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](http://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 we 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
Benefits on a Community Scale

- Census, canopy benefits, and land use
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.
- **Avoided Runoff**: an index weighted towards areas with low runoff potential.

Custom Scenario:

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

- **High**
- **Low**
- **Avoided Runoff**

[Custom Scenario settings]
Inform Community Decisions and Prioritize Strategies

Everett, WA

Trees

Goal 9.9 Establish, replace, and maintain trees recognizing their benefits.

Policy 9.9.1 Develop an Urban Forest Plan that sets a vision and strategies for Everett on public and private lands, including an interdepartmental implementation plan.

Policy 9.9.2 Educate Everett residents on urban forest and best management practices for properties.

Policy 9.9.3 Review and update the city’s park and open space program for parks, identifying potential opportunities.

Policy 9.9.4 Prioritize maintenance and funding for parks managed by the Parks and Recreation Department or maintenance plans, addressing areas that need improvement.

Policy 9.9.5 Maintain or improve canopy on parklands and streetscapes throughout the city, particularly the Districts and neighborhoods strategically and equitably, improving heat island effects.

EVERETT WASHINGTON

DAVEY
Proven Solutions for a Greener World
Inform Community Decisions and Prioritize Strategies

*Everett, WA*

*Delta Neighborhood*

- Prioritized For:
  - Low Existing Tree Cover Per Capita
  - Low Rate of PM2.5 Removal by Trees
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.ittleetools.org/
Reveal Your Landscape

Letting It All Sink In

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

- info@itreetools.org