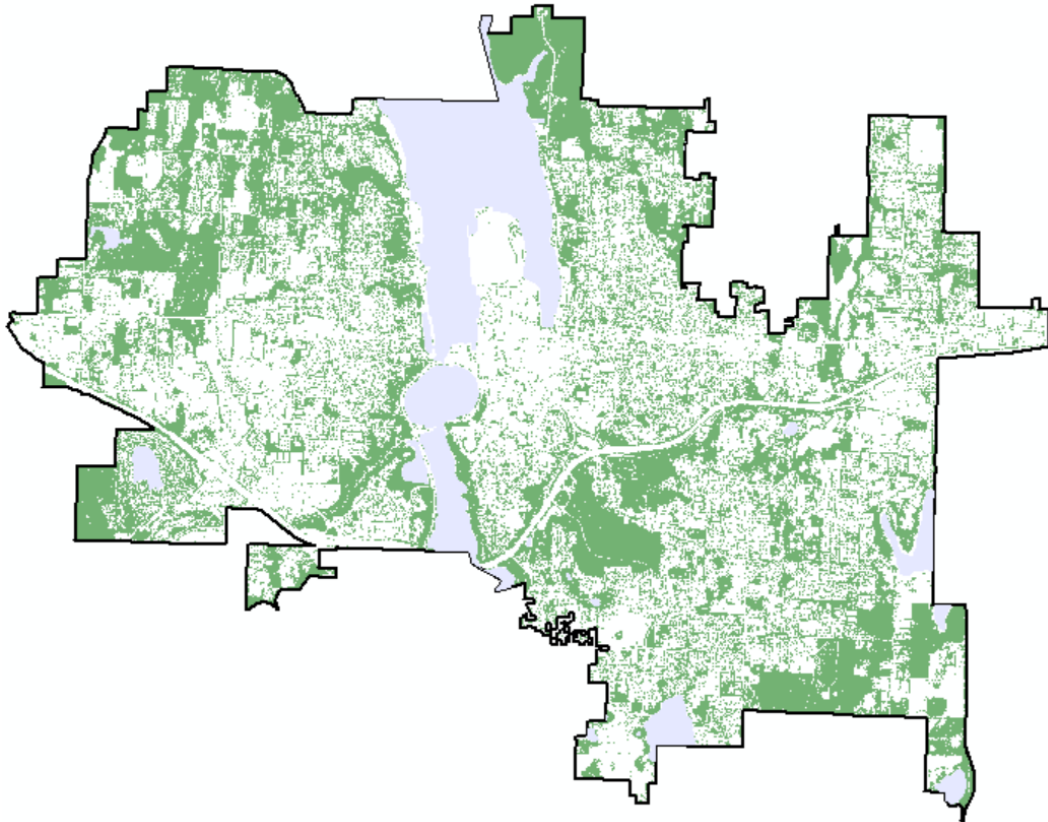


City of Olympia Tree Canopy Assessment

Land Use & Environment Committee Briefing

November 16, 2023



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Agenda

Tree Canopy Assessment – What & Why

Summary of Preliminary Results

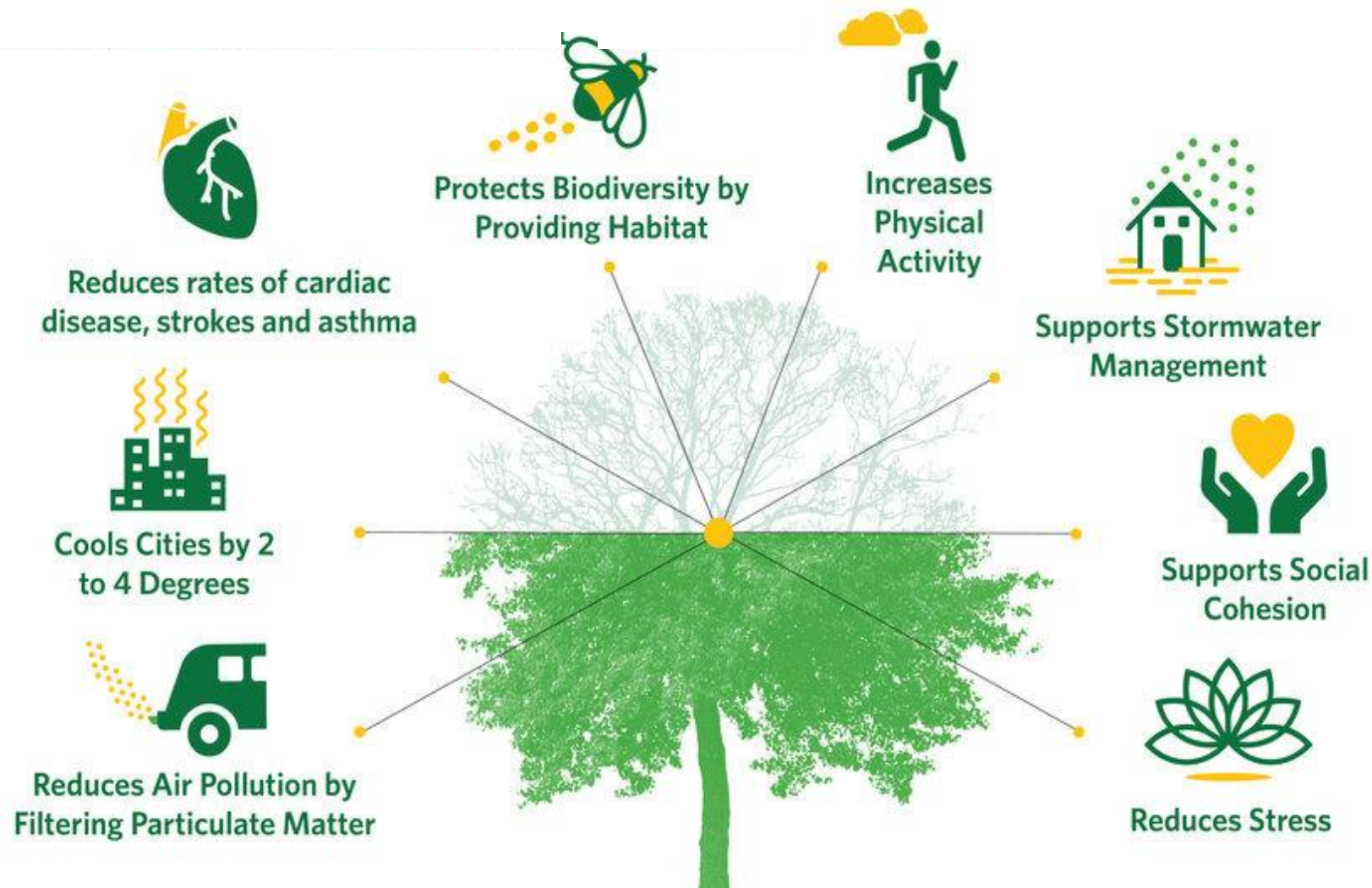
Next Steps



Project funded in part by the Washington State Department of Natural Resources
Urban & Community Forestry Program

Why study tree canopy?

Benefits



Source: The Nature Conservancy

Why study tree canopy?

Management Considerations

- Infrastructure conflicts
- Operations & maintenance
- Pest vulnerability
- Life & safety
- Equity & environmental justice

= All elevated w/climate change



Why study tree canopy?

Policy Framework



Comprehensive Plan

- Community Values and Vision (Natural Environment Chapter): “A dense tree canopy that will beautify our downtown and neighborhoods, and improve the health, environmental quality, and economy of our city.”
- PL7.4 “Increase the area of urban green space and tree canopy within each neighborhood proportionate to increased population in that neighborhood.”
- PN3.2 “Measure the tree canopy and set a city-wide target for increasing it through tree preservation and planting.”

Thurston Climate Mitigation Plan

- A6.9 “tree canopy preservation - Develop a tree canopy ordinance that establishes a baseline for current urban canopy and sets goals for future canopy to increase resilience.”

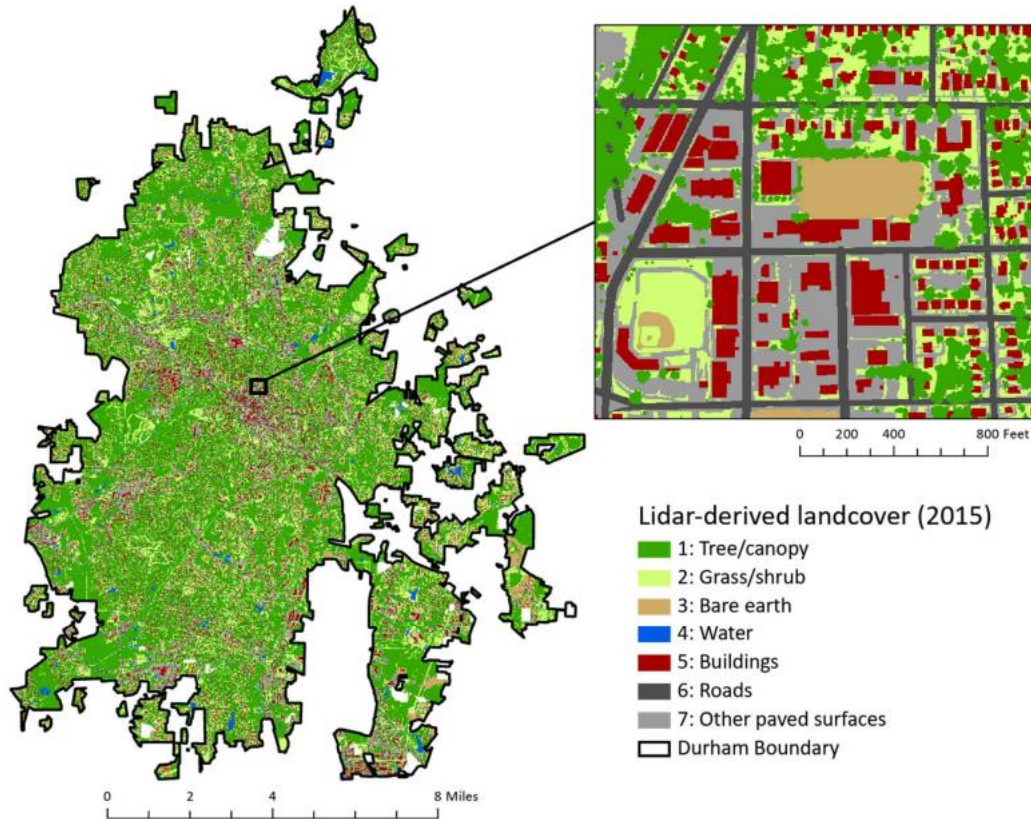
NPDES Stormwater Permit (proposed 2024-2025 update)

S5.C.4	MS4 Mapping & Documentation	Begin mapping City-owned tree canopy.	December 31, 2028
S5.C.1	Stormwater Planning	Adopt and implement tree canopy goals and policies.	December 31, 2028

Tree Canopy Assessment



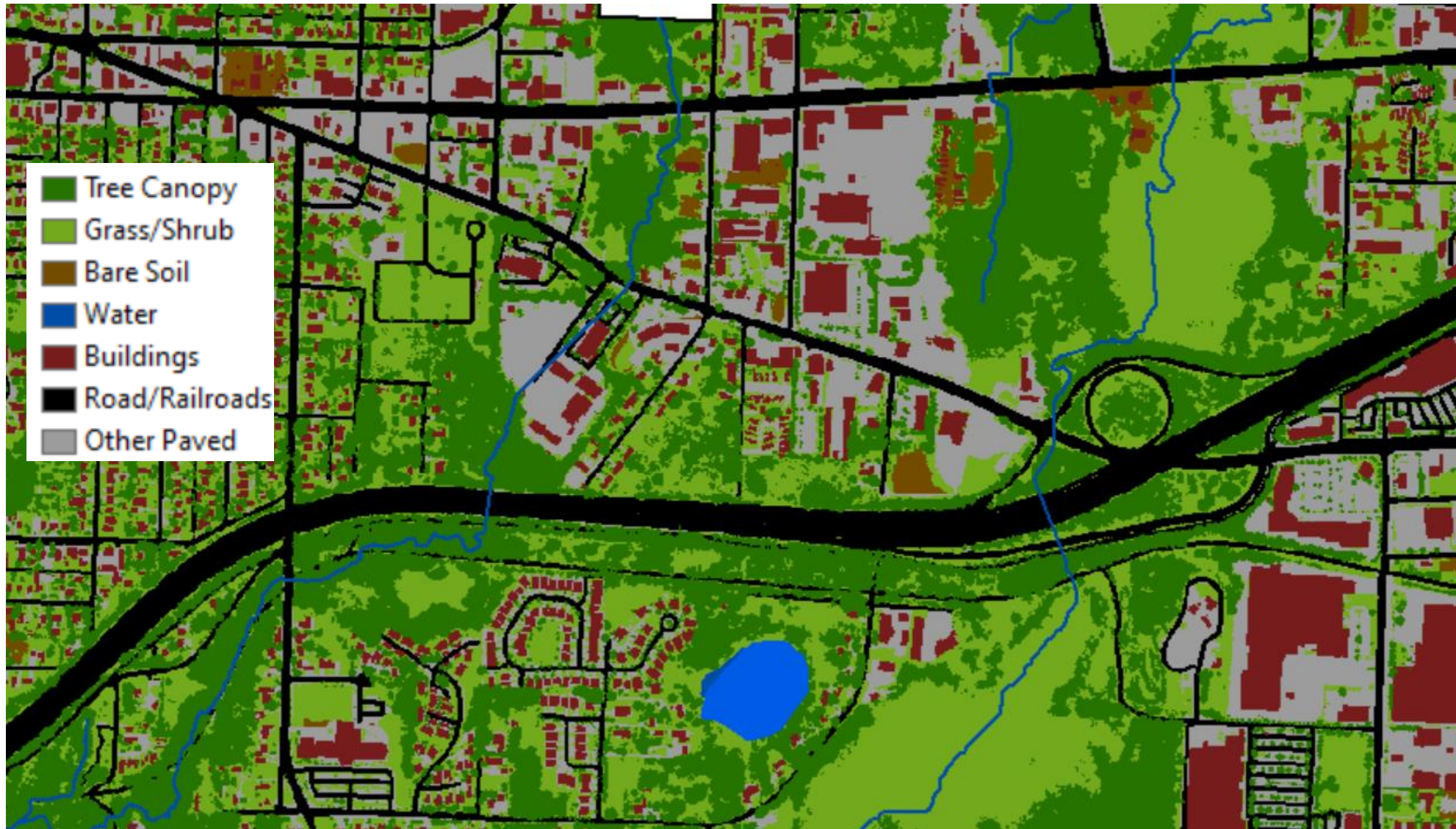
Example High-Resolution Landcover Classification



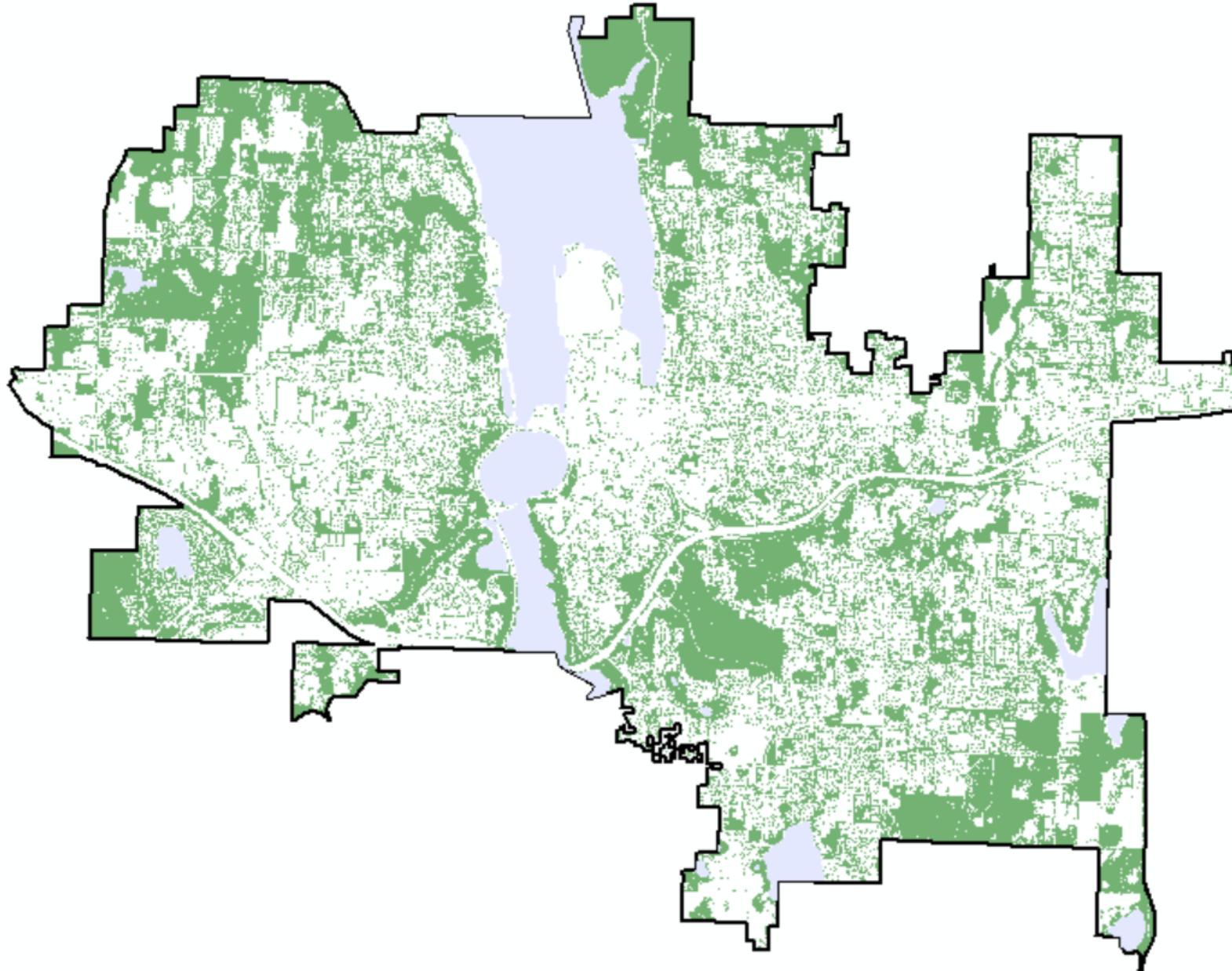
Durham, North Carolina Tree Canopy Assessment (2017)

- What does the current distribution of trees look like across Olympia?
- How has the tree canopy changed over time?
- How does tree canopy correlate with land use?
- What locations have opportunity for tree planting?
- Where is tree planting not feasible?

Olympia Landcover Classification 2022



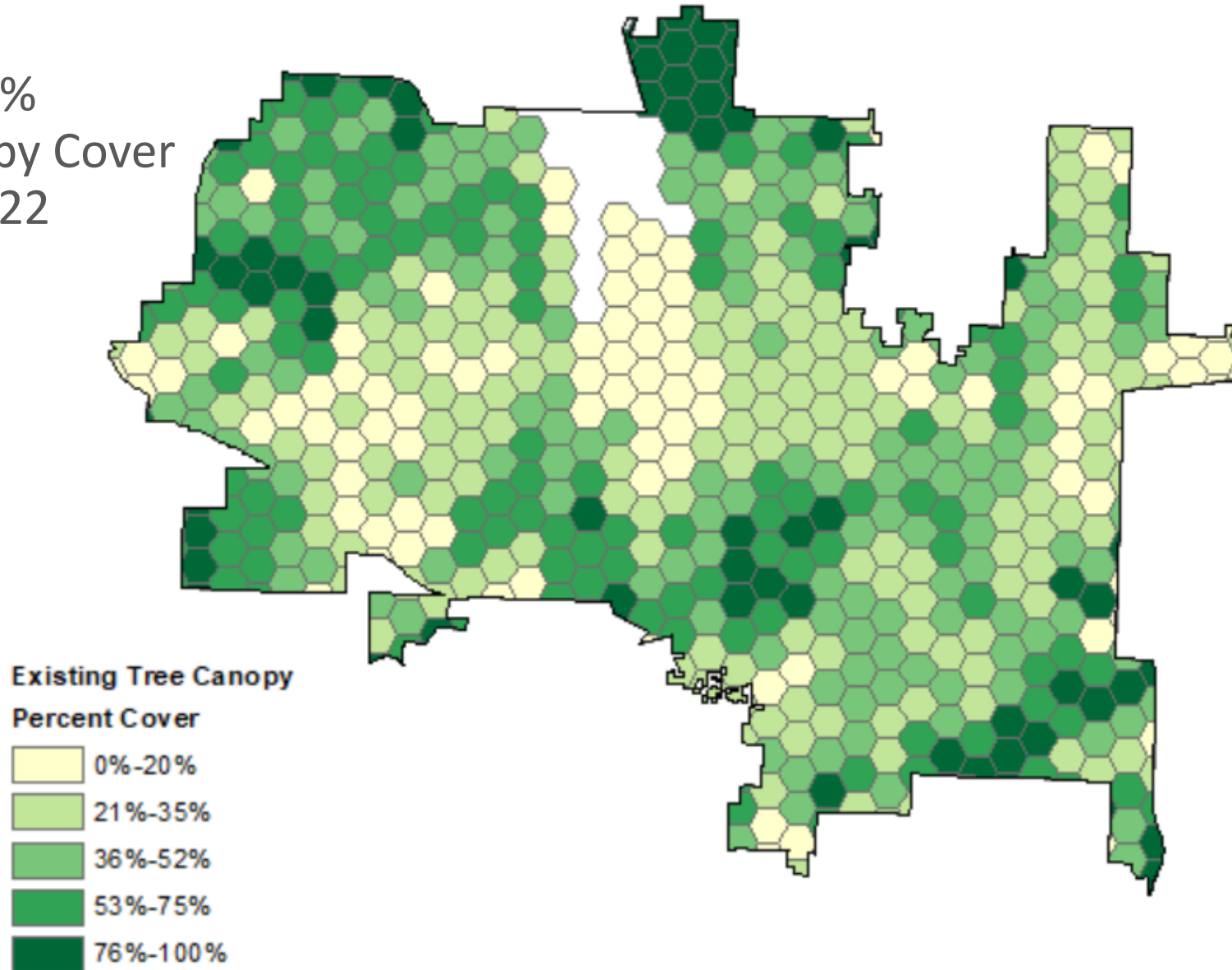
Landcover Classification: Tree Canopy



Olympia's Tree Canopy Results

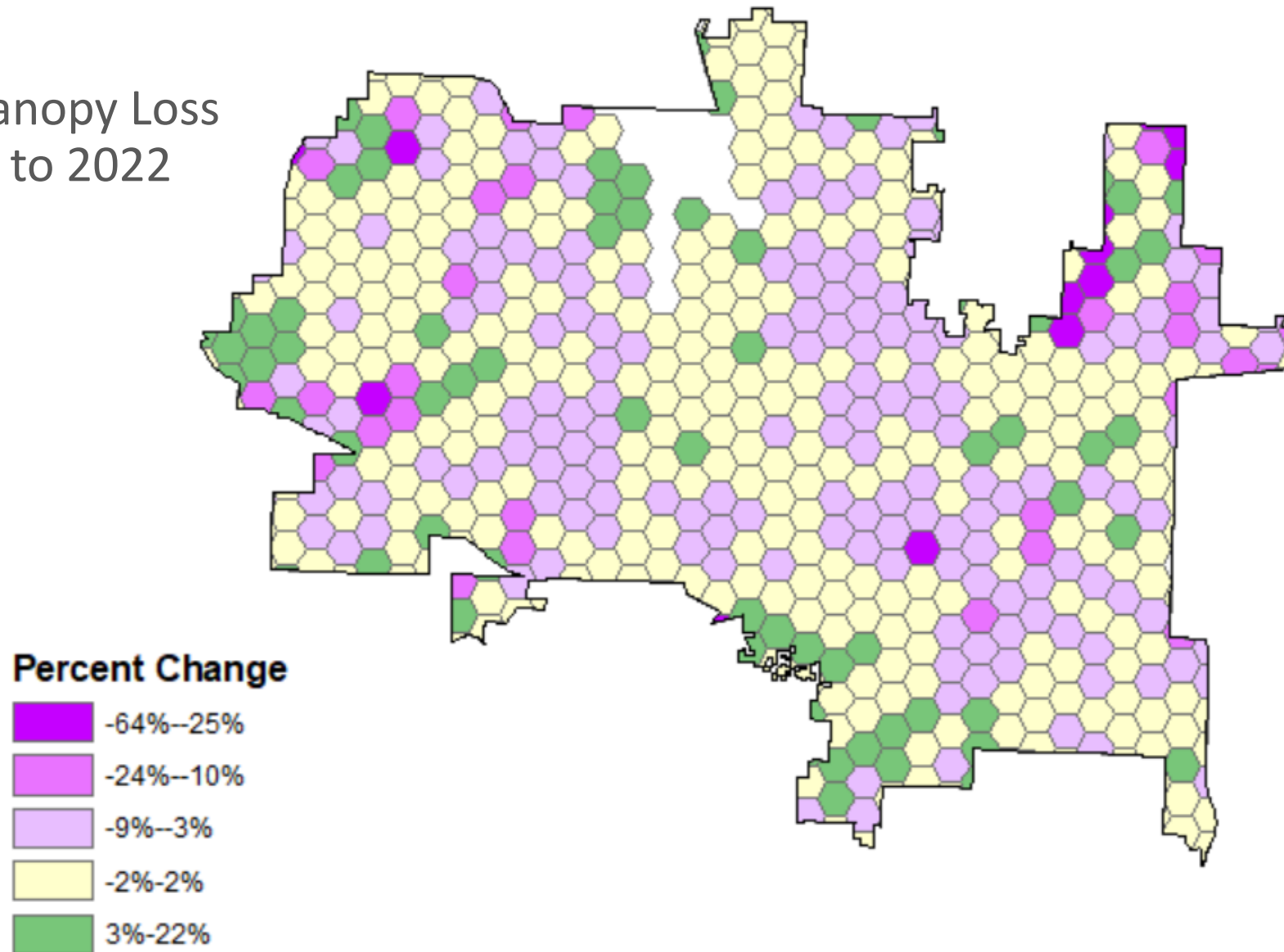


42.6%
Total Canopy Cover
in 2022



Olympia's Tree Canopy Results

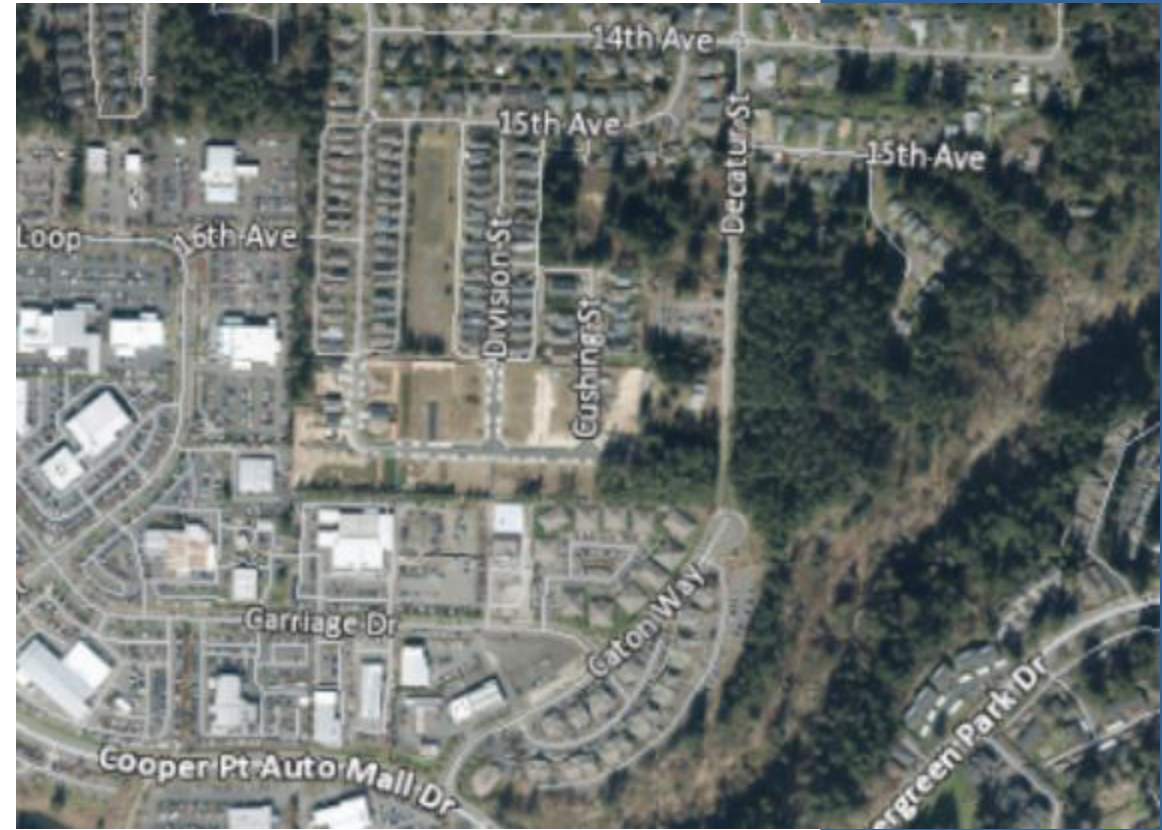
2.7% Canopy Loss
2011 to 2022



Olympia's Tree Canopy Results



Gain Loss No Change

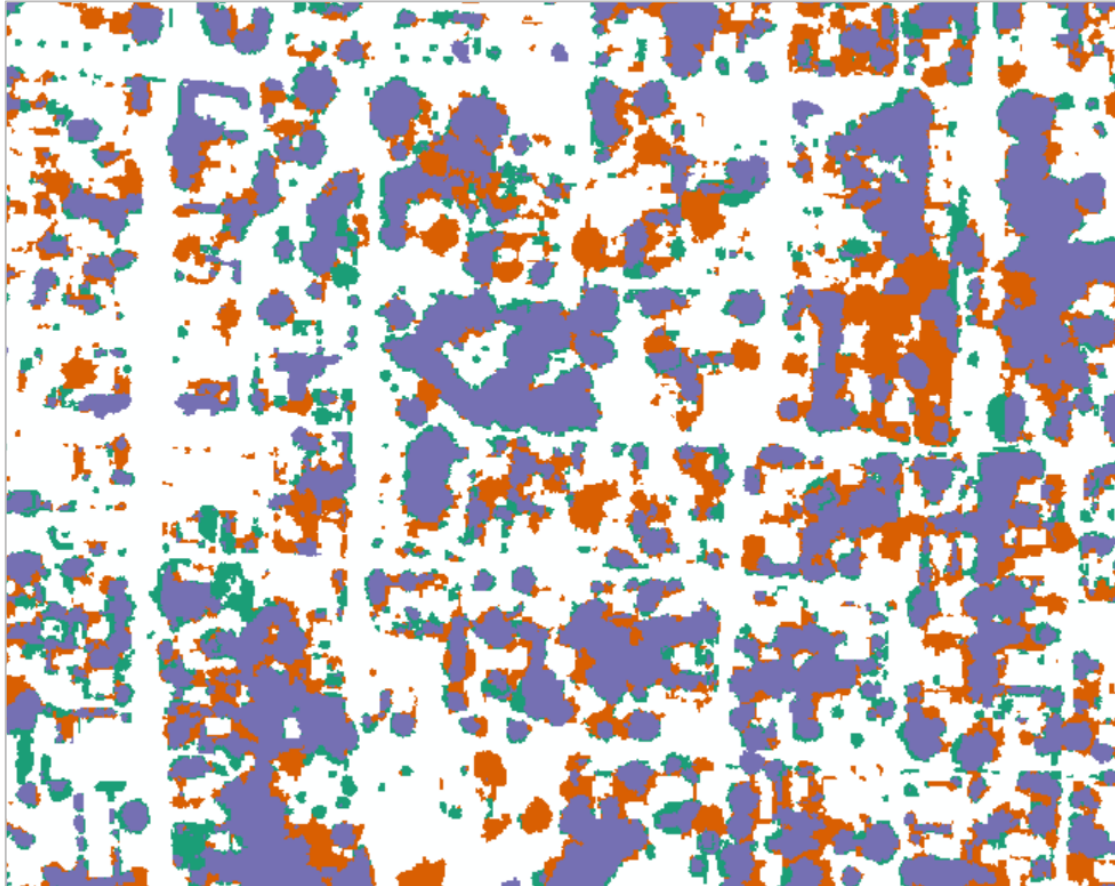


SW Olympia – Automall Drive, Percival Canyon

Olympia's Tree Canopy Results



Gain Loss No Change



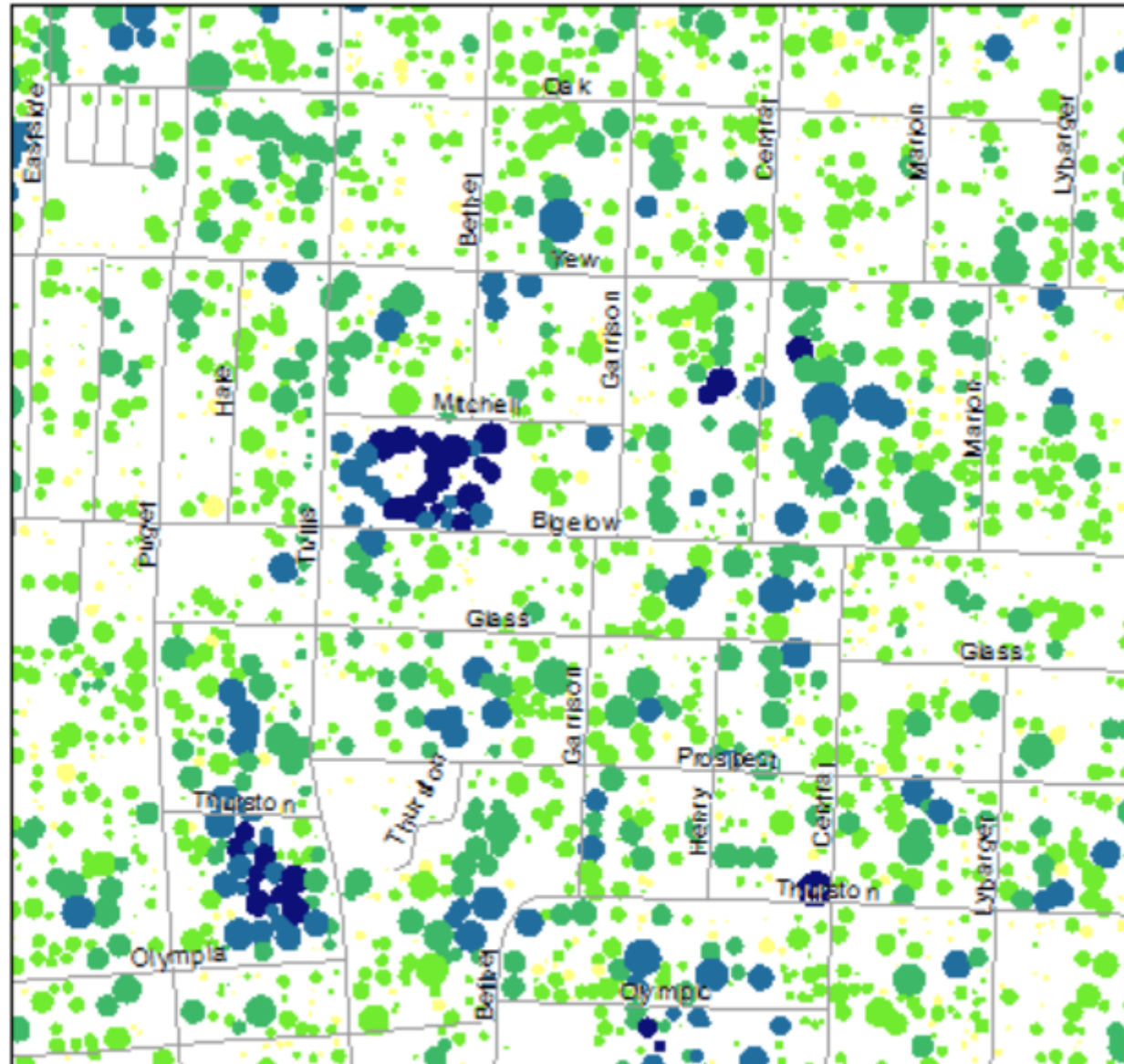
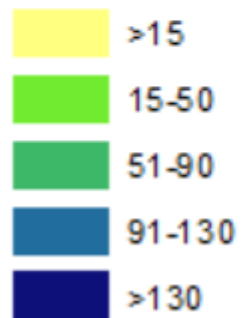
NE Olympia – Puget & Bigelow, Bigelow Park

Olympia's Tree Canopy Results



Individual Tree
Height

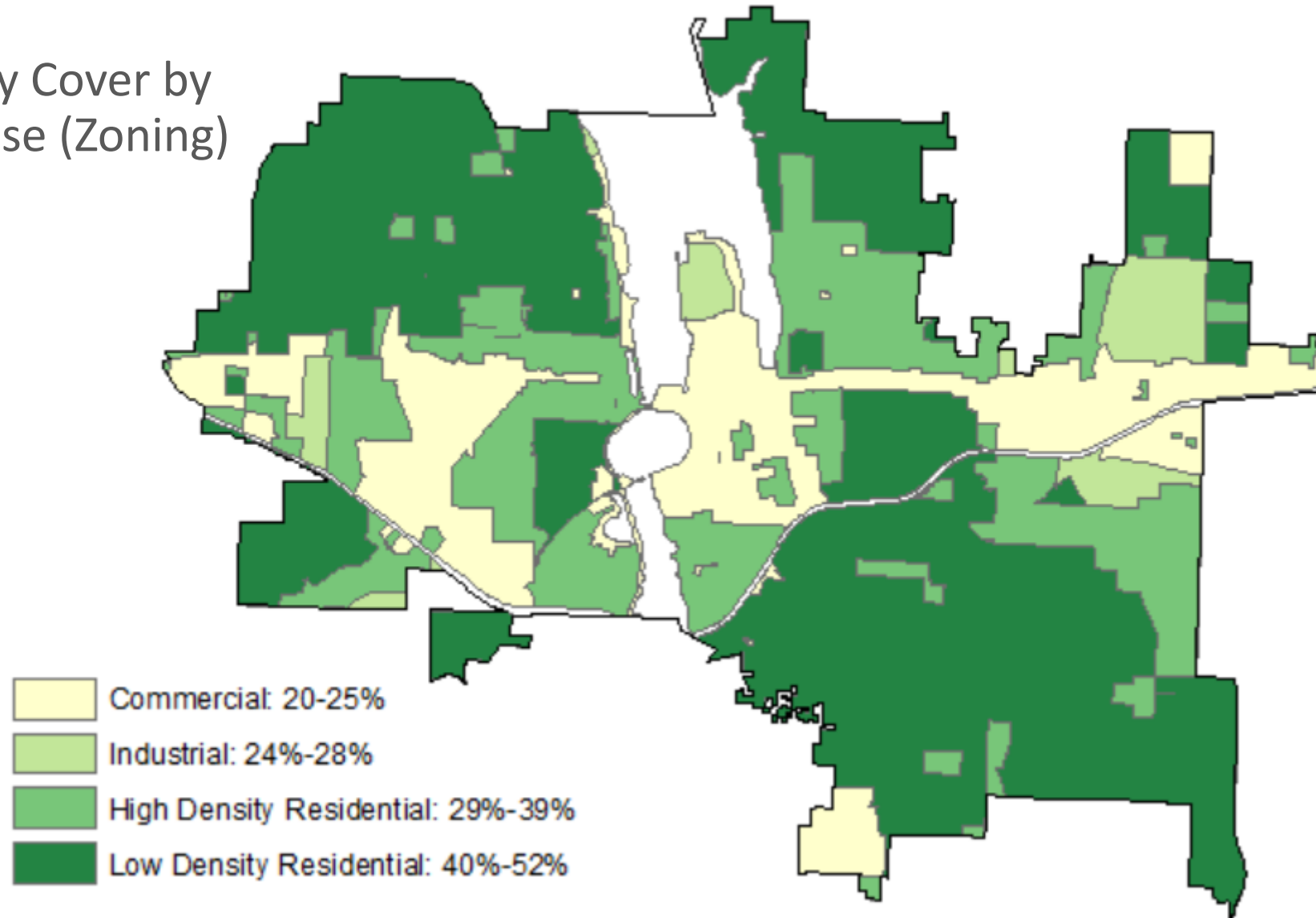
Tree Height (ft)



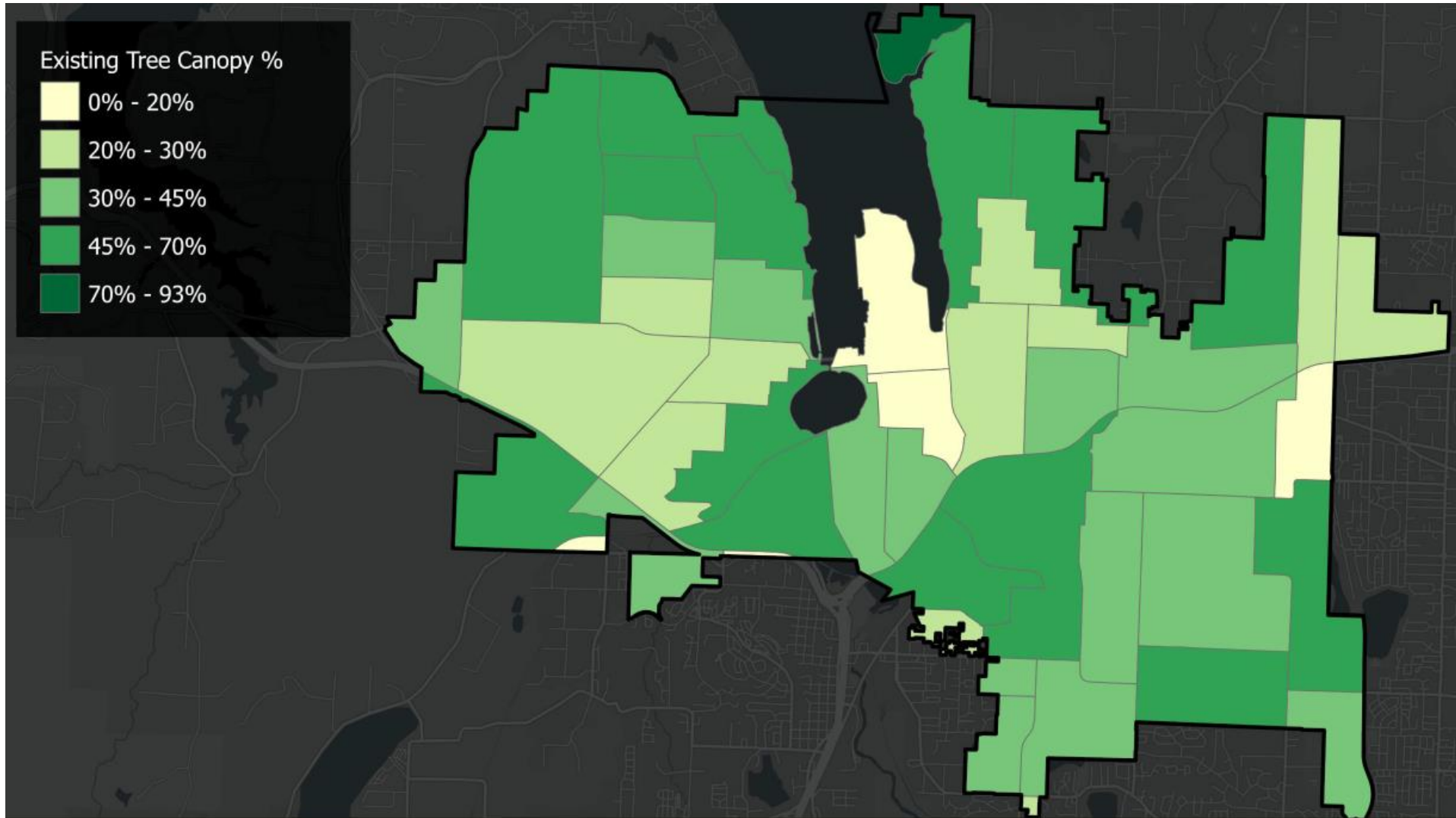
Olympia's Tree Canopy Results



Canopy Cover by
Land Use (Zoning)



Olympia's Tree Canopy Results



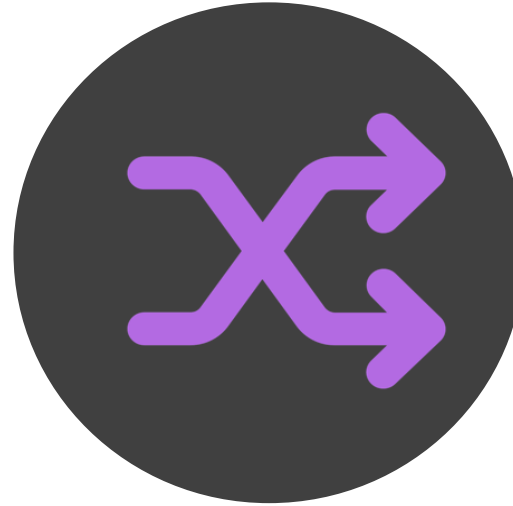
Canopy Cover by Census Block Groups

Olympia's Tree Canopy Results



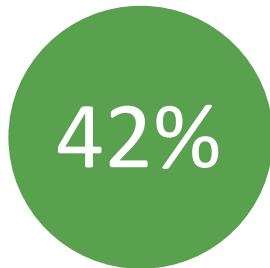
Tree Canopy is Declining

45.3% in 2011
42.6% in 2022



Both Gains and Losses

547 acres of gain
868 acres of loss



2022 EXISTING TREE
CANOPY PERCENT



2022 EXISTING TREE
CANOPY ACRES



2011-2022 ACRES
CHANGE

Olympia's Tree Canopy Results

City	Population	Tree Canopy (% Cover)
Issaquah	40,000	51
Olympia	55,000	42
Kenmore	23,000	41
Tumwater	26,000	40
Shoreline	59,000	37
Lacey	58,000	28



Next Steps

Finalize Data & Publish Results

- Comprehensive final report
- Interactive online Storymap

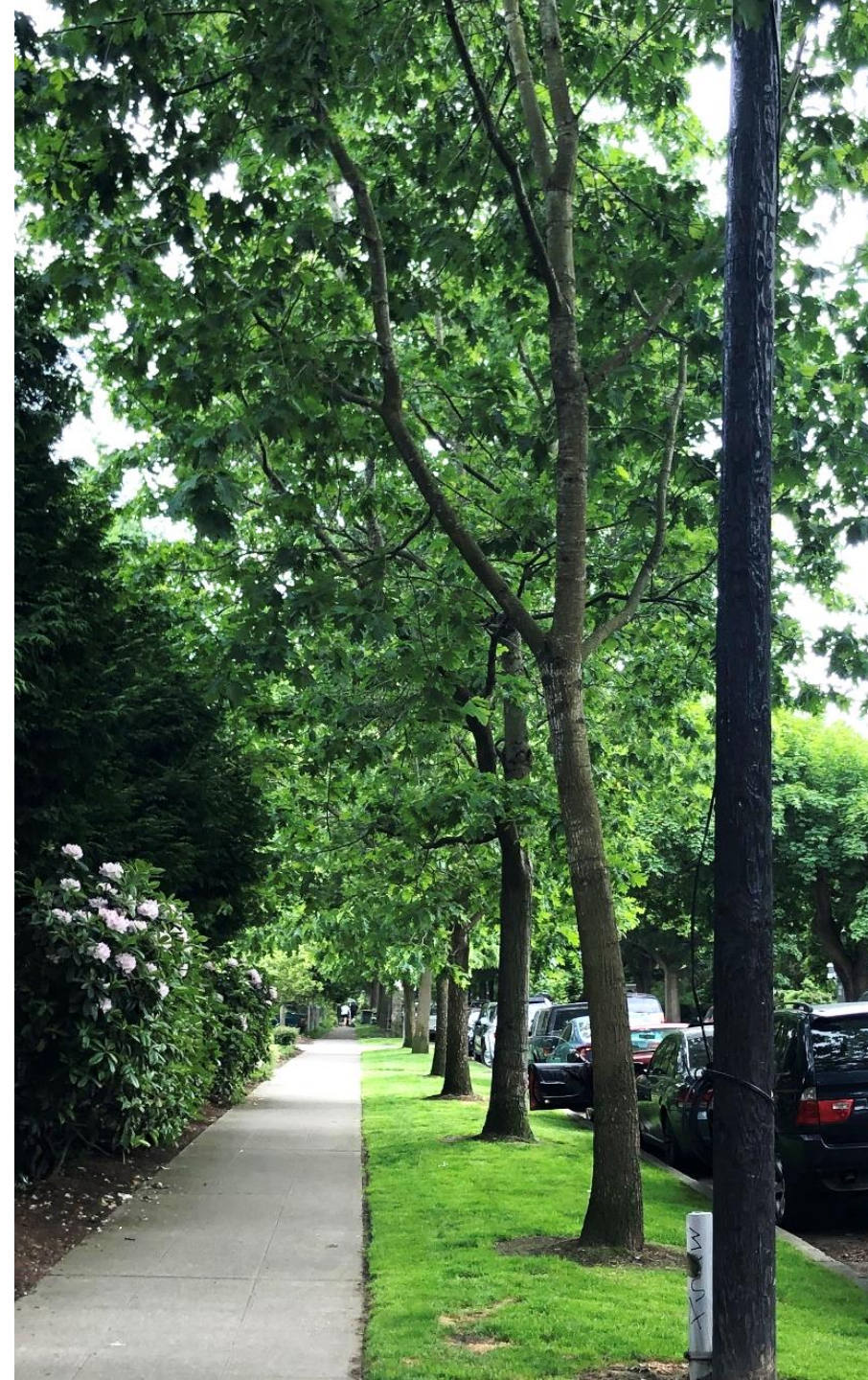
Urban Forest Management Plan: Funding & Development

Background

- Mission, Vision, Values
- Public Engagement
- Tree Canopy Assessment Summary
- Climate Considerations
- Equity & Environmental Justice

Goal-setting

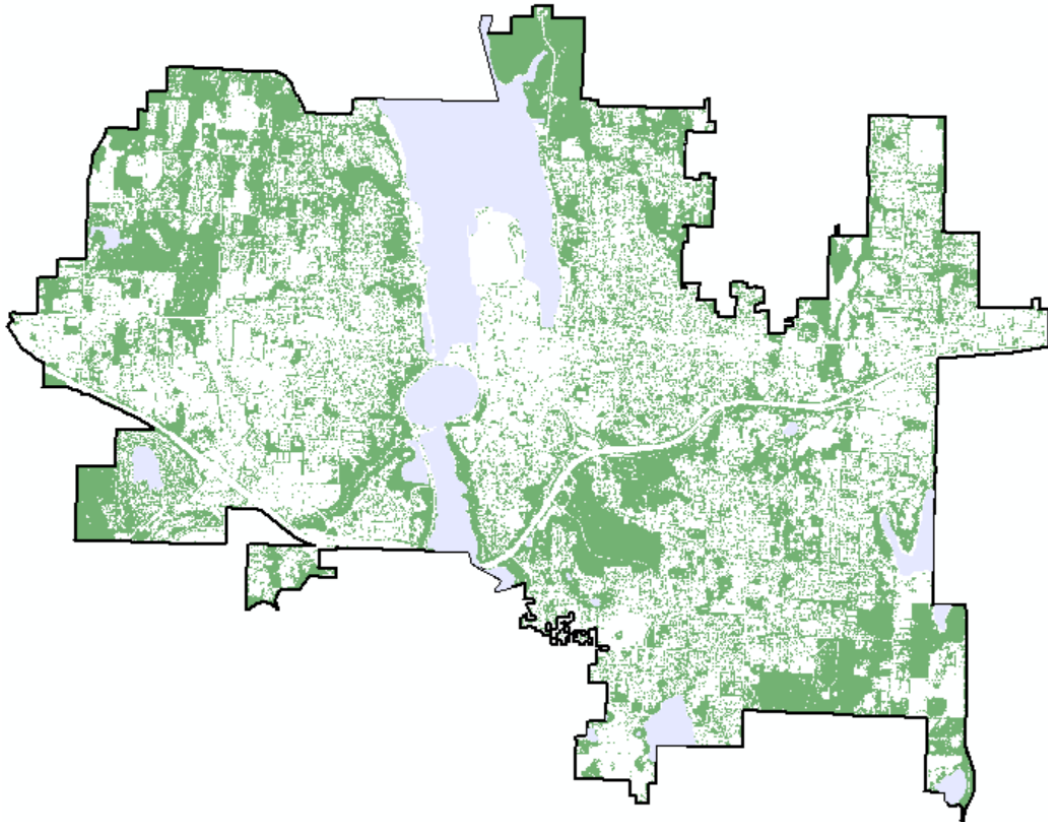
- Policy Recommendations
- Programmatic Recommendations
- Implementation Strategies



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