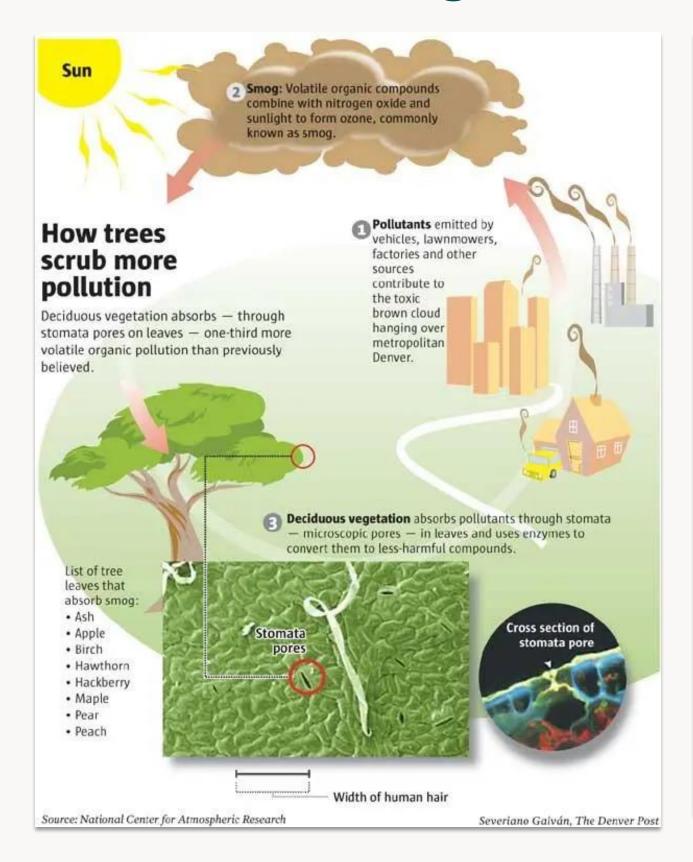


Andrew Millward and his team created the Ontario Residential **Tree Benefits Estimator, for 27** cities around Ontario. The study involved 577 trees.

"A tree will save between 435 and 483 kWh per household — equal to running a dishwasher once every day for an entire year," says Millward. He says that is a saving of "over \$40 over a year."



And Reducing Air Pollution













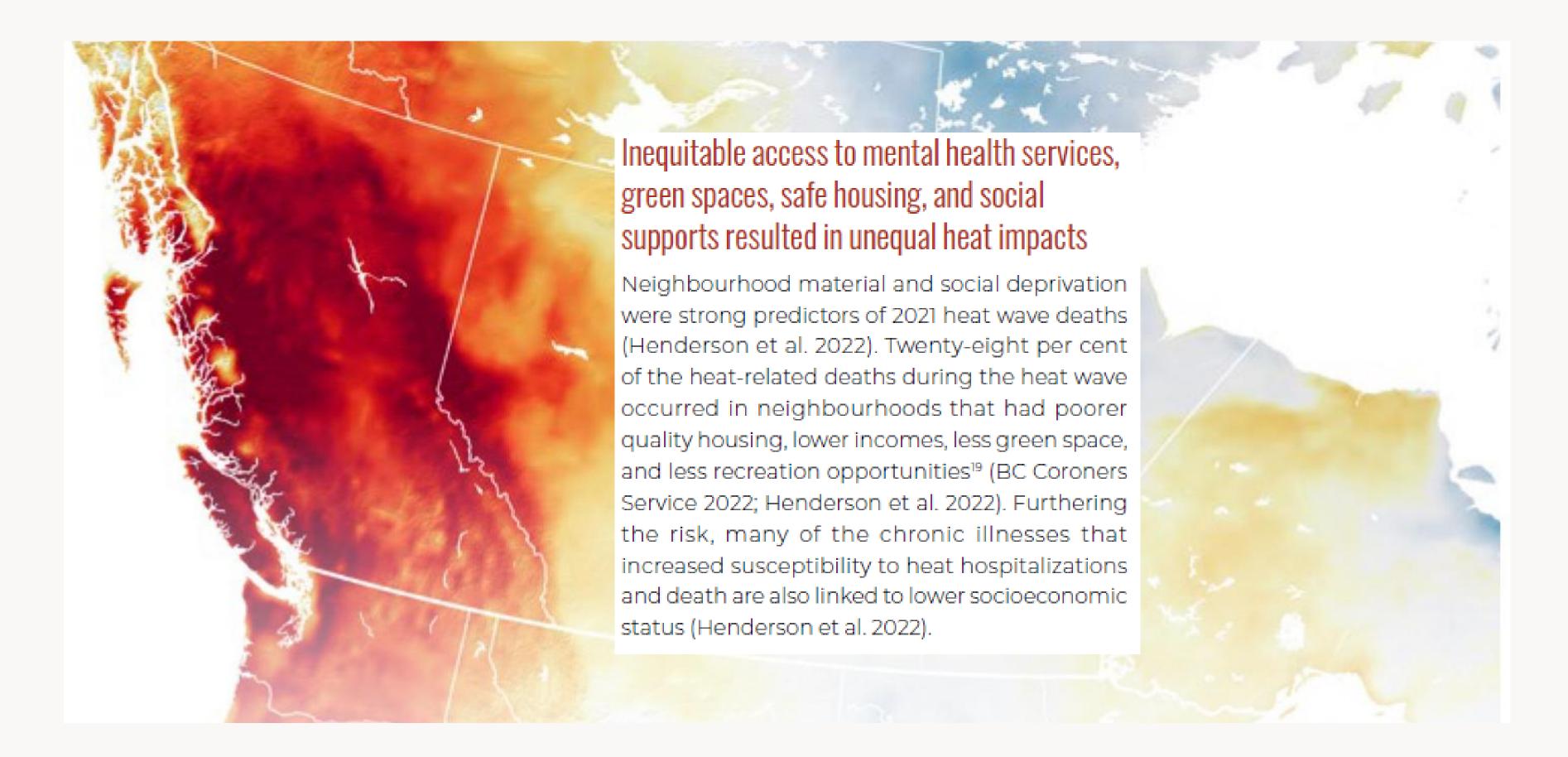
That means the people who most need the health benefits of trees, the household energy savings, and myriad other benefits of trees in their communities are getting them least.



Who Can Access & Afford AC?

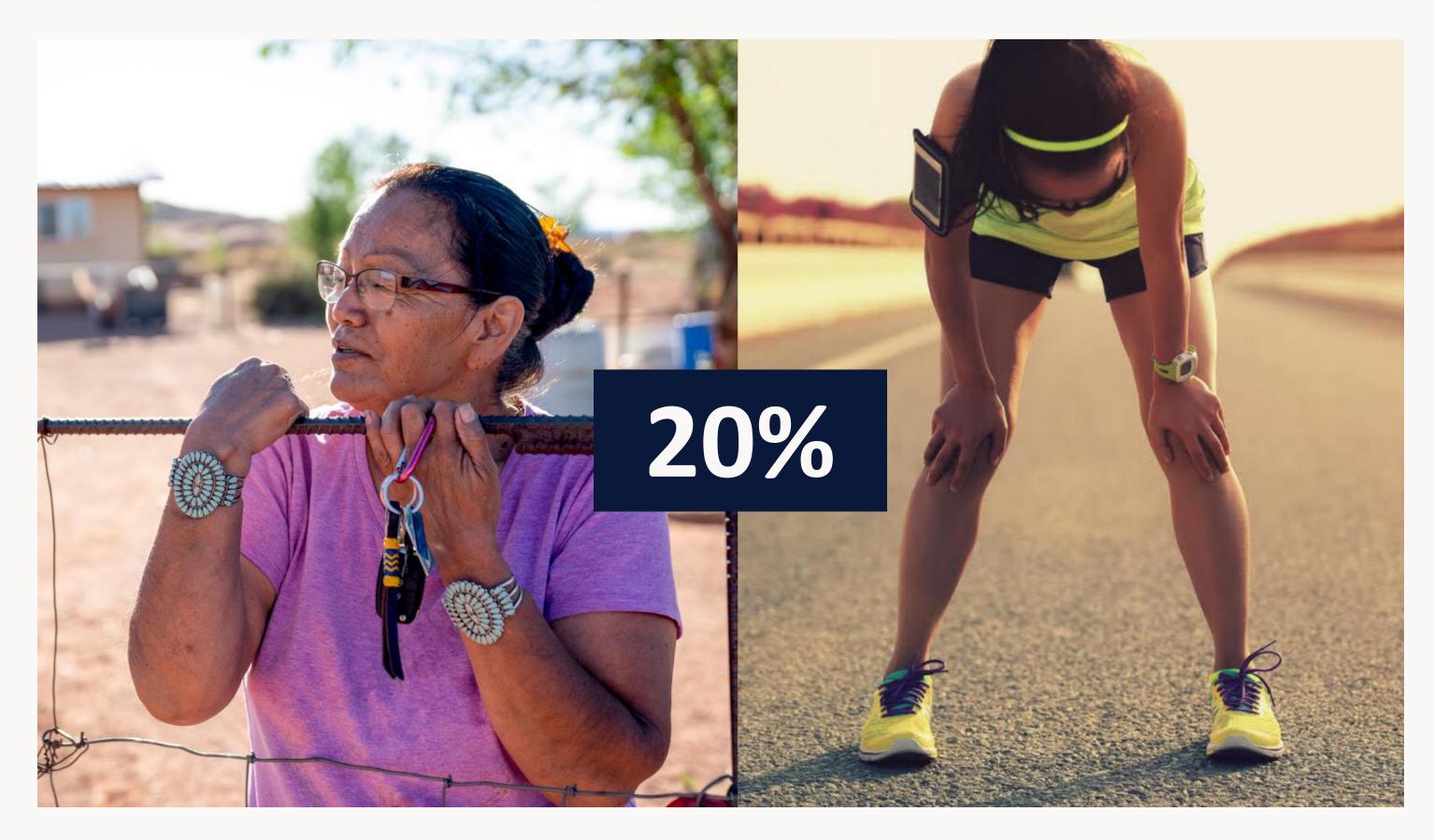








Who Can Access Climate-Safe Exercise?







Adopt a human rights approach to action on the social determinants of health and health equity. A human rights approach recognizes that equitable access to opportunities for health, wellbeing, and their determinants is an issue of fairness and justice. The right to health in particular is recognized in a number of United Nations covenants and conventions to which Canada is a party, including the International Covenant on Economic, Social and Cultural Rights. Implementation of a human rights approach to health can be supported by evidence-based, participatory, and coherent action across governments and sectors, including working with communities most affected by health inequalities to design interventions that are both relevant and effective.





Our Tree Equity Program Model





Urban Wood

Tree Care

Tree Planting

Tree Nurseries

Tree Protection

Action Plan



Data-Driven Priorities

Community Engagement

Inclusive Partnership









Getting It Right for Community Engagement

Who?

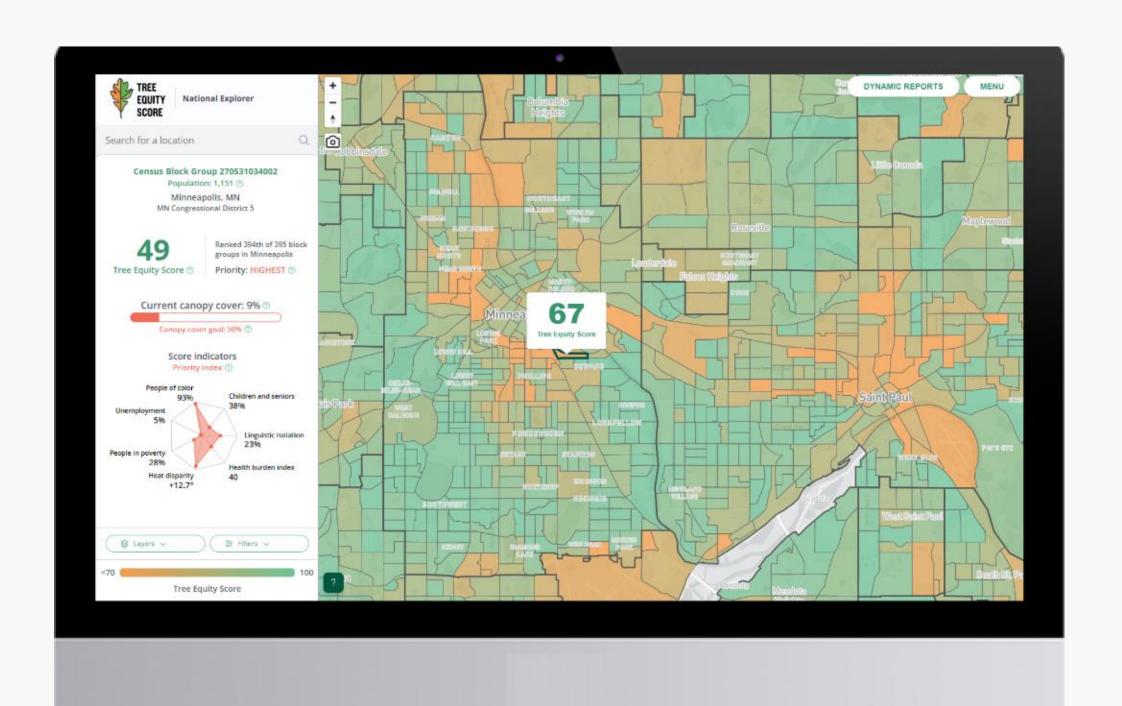
When?

How?

Who Gets Paid?





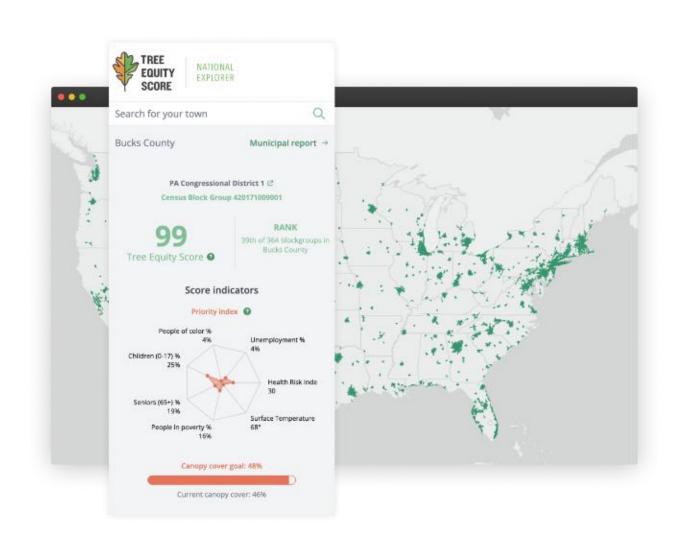


American Forests created Tree Equity Score to make the case for Tree Equity & guide local action.

190,000 urban neighborhoods 12,000+ cities and towns 80% of the U.S. population

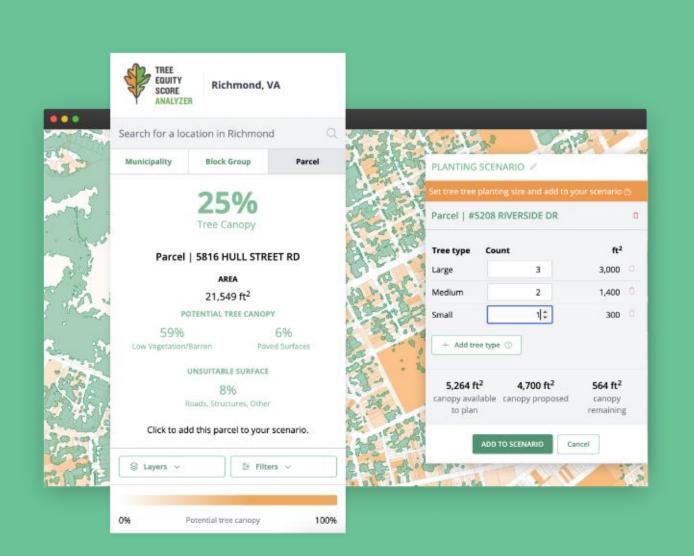






Our flagship National Explorer makes Tree Equity Score available to all.

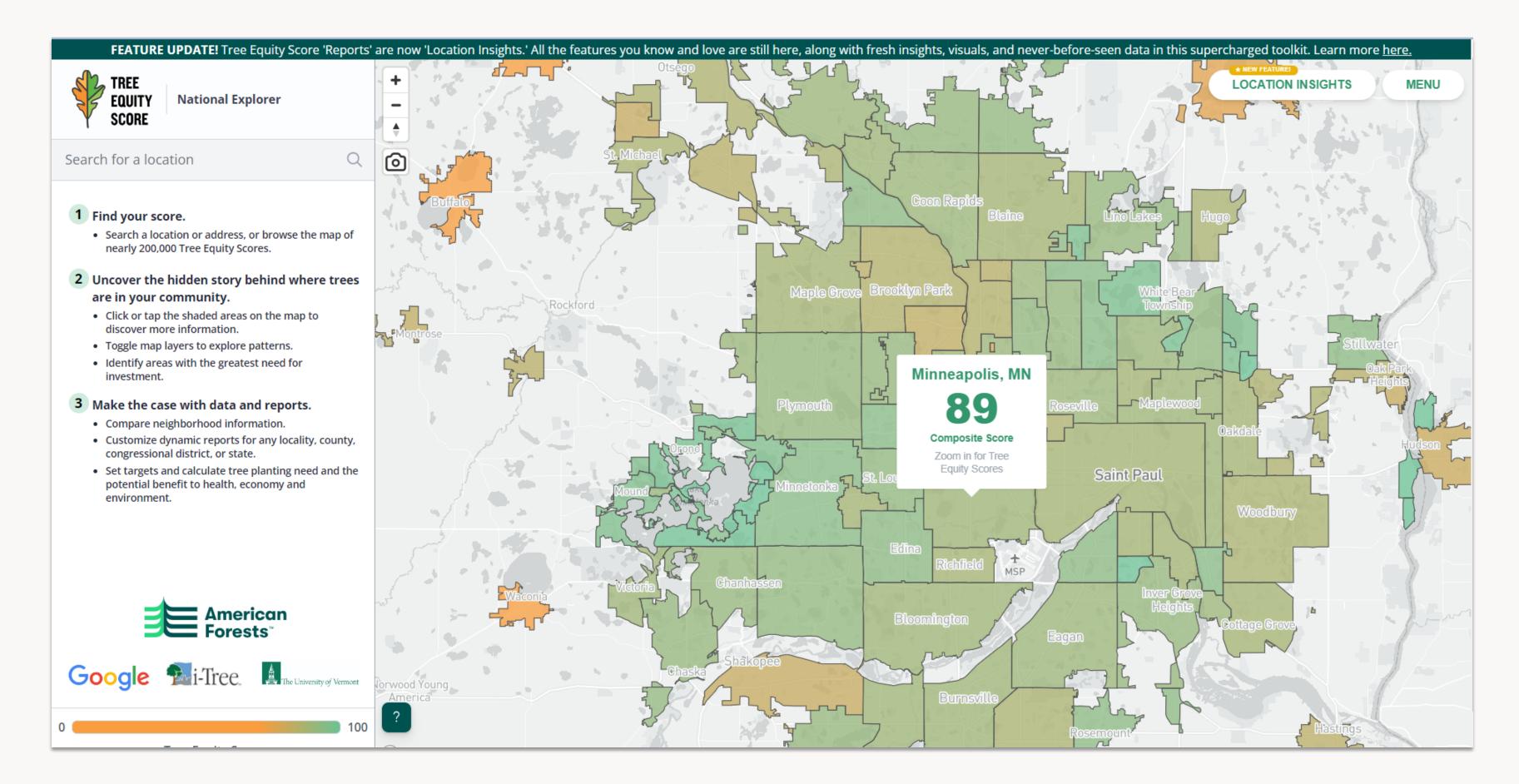
- Scores for 190,000+ urban block groups in the
- A national standard to support equity-first tree planting and investment.
- Neighborhood-level data; municipal and regional goal-setting.
- Communicate the positive impacts of trees.



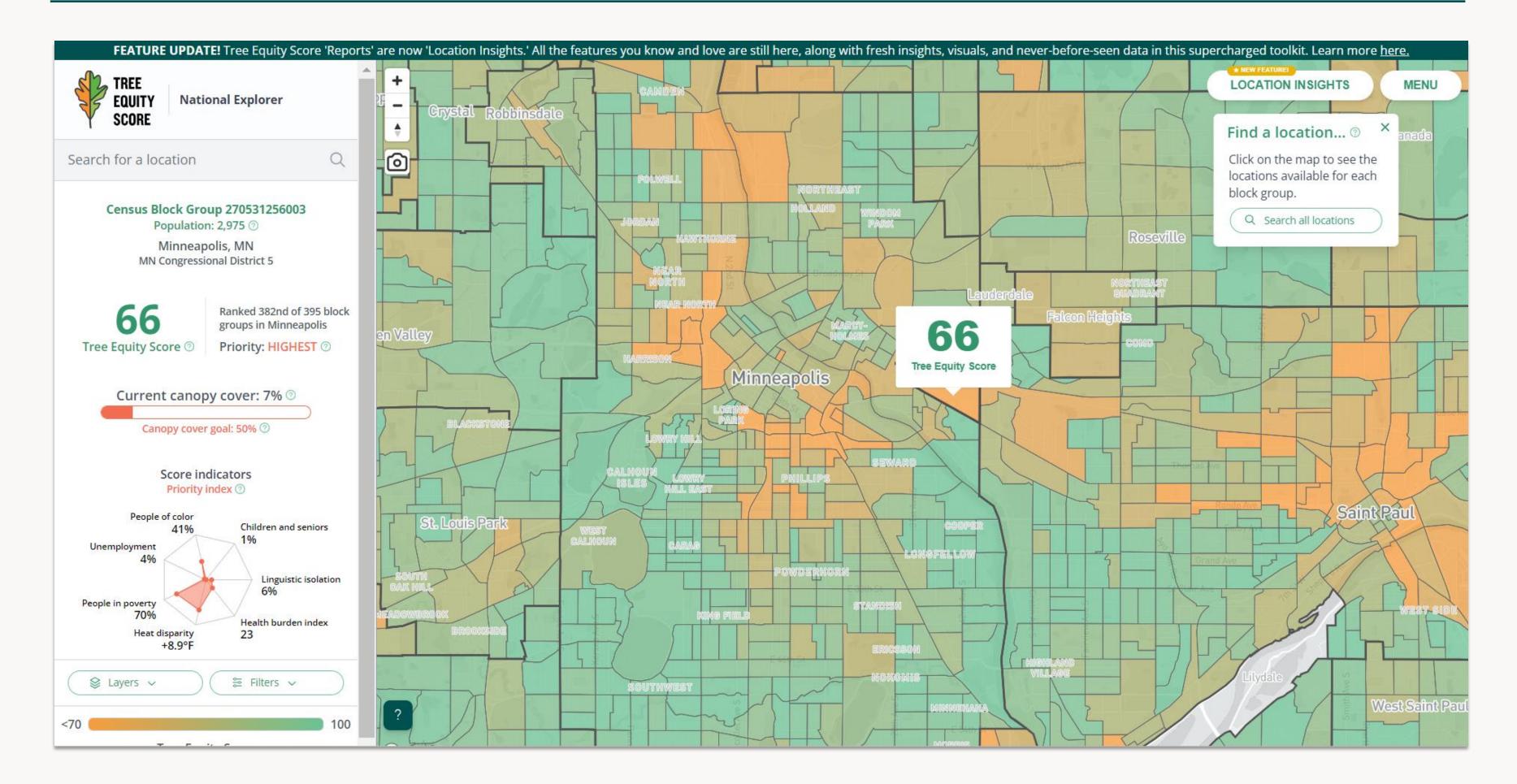
Local Analyzers serve a single city or region to help users shift Tree Equity Scores.

- Data for all public and private properties.
- For each block group (neighborhood), set Tree Equity Score goals and estimate planting needs.
- Build property-level plans to shift scores. Track progress. Communicate the benefits of new and existing trees.
- Co-created with stakeholders; locally-tailored.









Expand planning tools 🔻



ADVANCED PLANNING TOOLS 144 block groups

See your target areas on a map. View data for each target block group. Use the slider to expand or narrow your planning.

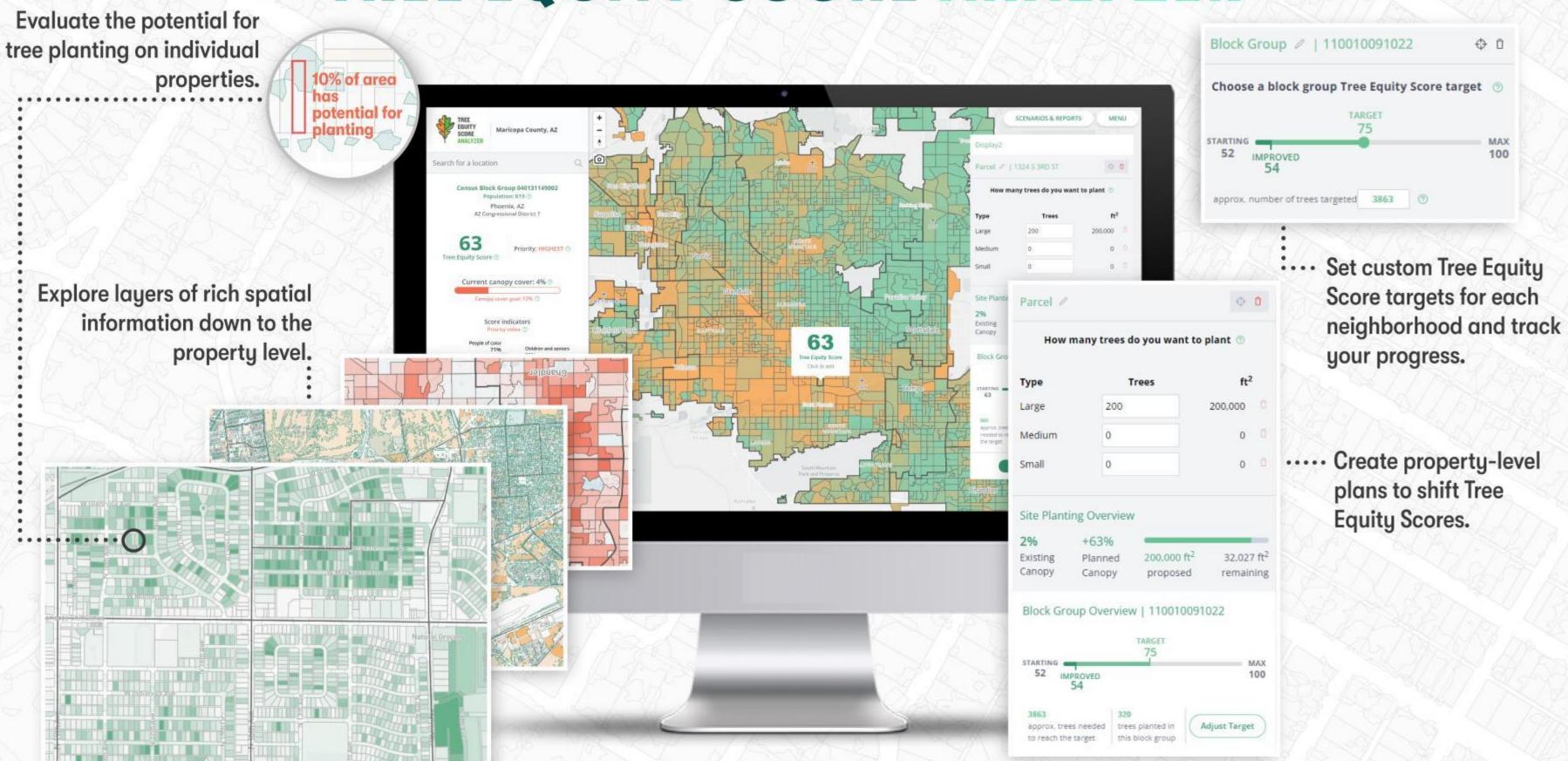
FEATURE UPDATE: Tree Equity Score 'Reports' are now 'Location insights.' All the features you know and love are still here, along with fresh insights, visuals, and never-before-seen data in this supercharged toolkit. Learn more here. TREE EQUITY SCORE Tree Equity Score Location Insights Minneapolis, MN change location OVERVIEW Distribution of Scores Achieving Tree Equity Summary Composite Score: 89 Expanding the urban canopy by 6.8 square miles (roughly 316,674 trees) and maintaining the existing Urban area population 429,954 ® Children (0-17) 20% ® canopy would bring every urban neighborhood in Minneapolis to a Tree Equity Score of 100. Tree canopy cover 30% @ Seniors (65+) 10% ® People in poverty Linguistic isolation 5% ® People of color Average health burden index 33 ① Neighborhoods below 100 Unemployment 83% © START PLANNING New canopy Existing canopy Adjust the slider to expand or narrow your planning. Choose a Tree Equity Score target and estimate the impacts of new trees added. 144 of 395 blockgroups have a Tree Equity Score below 90 Drag to adjust target score ESTIMATED TOTAL ANNUAL BENEFITS NEW CANOPY Annual Ecosystem Service New Canopy Cover New Composite Locality 2.2 sq-mi of canopy expansion will be needed to get all block groups to at least a score of 90 (this is Supported (1) Added ① Value @ Score ® equivalent to roughly 103,974 trees). See the significant benefits this will create. @ 4.1% \$695,205 756 93 CARBON WATER AIR Stormwater runoff prevented Pm2.5 pollution removed Carbon sequestered Sulfur dioxide removed 1,463.0 21.2 1,812.7 667.7 tons million gallons Carbon sequestered equal to: Stormwater runoff equal to: Pm2.5 pollution equal to: Pm10* pollution removed 8.0 1,050 1,062 835 gas-powered cars offset gas-powered cars offset standard swimming pools tons Rainfall intercepted Nitrogen dioxide removed Carbon sequestered equal to: Ozone removed 73.1 6,104.1 22.3 613 homes' energy use offset million gallons tons

ANATOMY OF A

TREE EQUITY SCORE ANALYZER

MAX

100









National Map

Local Analyzers 🔻



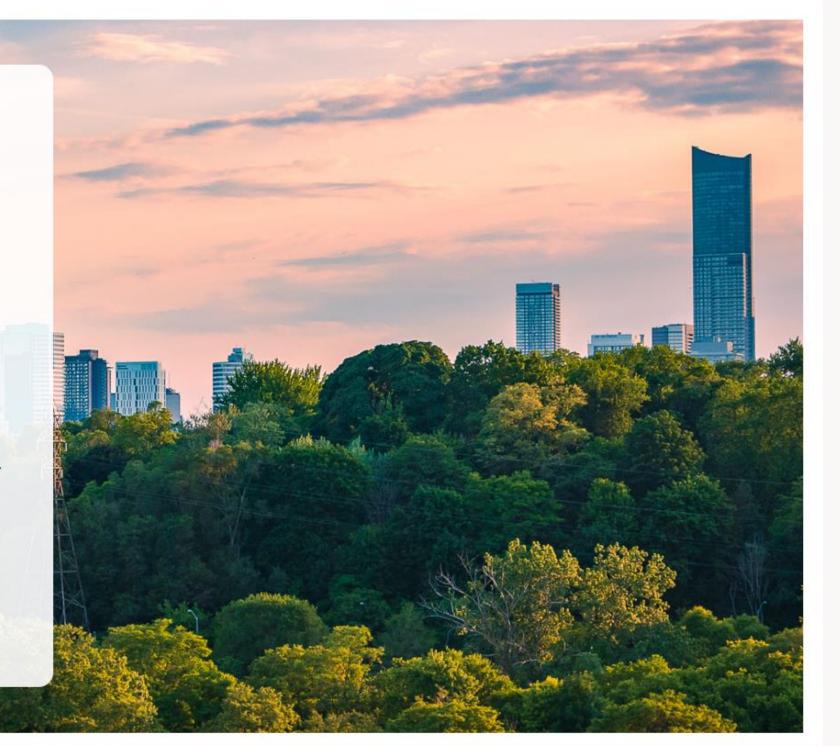
Tree Equity Score Analyzer

Toronto, ON

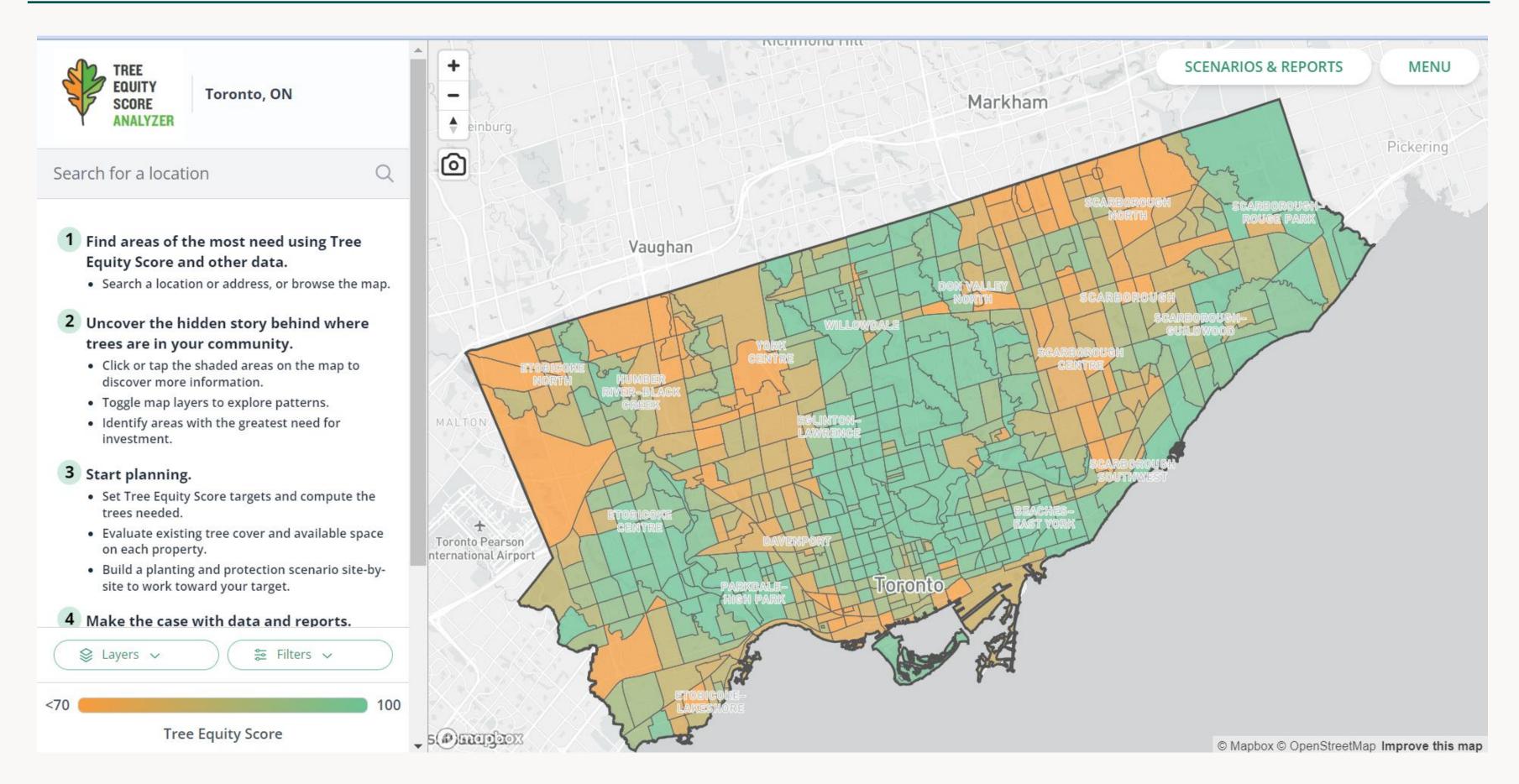
Discover how human-centered tree plantings can improve health and well-being in Toronto's neighbourhoods.

Deep dive into the Toronto Tree Equity Score Analyzer for neighbourhood- and property-level tools that can help you chart a course toward Tree Equity.

LAUNCH THE APP

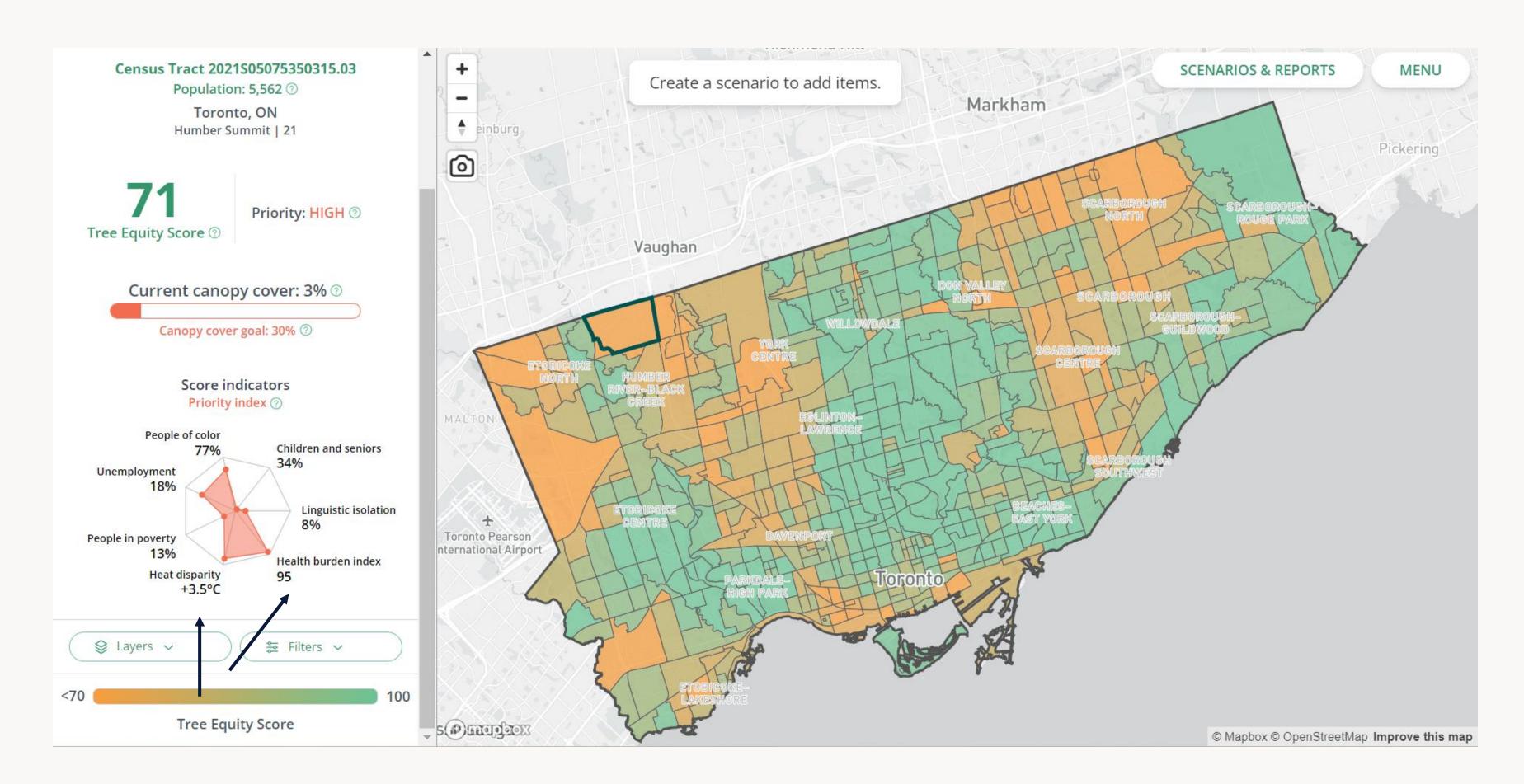




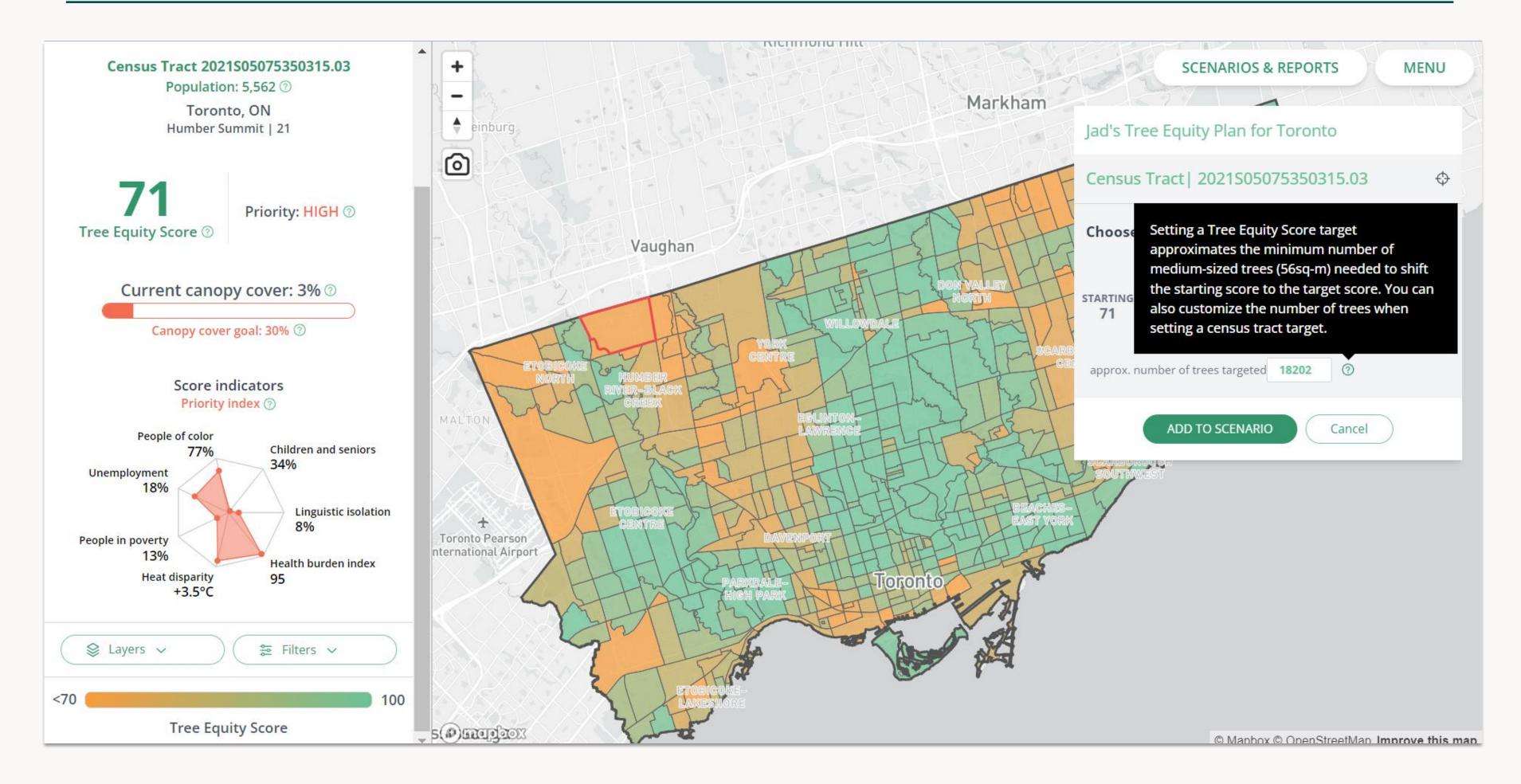


https://www.treeequityscore.org/analyzer/toronto.org/

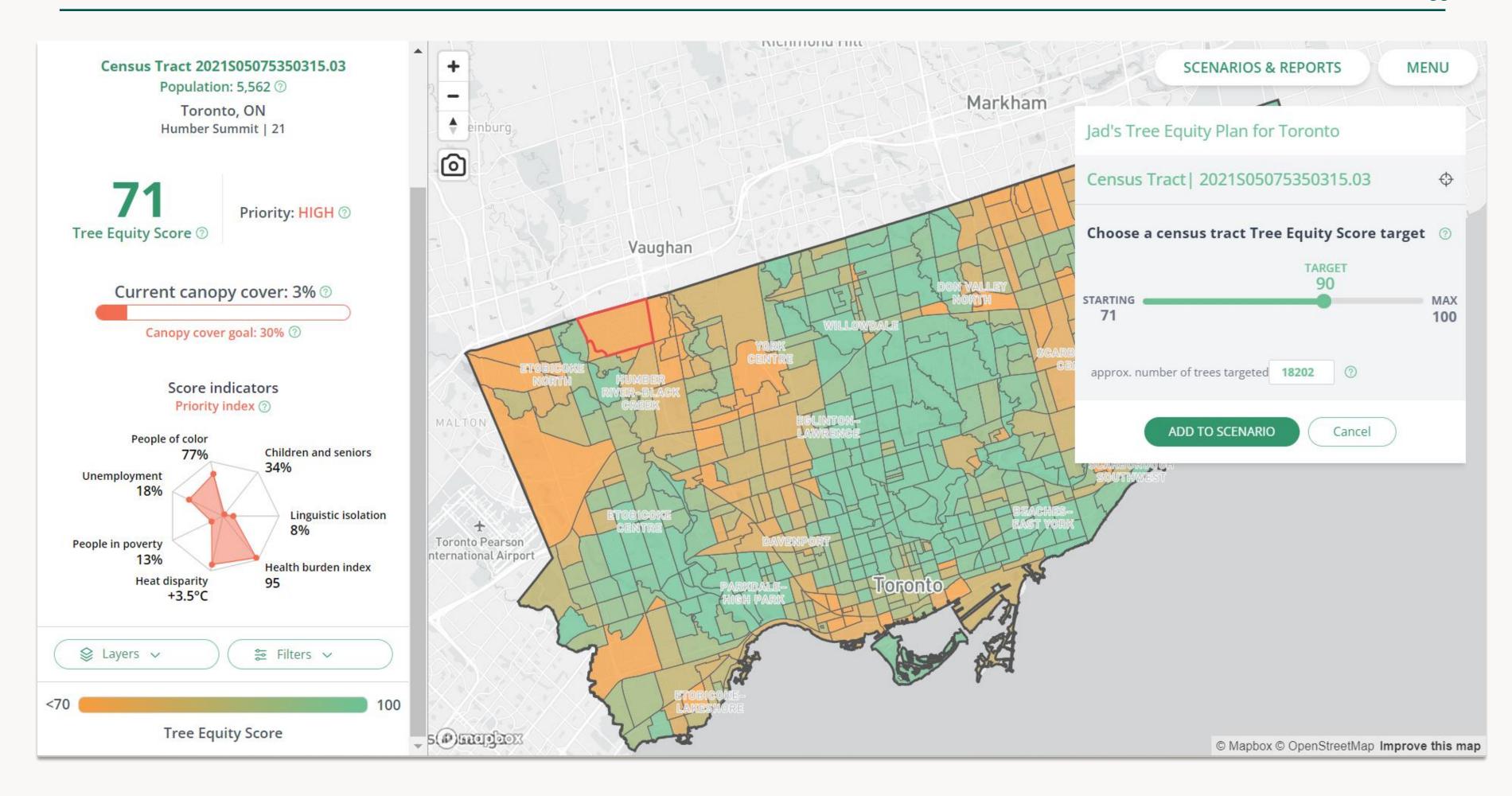




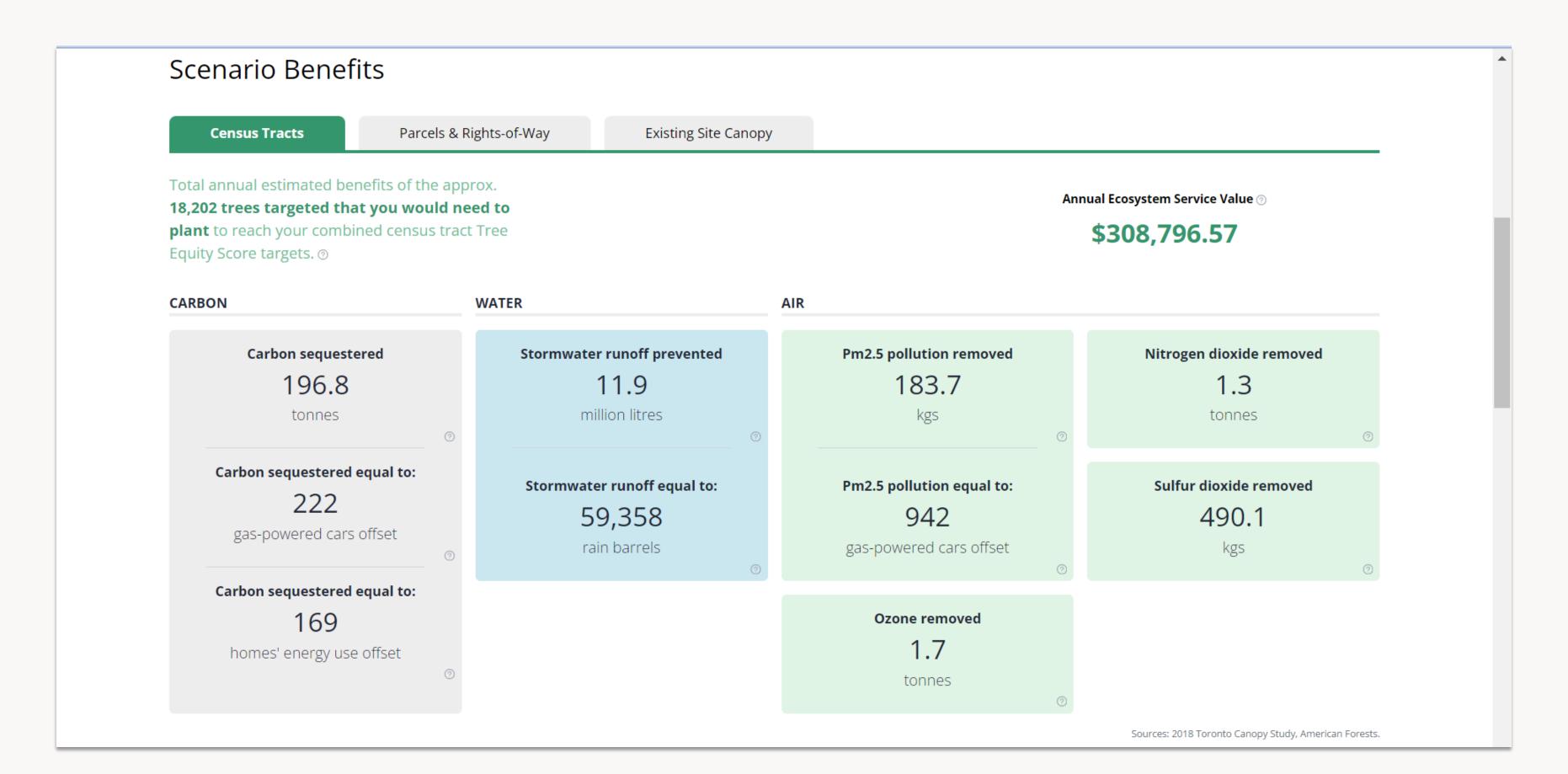












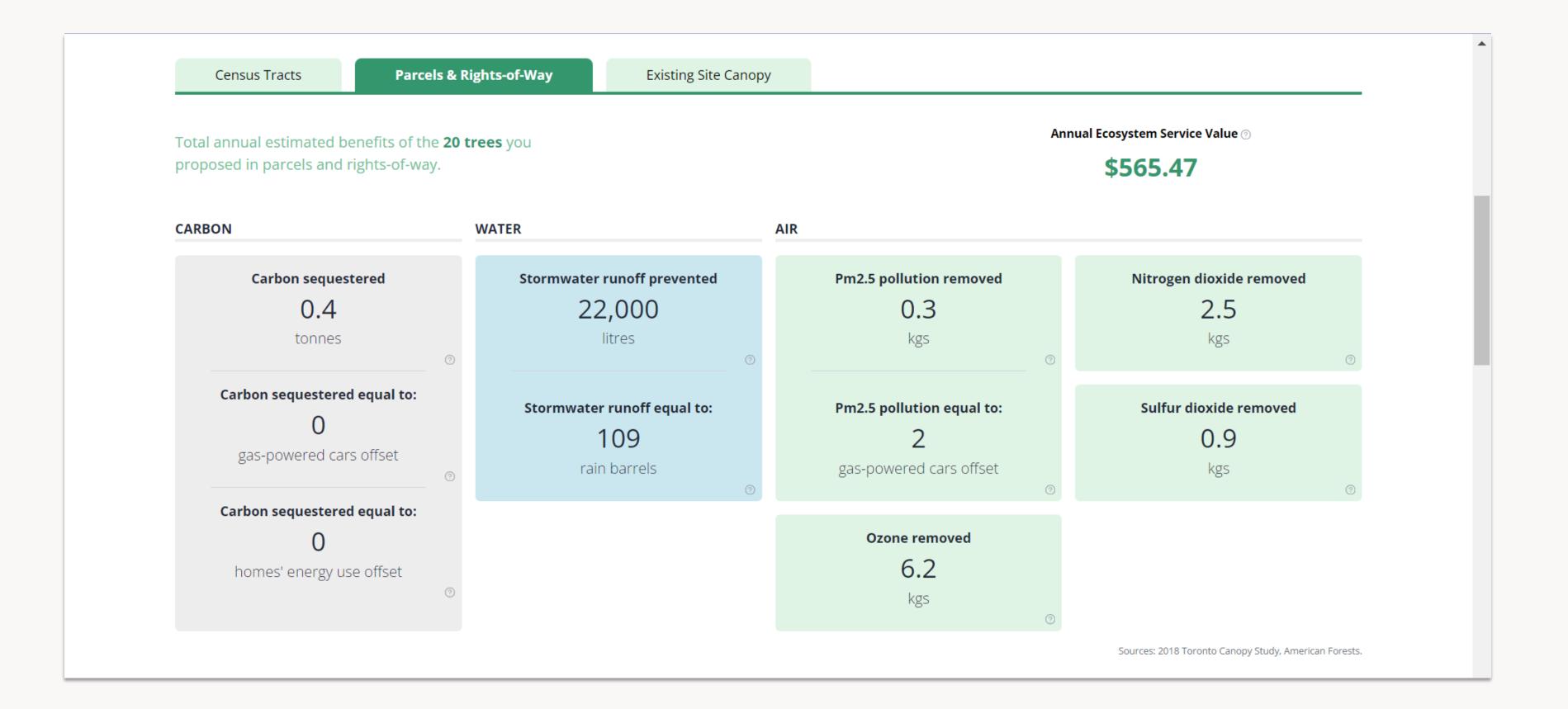














Scenario Details

Census Tract #2021S05075350315.03

Target Tree Equity Score

90

Target Trees

18,202

71 Starting Tree Equity Score

4% Existing canopy

83% Impervious cover

Site Planting Summary

Trees proposed on parcels and rights-of-way

71 Improved Score

+0% Canopy proposed

- 0 Small trees
- 0 Medium trees
- 20 Large trees

Census Tract Demographics

5,562 Total residents

77% People of color

13% People with incomes below 200% of the poverty line

18% Unemployed

19% Senior (65+)

15% Children (0-17)



Right-Of-Way | FENMAR DR

Area: 11,154 m²

1% Existing tree canopy57% Potential tree canopy

17% Grass, shrubs, or bare

40% Paved

42% Unsuitable for tree planting (roads, structures, other)

Site Plan

+17% Canopy proposed

0 Small trees

0 Medium trees20 Large trees

Site Characteristics

School no Library no





Make a Tree Equity Commitment & Action Plan



Phoenix Tree Equity Action Plan:

- Commits to Tree Equity by 2030
- Establishes new Urban Forester position
- Commits millions in City funds
- Integrates Trees with City's "Heat Ready" Response Strategy
- Coordinates implementation with Phoenix Metro Urban Forest Roundtable partners



Tree Equity Action Plans Set Strategy—Like Cool Corridors





Protect What You've Got with Strong Tree Policies

HOW DO SOME CITIES ALREADY PRESERVE OR INCREASE THEIR URBAN TREE CANOPY?

Tree Ordinances

- Heritage Tree programs
- Urban Forest Master Plan
- Municipal planting & maintenance
- Outsourcing tree work to corporations
- Public Right of Way responsibilities
 - What happens without one?



Financial Incentives

- Free trees for private property
- Low-cost trees based on equity
 - Rewards for developers
- Mandatory "Tree Save Area"
- What are some potential problems?



Conflict Prevention/Resolution

- Official street tree guide
- Mandatory arborist oversight for construction
 - Sidewalk repair guide
- What happens when cities do not plan for conflicts?





Climate & Health-Smart Tree Selection





Forest Service

Northern Research Station | General Technical Report NRS-203 | July 2021

CLIMATE ADAPTATION ACTIONS FOR URBAN FORESTS AND HUMAN HEALTH

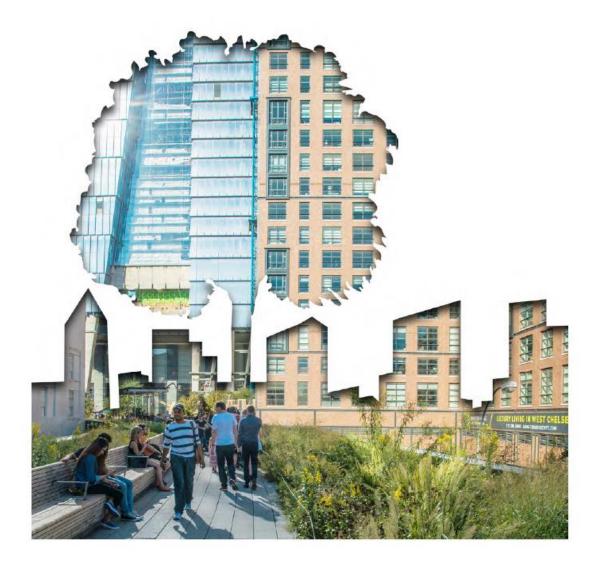
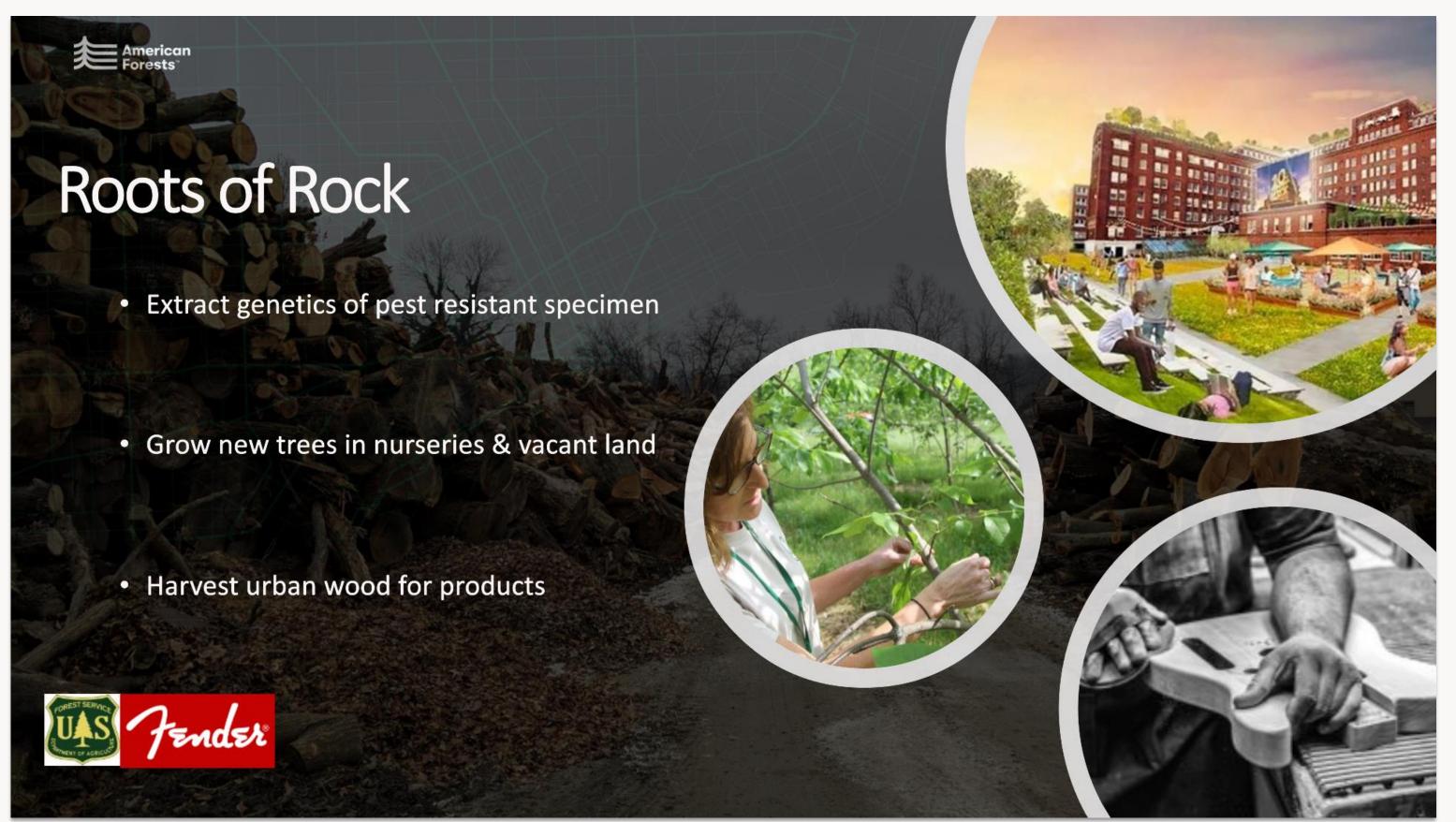


Table 5.—Tree species list developed to aid Rhode Island community forestry practitioners in selecting trees to reduce climate change vulnerability, reduce carbon dioxide in the atmosphere, and provide benefits to human health. It is meant to be a complement to other tree selection resources. Other factors may also need to be considered, such as aesthetics, local site conditions, wildlife value, or nursery availability. Some species may have climate and health benefits but may not be suitable for planting for other reasons, such as having invasive potential or susceptibility to pests or pathogens.

Scientific name	Common name	Climate vulnerability	Carbon benefit	Health benefit	Health disservices	Notes
Abies balsamea	Balsam fir	moderate-high	moderate	moderate-high	moderate	
Acer campestre	Hedge maple	low	low	low	moderate	can be invasive
Acer ginnala	Amur maple	moderate-high	low-moderate	moderate-high	moderate	can be invasive
Acer griseum	Paperbark maple	moderate	low	low-moderate	moderate-high	
Acer negundo	Boxelder	moderate-high	moderate	moderate	moderate	can be invasive
Acer rubrum	Red maple	moderate	high	high	moderate-high	
Acer saccharinum	Silver maple	moderate	moderate	moderate-high	moderate-high	
Acer saccharum	Sugar maple	low-moderate	moderate-high	high	moderate-high	
Acer tartaricum	Tatarian maple	moderate-high	n/a	n/a	moderate	
Acer truncatum	Shantung maple	low-moderate	low	low	moderate-high	
Acer x freemanii	Freeman maple	low-moderate	n/a	n/a	moderate	
Aesculus hippocastanum	Horse chestnut	low-moderate	moderate-high	high	low	can be invasive

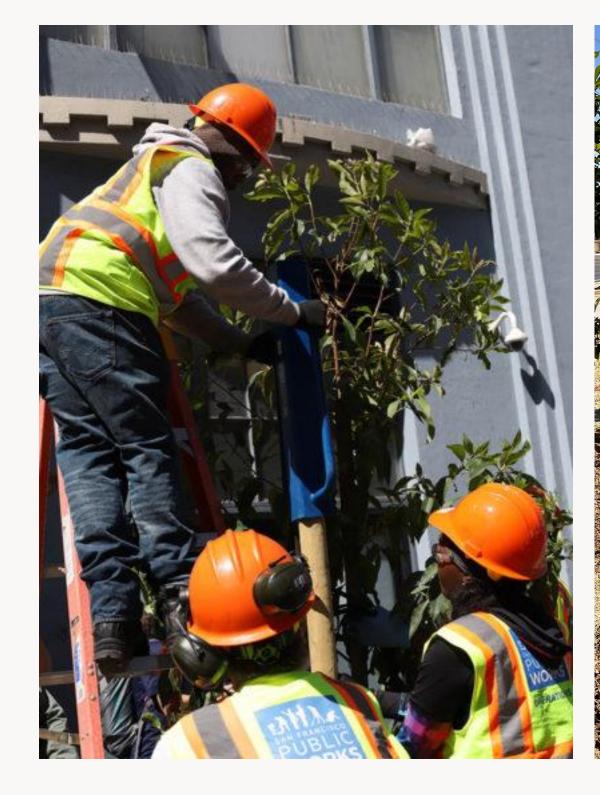


Expanding Nurseries to Get Right Trees for Less \$





Rigorous and Scaled Tree Planting









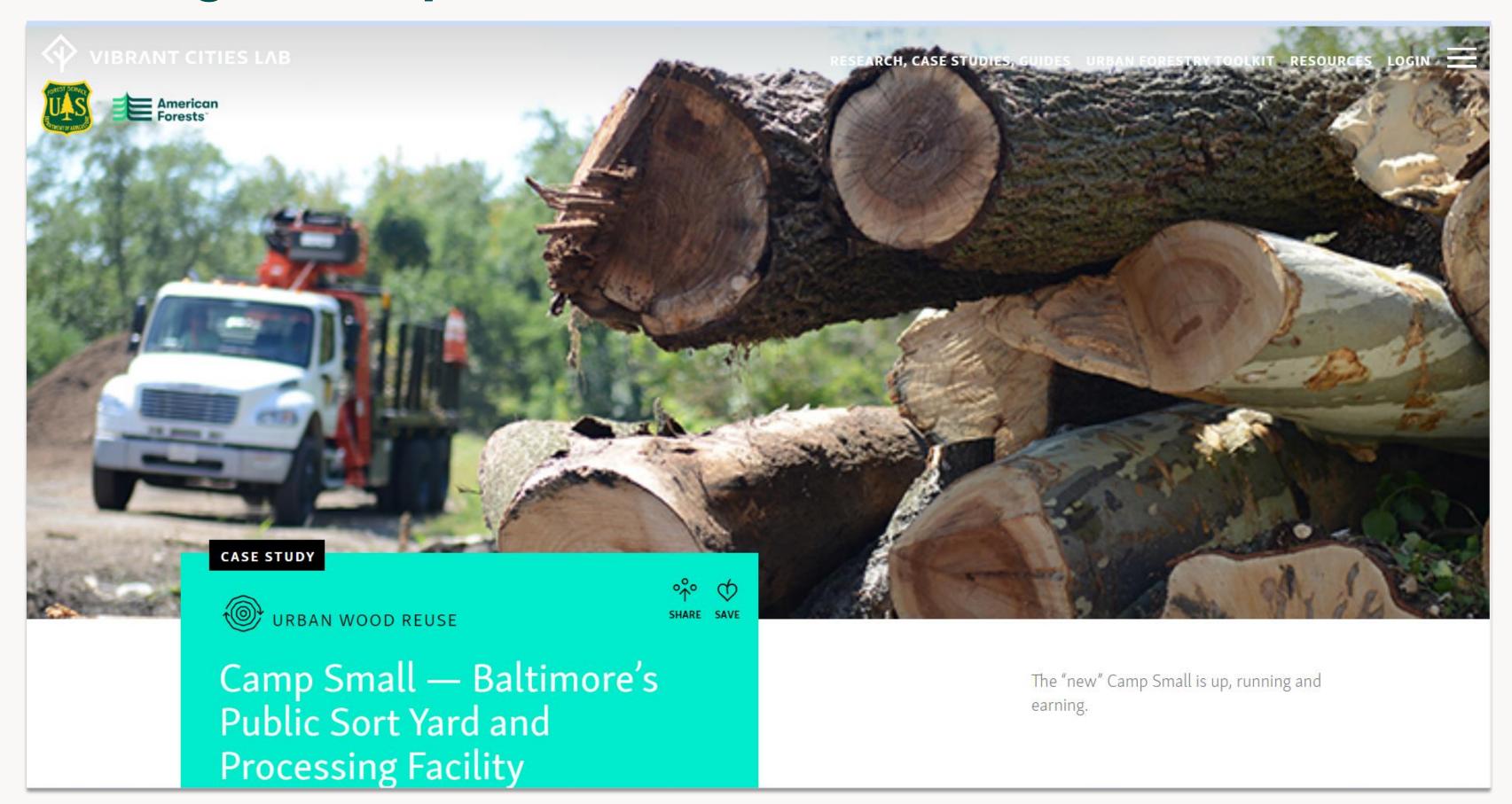
And Tree Care, from Maintenance to Restoration







Closing the Loop with Urban Wood Use







We Can Turn Tree Equity into Economic Opportunity





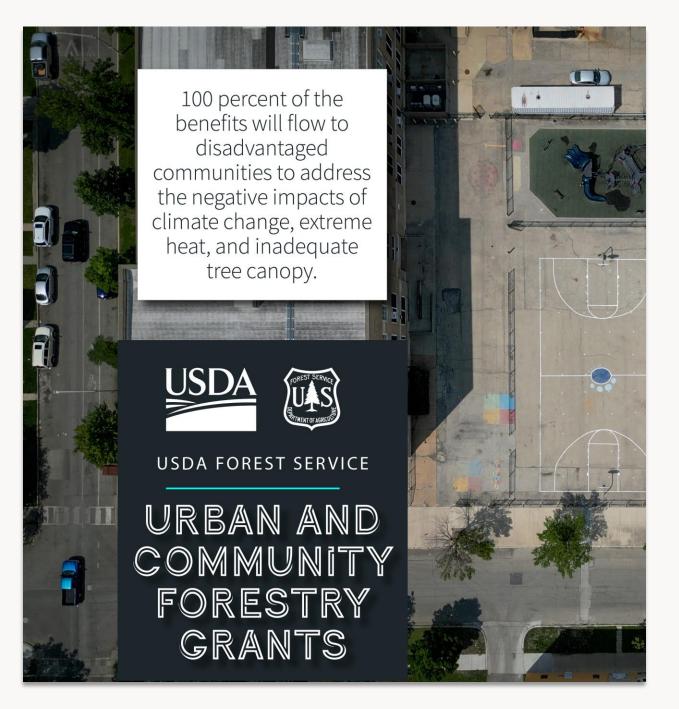


Targeting the People in Greatest Need





We Must Scale Public Sector Funding in All Nations









Private Funding Can Do More than Pay for Tree Planting





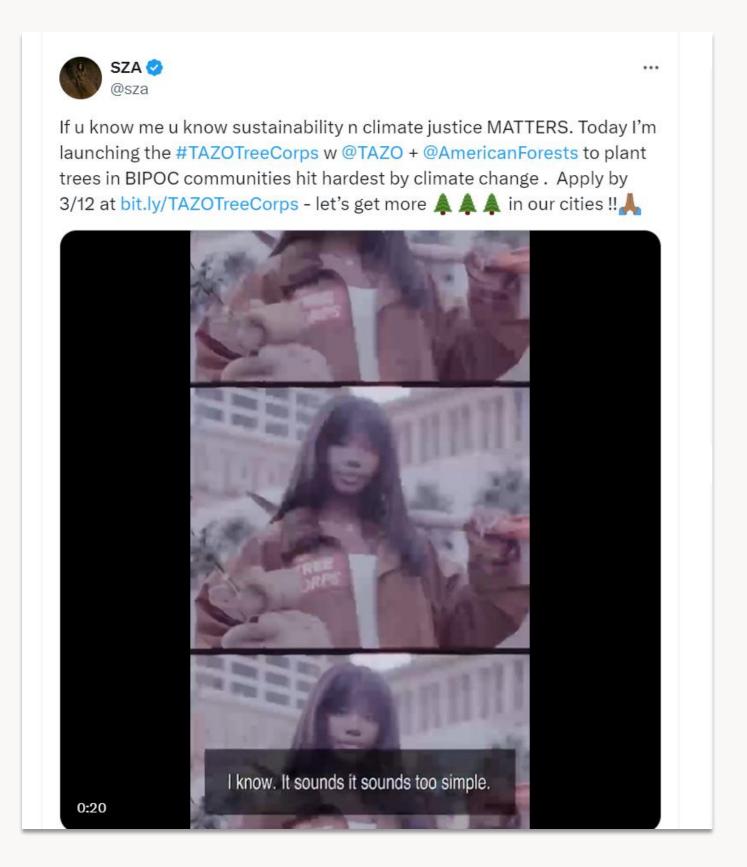
We Can Form New Partnerships across Sectors





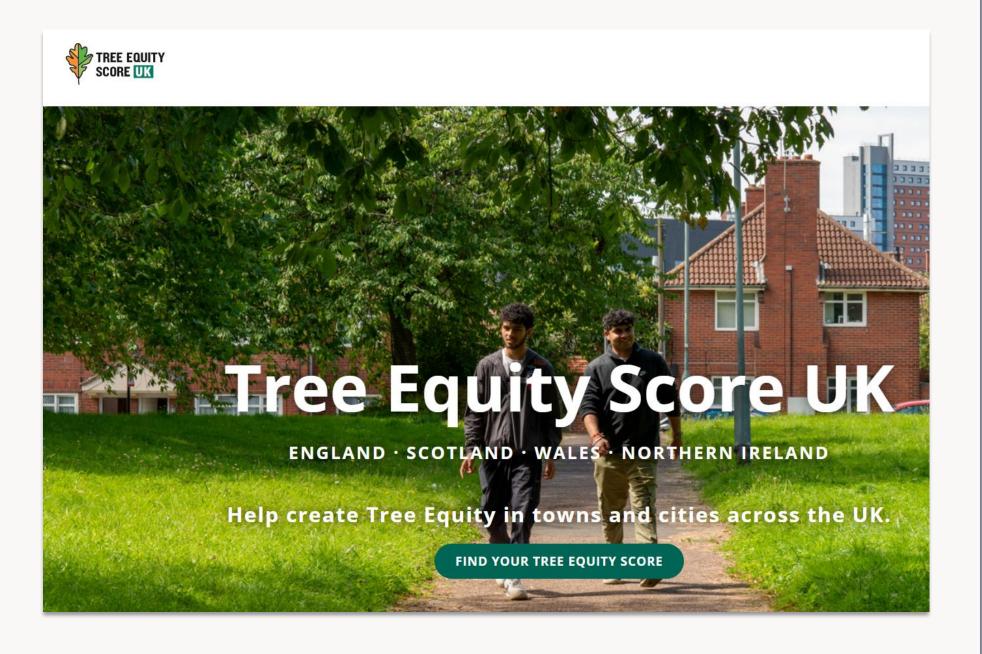
And Speak with a Louder Voice







Let's Do Tree Equity Together, Canada!



- Tree Equity Score Canada?
- Share Online Resources?
 - VibrantCitiesLab.org
- Cross-Border Coaching & Consulting?
 - Joint US-Canada Tree Equity Peer-to-Peer Collaborative?
 - Tree Equity Score technical assistance
 - Career Pathways coaching
- Canada-US "Sister City" efforts?
- Let's speak together for Tree Equity in global policy and the media
 - 1t.org Canada and U.S. collaboration
 - Global Cooling Pledge

