

Canopy Restoration Project

Dorothy Rodrigue McDaniel
Executive Director, Trees Columbus

George Barker
Consulting Arborist, Trees Columbus
Certified Arborist, Tree Risk Assessor Qualified, Alabama
Registered Forester, SAF Certified Forester



PBS NEWS
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GREEN
HEART

Canopy Restoration Project

DECLINING URBAN FOREST

- First program of its kind
- Going beyond canopy study
- Public Private Partnership



Working with Private Citizens





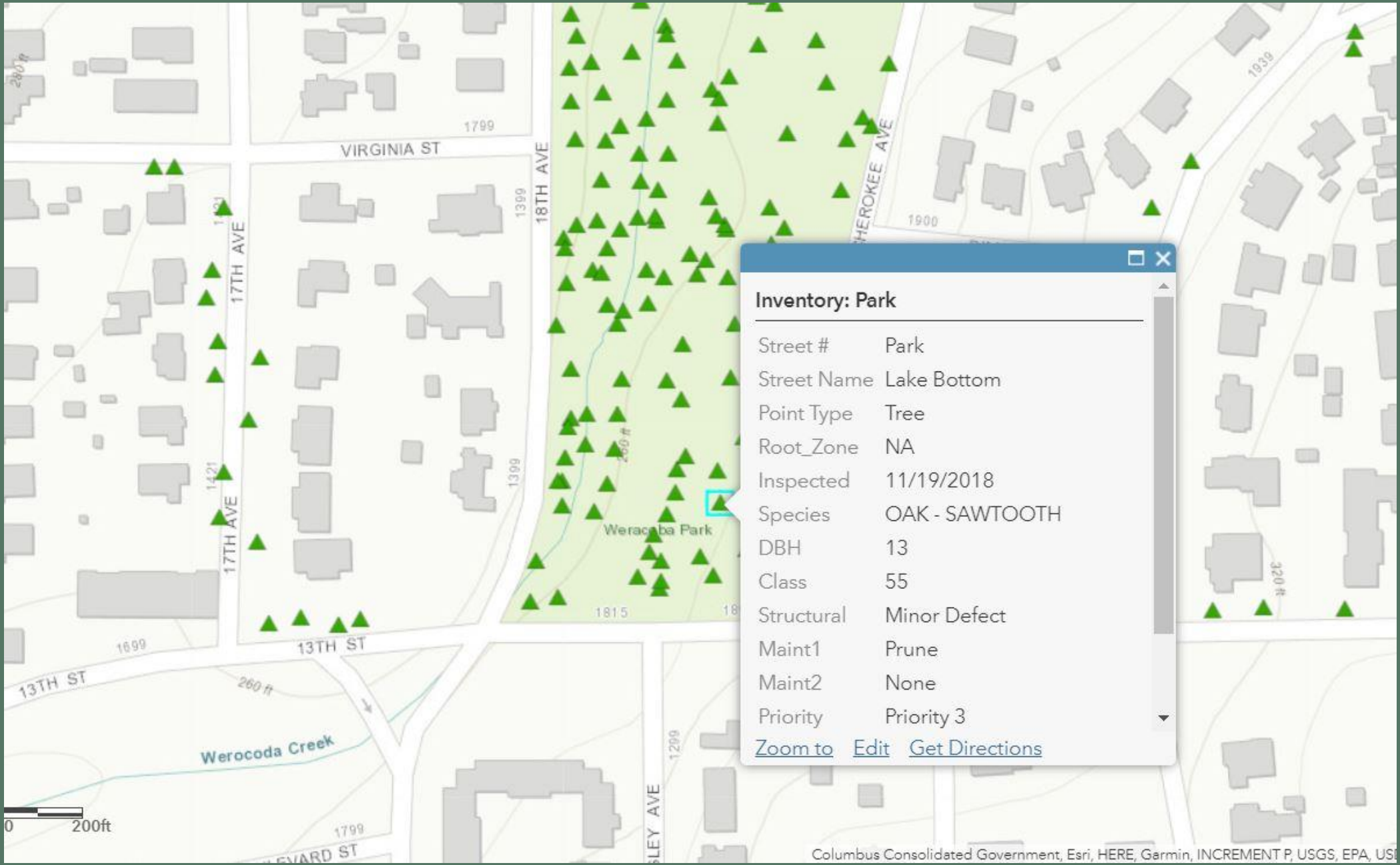
Posts



♥️ 💬 📍

🌍 Liked by rachelbbarker and 21 others

treescolumbus Check out our cool chapeau -mounted GPS tree survey tool. It's called a "Bad Elf", and it's not nerdy 🧐 at all. #treecanopy #moretrees #badelf



Inventory: Park

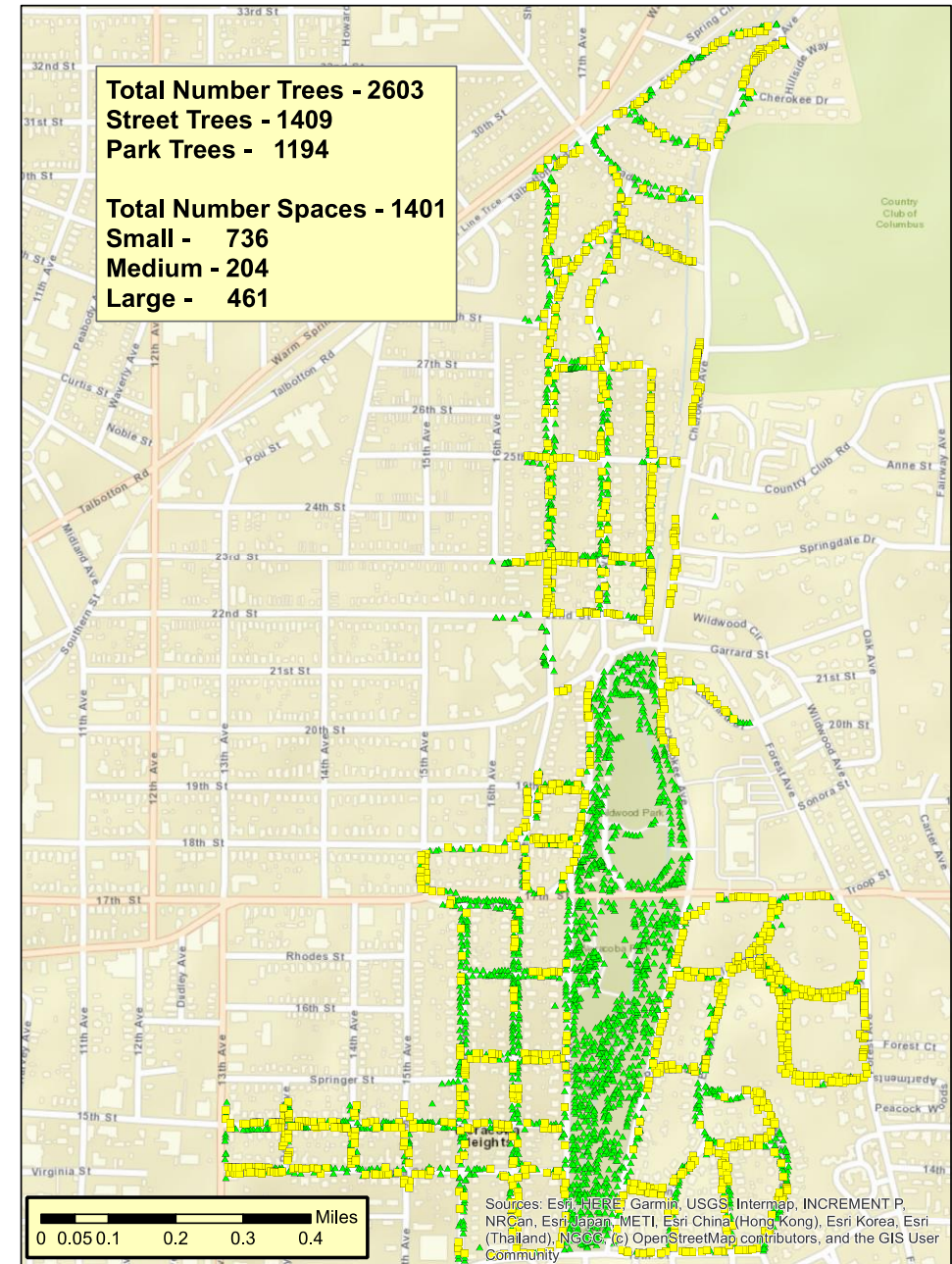
Street #	Park
Street Name	Lake Bottom
Point Type	Tree
Root_Zone	NA
Inspected	11/19/2018
Species	OAK - SAWTOOTH
DBH	13
Class	55
Structural	Minor Defect
Maint1	Prune
Maint2	None
Priority	Priority 3

[Zoom to](#) [Edit](#) [Get Directions](#)

Private Funding: Study Area - Why?



Columbus CRP



CCG Support and Program Development through UF Division



Evaluation Form

Street #	2415
Street Name	17th Ave
Point Type	Tree
Root_Zone	NA
Powerline	
Inspected	11/19/2018, 1:48 PM
Species	OAK - WATER
DBH	31
Class	25
Structural	Defect - Action
Maint1	Remove
Maint2	None
Priority	Priority 1
Zoom to Edit Get Directions	



2415 17th Ave.

Previous Failure



The Numbers

Total trees surveyed: 2,603
(Trees placed on maintenance protocol)

Street Trees: 1,409

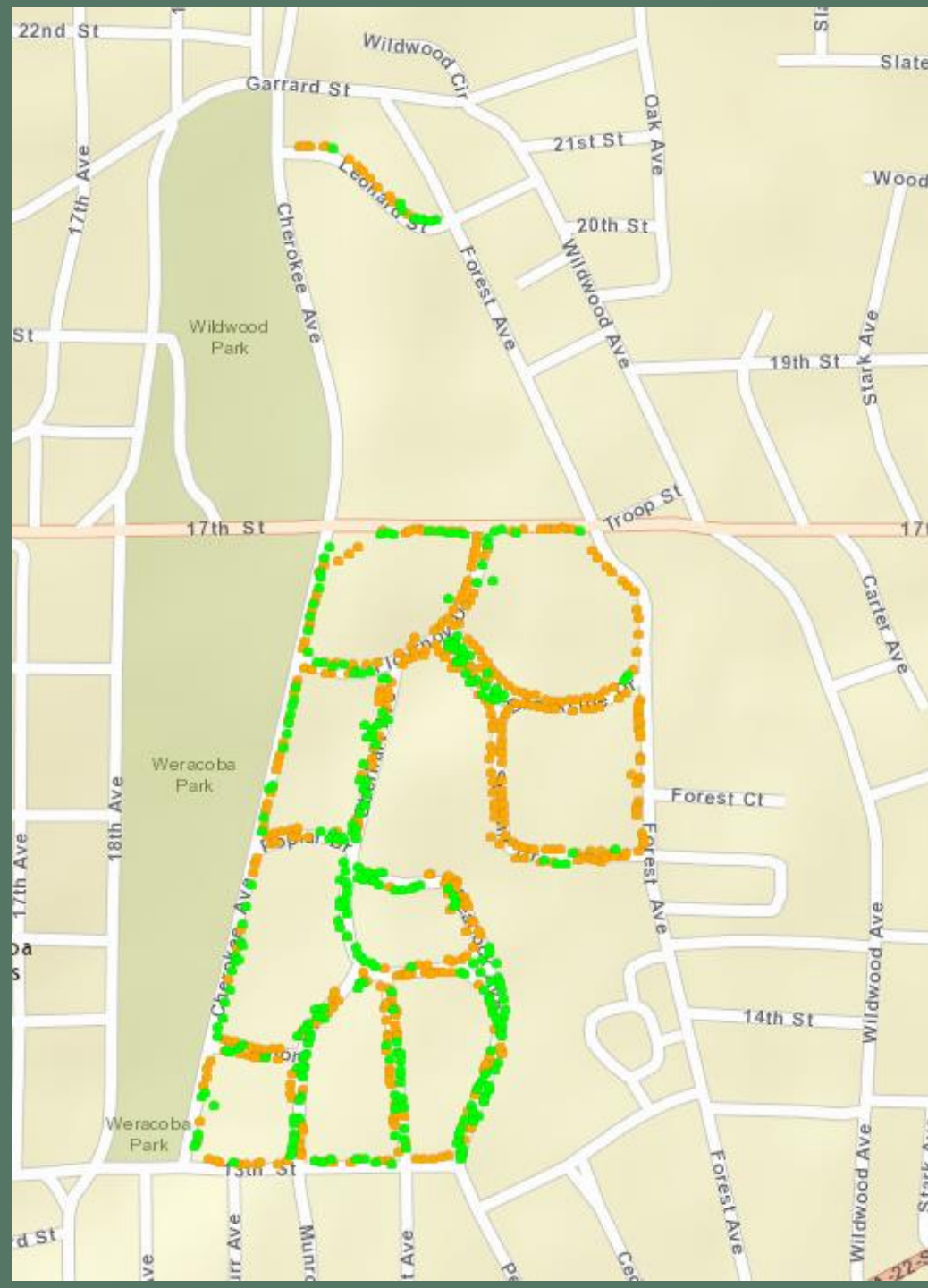
Park Trees: 1,194

Potential Rights-of-Way Planting Spaces:
1,401

Pilot Project Map: First Area

KPI Numbers from CCG Budget

	<u>Prunes</u>	<u>Removals</u>
2018	6,600	1,850
2019	2,600	860
2020	3,200	903



Priority Maintenance Needs - Streets

Total Removals: 37
\$90,000

Prunes: 100
\$40,000

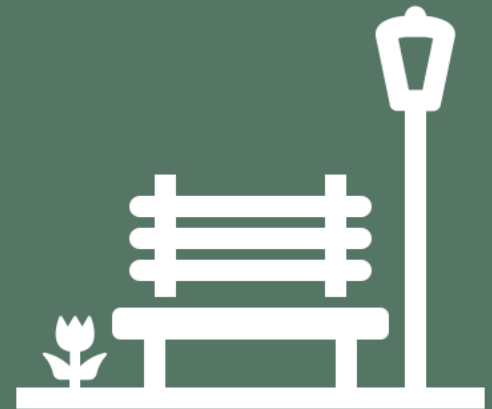


Priority Maintenance Needs - Parks

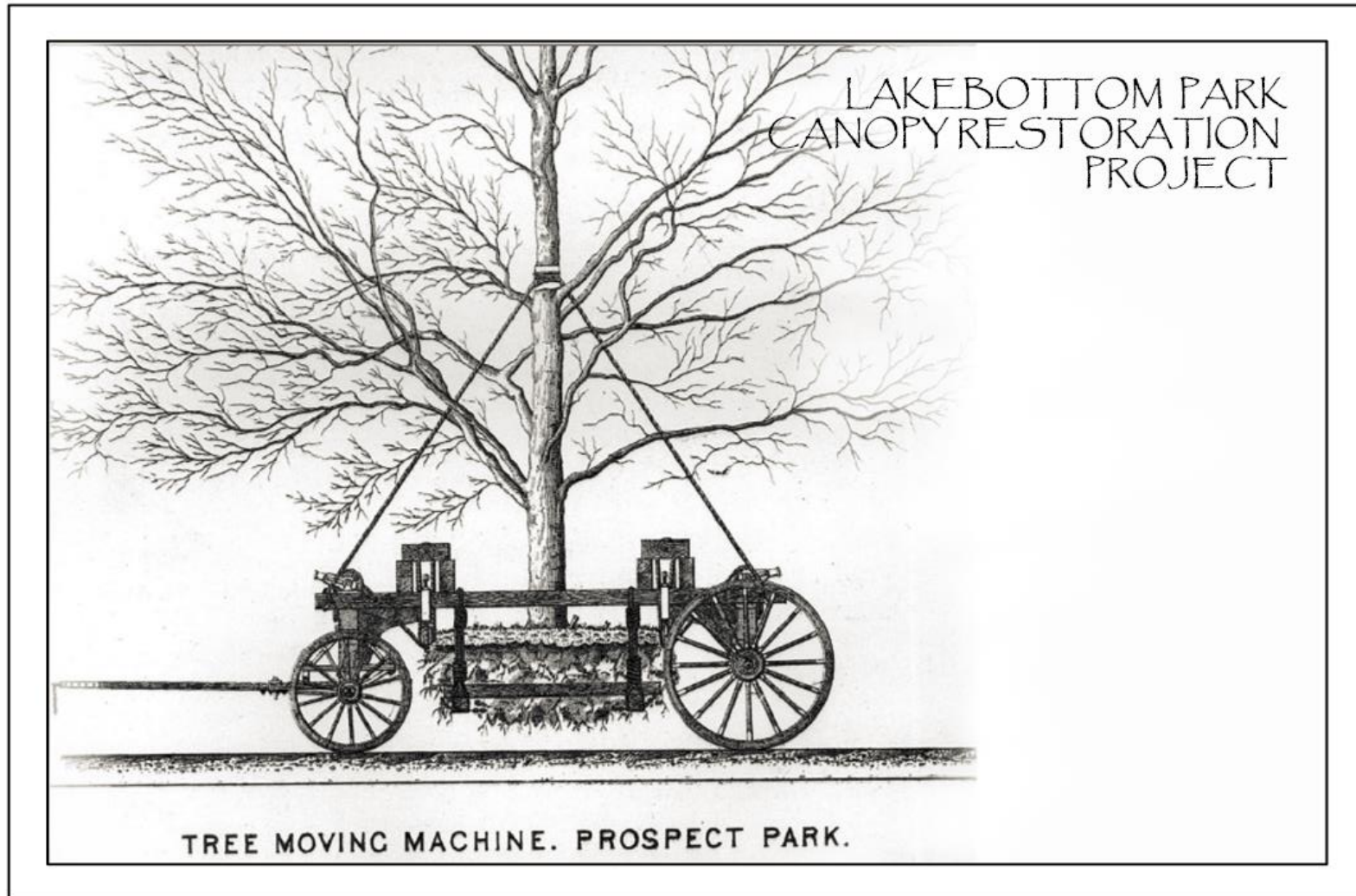


Total Removals: 178
\$350,000

Prunes: 189
\$68,000



Creative Solutions



Environmental Impact



Rachel Fleming

Trees Columbus Intern

Graduate Student

Environmental Science

Columbus State University

i-Tree Analysis Tool

- Forestry analysis and benefit assessment tools
 - Quantifies forest structure and environmental benefits of trees
- Purpose: Forest management and Advocacy
- Produced by USDA Forest Service
- i-Tree Eco



Forecasting the Future

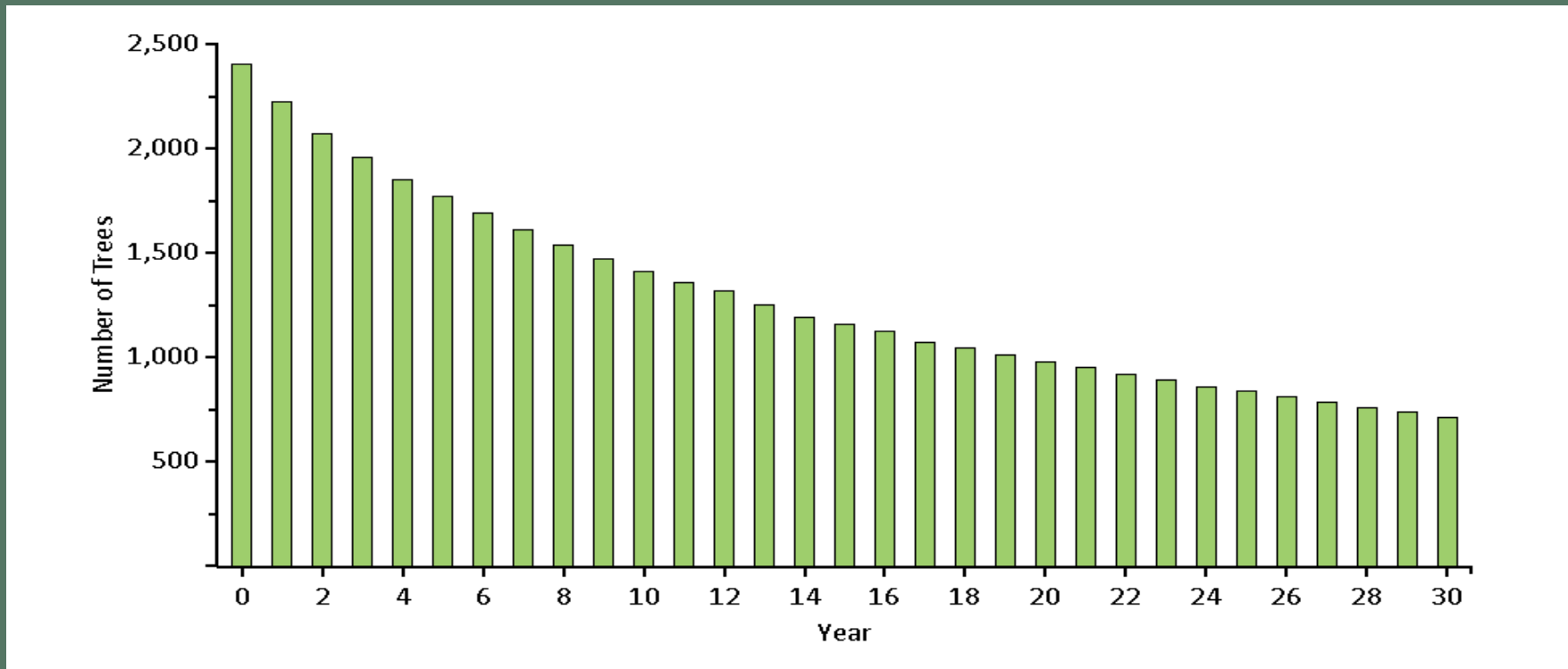


Figure 1. Forecast data for the next thirty years. The forecast depicts tree loss for Columbus, for both park and street trees in the current state.

The Future When Planting Trees Regularly

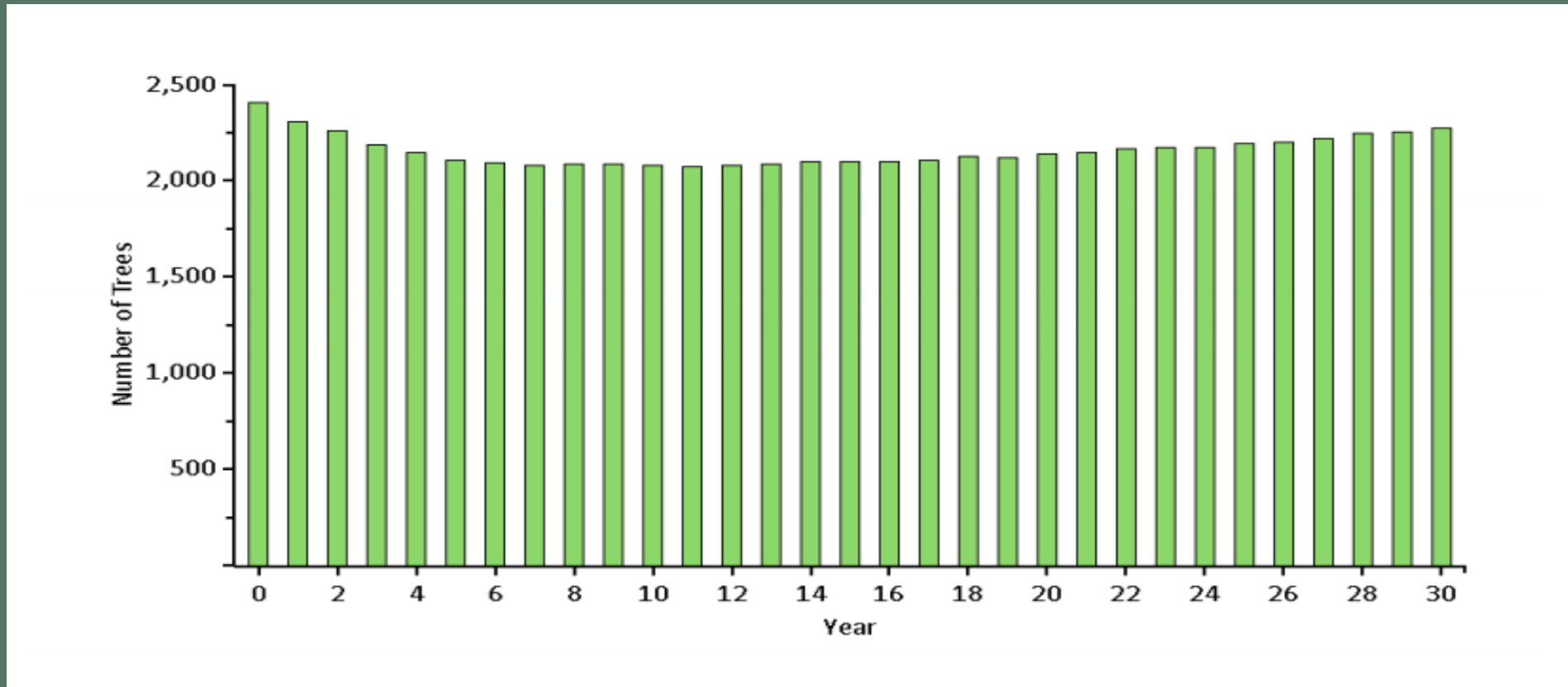


Figure 2. Forecast data for the next thirty years including planting 100 trees each year. The forecast depicts tree growth for Columbus.

What Happens if We Improve Tree Condition?

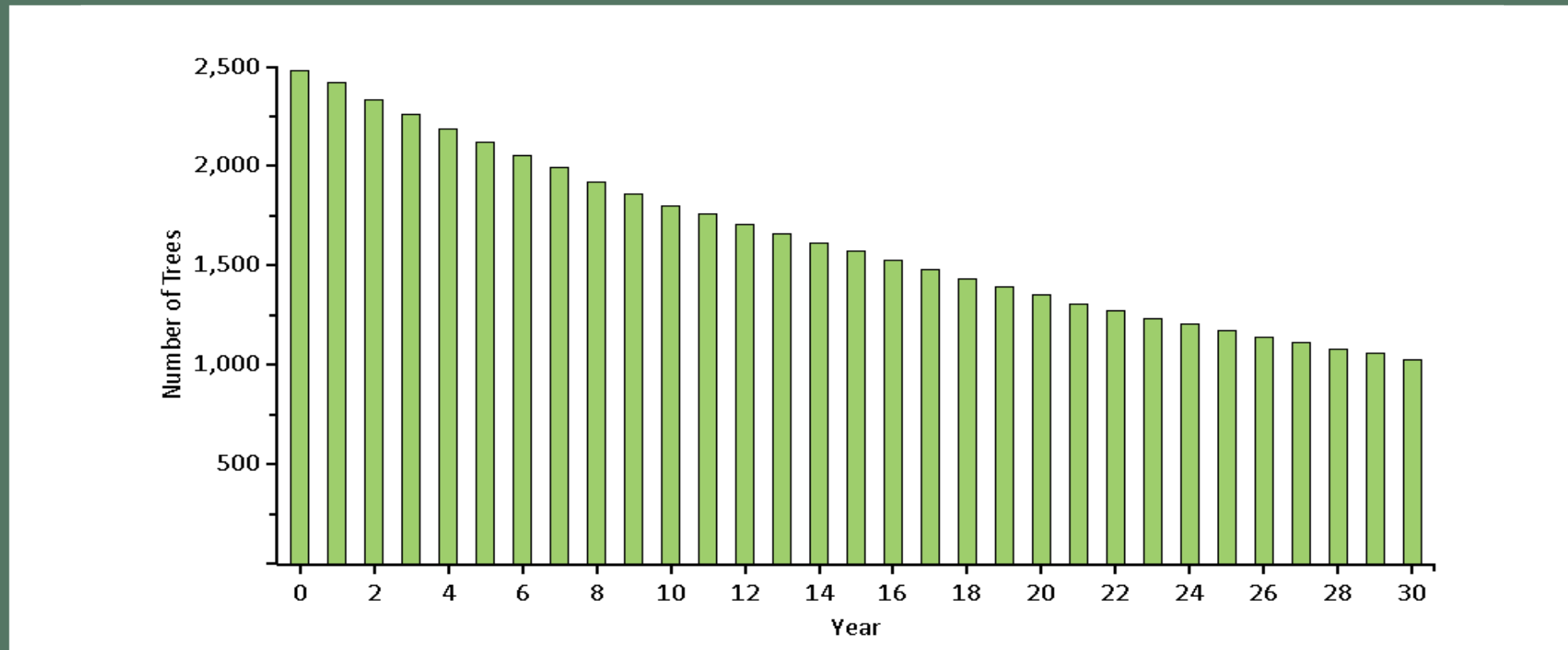


Figure 3. Forecast data for the next thirty years, starting in 2019 and ending in 2049. The forecast depicts tree loss for Columbus. The trees were all set at 100% (perfect) condition.

Comparing Three Scenarios

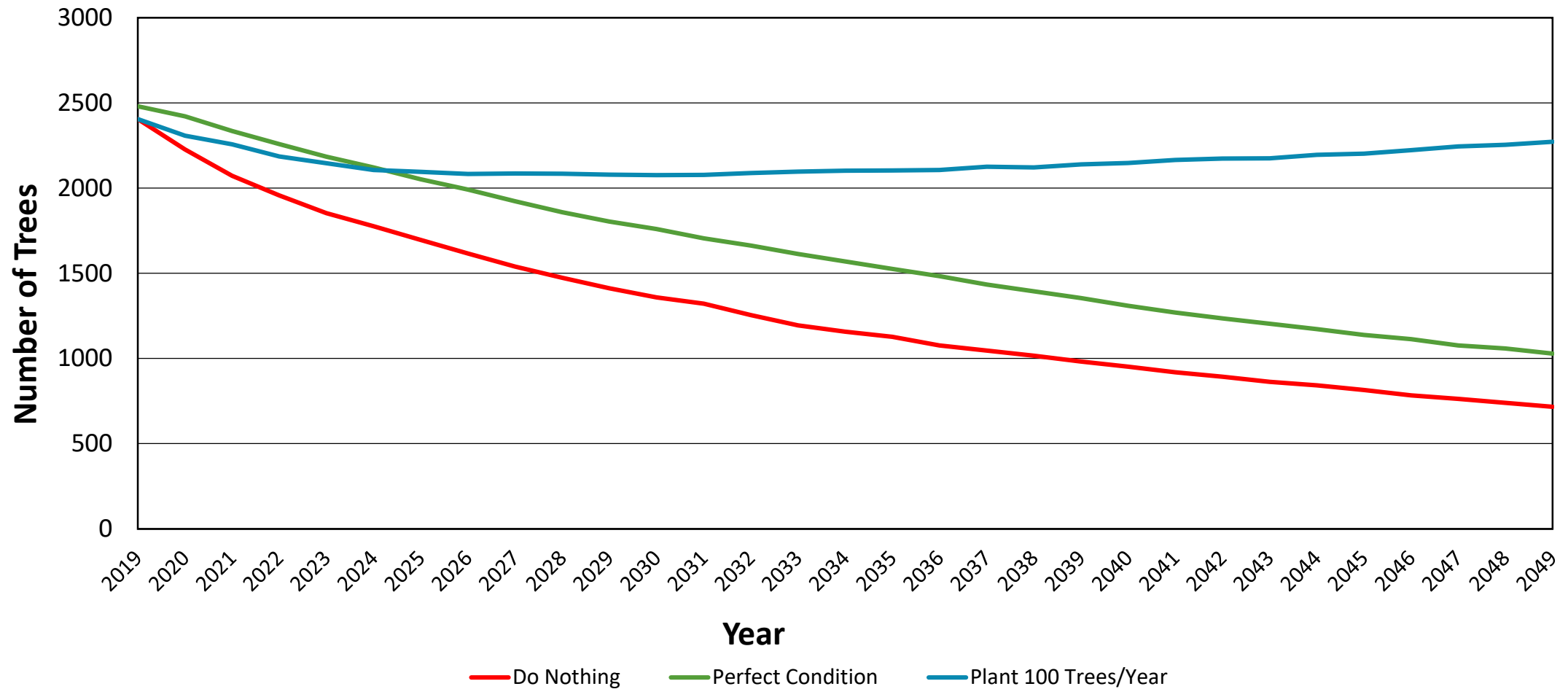
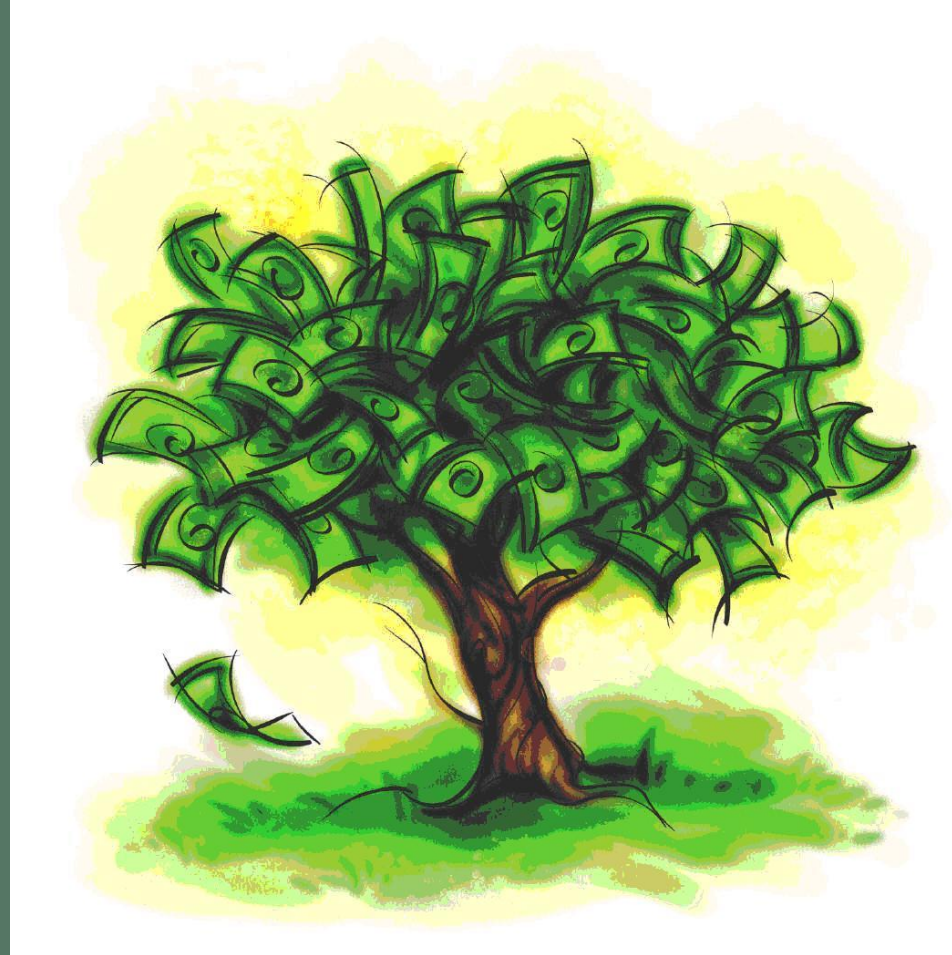


Figure 4. Simultaneously showing the forecast graphs previously discussed.

Annual Monetary Benefit of Urban Trees



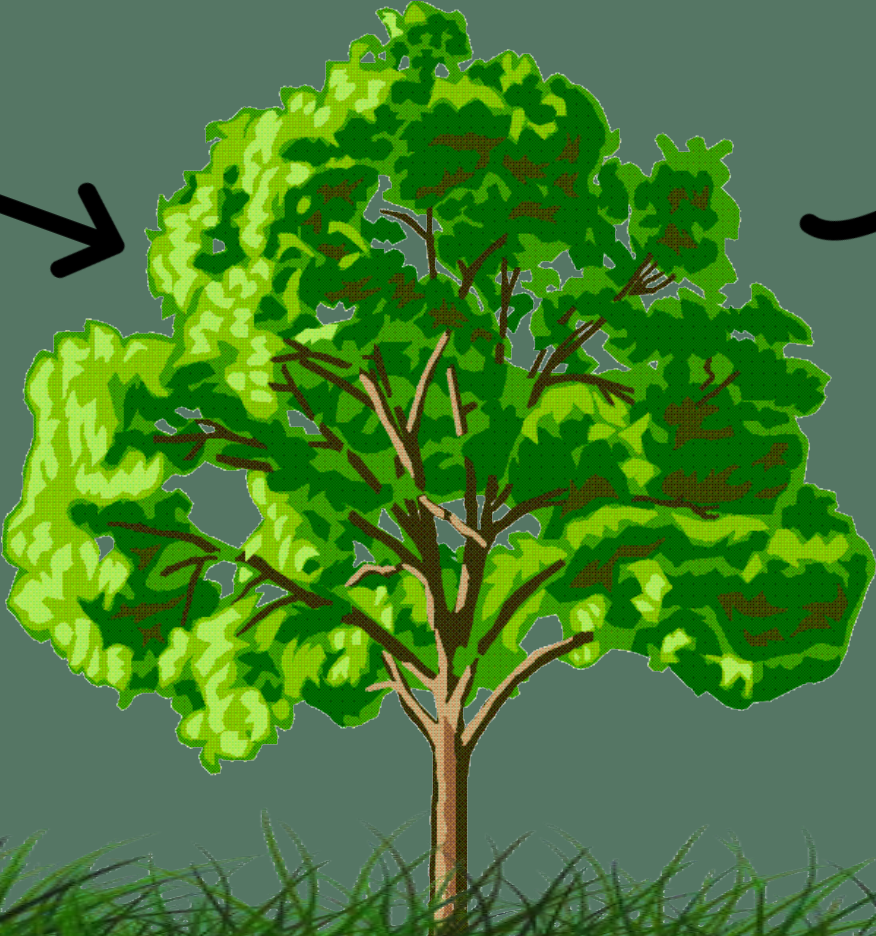
2.12 MILLION DOLLARS



These values are only for the 2,425 trees that were sampled.

Improving Air Quality

CO₂, Metals
& Pollutants



Oxygen



Annual Monetary Benefits Include...

\$3,140
↑
Carbon
Sequestration



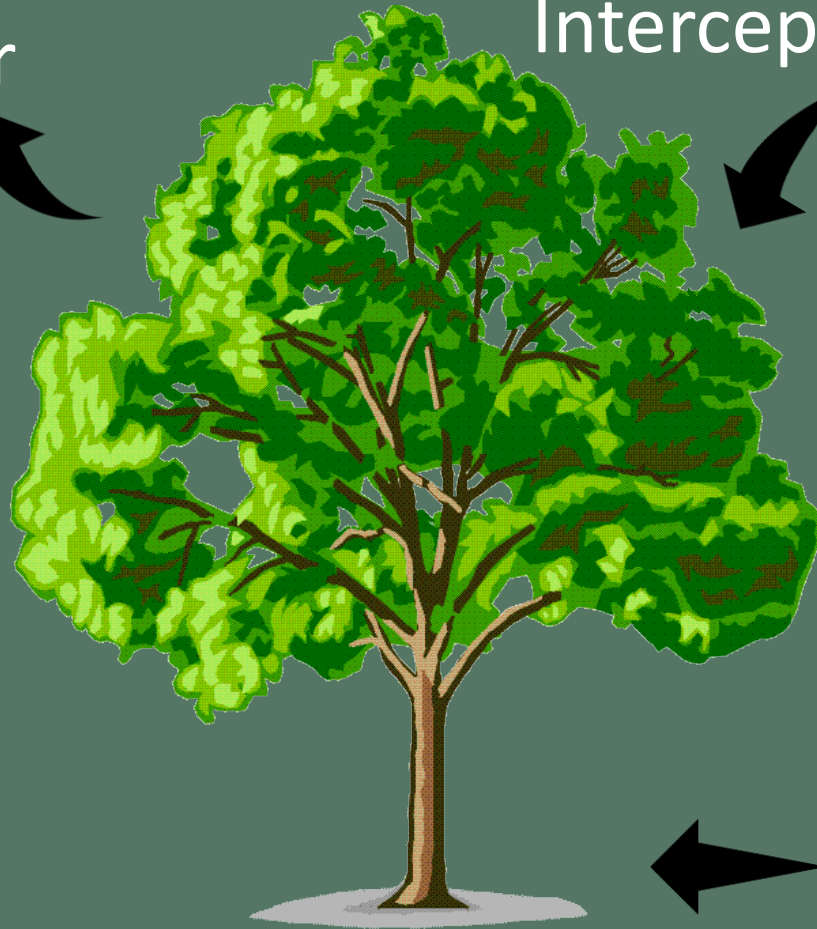
\$1,230
↑
Pollution
Removal

These values are only for the 2,425 trees that were sampled.

Let's Talk Rain



Water
Vapor



Rainwater
Intercepted



Rainwater & Runoff

Annual Monetary Benefits Include...



\$3,080

Avoided Runoff

These values are only for the 2,425 trees that were sampled.

Environmental Summary

Energy
Conservation

Provides
Habitat

Removes
Pollutants



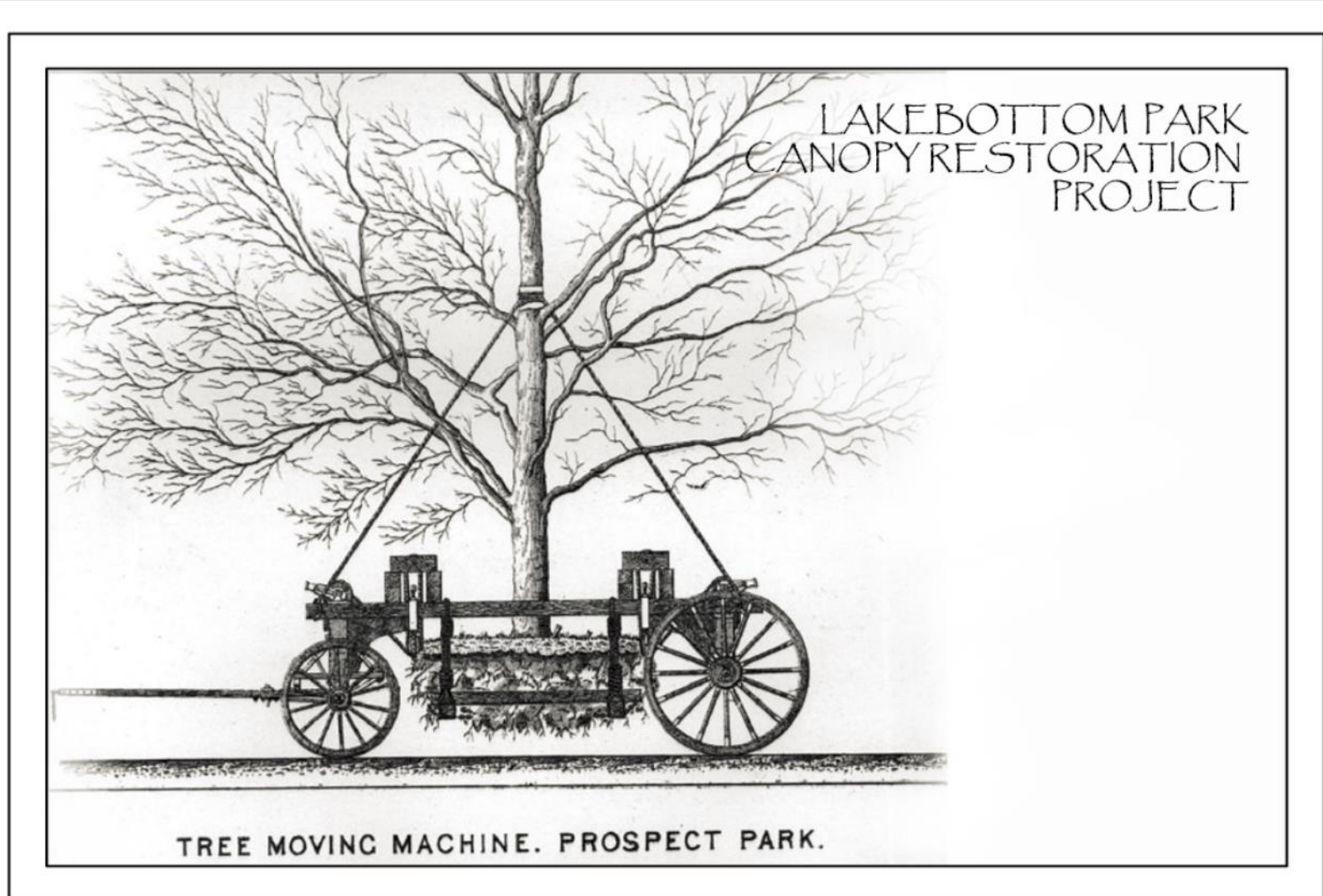
Absorbs
Runoff

Removes CO₂

Produces
Oxygen

The value of a tree is more than what you can see on the surface...

Creative Solutions & Partnerships



Creative Solutions at Work

~~\$418,000~~



\$170,000

