i-Tree Open Academy
Session 4
Seeing The Forest For The Trees

The Landscape of Canopy:
Map-based Tools For Benefits Assessments
Looking Through Landscape to See Canopy in Action

- **Visualizing the environment** helps us see it in context
  - Trees + people + habitats + infrastructure: connections
- Landscape brings **USFS tree benefits science** to a nationwide map tool and offers a rich set of complimentary data
- Spatial distribution of resources and risks: visualizing **canopy impacts at neighborhood scale**
- Includes census demographic data and levels of environmental risk that can be used to **prioritize equity** across project locations

[landscape.itreetools.org](https://landscape.itreetools.org)
Today we will:

- Explore what data the maps have to offer
- Learn how to navigate the map and make selections for display and analysis
- Talk about what it means to use the data and the map to identify priority areas: what demographics or environmental factors are ones I want to put at the forefront of decisions about resources

Canopy, Climate, and Census Data on a National Scale

Temperature and Urban Heat Impacts

See canopy benefits in action
i-Tree Landscape

- Distribution of resources and challenges
- Pre-loaded geographies for easy analysis
- Realities on the ground matter
- Focus for meaningful strategies

landscape.ittertools.org
View Strengths and Priorities Across Geographies

How To Prioritize Tree Planting

To map optimal areas to plant trees, create a "Priority Planting Index" scenario from user-specified, weighted criteria (under Custom Scenarios) or use one of the Common Scenarios (above). Scenarios are based upon the Land Cover dataset selected (above) - HiRes, 2011, 2001.

The three Common Scenarios are:
- Population: (default) an index weighted towards areas of relatively high population density, low tree cover per capita, and high available planting space.
- Minorities: an index weighted towards areas of relatively high minority population

Custom Scenario

I want to prioritize for areas that have a...

<table>
<thead>
<tr>
<th>Level</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td>Avoided Runoff</td>
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Importance (weight): 50 %
Putting i-Tree to Work

Power of Partnership

- Puget Sound, The Nature Conservancy, and DRG
- High resolution land cover data across urban growth corridors
- Assessment of plantable areas
Inform Community Decisions and Prioritize Strategies

Everett, WA

Trees
Goal 9.9 Establish, replace, and maintain a system of trees and rights of way recognizing the benefits.

Policy 9.9.1 Develop an Urban Forest Plan that sets a vision and strategies to manage trees in Everett on public and private lands and through interdepartmental implementation.

Policy 9.9.2 Educate Everett residents and businesses on the value and best management practices for trees.

Policy 9.9.3 Review and update the park system plan for parks and greenways to identify new opportunities.

Policy 9.9.4 Prioritize maintaining, managing, and enhancing trees and streetscape trees managed by the Parks and Recreation Department or maintenance plans, adoptions, or partnerships.

Policy 9.9.5 Maintain or improve the health of parklands and streetscape trees throughout the Districts and neighborhoods. Strategically and equitably address concerns related to heat island effects.
Inform Community Decisions and Prioritize Strategies

Everett, WA
Delta Neighborhood

Priority Ranking

Lower
Higher

Prioritized For:
- Low Existing Tree Cover Per Capita
- Low Rate of PM2.5 Removal by Trees
Millions of dollars for ‘tree equity’ head to Snohomish County

Trees will go to areas with little canopy cover in Everett, Marysville and elsewhere. “We’re doing 100% underrepresented communities.”

By Jordan Hansen
Saturday, September 30, 2023 5:30am

EVERETT — Thousands of trees are coming to urban areas in western Snohomish County.

Federal grants are giving the Snohomish Conservation District and the city of Lynnwood a total of $3.7 million for separate urban forestry projects. That means more trees in Everett, Marysville, south Lynnwood and the Tulalip Reservation.

Research suggests urban trees can counteract the "urban heat island" effect, improve mental health and generally improve the environment. They can also divert stormwater and help with erosion as their roots hold soil together and take in water.

The new trees are going to areas with little canopy cover.

- Collaboration → Tree Science → Tool Kit → Local Engagement → Funding for Canopy Growth
The Lens of i-Tree Landscape

- See impacts on geographic scales that can highlight benefits in action
  - Distribution of canopy and other resources: where does your landscape fit?
- Estimate future impacts of climate change
- Spatial breakdown of benefits: visualize data at neighborhood scales
- See impacts alongside demographic info that can inform decisions for social equity and city priorities
- Prioritization and Limitations
  - Focus on neighborhoods where you want to increase canopy benefits
  - Data layers are publicly available, and not directly downloadable from Landscape itself
  - For use in the US, working with layers available on a nationwide level

landscape.itreetools.org/
Letting It All Sink In

- Knowledge is power –
- Use your power for good!

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