

Equitably Growing the Urban Forest

Vivek Shandas

Professor, Urban Studies and Planning

Chair, Urban Forestry Commission, City of Portland



PORTLAND PARKS & RECREATION SM

Healthy Parks, Healthy Portland



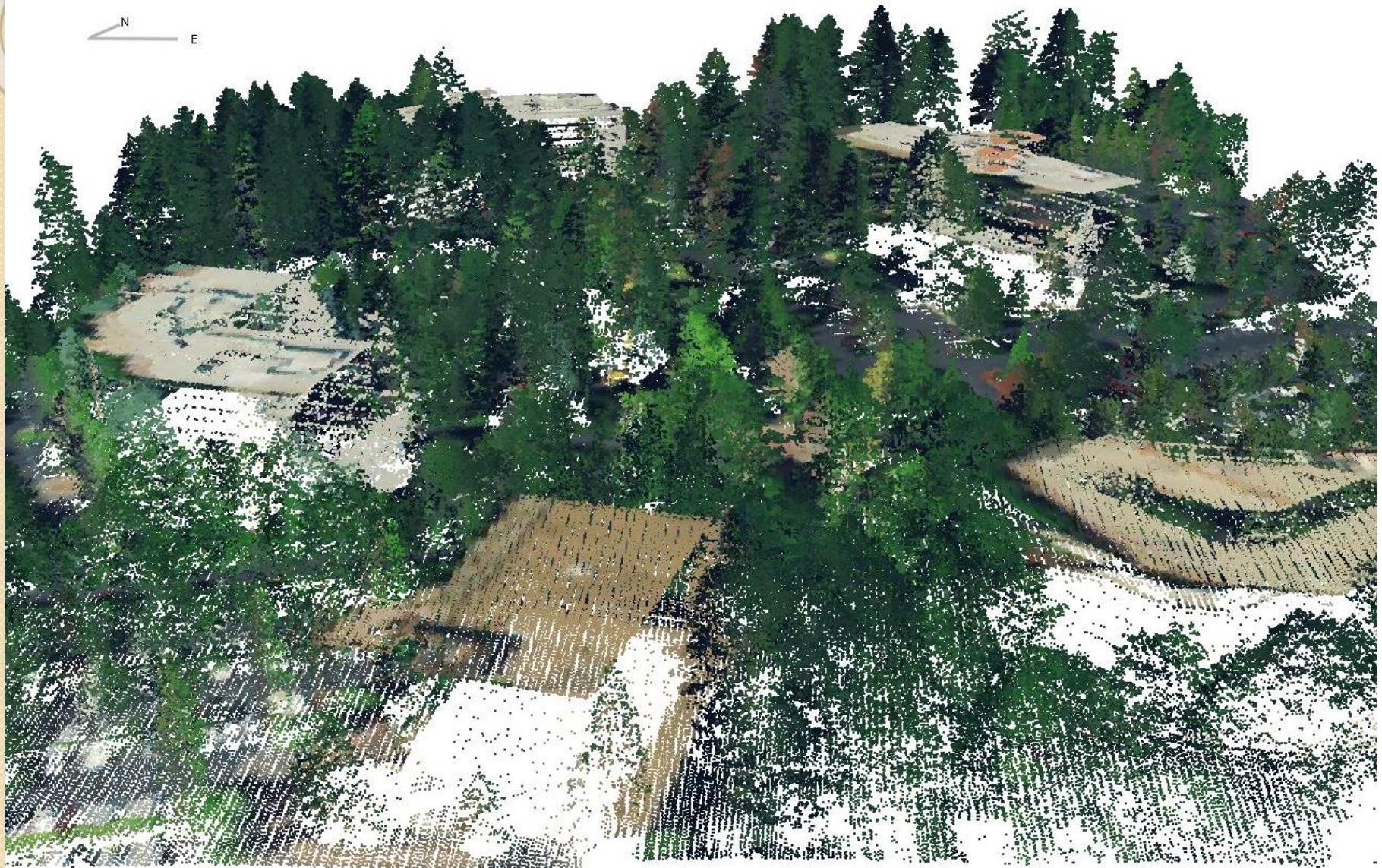
Portland State
UNIVERSITY



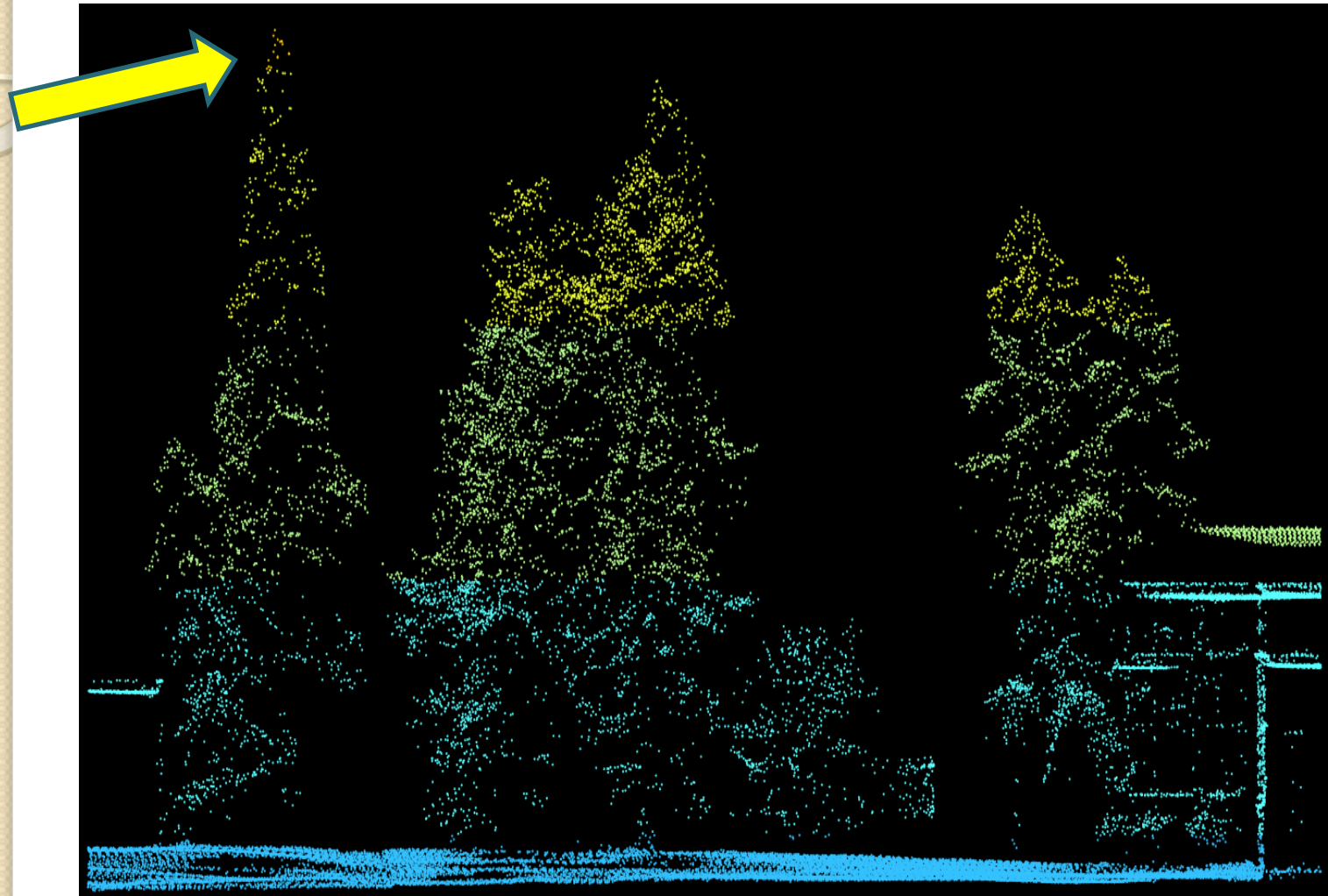
Trees as Green Infrastructure

- For the Portland Metro Region, trees can....
 - ✓ Reduce temperatures for a development by 13°F (*urban heat*)
 - ✓ Reduce health care costs by over \$4.5M per year (*air quality*)
 - ✓ Affect individual baby birth weight by over 60g (*human health*)
 - ✓ Reduce annual average energy cost by over \$412/household (*energy use*)

Describing the Urban Forest

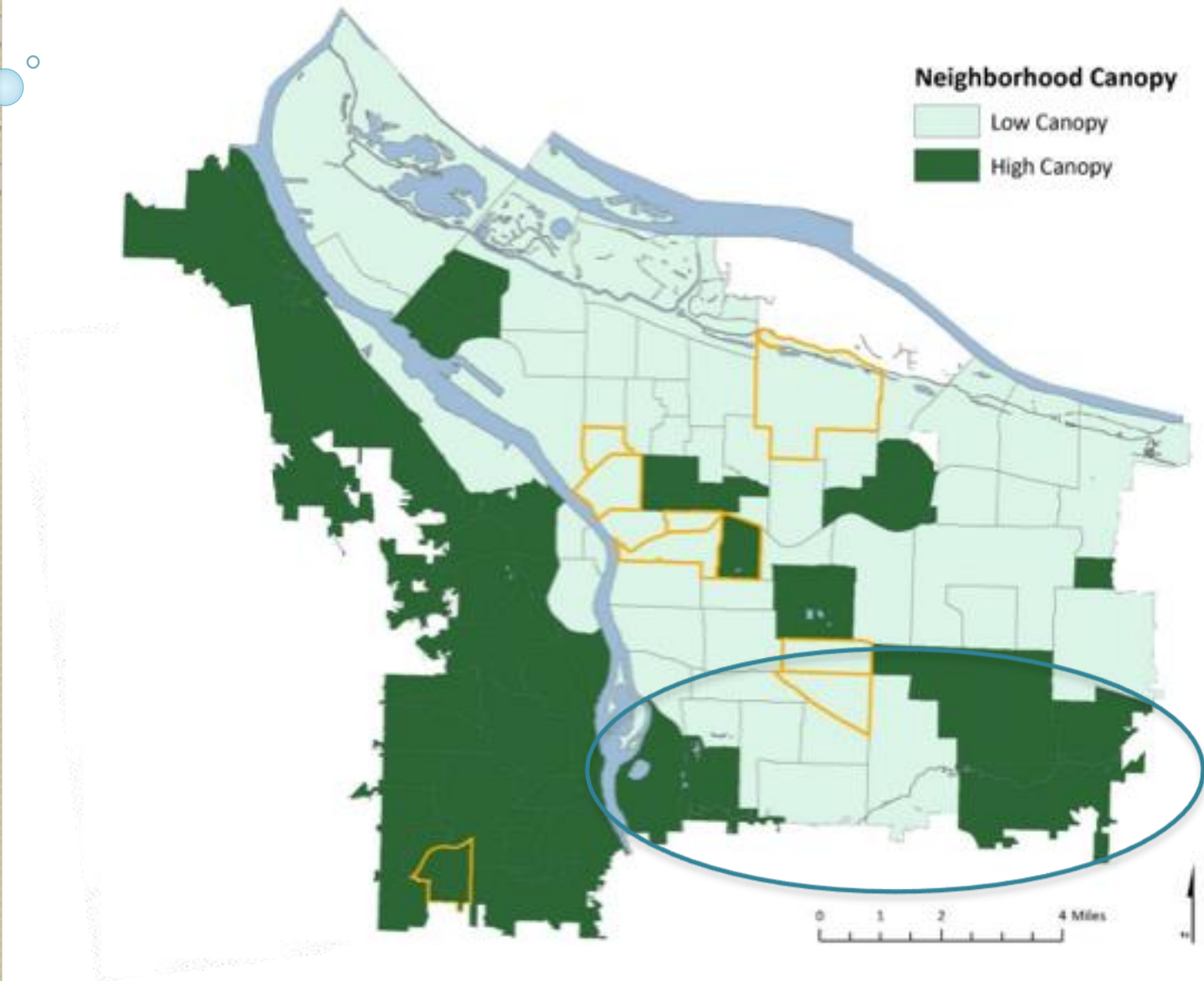


LiDAR: Profiling Trees

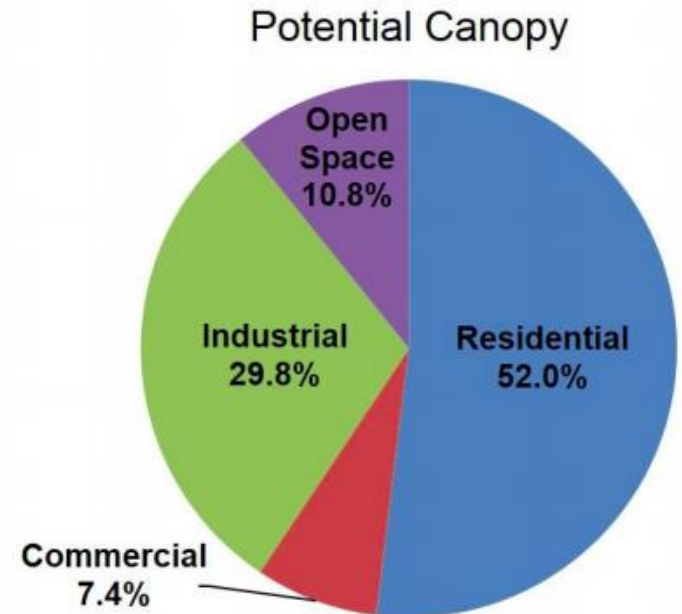
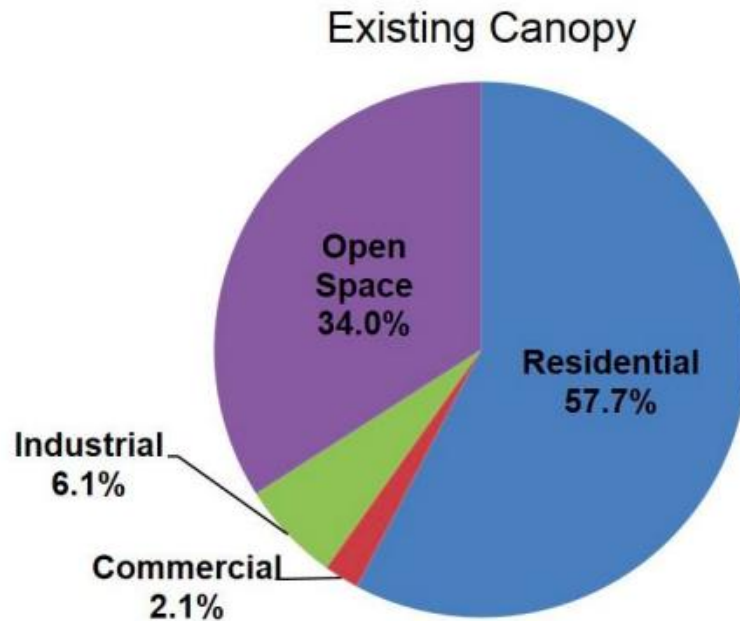


Johnson Creek Watershed (near SE 111th)

Johnson Creek and Low Canopy



Opportunities for Expanding Canopy (Land Use)



Source: City of Portland Urban Canopy Report, 2015

Towards Equitable Growth

- Identify opportunities and challenges facing the expansion of tree canopy.
- Describe the most important factors – opportunities and barriers – in identifying tree planting locations.
- Generate political support to address existing inequities for urban green infrastructure, while recognizing the dis-services consistent with introducing trees.

Summary of Interviews and Surveys

(citywide, n=2957)

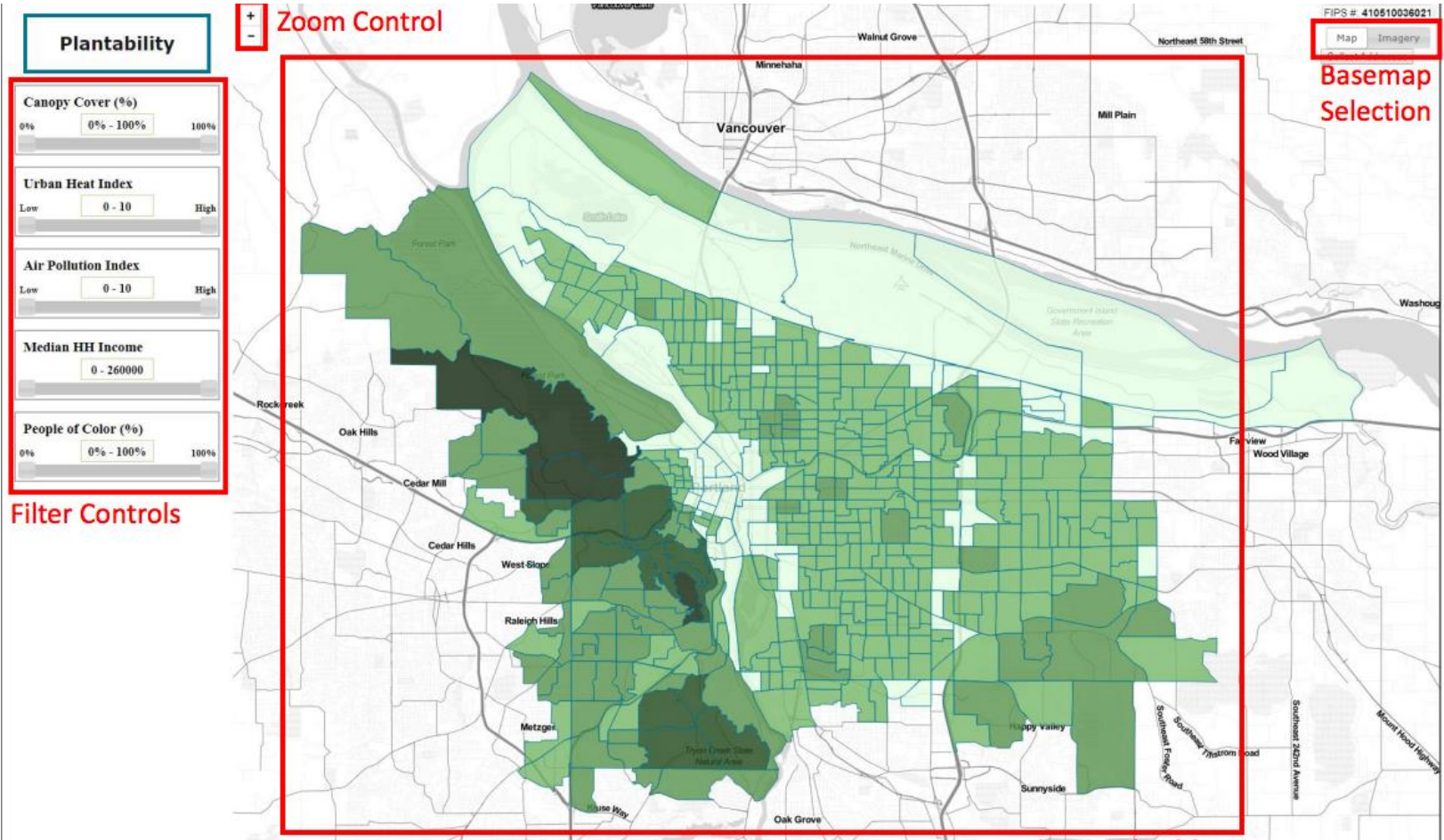
- Opportunities

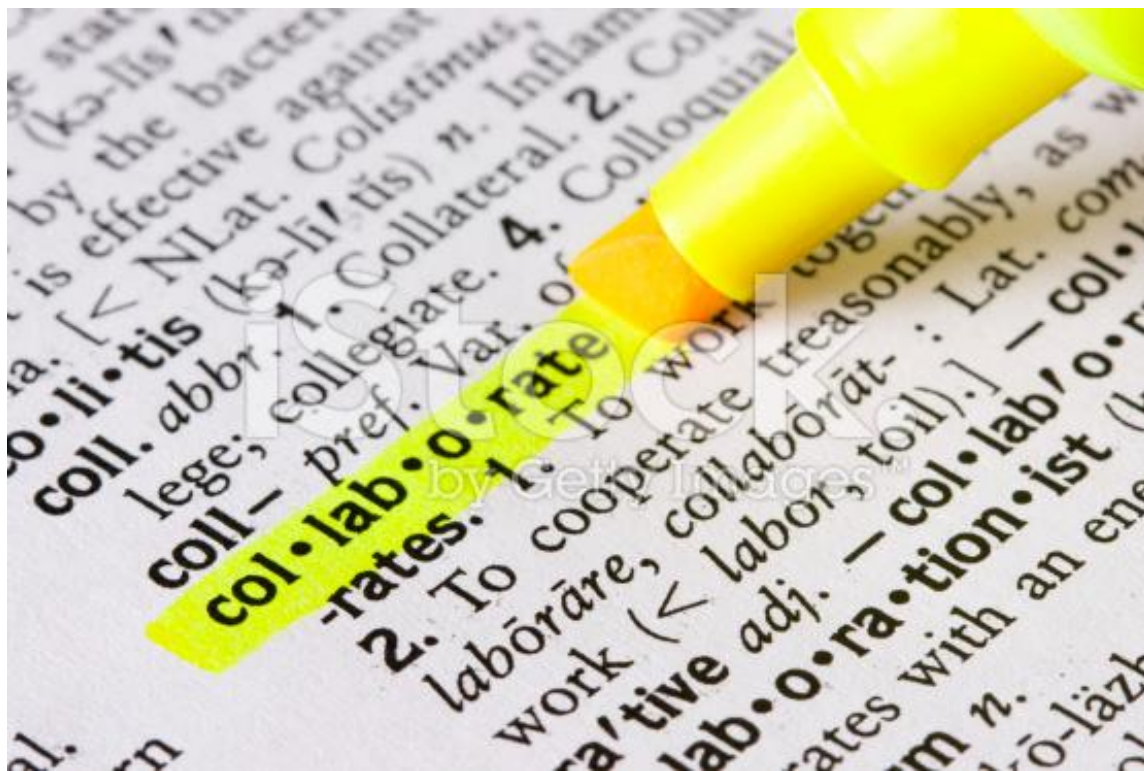
- Extensive support for expanding tree canopy in the city
- Recognition of privilege and historical/systematic bias of tree planting efforts
- Existing tree code offers a platform for engaging across bureaus
- Regular meetings can open communications can improve implementation of Tree Code
- Public education about the role of trees in the city

- Ongoing Challenges

- Location, location, location
- Role and responsibilities for maintenance remains unclear
- Physical infrastructure poses several barriers
- Split opinion of placement: public areas versus RoW tree plantings
- Public acceptance for maintaining trees seems daunting

Tools for Equitable Expansion





Contact:

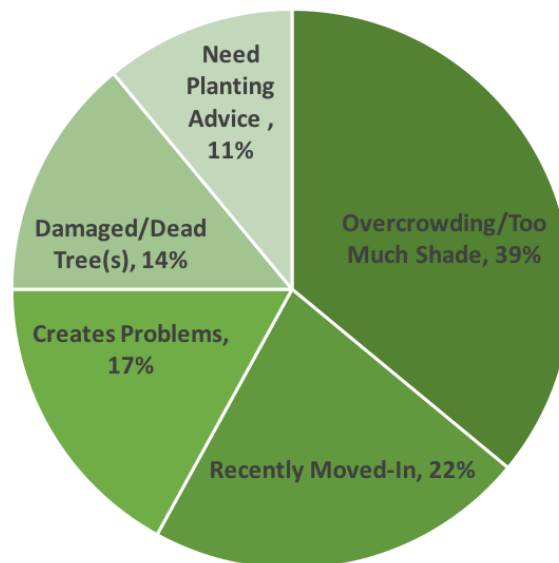
Contact Vivek Shandas

Email: vshandas@pdx.edu

Tel. 503-725-5222

www.suprlab.org

“Why don’t you have trees?”



Reason	Description
Overcrowding/Too Much Shade	Wants sun to grow flowers/garden; preserve views
Recently Moved-In	Deciding on landscape
Creates Problems	Sidewalk buckles, Drops leaves, Less visibility in drive-way
Damaged/Dead Tree(s)	Trees became unhealthy, doesn't want to replace
Needs Planting Advice	Not sure who to contact or what to plant

Equitably Growing an Urban Forest: Summary

- Portland is still adjusting to recent regulatory and policy changes around trees
- Assigning maintenance of ROW to adjacent property presents a significant barrier to tree planting and expansion
- Competition for tree planting space creates severe conflicts
- Trees are often viewed as a liability rather than a resource
- City staff and general public lack agreement on how the urban forest is faring and the effectiveness of current planting efforts
- City bureaus lack understanding of best practices in urban forestry
- Significant conflict over the value and practicality of planting large vs small trees exists
- Communication and collaboration across public agencies poses barriers to effective implementation of Portland's Tree Code
- Broad (as opposed to deep) outreach and education may be a first step to advancing understanding of Portland's Tree Code

The City Should....

- Majority (67%) of respondents believe that the City should maintain all trees along the street
- Majority (72%) of respondents believe that the City should prioritize maintenance of street trees in low-income areas
- About half (55%) of respondents believe that the City should plant trees in all available places along the street