

USDA Forest Service

URBAN FOREST CONNECTIONS

webinar series

Second Wednesdays | 1:00 – 2:15 pm ET

www.fs.fed.us/research/urban-webinars

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GREEN
CITIES
HEALTHY
COMMUNITIES



Forest Service
Urban Natural Resources Stewardship



THE POWER OF TREE CANOPY DATA TO PLAN, PRIORITIZE, AND INSPIRE STEWARDSHIP

PART II: CONNECTING WITH THE COMMUNITY



Jarlath O'Neil Dunne

*Director, Spatial Analysis Lab
University of Vermont*

joneildu@uvm.edu



Ian Hanou

*Owner & Director of Business
Development
Plan-it Geo*

ianhanou@planitgeo.com



Earl Eutsler

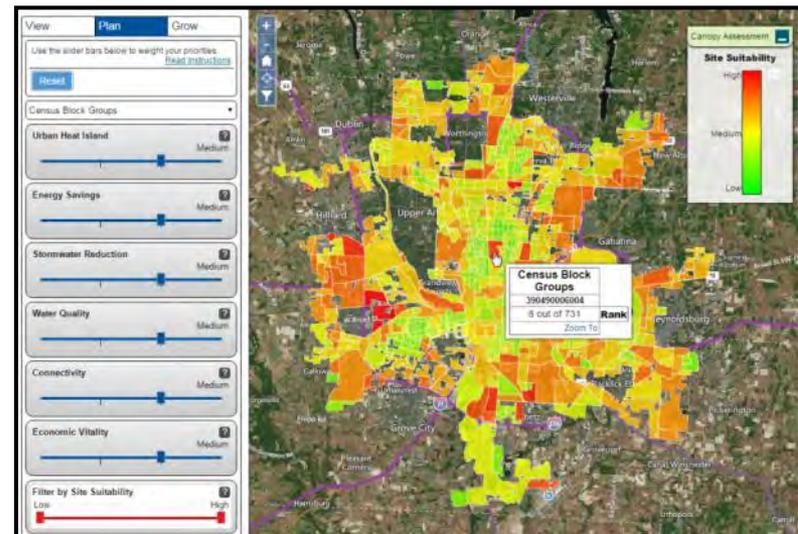
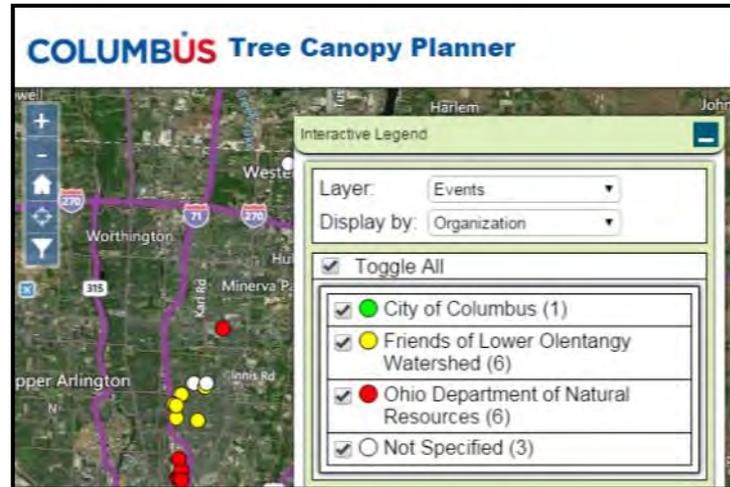
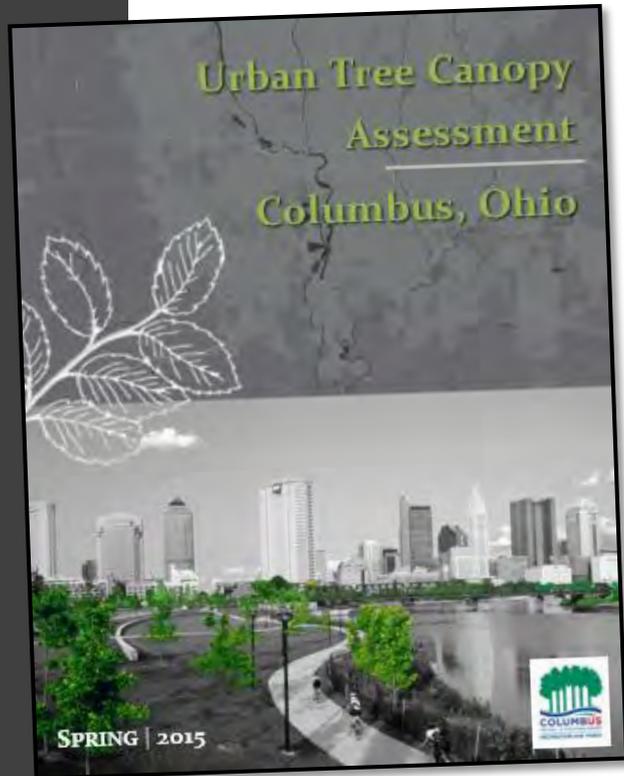
*Deputy Associate Director,
Urban Forestry Administration
Washington DC Department of
Transportation*

earl.eutsler@dc.gov

Connecting Canopy & Communities

USFS Urban Connections Webinar Series

October 28, 2015



Presented by:

Ian Hanou, Owner/Principal

Agenda, Goals & Tenants for Today

- ❖ Designing an effective UTC study
 - ✓ Multiple scales / products / partners
 - ✓ Accessibility and interactive tools
 - ✓ The **Process** creates buy-in, collaboration, a baseline, diverse uses, and a framework
- ❖ Columbus, Ohio UTC + Web Tools
- ❖ oUTComes and Resources Recap



Photo Credit: <http://theintertwine.org/news/portlands-growing-urban-forest>

Agenda &
Goals

Columbus UTC
Assessment

Columbus
UTC Analysis

Columbus UTC
Web Tools

oUTComes
and Resources

Columbus, OH UTC

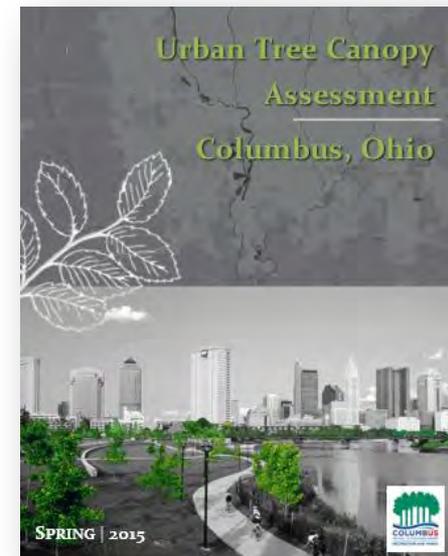
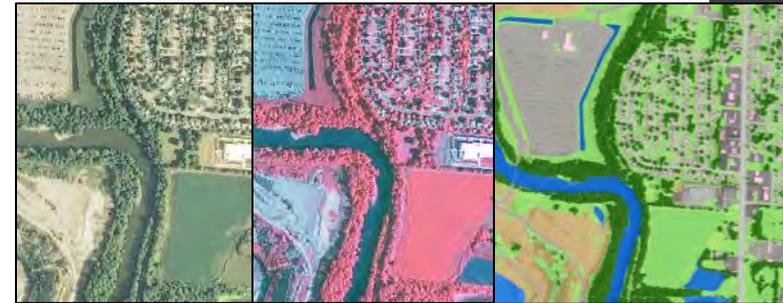
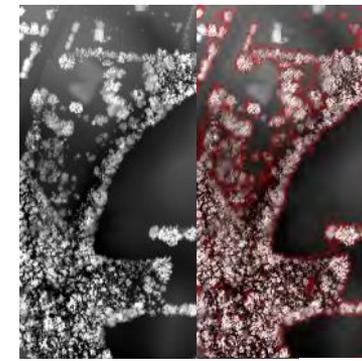
Motives ...

- U.S. Mayors Climate Protection Agreement (2007), **Green Team**
- Greenspace Working Group (2012)
- Role of UTC in climate change and sustainability
- Est'd loss of 200,000 ash trees (public/private) due to EAB
- Need for an outreach campaign and UTC goal



Columbus, OH UTC

- 1) Historical Canopy and LiDAR Analysis
- 2) UTC Assessment
- 3) EAB Canopy Loss
- 4) Planting Prioritization
- 5) Socio-Demographic Trends
- 6) i-Tree Hydro
- 7) Goals & Planting Time Tables
- 8) Report & Training
- 9) Online Canopy & Community Tools



Agenda &
Goals

Columbus
UTC
Assessment

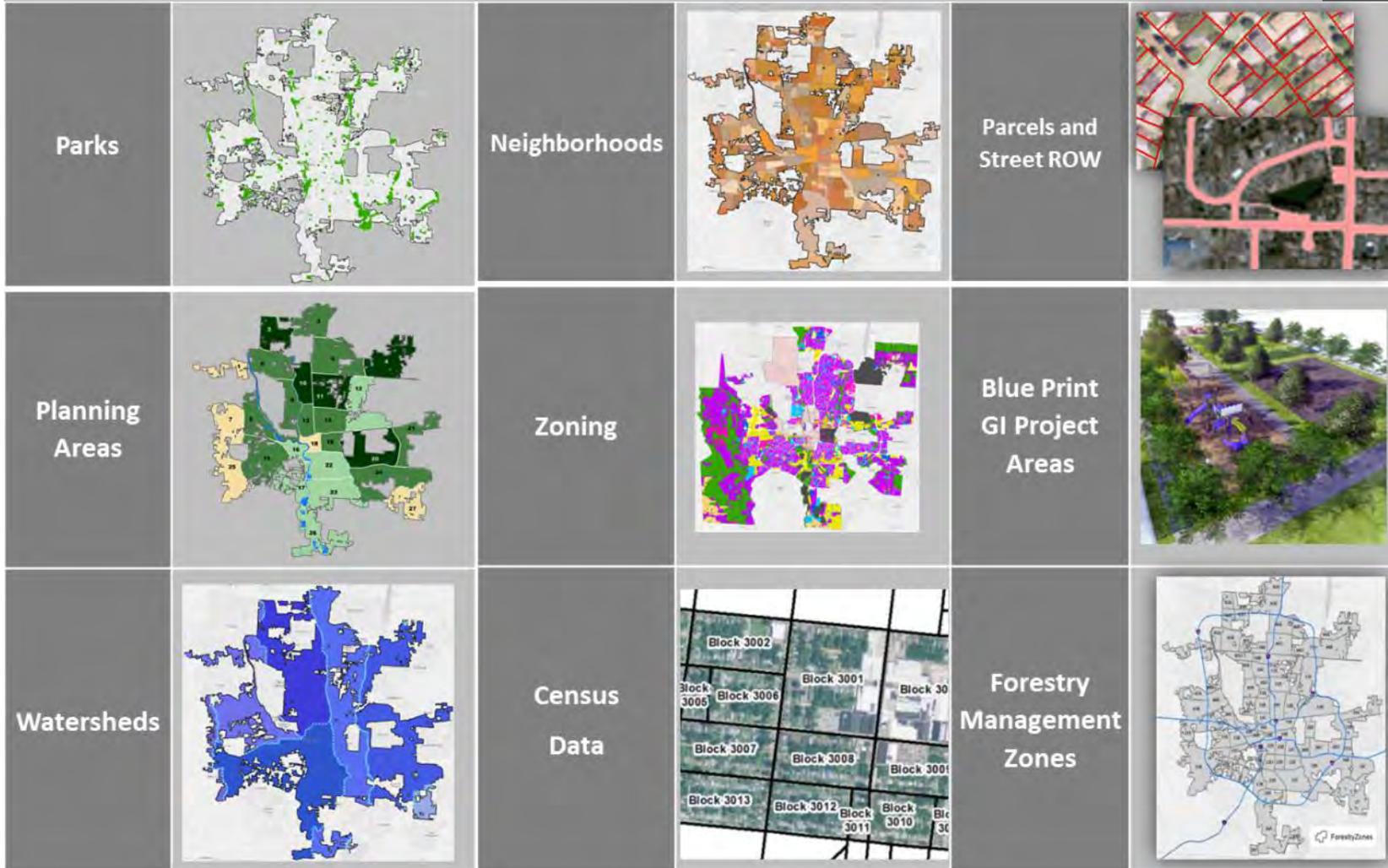
Columbus
UTC Analysis

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UTC Design: Assessment Boundaries

- Maps, GIS data, and metrics across multiple scales for targeted audiences



Agenda & Goals

Columbus UTC Assessment

Columbus UTC Analysis

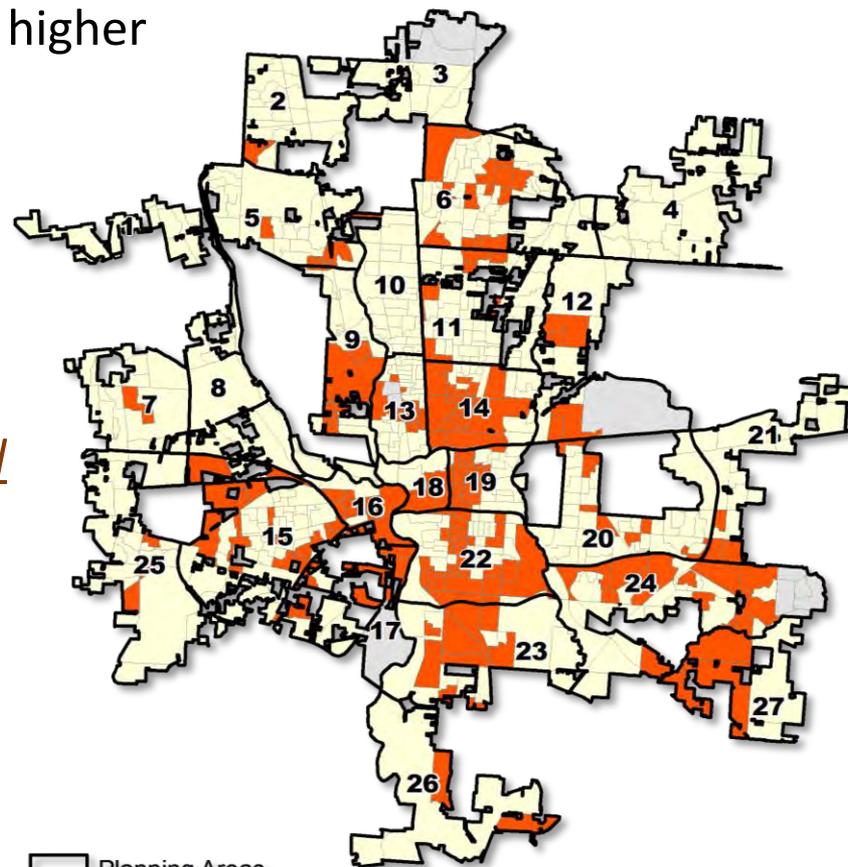
Columbus UTC Web Tools

oUTCcomes and Resources

Canopy and Socio-Demographics

As UTC % increases, all of these increase:

- ❖ Average Median Income and Home Value
- ❖ % pop. with a Bachelor's or higher
- ❖ % Owner Occupied
- ❖ % White



Below-average UTC and below-median household income



Source: American Community Survey 5-year estimates (2009-2013) by Census Block Group

Columbus Online Tools

- ❖ Landscape scale → implementation, tracking & outreach
- ❖ View, Plan and Grow (Canopy Planner)
- ❖ Events, Trees, and Volunteer Sign-Up (Tree Plotter)

Agenda & Goals



Columbus UTC Assessment

Columbus UTC Analysis

Tree Plotter®



Canopy Planner®



Columbus UTC Web Tools

OUTcomes and Resources

<http://pg-cloud.com/columbus/>

Low Canopy (<25%) | High Planting Space (>38%)

COLUMBUS Tree Canopy Planner

Tools Sign-Up Plot Stats Canopy Log In

View Plan Grow

Use the slider bars below to make maps of existing Urban Tree Canopy and/or Possible Planting Areas. [Read Instructions](#)

Reset

Census Block Groups

Percent Urban Tree Canopy 0% 25%
City Wide Avg: 25%

Select Type of Planting Area Possible Planting Area Total 38% 99%
City Wide Avg: 38%

Options
 Disable Info Tip

Canopy Assessment
Percent Urban Tree Canopy
100%
50%
0%

Census Block Groups	
FID #:	Value
390490069905	Percent Urban Tree Canopy 15%
	Possible Planting Area Total 30%
	Possible Planting Area Vegetation 18%
	Possible Planting Area Impervious 13%
Zoom To	

Agenda & Goals

Columbus UTC Assessment

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oUTcomes and Resources

<http://pg-cloud.com/columbus/>

“Plan” Tool: Priority Planting Areas

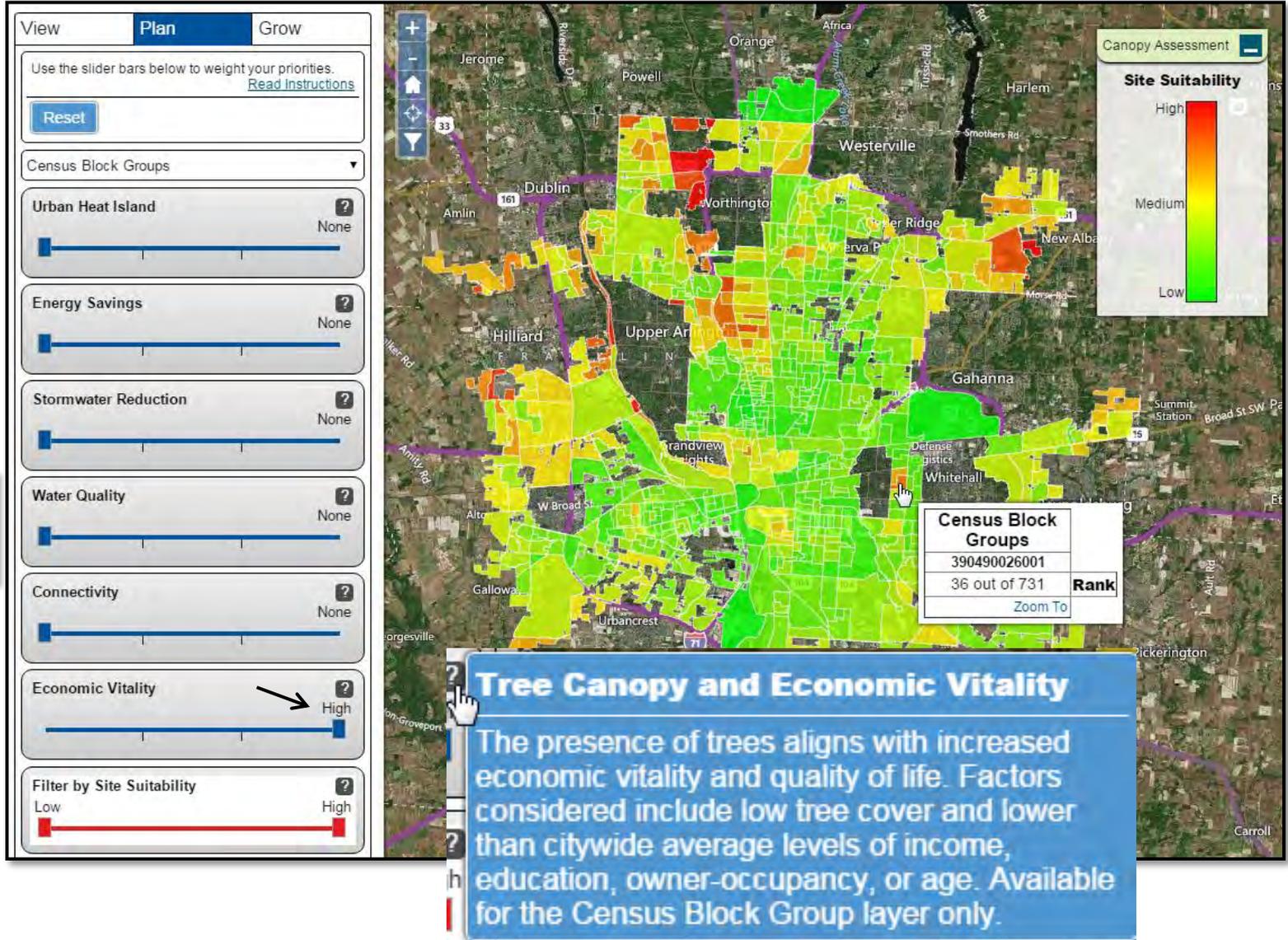
Agenda & Goals

Columbus UTC Assessment

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oUTcomes and Resources



Add a Planting Event

COLUMBUS Tree Canopy Planner

Event Details

Delete Save & Close Load Last

Event	
Event Name	ReLeaf Linden Columbus Alternative
Funding Type	Nonprofit Grant
Number of Volunteers	6
Site Type	Institutional
Status	Completed
Organizer Name	Friends of the Lower Olentangy Wate
Decide if you would like to represent your planted trees as one bulk number or add each individual tree individually. Click the "Bulk Tree Count" if you want to represent all of your planted trees for this project as one number. For example, if you plant 200 trees and don't want to plot each individual tree separately on the map, then select the "Bulk Tree Count" option and enter the number 200 in the "Number of Trees Planted" input. If you leave the "Bulk Tree Count" option unchecked, then the value in the "Number of Trees Planted" will be automatically calculated as the amount of trees you have added to the map. If you leave the "Bulk Tree Count" option unchecked, you do not need to do anything to the "Number of Trees Planted" input. Caution: If you check the "Bulk Tree Count" option after you have added trees, these trees will be deleted permanently.	
Bulk Tree Count	<input type="checkbox"/> Count Trees as Bulk
Number of Trees Planted	10
Bulk Tree Count Comments	N/A
Organization	Friends of Lower Olentangy Water
Purpose	Restoration
Funding Source	Columbus Foundation
Tree Source	Davey
Date	10/09/2015
Time	10/09/2015
End Time	10/09/2015
End Date	10/09/2015
Organizer Email	info@olentangywatershed.org

Event ID 50

Event	
Event Name	ReLeaf Linden Columbus Alternative High School
Status	Completed
Organizer Name	Friends of the Lower Olentangy Watershed
Bulk Tree Count	N/A
Comments	
Organization	Friends of Lower Olentangy Watershed
Purpose	Restoration

Initiate Details Sign Up Data Table

Add Trees to Events



SIGN UP FOR or ORGANIZE AN EVENT

Register to participate in a city tree planting event or plan an event of your own using our [online map](#). Should you need equipment for your event, [Keep Columbus Beautiful](#) can supply you with shovels, rakes, gloves and more.

pg-cloud.com/columbus/

COLUMBUS Tree Canopy Planner

Tools Sign-Up Plot Stats Canopy

Use this tool to add a general tree planting location and basic information about the project, event, or site. Only enter the Number of Trees Planted if you do not plan to add individual trees to the map. This will prevent "double counting" of new trees planted.

Events [Table](#)

Events

- Add New Event (click in map to add point)
- Move Event

Use this tool to add a precise location of new tree plantings. When editing, trees need to be associated with a Project.

Trees [Table](#)

Trees

- Add New Tree (click in map to add point)
- Move Tree

Tree ID 107

Tree	
Common Name	Sawtooth Oak
Date Planted	06/29/2015
Event Name	Spring 2015 Downtown Planting

[Details](#) [Data Table](#)

Tree Details [Delete](#) [Save & Close](#) [Load Last](#)

Tree	
Status	Alive
Latin Name	Quercus acutissima
Common Name	Sawtooth Oak
Genus	Quercus
Cultivar	
Caliper	1.5 - 2 in
Stock Type	Ball and Burlap
Date Planted	06/29/2015
Date of Last Visit	06/29/2015
Maintenance Needs	<input type="checkbox"/> Young Tree Train <input type="checkbox"/> Structural Pruning <input checked="" type="checkbox"/> Mulching <input checked="" type="checkbox"/> Remove Hardware <input type="checkbox"/> Add Hardware <input type="checkbox"/> Chemical Application
Event Name	Spring 2015 Downtown Planting
Photos	Choose Files No file chosen

Tree "Dashboard"

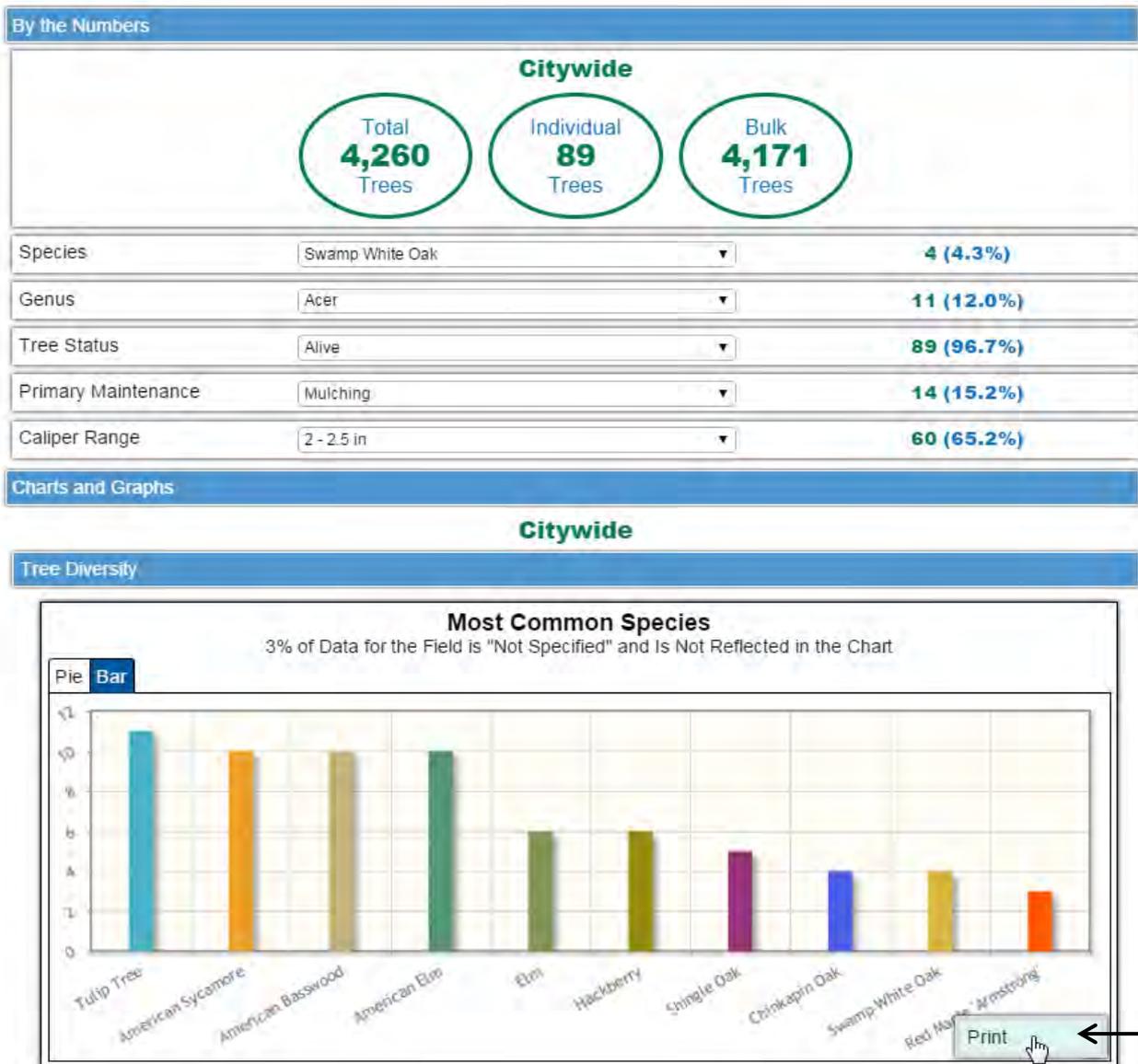
Agenda & Goals

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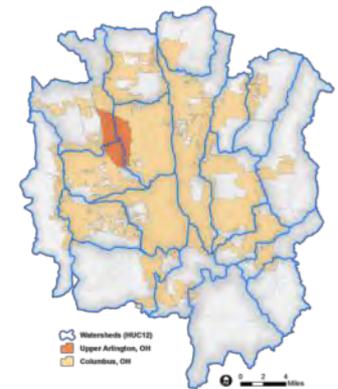
oUTcomes and Resources



Columbus oUTCcomes



- ❖ **Branch Out** campaign
- ❖ Role of citizens, private property/partnerships
- ❖ 300,000 tree planting goal
- ❖ 27% UTC goal; provided clarity of previous target
- ❖ Proactive management, less reactive
- ❖ Emphasized need for well-defined standards for management and protection; committee to codify this
- ❖ Watershed-scale assessment & planning



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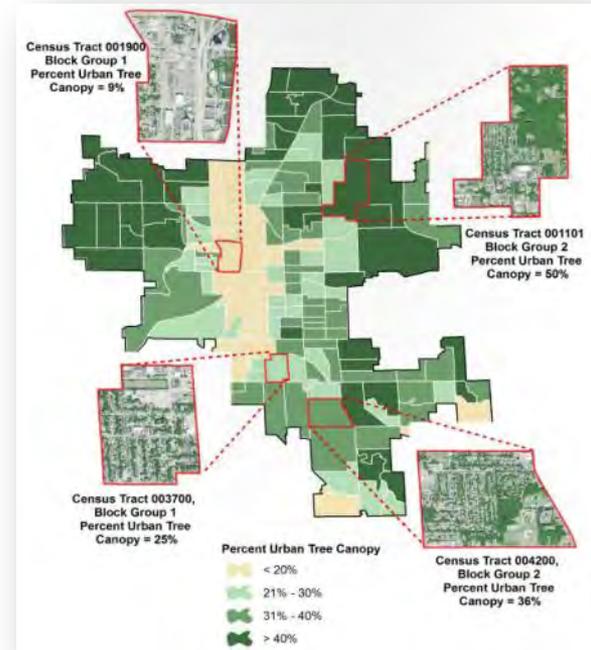
oUTCcomes
and
Resources

oUTComes...

Agenda &
Goals

Grand Rapids, MI

- ❖ Zoning Ordinance Update
- ❖ Downtown Canopy Plan & Goal
- ❖ East Hills Neighborhood Plan
- ❖ i-Tree Hydro / EPA Resiliency

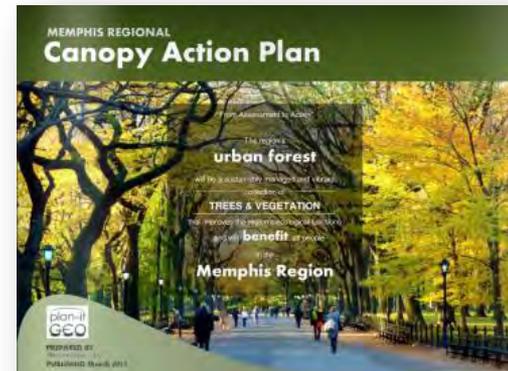


Columbus UTC
Assessment

Columbus
UTC Analysis

Memphis / Shelby County, TN

- ❖ Stakeholder Workshop, SWOT Analysis, and Surveys
- ❖ Regional “Canopy Action Plan”
- ❖ 10 community fact sheets



Columbus UTC
Web Tools

oUTComes
and
Resources

oUTCcomes...

Savannah Tree Foundation

- ❖ Lost 21,400 acres of canopy in 15 years (= 2.5 football fields/day)
- ❖ 1.6% parking lot (5,000 ac)
- ❖ NOAA/GA DNR grant on parking design, canopy, impact ordinances



Aspen, CO

- ❖ *Community* Forest LiDAR Analysis
- ❖ Stormwater credits
- ❖ Site plan reviews



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Resources Recap (1 of 2)



❖ Canopy Reports, Plans and Fact Sheets

<http://issuu.com/planitgeoissuu/docs>

<http://issuu.com/pgfactsheets>

❖ Healthy Trees, Healthy People App (13 US cities)

<http://map.treesandhealth.org/>

❖ Statewide Tree Inventory Apps <http://pg-cloud.com/Idaho/> and

<http://cotreeview.com>

❖ “Forest Carbon Xplorer” App <http://forestcarbonx.umn.edu/>

❖ “[Where We Work](#)”, Esri StoryMap (on the PG projects webpage)

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Resources Recap

(2 of 2)

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❖ Columbus “Branch-Out Campaign” & Canopy Planner app

<http://www.columbus.gov/branch-out/>

<http://pg-cloud.com/columbus/> (use Chrome for best experience)

❖ Memphis “Canopy Action Plan” http://issuu.com/planitgeoissuu/docs/memphisregional_canopyactionplan_fi

❖ Aspen, Colorado (Ch. 8 Urban Runoff Management Plan, pgs. 8-31)

<http://www.aspenpitkin.com/Portals/0/docs/Chapter%208.pdf>

Contacts

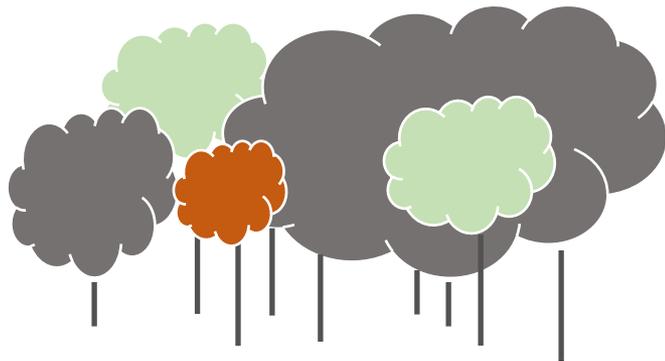


Ian Hanou, Owner and Director, Business Development

IanHanou@PlanItGeo.com

Chris Peiffer, Urban Forester & Business Developer

ChrisPeiffer@PlanItGeo.com



A geospatial analysis, technology consulting, and planning firm specializing in urban natural resource management.

Info@PlanItGeo.com

www.planitgeo.com

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