Urban Forestry Commission-Urban Forest Interdepartmental Team

Annual Meeting

September 2022 Office of Sustainability & Environment

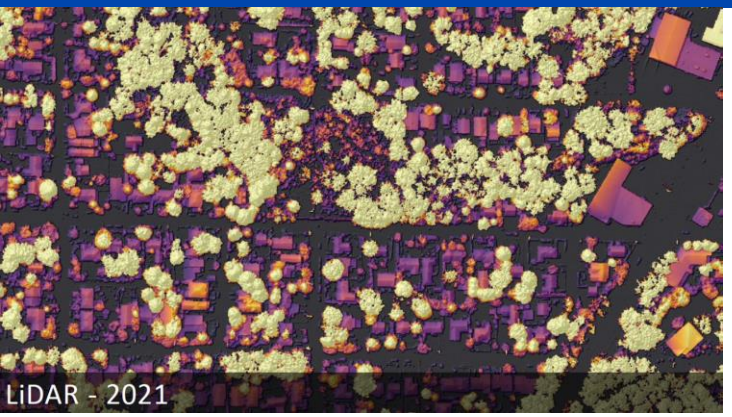
City of Seattle

Overview

1:00 – 1:15	Welcome + Introductions; agenda review
1:15 – 1:40	Canopy cover assessment overview
1:40 – 2:10	Associated urban forestry strategy updates
2:10 – 2:25	*Break*
2:25 – 2:50	City Urban Forester Statement of Legislative Intent
2:50 – 3:35	Equity and resilience planning – for citywide canopy plan
3:35 – 3:50	*Break*
3:50 – 4:45	Breakout groups – Co-creating with community
4:45 – 5:00	Wrap up

Canopy Cover Assessment

What is the tree canopy assessment?



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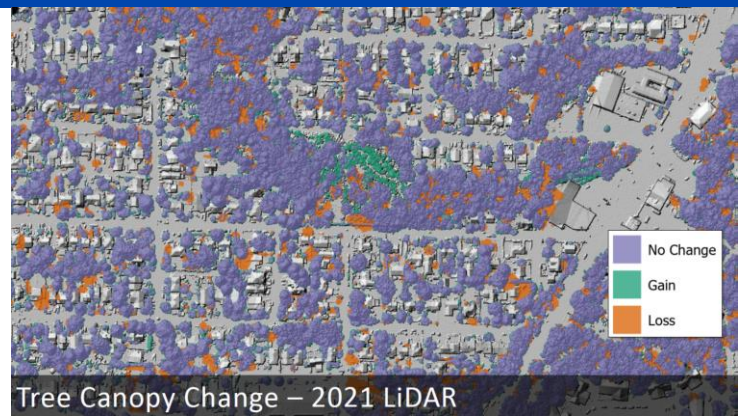


- We combine LiDAR data with aerial imagery to determine the amount of canopy cover and the change in cover since 2016.
- This round of assessment is our first opportunity for trend analysis.
- Preliminary data includes canopy citywide and by land use type (management unit*); change in canopy since 2016

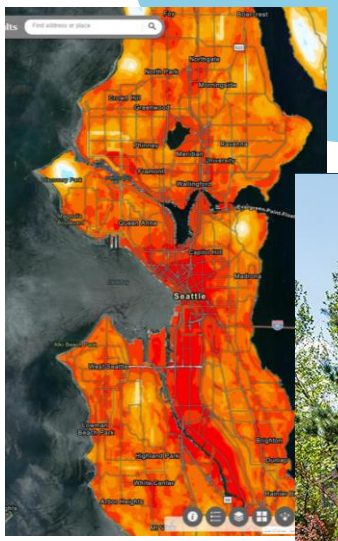
*The Urban Forest Management Plan defines nine management units that cover all the land in the city. The management units consider trees based on their geographic location within the city.

Seattle's urban forest can foster climate resilience, health, and equity

Climate resilience

Heat mitigation, cooling

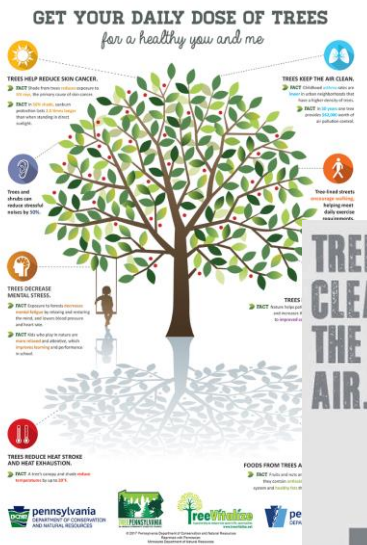
Biodiversity, pest resistance



Health

Air quality improvement

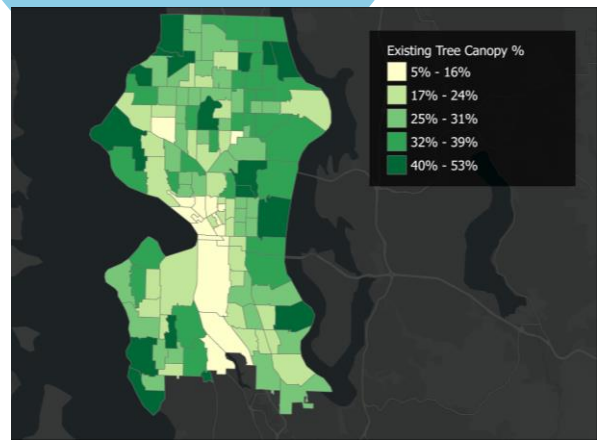
Physical and mental health and well-being



Equity

Addressing canopy inequities

Reducing health disparities



Our urban forest faces increasing challenges… made all the worse by climate change

Climate change: hotter, drier summers and new pests

Budget cuts and rising maintenance costs

Our urban forest is aging

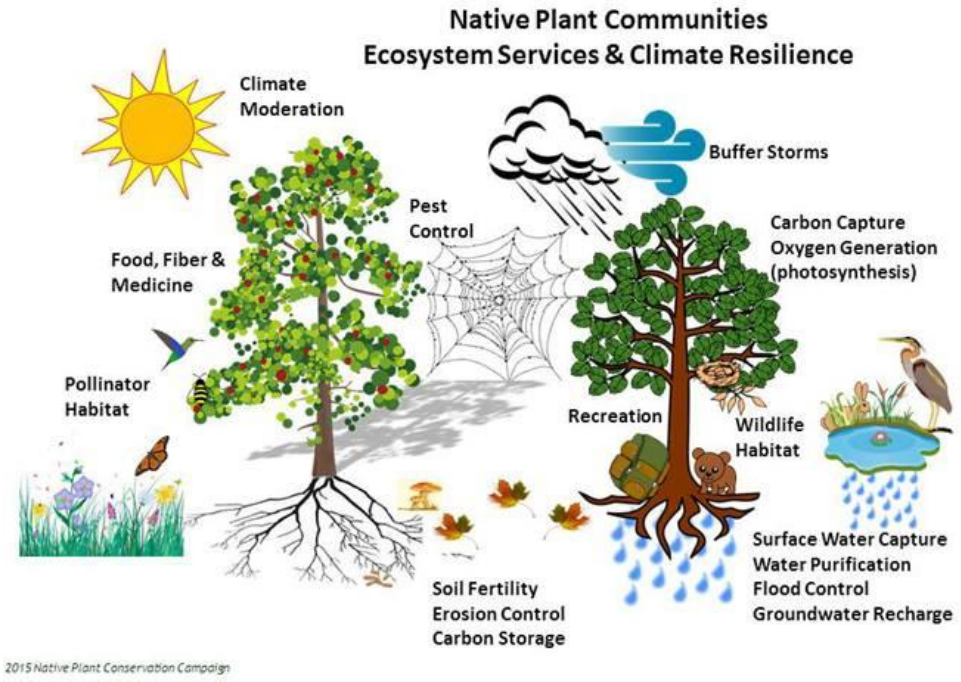
Trees removed for infrastructure projects and development

Competing uses in right of way and private property

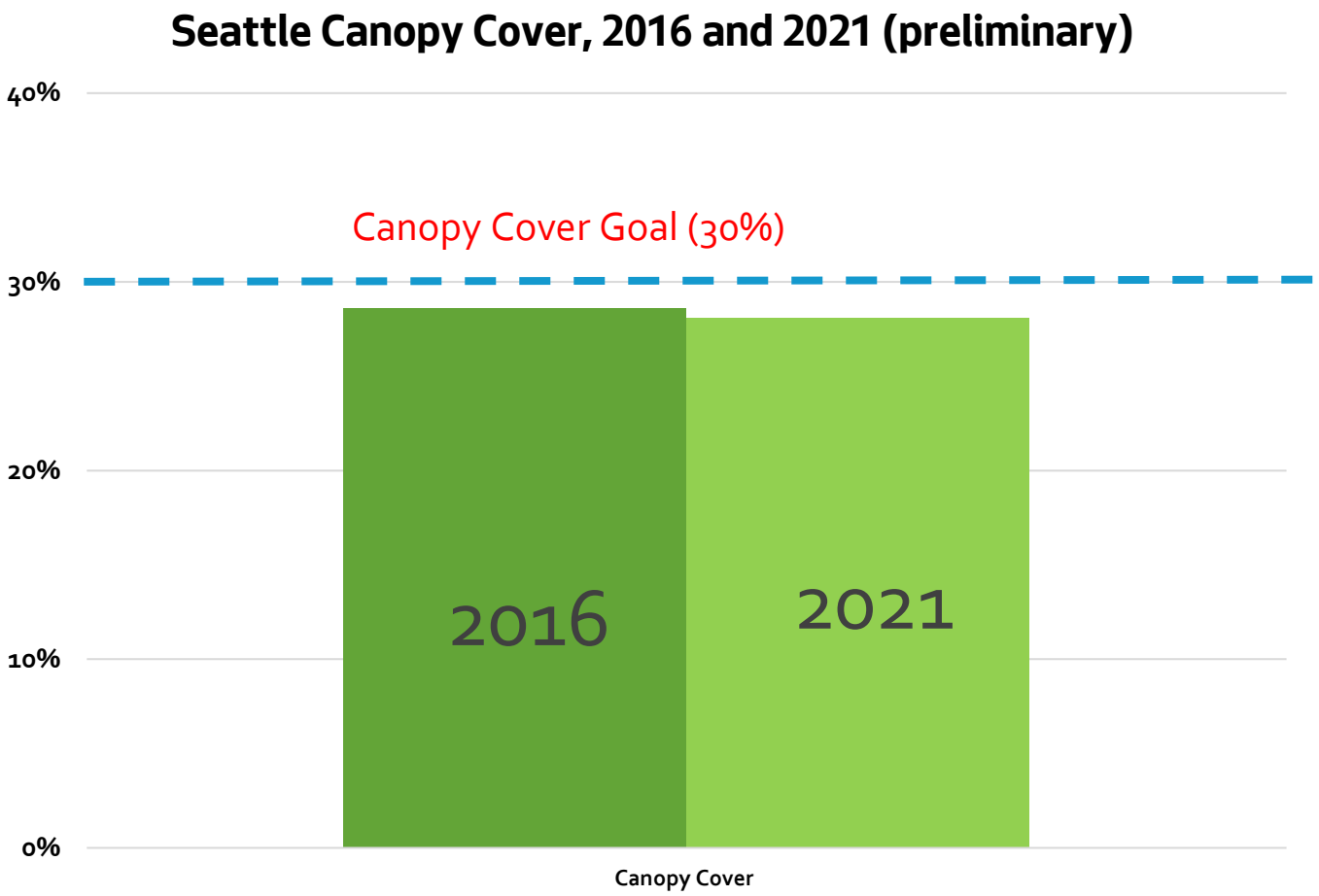
Our tree canopy decreased by 255 acres (about the size of Green Lake) between 2016-2021

Functionality lost without those trees:

- **Carbon** – hundreds of thousands of lbs CO^2/year not sequestered
- **Stormwater** – millions of gallons of runoff not avoided
- **Heat/cooling** – hundreds of acres shade lost; millions of gallons water not transpired;
- **Air quality** – hundreds of thousands of lbs of pollutants not absorbed

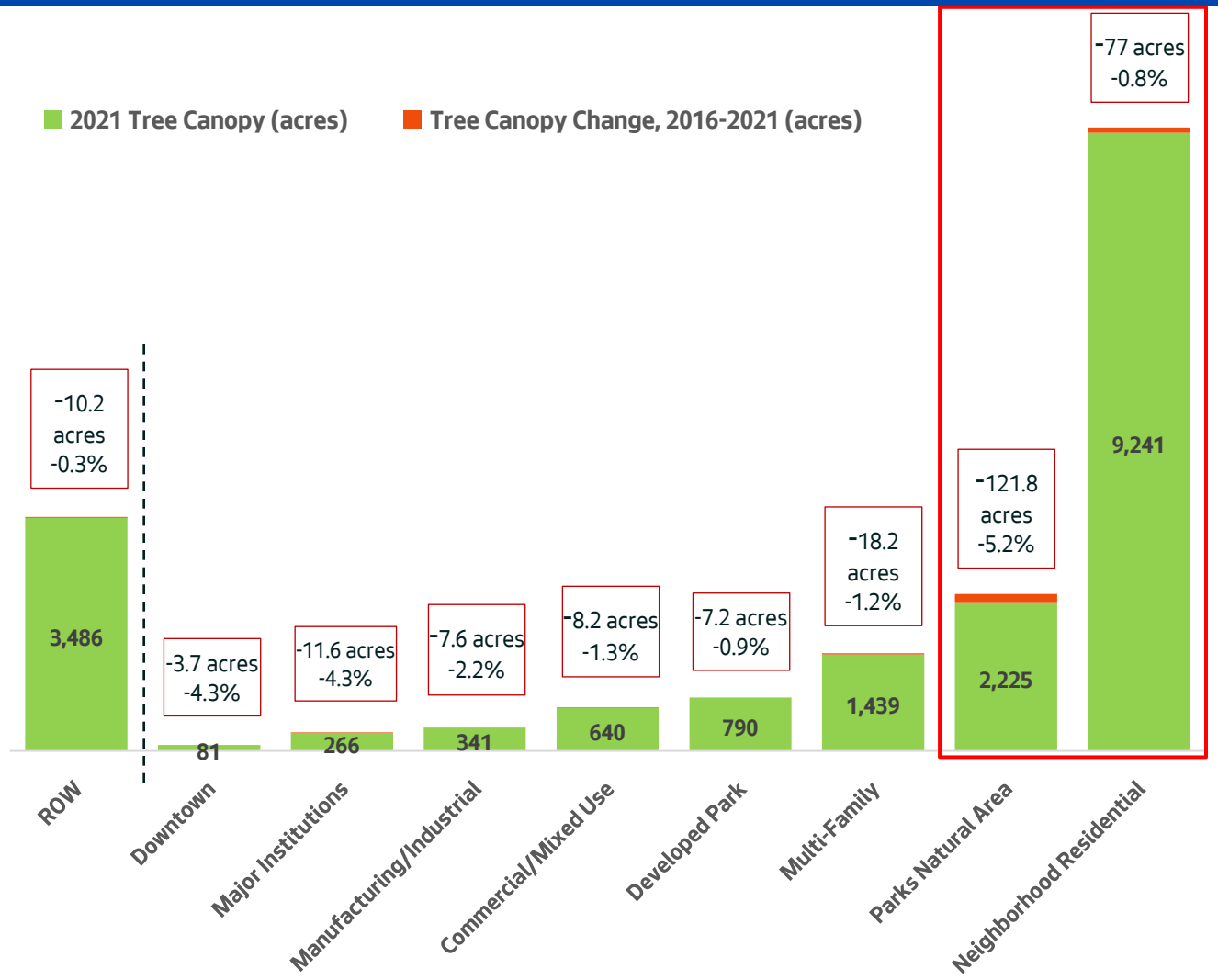


Canopy declined by 1.7% between 2016 and 2021, in a period where population grew by 8.5%



- Preliminary data indicate a net loss of 1.7% (255 acres) during the 5-year period between 2016-2021.
- During this time, population grew 8.5%, adding ~58,000 people and ~47,000 housing units.
- Losses are due to climate change exacerbated by lack of investment, aging trees, and competing uses.

Climate Change is exacerbating tree canopy loss across land use types.



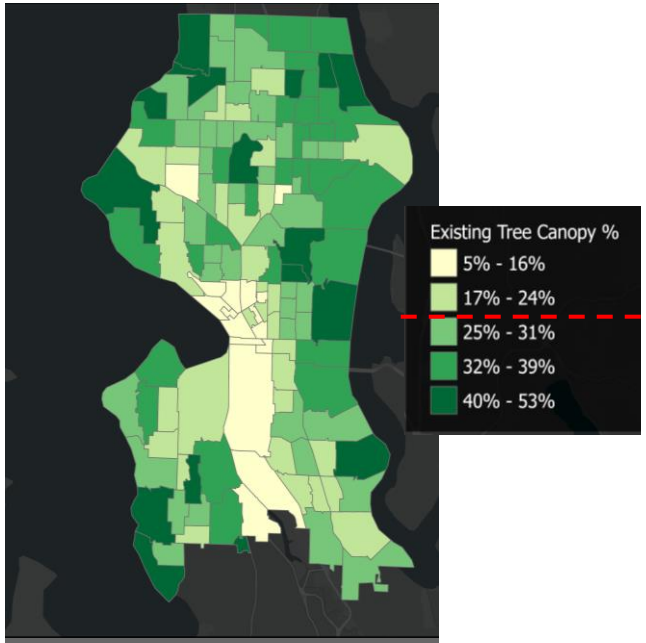
The reasons for loss in each area are complex – some examples:

- Summers getting hotter and drier
- Aging trees more susceptible to drought conditions and pests are more likely to come down during weather events.
- Large construction projects for utilities, transportation and other infrastructure
- Housing grew substantially during this period

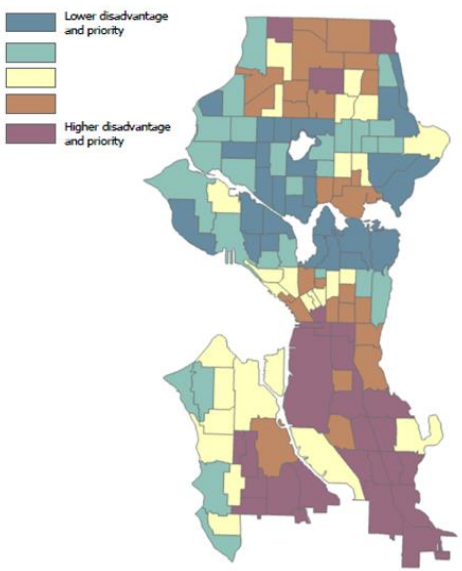
Areas to focus for the future:

- Developed parks and natural areas
- Neighborhood residential
- Protecting and maintaining existing trees

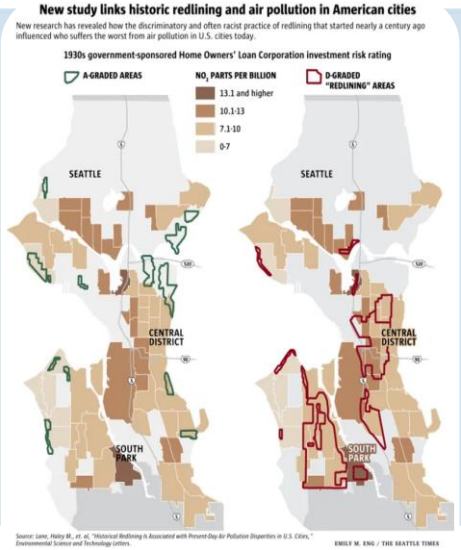
Inequities in our tree canopy follow other patterns of inequity



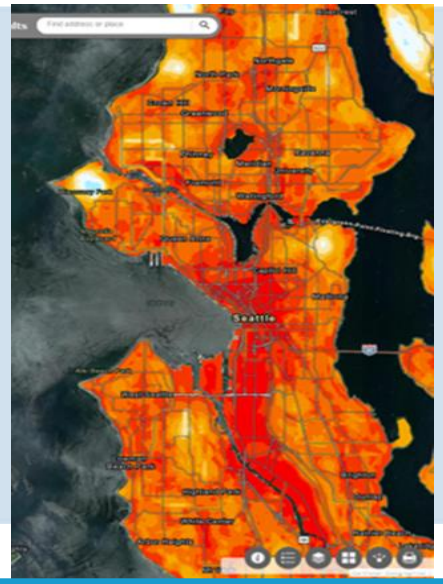
Existing Tree Canopy %



Racial and Social Inequity



Air quality



Heat island effects

Additional analysis will inform short and long-term approaches

Inventory, protect and maintain existing trees to promote canopy growth.

Plant new trees in frontline communities with low canopy.

Pilot innovative approaches to managing multiple needs in limited spaces like ROW and private property.

Engage residents and business owners on tree planting and care to foster and sustain trees on private land.

Coordinate opportunities for planting and maintenance across departments and with community, school district and other partners.

Next Steps

1. Receive detailed assessment analysis that builds on high level snapshot
3. Work with consultant to develop full canopy assessment report
4. **Develop tree strategy and investment plan**
5. Pursue additional local, state and federal funding to scale up investment

Urban Forest Strategy Updates

Urban forestry strategy updates

- Seattle is behind our goals for urban tree canopy.
- Bold steps and investments are needed to achieve our canopy and climate justice goals.
- City departments have been developing potential actions to help meet this need.
- Recommendations will continue to be refined as departments continue working together and with stakeholders and community on this effort.

Public Lands

Current potential/suggested actions:

- Expand funding/capacity for Green Seattle Partnership-healthy forested parklands
- Develop a coordinated interdepartmental restoration team, to broaden focus on management of natural areas beyond parklands
- Increase pruning cycles
- Expand inventory and monitoring efforts
- Develop a holistic Green Schoolyards partnership
- Complete an Interdepartmental Invasive Pest Response Framework

Right of Way

Current potential/suggested actions:

- Develop a plan for creating vibrant, healthy ROW spaces by creatively retrofitting our ROW, increasing street trees and providing the maintenance they need
- Additional street tree supports:
  - Sustain our existing street trees by expanding tree pits and removing concrete
  - Increase number of street trees planted
  - Incorporate innovative street tree development – develop public-private partnership to convert parking spots and curb bulbs to park scale street trees and/or planted bike lane and curbline buffer strips

Private Lands

Current potential/suggested actions:

- Develop a Landscape Stewardship program to train stewards to support residents in landscape planning, tree care, planting and establishment, soil health, etc.
- Continue investments in industrial area greening projects
- Provide supports for tree protection updates:
  - Outreach/education for property owners regarding tree care maintenance
  - Provide assistance for property owners developing projects to incorporate designs that accommodate trees

Citywide

Current potential/suggested action:

- Develop a Canopy Equity and Resilience Plan to guide planting, maintenance and resilience investments and recommend enhancements across all land use types, in partnership with BIPOC communities

What else?

Group brainstorming activity

- What's missing?
- What other strategies can the city, partners and community develop to achieve our canopy goals?
- What are the biggest challenges, what solutions do you think we should be pursuing?

City Urban Forester SLI

Background

City Council Statement of Legislative Intent (SLI) MO-001-A-002-2022 requests that "Mayor's Office (MO), in consultation with the Urban Forestry Interdepartmental Team (IDT), Urban Forestry Commission (UFC), and other departments as necessary, provide a report with recommendations for the creation of a "chief arborist" position that would promote the preservation of Seattle's tree canopy and provide independent oversight of the City's management of trees, with an initial focus on the preservation of exceptional trees."

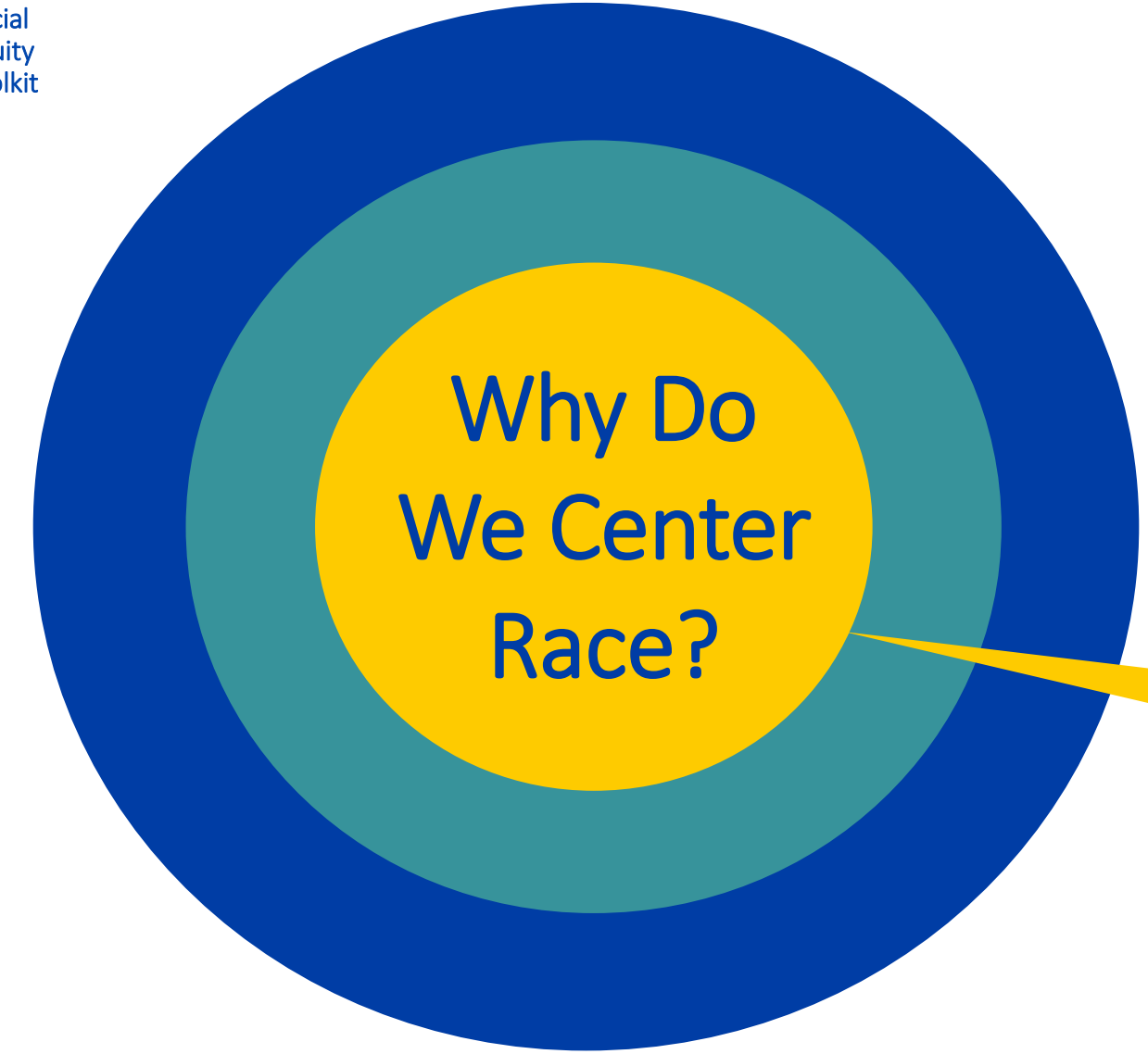
Potential Job Responsibilities and Minimum Qualifications

- Given the idea for this position, in the context of what we just talked about for our urban forestry needs, what are some of the core functions we need in this position?
- What are the minimum qualifications needed for this position?

Equity and Trees

Ali Lakehart

SPU
Racial
Equity
Toolkit



When we look across every type of human indicator of well-being in this country whether that be life expectancy, income, job status, wealth, health, educational level, neighborhoods, involvement (or lack thereof) with the criminal justice system, etc.,

RACE

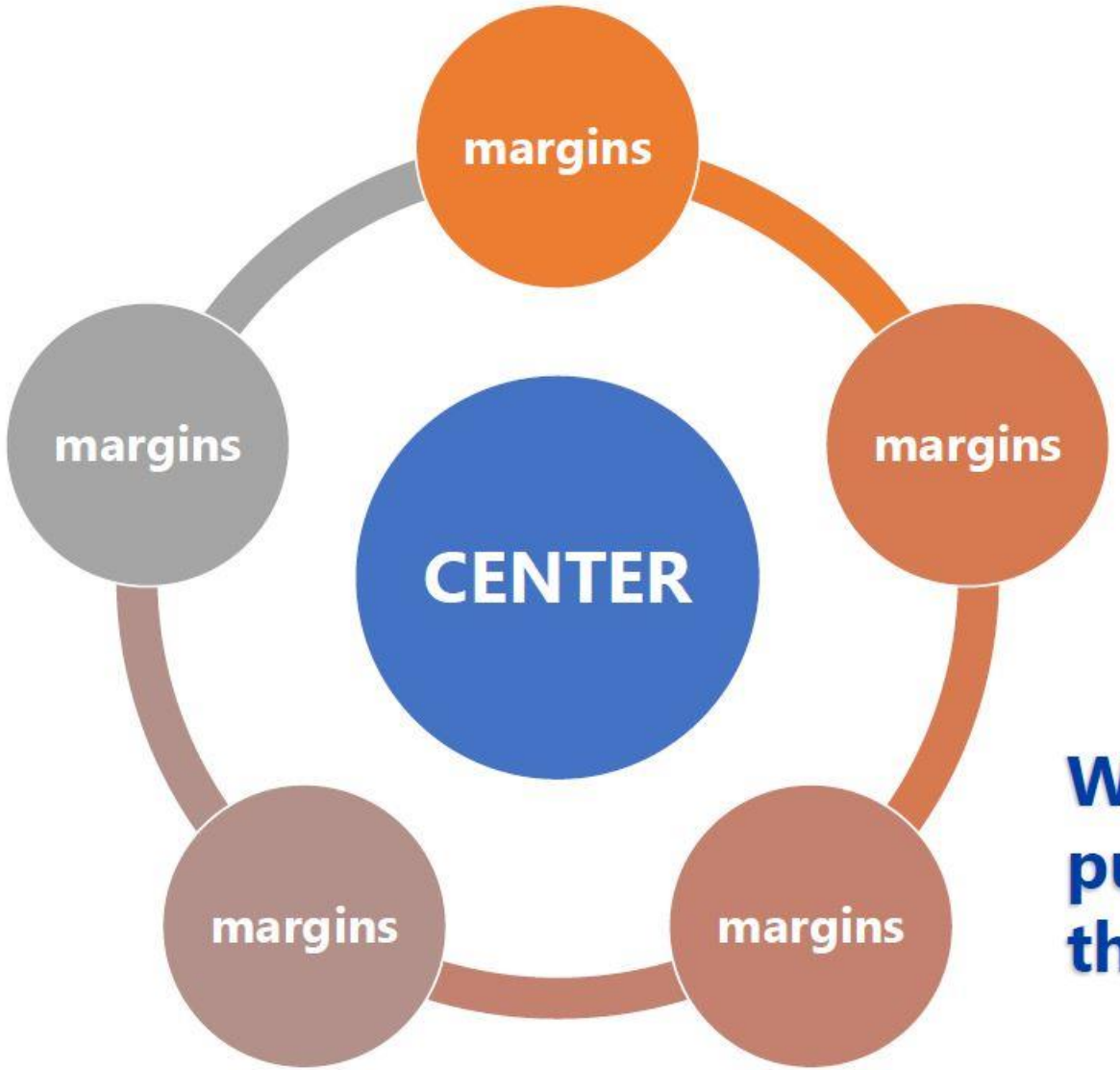
Is the Single, Strongest Predictor of Outcomes.

SPU
Racial
Equity
Toolkit

Racism Is A System of Power.

SPU
Racial
Equity
Toolkit

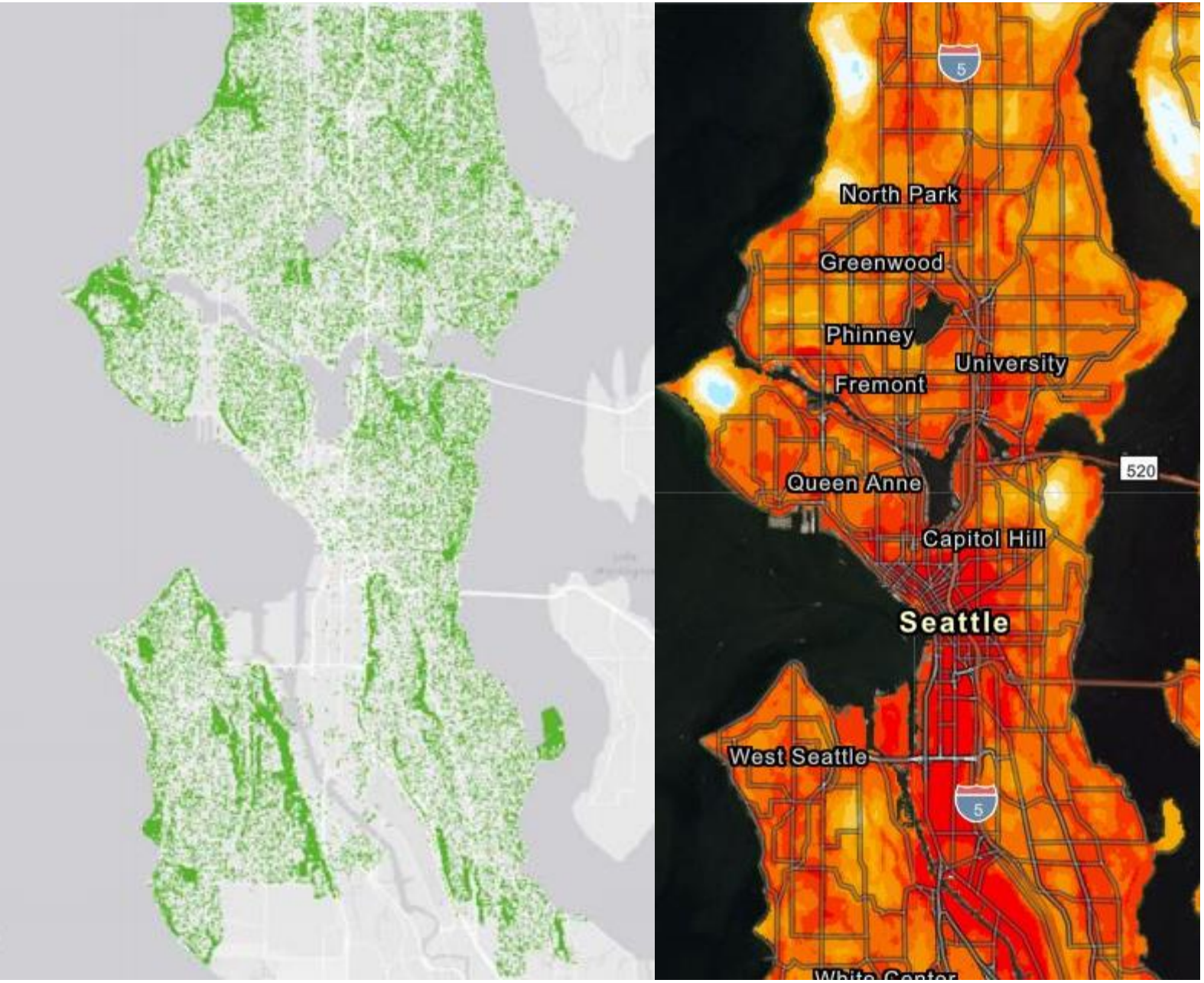
Who lives at the center?



Who is pushed to the margins?

Seattle's Forest

- 28.1% canopy cover in 2021 (1.7% relative change from 2016 analysis)
- About 70% of tree canopy is located on residential land
- Canopy is **not** equitably distributed

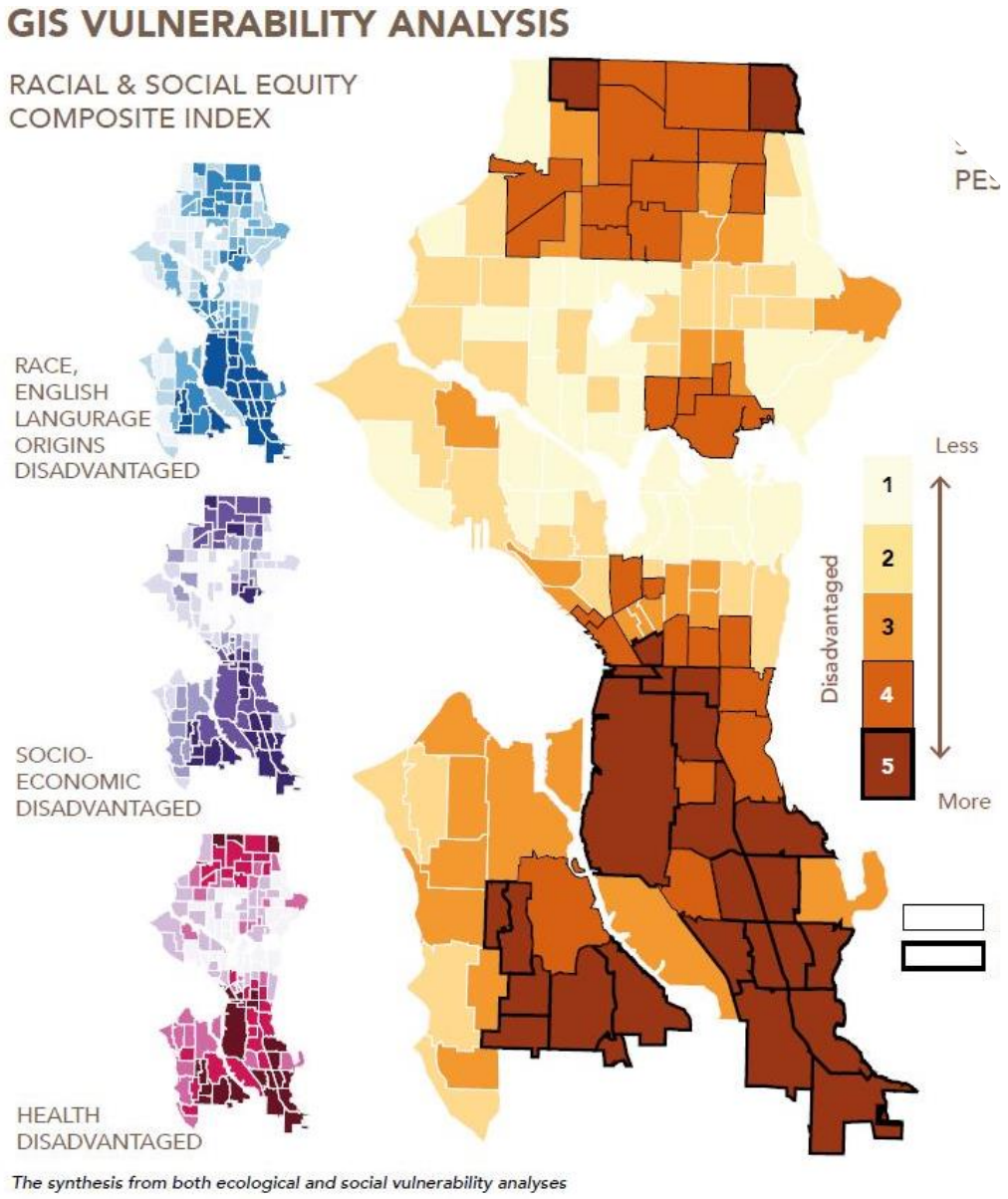


Healthy canopy cover distribution is directly correlated to lower temperatures. Urban heat mapping in 2021 confirmed this.

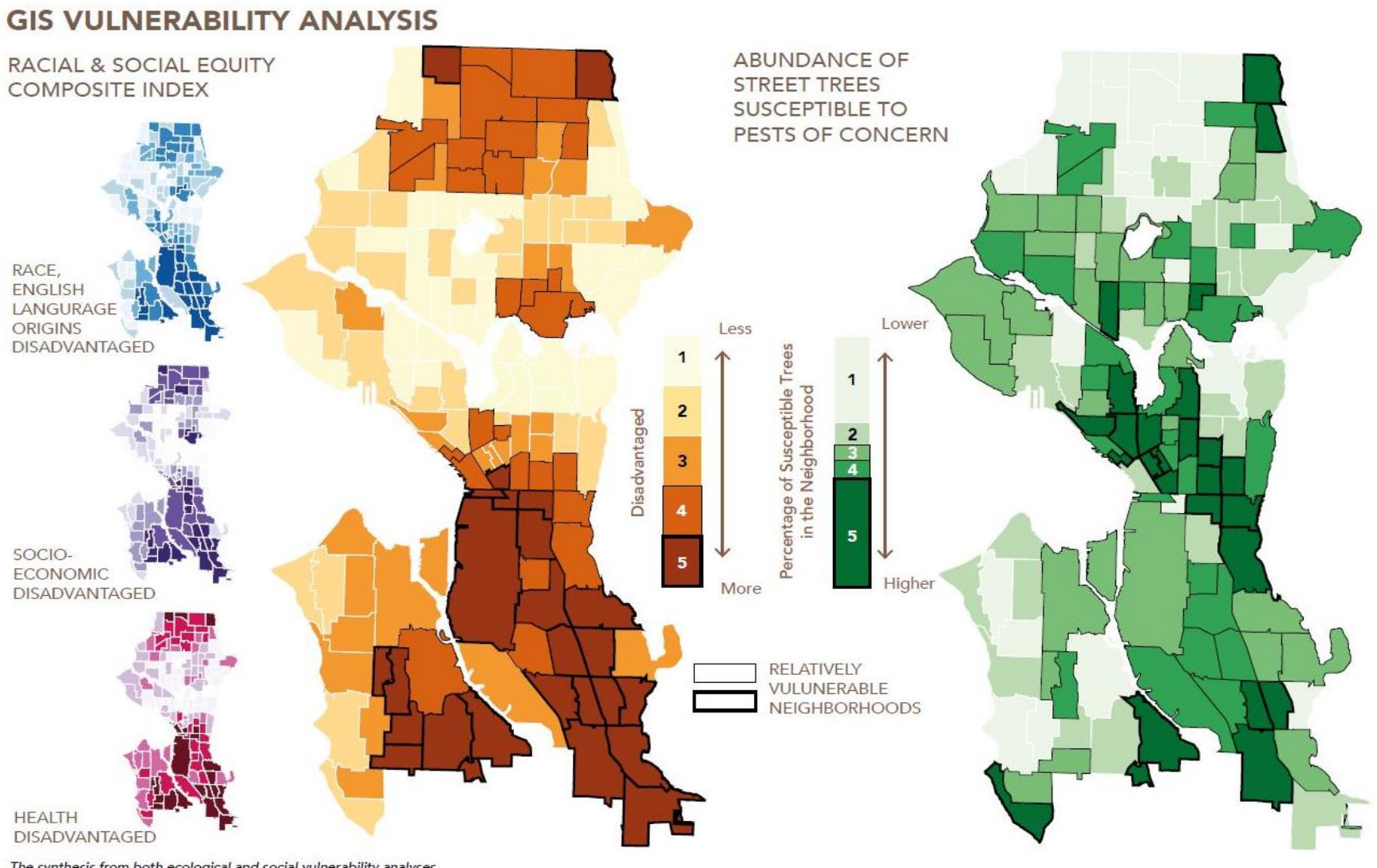
High Heat Areas & Community Demographics

Using the EPA's Enviro Justice Screen, census data confirmed that many high heat neighborhoods have high social vulnerability.

Seattle has also prioritized neighborhoods via the "Outside Citywide" Program.



High Heat Communities and Tree Pests

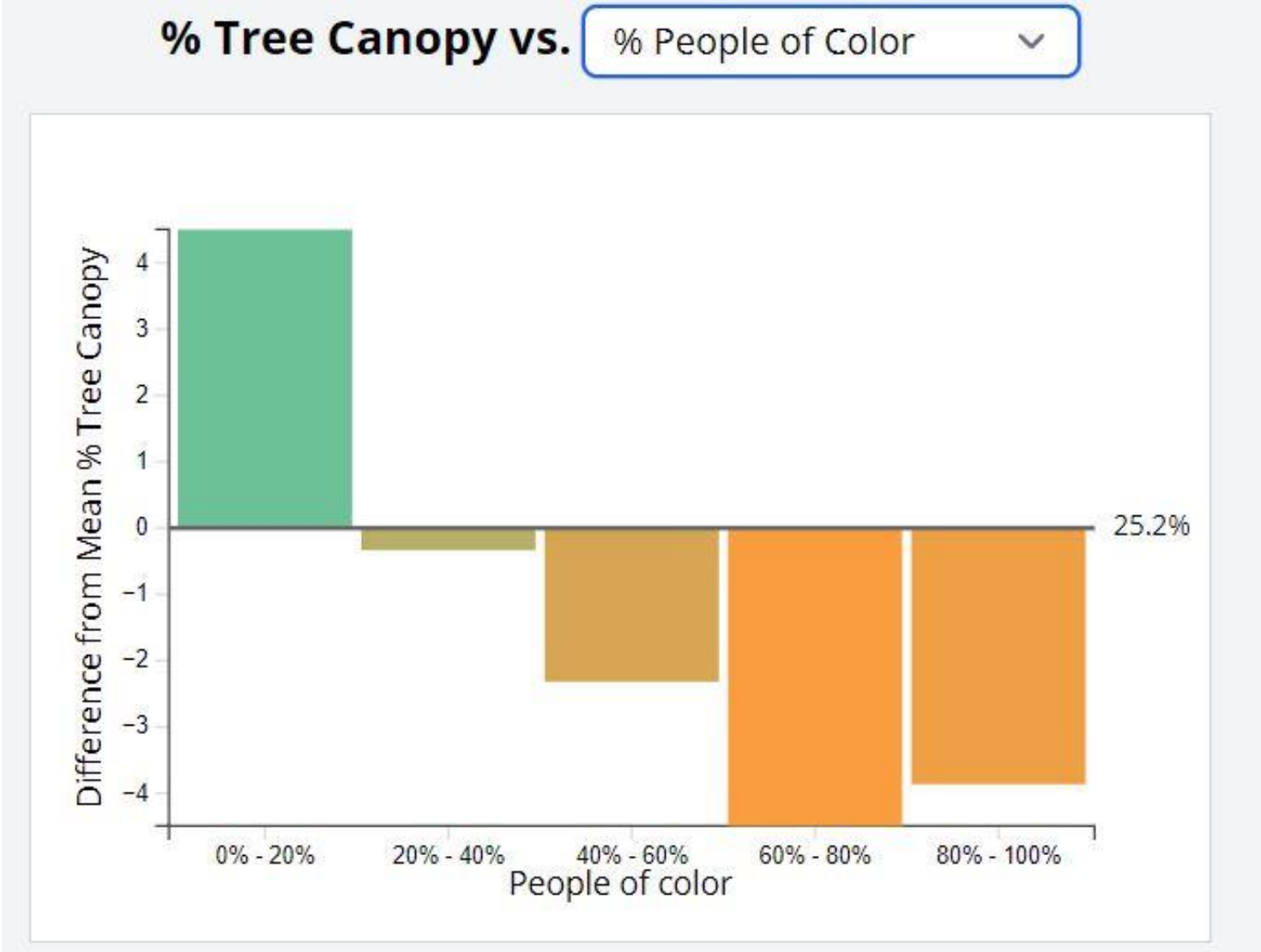


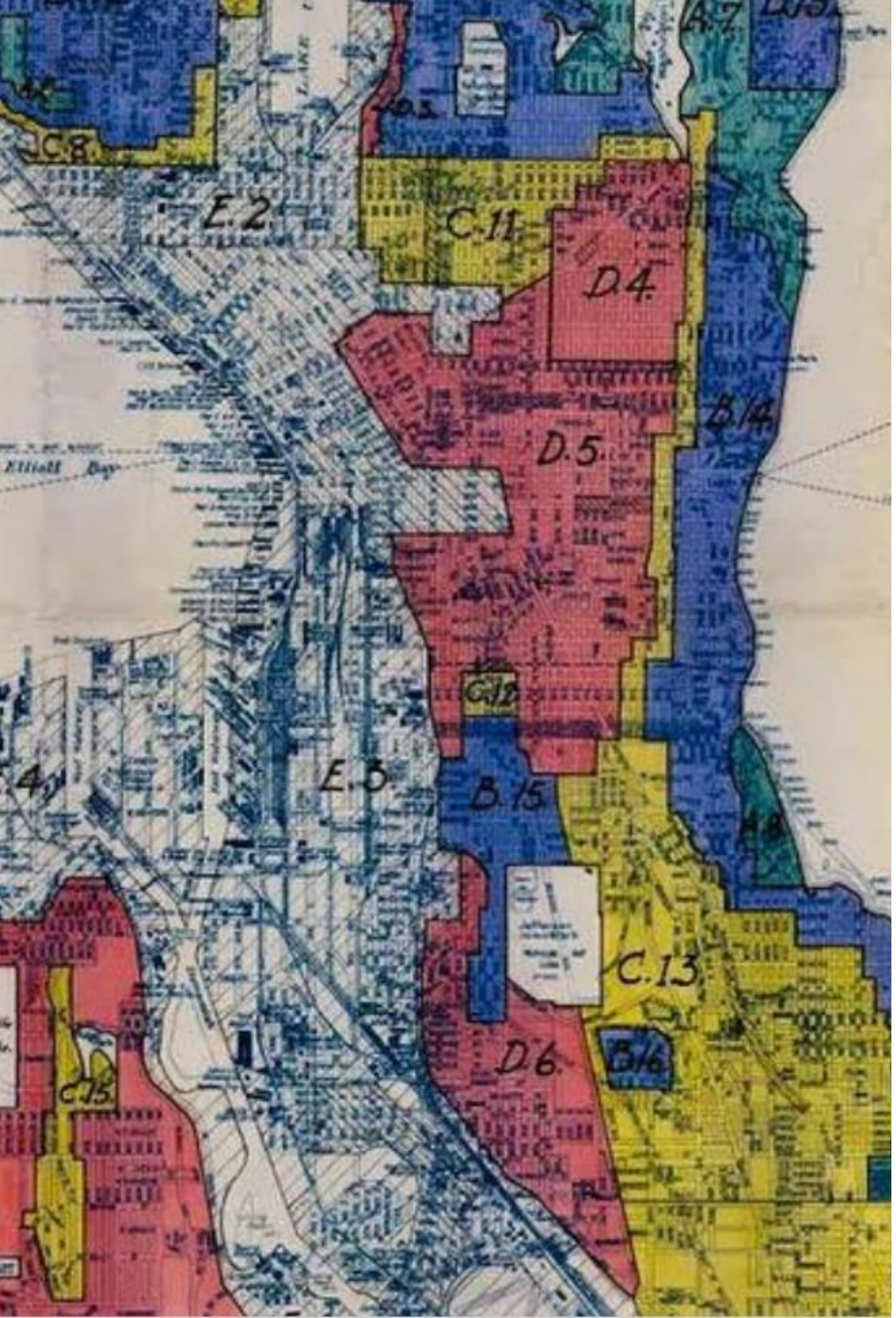
The synthesis from both ecological and social vulnerability analyses

TREE EQUITY SCORE | NATIONAL EXPLORER

Tree Equity Score, a national metric of canopy cover, varies in each Seattle neighborhood by up to 40 points.

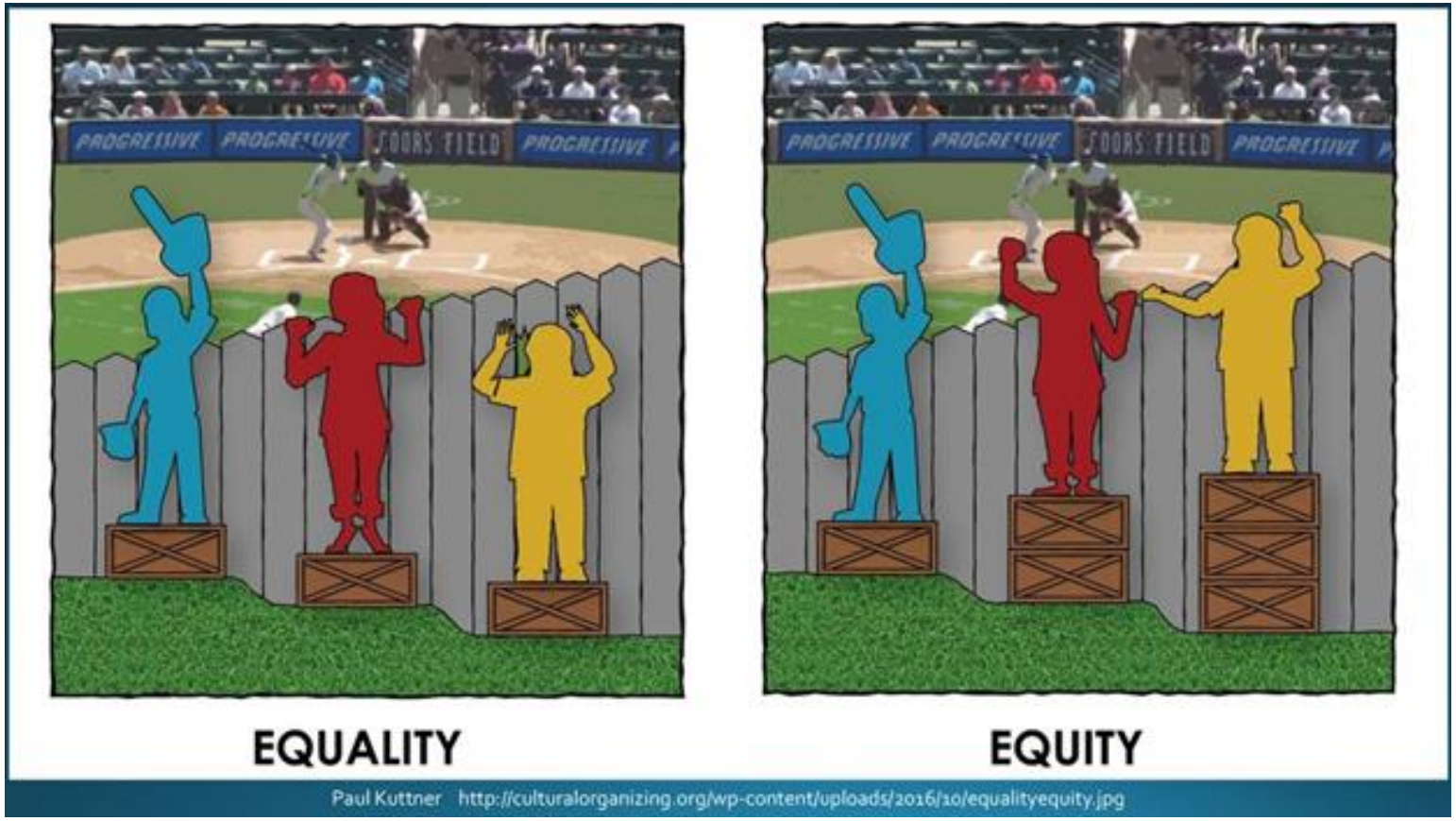
Race is as strong predictor of canopy cover in neighborhoods as income in Seattle.





How did we get here?

- Deforestation and development
- Redlining and historic under-investment in communities of color
- Changing climate impacting native tree populations
- Soils, air quality, mycorrhizal disturbance, forest fragmentation and pollination, and more


PROGRESSIVE
PROGRESSIVE
COORS FIELD
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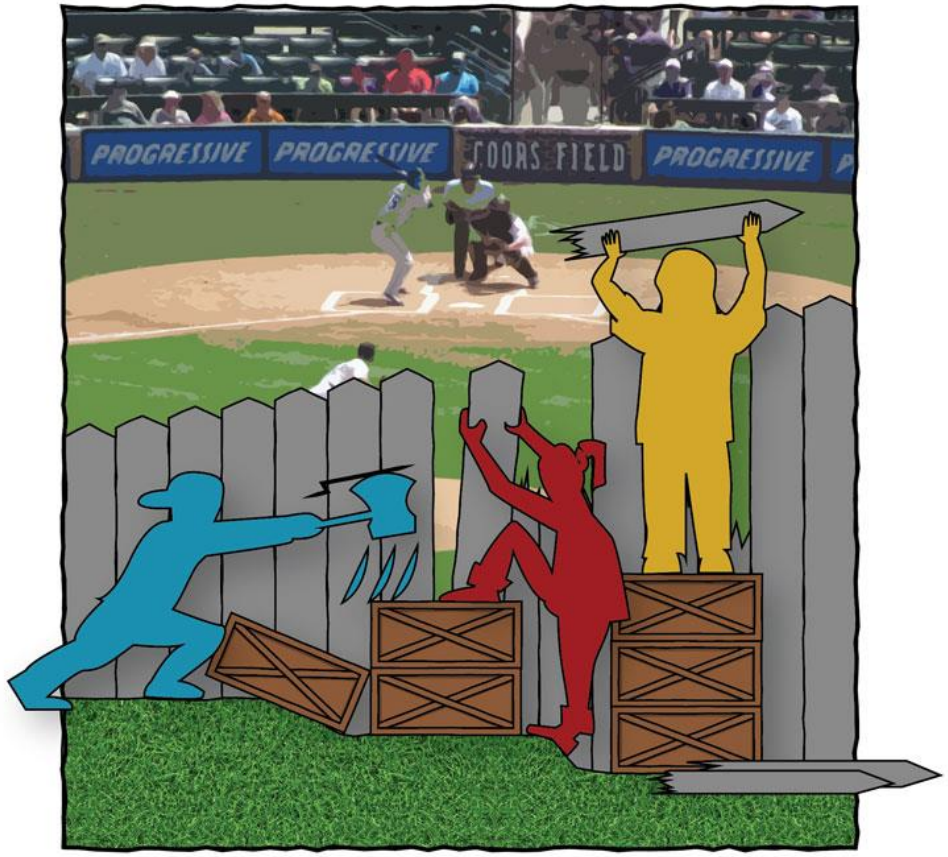
EQUALITY
EQUITY
Paul Kuttner http://culturalorganizing.org/wp-content/uploads/2016/10/equalityequity.jpg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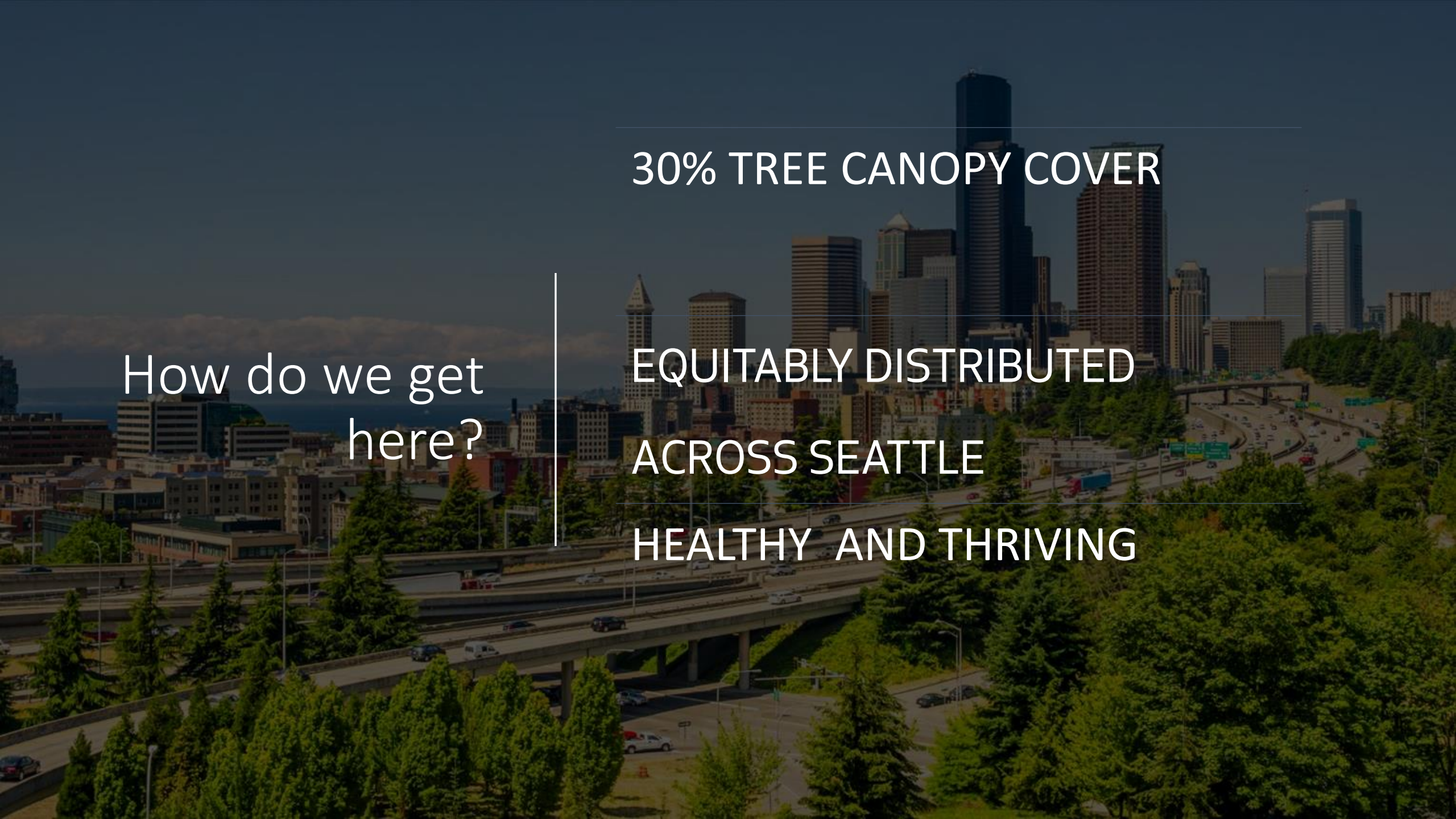


How do we get here?

30% TREE CANOPY COVER

EQUITABLY DISTRIBUTED

ACROSS SEATTLE

HEALTHY AND THRIVING

Equity and Resilience Planning

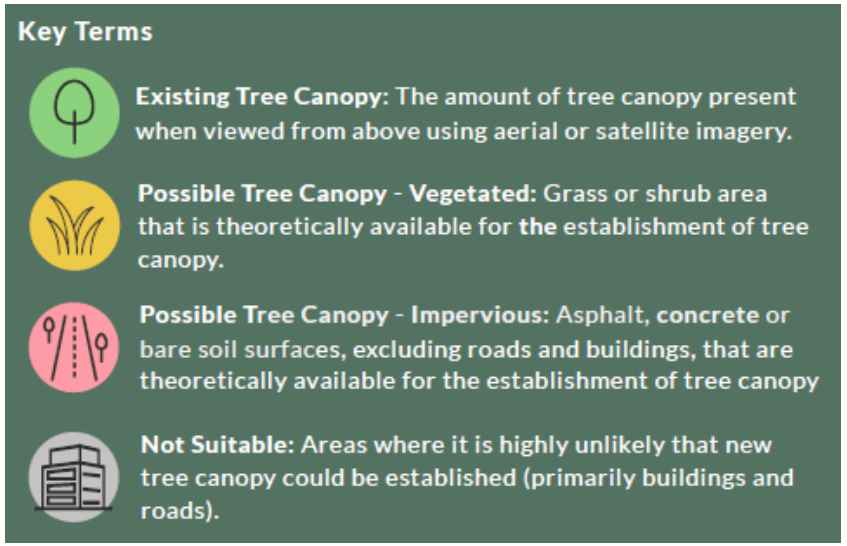
Equity and Resilience Planning

Suggested Action:

Develop a Canopy Equity and Resilience Plan to guide planting, maintenance and resilience investments and recommend enhancements across all land use types, in partnership with BIPOC communities

Plan would incorporate:

- Potential planting areas provided by the canopy cover assessment, ground-truthed and updated based on feasibility
- Development of maintenance layer to ensure care of existing trees
- Information gleaned from NYC study
- Community involvement in planning



Breakout Group Activity

Setting us up for co-creating with community

Goals

- Recap current efforts by city and partners
- Determine additional actions needed
- Identify potential next steps

Breakout Group Activity

Prompts

- What efforts are you aware of where the city and/or partners are already working with community to develop canopy plans and take action?
- What else is needed? What are next steps the city and partners need to take to prepare for planning and action toward equitable canopy?
- What resources are needed to take those steps? Who will do them?
- What relationships are missing? Ideas for cultivating those relationships?