URBAN FORESTRY MASTER PLAN

THE CITY OF COLUMBUS RECREATION AND PARKS

WORKSHOP #3

THE MANAGEMENT APPROACH

TODAY'S AGENDA:

I. Welcome & Webinar How-To's

II. Management Approach Presentation
Overall Project Summary & Today's Topic

III. Three Special Topics:
1. Final Assessment Results
2. Tree Protection Regulations
3. Setting a Canopy Goal

IV. Next Steps

OUR NEW REALITY:

WEBINAR FORMAT!

Thank you for your continued commitment and willingness to roll with us as our world changes.

Webinar will begin shortly.

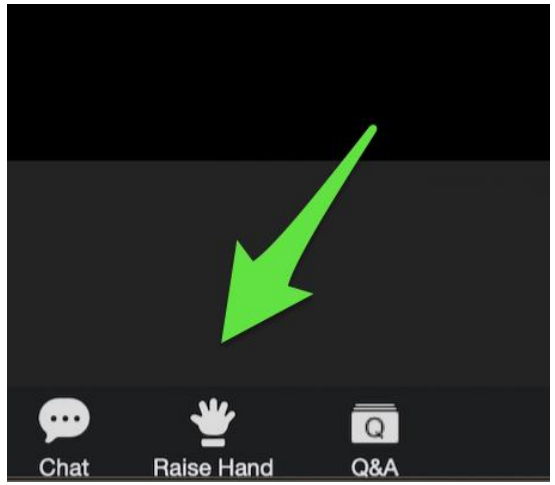
WEBINAR HOW-TO

3 Input Avenues Today

1. Ask Question

Q&A button to type in question OR Raise Hand and we can unmute you

(Chat button is for general comments not requiring a response.)



2. Interactive Polls

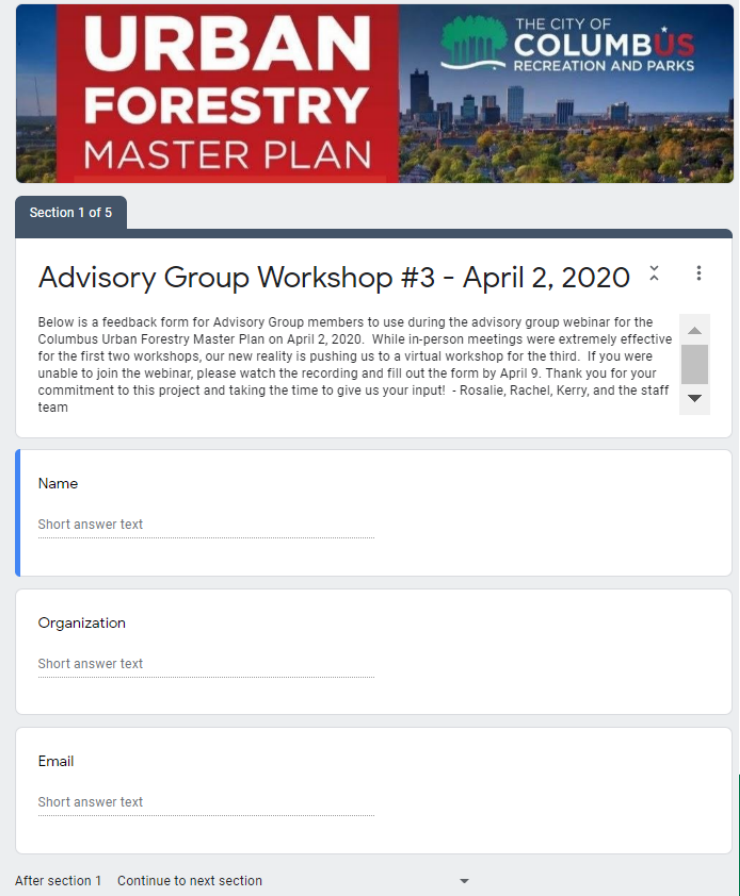
throughout this session for immediate feedback.

UFMP Poll Time

3. Online Comment Form

for full input on all topics

https://forms.gle/BS1yPiBUcestUnDD9

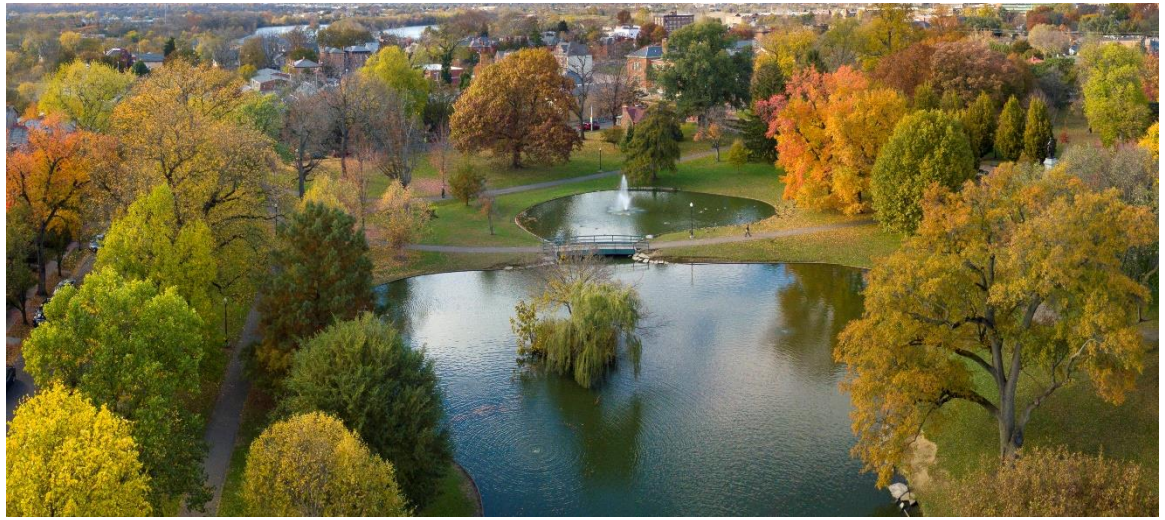


WHY A MASTER PLAN IN COLUMBUS?

- Growth in Columbus!
- 22% Current Columbus tree cover
- Fastest growing heat islands in U.S.
- Resiliency in climate changes
- Work needed in equity, management, and health of urban forest

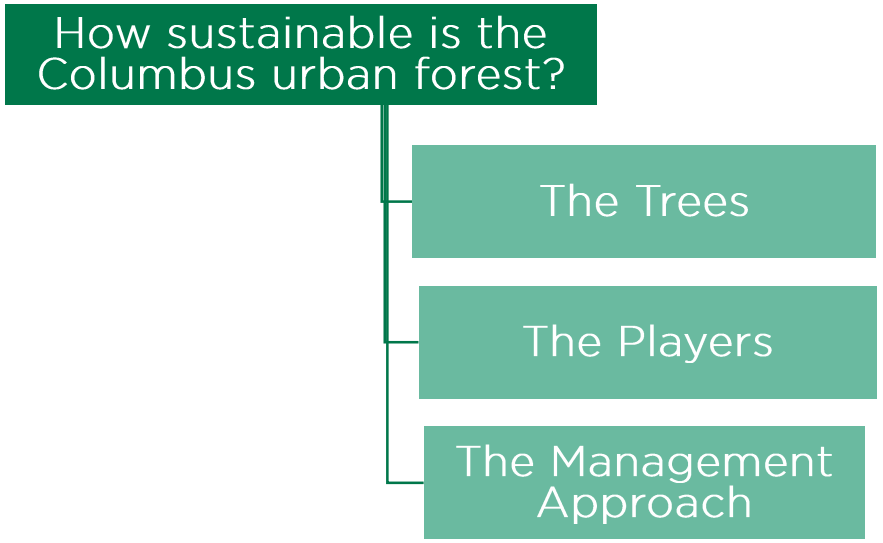
$36 Million in Benefits Annually

- Critical to cities
- Positive return on investment
- 70% Privately Owned



THE APPROACH

Structure for Assessing the Sustainability of an Urban Forest



Kenney, W. A., et al. 2011. "Criteria and Indicators for Sustainable Urban Forest Planning and Management." Arboriculture & Urban Forestry 37(3): 108 – 117.

Clark, J. R., et al. 1997. "A Model of Urban Forest Sustainability." Journal of Arboriculture 23(1): 17 – 30.

Project Timeline

Phase I & II: Project Start Up & Team Establishment (October - December 2019)

Phase III: Discovery (January – April 2020)

Data Analysis / Research / GIS (now - April) - *in progress*

City Operations Review (now - April) – *in progress*

- Three Advisory Group Workshops
  - #1: Trees, Thursday, January 30 - *COMPLETE*
  - #2: Players, Thursday, March 5 - *COMPLETE*
  - #3: Management, Thursday, April 2
- Interviews (February/March) - *in progress*
- Public Meeting – March 4th - *COMPLETE*
- Speaking Circuit - *in progress / on hold*

Phase IV: Result Synthesis, Plan Development

Planning for Next Steps (May-July)

RECAP OF "THE PLAYERS" WORKSHOP

AGENDA

Topic Presentation (15 mins.)
Three Group Discussions (90 mins.)

- Discussion 1: Performance Level Assessment (60 mins.)
- Discussion 2: Education & Marketing (30 mins.)

EMERGING THEMES ON PERFORMANCE LEVEL RATINGS

ISSUES:

- Lack of resources
- Lack of a common goal
- Conflicting priorities, ineffective regulations

WAYS TO IMPROVE:

- More education
- Targeted engagement
- Need a unified goal across all organizations / community
- More resources
- Better regulations

COLUMBUS Indicators of a Sustainable Urban Forest		Assessed Performance Level		
		Low	Mod.	Good
The Trees	Urban Tree Canopy Cover	■		
	Equitable Distribution	■		
	Age Distribution	■		
	Condition of Publicly Owned Trees		■	
	Condition of Publicly-Owned Natural Areas	■		
	Trees on Private Property		■	
	Diversity / Pest Vulnerability		■	
	Suitability - Overhead	■		
	Suitability - Ground Level	■		
	Suitability - Soil Conditions	■		
	Suitability - Invasives		■	
	Suitability - Cllimate Change Adaptability			■
The Players *(vote counts included)*	Neighborhood Action	24	■ 36	2
	Large Private & Institutional Landholder Involvement	■ 52	9	1
	Green Industry Involvement	23	■ 28	12
	City Department/Agency Cooperation	■ 45	16	0
	Funder Engagement	■ 44	18	0
	Utility Engagement	■ 33	26	1
	Developer Engagement	■ 51	12	0
	Public Awareness	■ 31	30	1
	Regional Collaboration	23	■ 33	5
The Mgmt Approach	Tree Inventory			
	Canopy Assessment			
	Management Plan			
	Risk Management Program			
	Maintenance of Publicly-Owned Trees (ROWs)			
	Planting Program			
	Tree Protection Policy			
	City Staffing and Equipment			
	Funding			
	Disaster Preparedness & Response			
	Communications			

RECAP OF "THE PLAYERS" WORKSHOP

MARKETING/EDUCATION TOPIC

Group Question: *What are the five most important points or messages the public needs to hear (or be asked to do) first to really create positive change in this tree canopy effort? How would you word them to appeal to real people?*

Categories that emerged:

- Education on Value of Trees / Why Trees are Needed (tree benefits focused) (39)
- Encouragement to Plant a Tree (3)
- Encouragement to Do Your Part. YOU Can Make a Difference by doing your small part (3)
- Education on Techniques - tree care, survival, proper care (1)

Tree Value Aspect Highlighted in Messaging	Frequency
Property value	8
Health - Mental	7
Health - Physical	6
Air / Breathing	6
Temperature / Heat Island Relief	6
Energy Savings	5
Sense of Community / Better Neighborhoods	5
Social Aspects	5
Water Quality (includes stormwater mgmt)	4
Overall Quality of Life	4
Safety	3
Traffic Calming	3
Flood Prevention (stormwater mgmt)	2
Other: Trees stimulate creativity. Trees increase in value over time.	2
Wildlife / Pollinators	1
Aesthetics	1

TODAY'S TOPIC: Management Approach

URBAN FOREST SUSTAINABILITY MATRIX

Worksheet to Assess the Sustainabiliy of the Columbus Urban Forest

Indicators of a Sustainable Urban Forest THE MGMT APPROACH	Overall Objective or Industry Standard	Performance Levels			Columbus Today
		Low	Moderate	Good	
Tree Inventory	Existence of a comprehensive, GIS-based, current inventory of all intensively-managed public trees to guide management, with mechanisms in place to keep data current and available for use. Data allows for analysis of age distribution, condition, risk, diversity, and suitability.	No inventory or out-of-date inventory of publicly-owned trees.	Partial or sample-based inventory of publicly-owned trees, inconsistently updated.	Complete, GIS-based inventory of publicly-owned trees, updated on a regular, systematic basis.	GIS-based inventory conducted in 1996. Street and park tree inventory data not updated on a consistent or regular basis.
Canopy Assessment	Existence of an accurate, high-resolution, and recent assessment of existing and potential city-wide tree canopy cover that is regularly updated and available for use across various departments, agencies, and/or disciplines.	No tree canopy assessment.	Sample-based canopy cover assessment or out-of-date high resolution assessment.	Up-to-date high-resolution tree canopy assessment using aerial photographs or satellite imagery.	Urban tree canopy assessment completed in 2015 (2013 aerial imagery). This is considered old data at this point in time.
Management Plan	Existence and buy-in of a comprehensive urban forest management plan to achieve city-wide goals. Re-evaluation is conducted every 5 to 10 years.	No urban forest management plan exists.	A plan for the publicly-owned forest resource exists but is limited in scope, acceptance, and implementation.	A comprehensive plan for the publicly owned forest resource exists and is accepted and implemented.	A comprehensive urban forest management plan has not been developed.
Risk Management Program	All publicly-owned trees are managed for maximum public safety by way of maintaining a city-wide inventory, conducting proactive annual inspections, and eliminating hazards within a set timeframe based on risk level. Risk management program is outlined in the management plan.	Request-based, reactive system. The condition of publicly-owned trees is unknown.	There is some degree of risk abatement thanks to knowledge of condition of publicly-owned trees, though generally still managed as a request-based reactive system.	There is a complete tree inventory with risk assessment data and a risk abatement program in effect. Hazards are eliminated within a set time period depending on the level of risk.	Urban Forestry's maintenance activities are reactive – addressing resident requests but not necessarily trees that pose the highest risk to the community or urban forest resource. Due to out-of-date tree inventory data the condition and maintenance needs of publicly-owned trees are not known
Maintenance Program of Publicly-Owned Trees *(trees managed intensively)*	All intensively-managed, publicly-owned trees are well maintained for optimal health and condition in order to extend longevity and maximize benefits. A reasonable cyclical pruning program is in place, generally targeting 5 to 7 year cycles. The maintenance program is outlined in the management plan.	Request-based, reactive system. The condition of publicly-owned trees is unknown.	All publicly-owned trees are systematically maintained, but pruning cycle is inadequate.	All publicly-owned trees are proactively and systematically maintained and adequately pruned on a cyclical basis.	Forestry's maintenance activities are reactive – addressing resident requests. A systematic routine pruning program for publicly owned trees has not been established.
	Comprehensive and effective tree planting and establishment program is driven by canopy cover goals, equity	Tree establishment is ad	Tree establishment is consistently funded and	Tree establishment is directed by needs derived from a tree	Recreation and Parks operates a 45-acre tree nursery. Forestry plants 3,500 street trees per year. Tree planting is supported through the Mayor's Green Initiative and funding

COLUMBUS, OHIO 32 Indicators of a Sustainable Urban Forest		Assessed Performance Level		
		Low	Mod.	Good
The Trees	Urban Tree Canopy Cover	■		
	Equitable Distribution	■		
	Age Distribution	■		
	Condition of Publicly Owned Trees		■	
	Condition of Publicly-Owned Natural Areas	■		
	Trees on Private Property		■	
	Diversity / Pest Vulnerability		■	
	Suitability - Overhead	■		
	Suitability - Ground Level	■		
	Suitability - Soil Conditions	■		
	Suitability - Invasives		■	
	Suitability - Cllimate Change Adaptability			■
The Players *(vote counts included)*	Neighborhood Action	*24*	*36*	*2*
	Large Private & Institutional Landholder Involvement	*52*	*9*	*1*
	Green Industry Involvement	*23*	*28*	*12*
	City Department/Agency Cooperation	*45*	*16*	*0*
	Funder Engagement	*44*	*18*	*0*
	Utility Engagement	*33*	*26*	*1*
	Developer Engagement	*51*	*12*	*0*
	Public Awareness	*31*	*30*	*1*
	Regional Collaboration	*23*	*33*	*5*
The Mgmt Approach	Tree Inventory		■	
	Canopy Assessment		■	
	Management Plan	■		
	Risk Management Program	■		
	Maintenance of Publicly-Owned Trees (ROWs)	■		
	Planting Program		■	
	Tree Protection Policy	■		
	City Staffing and Equipment		■	
	Funding	■		
	Disaster Preparedness & Response	■		
	Communications		■	

INDICATOR 1: TREE INVENTORY

SCORE: MODERATE

Public tree inventory (GIS-based) in place

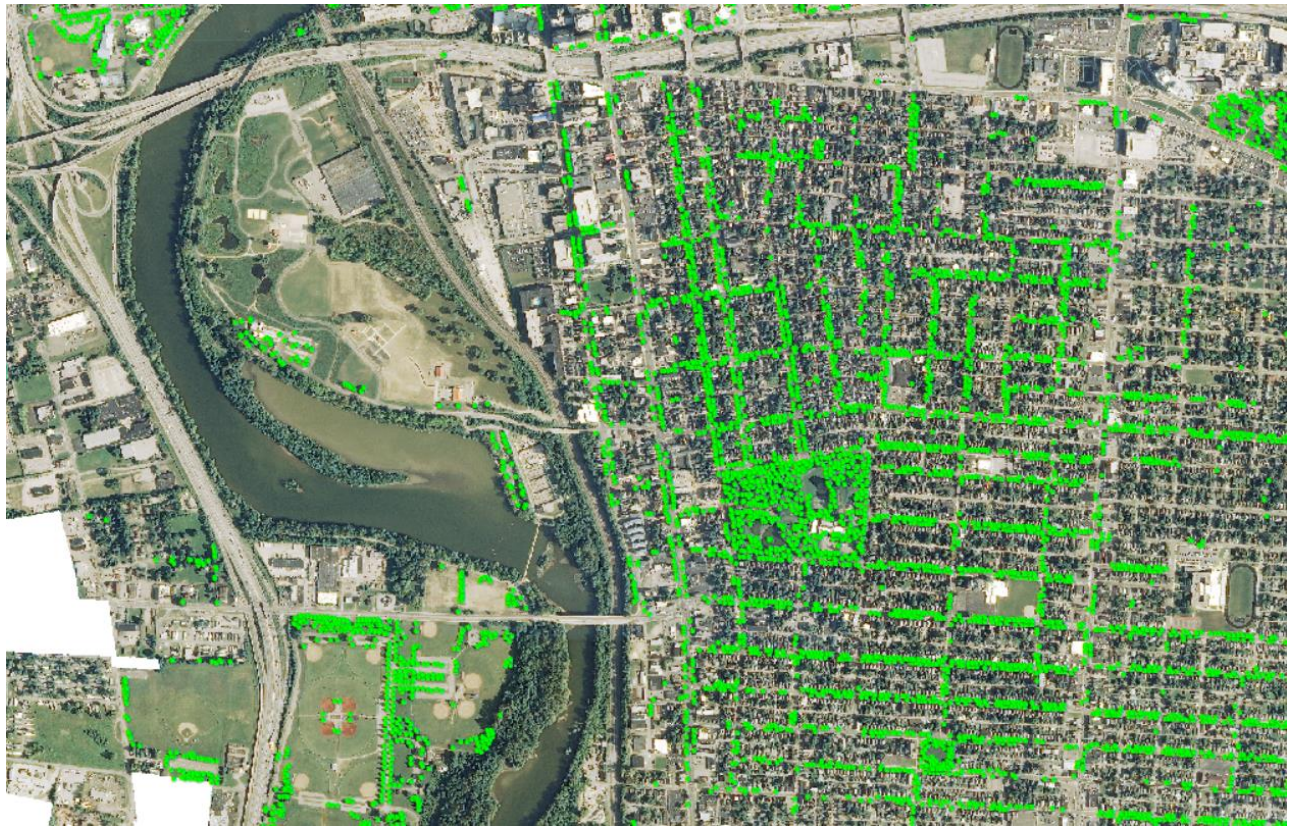
- 106,000 street trees
- Approx. 26,000 park trees

Data is out of date

- Originally completed in 1996
- Park trees inventoried in 2015
- Not updated on a regular basis
  - < 10% of street trees have been updated in last 5 years

Industry recommendation:

- Update tree inventory regularly
  Re-inventory every 5-10 years



INDICATOR 2: CANOPY ASSESSMENT

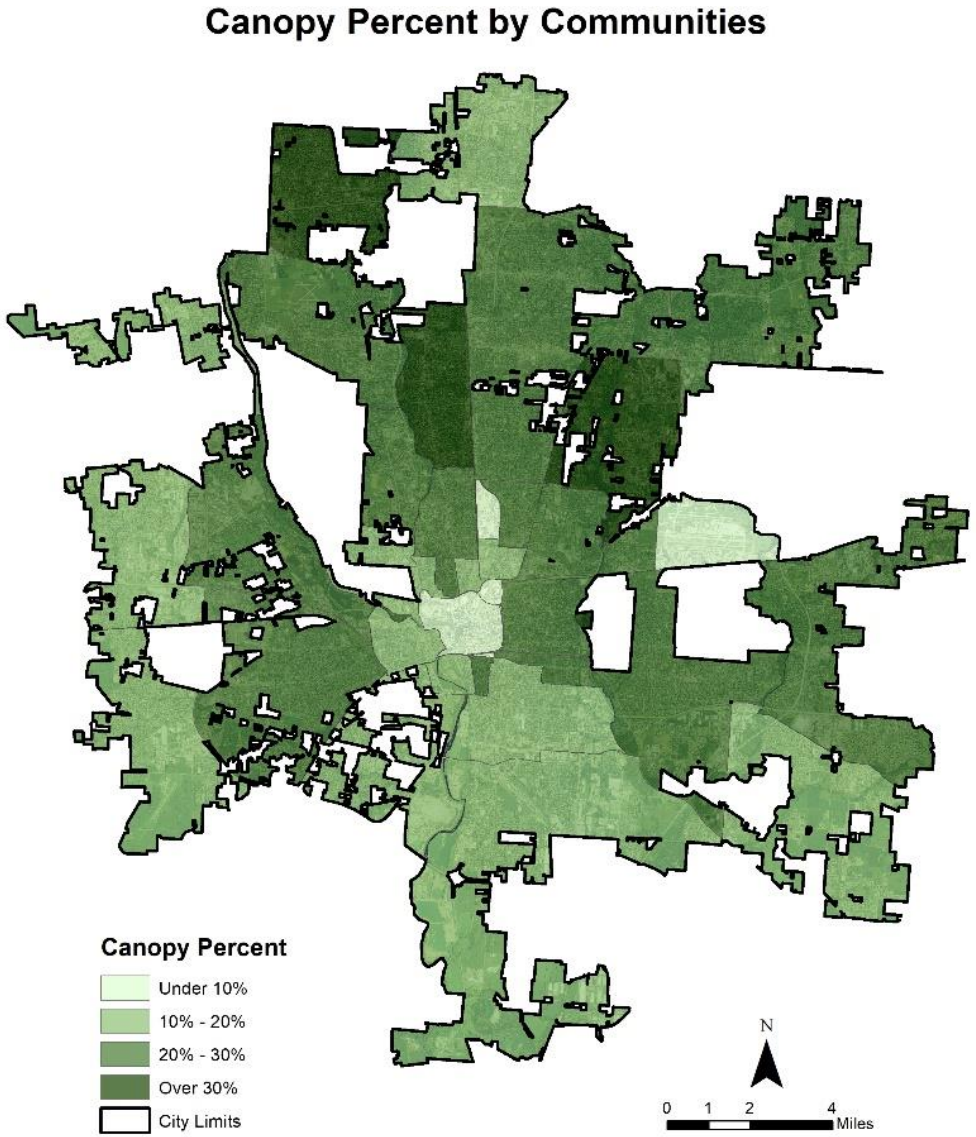
SCORE: MODERATE

2015 Assessment. Urban tree canopy assessment

- Completed in 2015
- Columbus Tree Canopy Cover: 22%
- Used 2013 Imagery

Industry recommendation:

- Conduct a new urban tree canopy assessment every 5-10 years to measure canopy change



INDICATORS 3-6

SCORE: LOW*

***Each Indicator scored LOW**

- **MANAGEMENT PLAN**
- **RISK MANAGEMENT PROGRAM**
- **PUBLIC TREE MAINTENANCE PROGRAM**
- **DISASTER PREPAREDNESS & RESPONSE**

- **Lack of Planning To-Date.** Specific planning efforts have occurred in the past (ex: Emerald Ash Borer Plan), however comprehensive urban forestry planning has not occurred.
    - City does not have a comprehensive urban forest management plan that includes:
        - risk management program
        - public tree maintenance program
        - disaster preparedness & response plan
- **Condition is Unknown.** Condition and maintenance needs of city trees not known (outdated inventory)
- **Activity is Reactive.** Forestry maintenance activities are reactive and not based on risk.
    - Address resident requests

INDICATOR 7: PLANTING PROGRAM

SCORE: MODERATE

- **Tree Nursery:** Recreation and Parks operates a 45-acre tree nursery
  - Grows trees from locally sourced seeds
  - Purchases small trees from commercial nurseries and grows them to size for street tree planting

- **Annual Planting:** Forestry plants 3,500 street trees per year
  - 2,000 trees planted by City staff
  - 1,500 trees planted by Contractors

- **Strategic Planning:** Comprehensive street tree planting plan has not been established

- **Funding Source:** Street tree planting is funded by the General Fund, Plant Material Fund, and Recreation and Parks Capital Improvement Plan (CIP) budget.

INDICATOR 8: TREE PROTECTION POLICY

SCORE: LOW

City Codes

- Chapter 912 – Trees and Shrubs; Columbus Tree Subcommission
- Chapter 3325 – University District Zoning Overlay
- Chapter 4123. General Construction Standards
- Chapter 3320. Traditional Neighborhood Development

Executive Order 2015-01 (December 2015)

Of Note:

- Tree Preservation is <u>not required</u> on private property in City Code (one exception).
- Tree Protection requirement and specifications (e.g. fencing, signage) not provided.
- Enforcement is reactive.

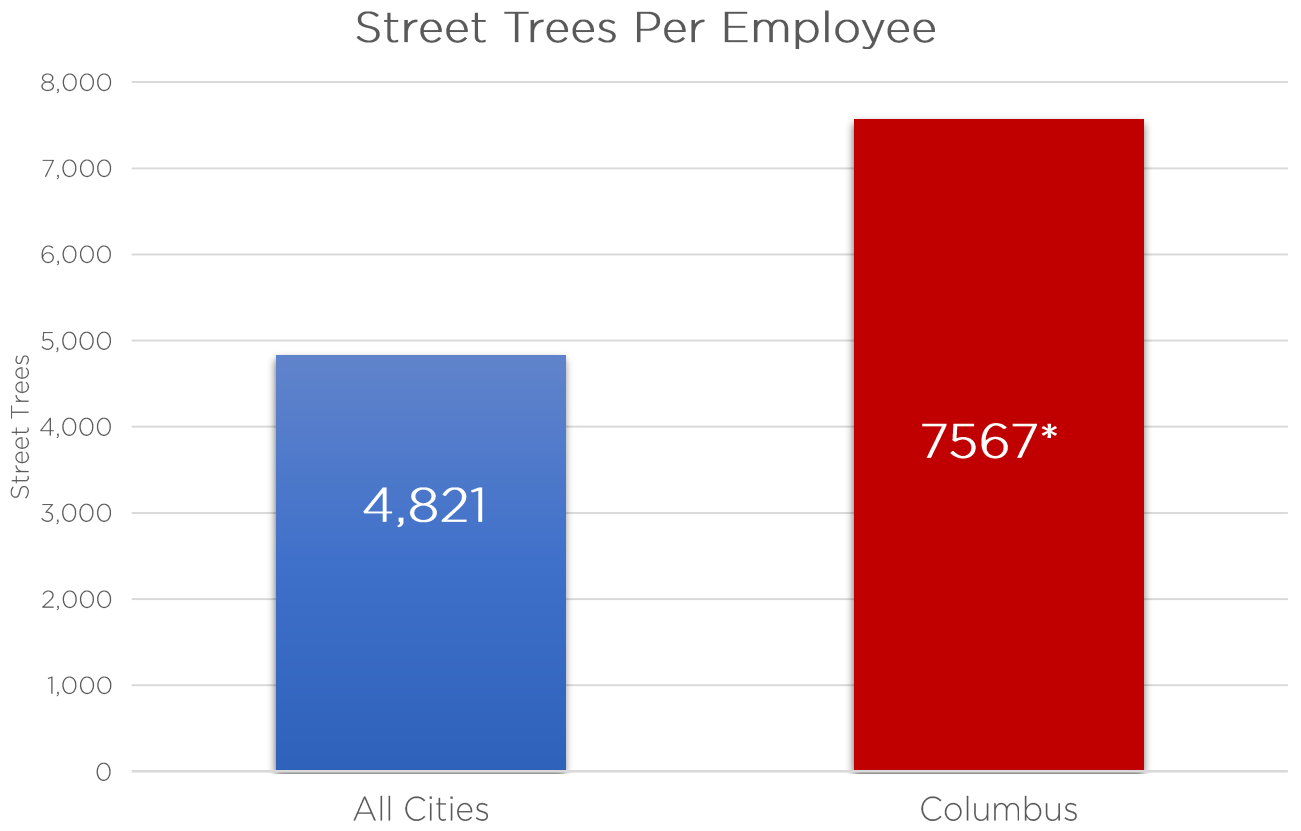
INDICATOR 9: CITY STAFFING & EQUIPMENT

- Forestry Staff (as of March 2020)
  - City Forester: 1
  - Arborist: 5
  - Tree Trimmer Supervisor: 4
  - Tree Trimmer: 10
  - Garden Supervisor: 2
  - Gardener: 2
  - GIS Staff: 2
  - Office Assistant: 1

- Staff Certifications
  - 10 International Society of Arboriculture (ISA) Certified Arborists
  - 4 ISA Certified Tree Workers
  - 4 Tree Risk Assessment Qualified (TRAQ) staff

SCORE: MODERATE

There is not adequate staff to address Columbus' tree care, planning and management program needs.



Source: Municipal Tree Care and Management in the United States: A 2014 Urban & Community Forestry Census of Tree Activities

*Tree Trimmer Supervisor and Tree Trimmers

INDICATOR 9: CITY STAFFING & EQUIPMENT

SCORE: MODERATE

Equipment age, condition and reliability limits the ability of Forestry crews to perform their duties.

Equipment

- Aerial Lift Trucks
- Chippers
- Log Trucks
- Stump Grinders
- Dump Trucks
- Pick-up Trucks
- Chainsaws and other hand tools

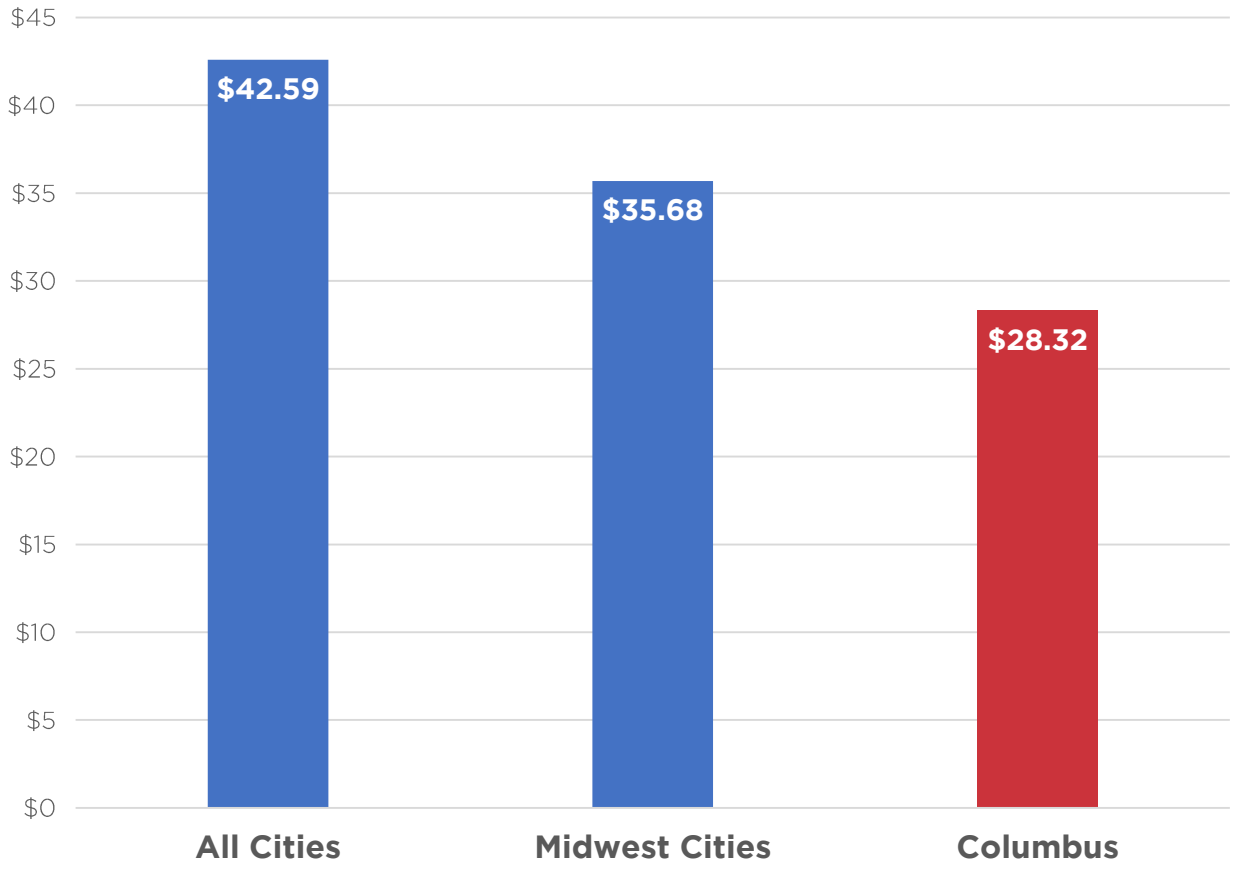
INDICATOR 10: FUNDING

SCORE: LOW

City tree care, management and planning activities are funded solely by the City of Columbus

- Street tree maintenance funded by the City's General Fund
- Street Tree planting funded by:
  - General Fund
  - Plant Material Fund
  - Recreation and Parks Capital Improvement Plan (CIP) Budget

Annual Budget Spent Per Street Tree



Source: Municipal Tree Care and Management in the United States: A 2014 Urban & Community Forestry Census of Tree Activities

Columbus budget numbers are FY20

CASE STUDY: Emerald Ash Borer Plan & Funding

2011: Recreation and Parks developed a 10-year strategic plan to address the emerald ash borer crisis in Columbus. Plan identified:

- City Forestry staff re-alignment to address EAB infestation
  - Reduction in services caused by re-alignment
- Equipment Needs and Costs
- Temporary Staffing Needs
- Contracting Staff Needs
- Budget

$9M

Funding Allocated to Implement EAB Plan

18,000+

Ash Trees & Stumps Removed

2011

Year City Council Approved Additional Funding to Address EAB

2019

Year of Completion of Full EAB Strategic Plan

INDICATOR 11: COMMUNICATION

SCORE: MODERATE

- **Tree Planting Notifications:**
  Forestry notifies residents of upcoming tree planting.

- **Tree Maintenance Notifications:**
  Residents **not notified** of upcoming tree maintenance activities based on service requests.

  - Must utilize the 311 system to follow-up on tree maintenance scheduling.

- **Interdepartmental Communications:**
  Effective channels of communication with other City Departments **have not yet** been established.

311
645•3111

TODAY'S SPECIAL TOPICS

#1: Full Assessment Results
(10 mins.)

#2: Tree Protection Regulations
(30 mins. – short presentation, polling to hear from you)

#3: Setting a Canopy Goal
(30 mins. – short presentation, polling to hear from you)

Photos: Randall Schieber Photography

UFMP Poll Time

TOPIC #1

COMPLETED ASSESSMENT RESULTS

What is your reaction to the assessment of the sustainability of the Columbus urban forest?

Surprises?
Comments?
Thoughts?

COLUMBUS, OHIO 32 Indicators of a Sustainable Urban Forest		Assessed Performance Level		
		Low	Mod.	Good
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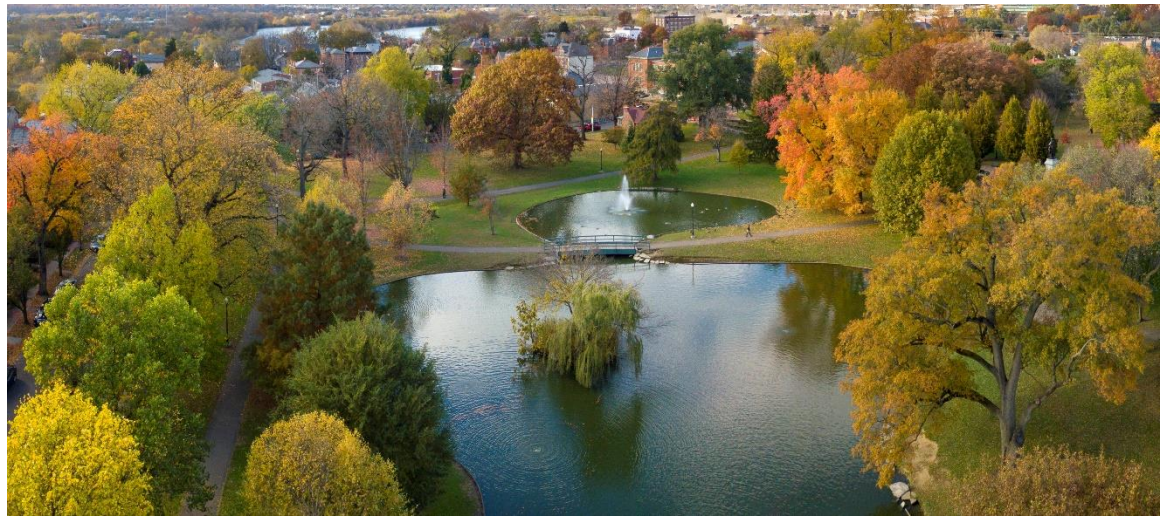
	Tree Protection Policy			
	City Staffing and Equipment			
	Funding			
	Disaster Preparedness & Response			
	Communications			
	Totals	**19 59%**	**12 38%**	**1 3%**

TOPIC #2

TREE PROTECTION REGULATIONS

SHORT PRESENTATION

What are they?
What is in place in Columbus?
What are other communities doing?



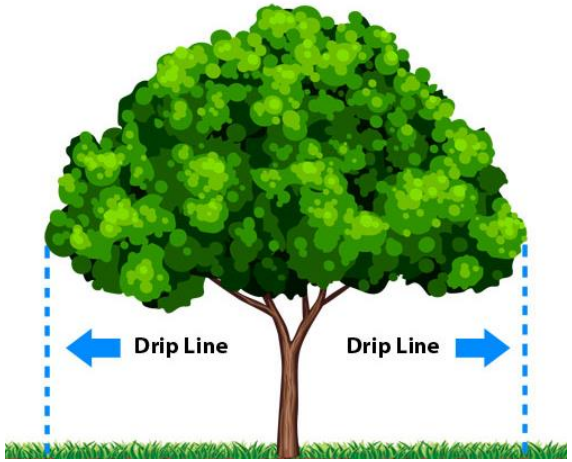
TREE PROTECTION REGULATIONS

What are they?

Regulations and requirements put into place to preserve and protect a community's trees and forests.

Regulated activities can include:

- Tree removal
- Tree pruning
- Encroachment into tree dripline or critical root zone
- Preservation of specific tree species and/or tree sizes



TREE PROTECTION REGULATIONS

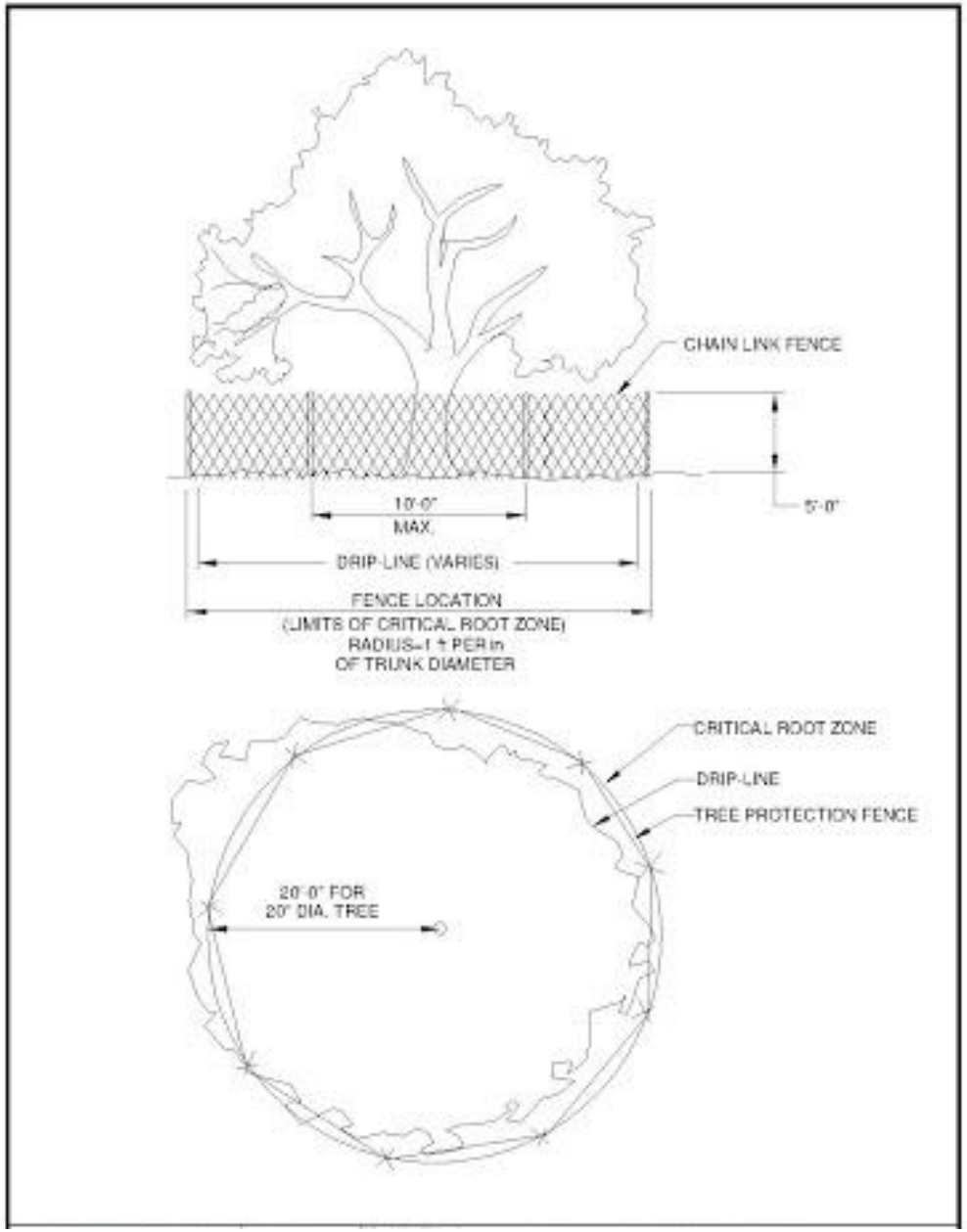
What are they?

- **Protection requirements can include:**
  - Inventory of trees on a site
  - Tree protection plan
    - Required tree protection measures and specificati
  - Mitigation for removed trees
  - Penalties for removal of preserved trees

- **Protection can be required on:**
  - Single/two-family residential
  - Multi-family residential
  - Commercial/Industrial
  - Public Property

  (during construction only or all times)

- **Effectiveness depends on both**
  - Existing of code
  - Enforcement



TREE PROTECTION REGULATIONS

Benchmarking

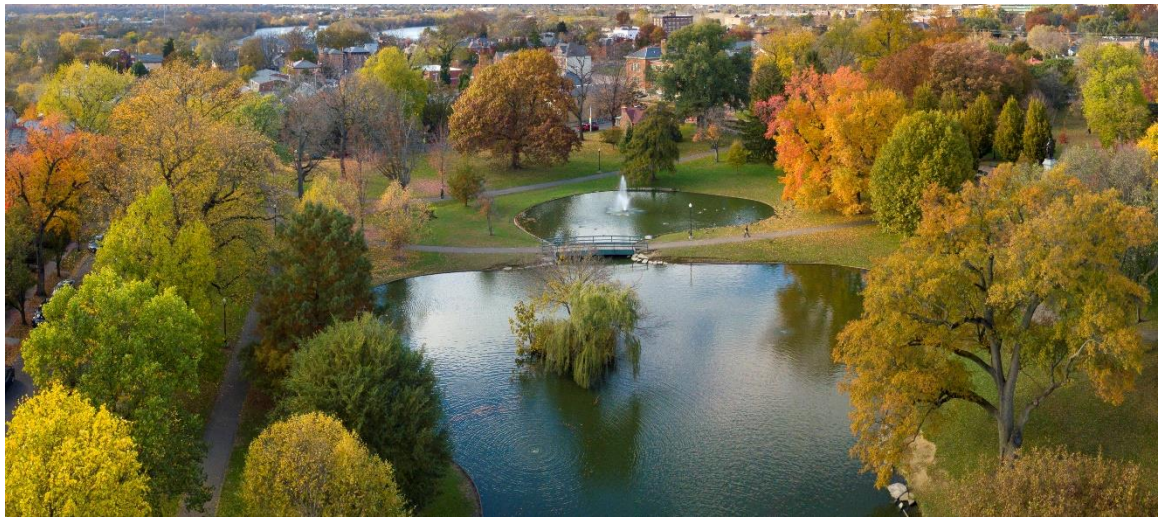
- Columbus
  - Tree Canopy Cover: 22%
- Gahanna, OH
  - Tree Canopy Cover: Unknown
- Dublin, OH
  - Tree Canopy Cover: Unknown
- Charlotte, NC
  - Tree Canopy Cover: 47%

TREE PROTECTION REGULATIONS

Land Use Regulated

	Columbus, OH	Gahanna, OH	Dublin, OH	Charlotte, NC
Land Use Regulated				
Single/Two-family Residential		X	X	X
Multi-Family Residential	X	X	X	X
Commercial/Industrial		X	X	X
Public Land	X	X	X	X

Columbus: Multi-Family Residential applies only to University District Zoning Overlay – Apartment Residential (Chapter 3325 § 3325.903)



TREE PROTECTION REGULATIONS

Public Tree Damage and Removal

	Columbus, OH	Gahanna, OH	Dublin, OH	Charlotte, NC
Public Tree Damage and Removal				
Restricts tree removal on public property	X	X	X	X
City permit or approval required for tree removal, pruning or excavating near public trees	X	X	X	X
Prohibits damage to public trees (e.g. attaching ropes, signs, wires, excavation)	X	X	X	X

Columbus: Chapter 912, Executive Order 2015-01 (City Projects)
Gahanna: Chapter 914
Dublin: Chapters 96, 98 and 131
Charlotte, NC: Chapter 21

TREE PROTECTION REGULATIONS

THE CITY OF COLUMBUS
ANDREW J. GINTHER, MAYOR

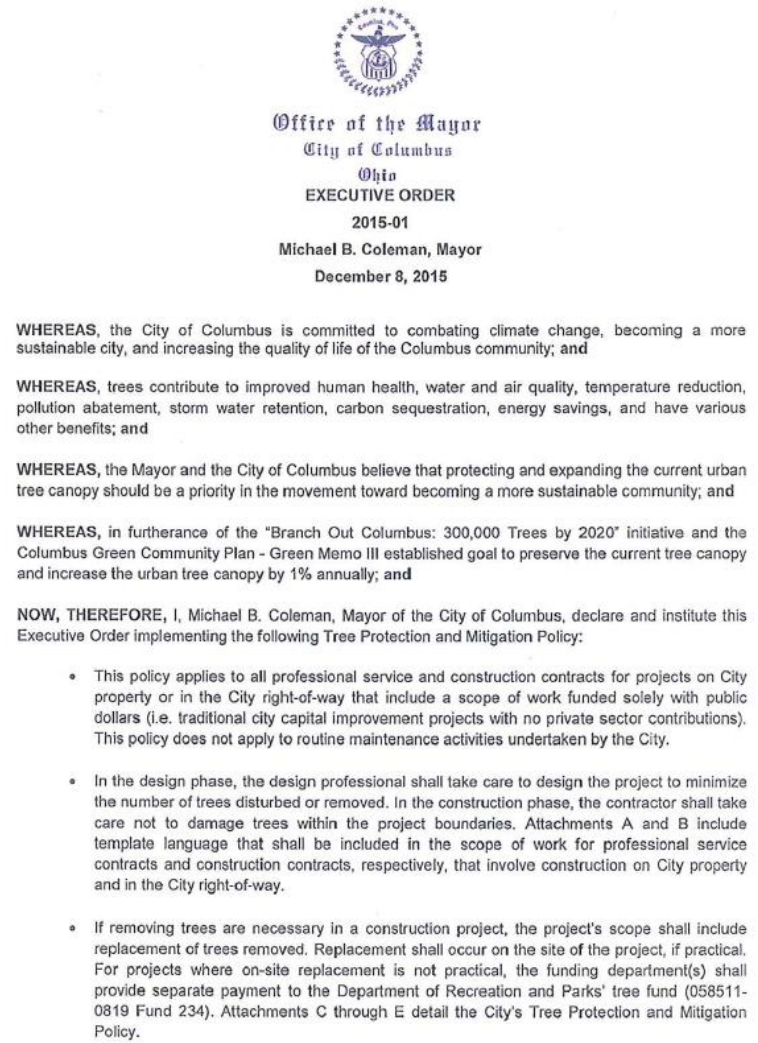
Public Tree Damage and Removal

Columbus Executive Order 2015-01

- Tree Protection and Mitigation Policy for City Capital Improvement Projects
  - Requires planting of replacement trees
  - If on-site tree planting is not possible – payment to Plant Material Fund

CHALLENGES:

- Exempts routine maintenance
- Method for determining in lieu of planting fee not established in Executive Order
- No clear process for implementation and enforcement of Executive Order



Office of the Mayor
City of Columbus
Ohio
EXECUTIVE ORDER
2015-01
Michael B. Coleman, Mayor
December 8, 2015

WHEREAS, the City of Columbus is committed to combating climate change, becoming a more sustainable city, and increasing the quality of life of the Columbus community; **and**

WHEREAS, trees contribute to improved human health, water and air quality, temperature reduction, pollution abatement, storm water retention, carbon sequestration, energy savings, and have various other benefits; **and**

WHEREAS, the Mayor and the City of Columbus believe that protecting and expanding the current urban tree canopy should be a priority in the movement toward becoming a more sustainable community; **and**

WHEREAS, in furtherance of the "Branch Out Columbus: 300,000 Trees by 2020" initiative and the Columbus Green Community Plan - Green Memo III established goal to preserve the current tree canopy and increase the urban tree canopy by 1% annually; **and**

NOW, THEREFORE, I, Michael B. Coleman, Mayor of the City of Columbus, declare and institute this Executive Order implementing the following Tree Protection and Mitigation Policy:

- This policy applies to all professional service and construction contracts for projects on City property or in the City right-of-way that include a scope of work funded solely with public dollars (i.e. traditional city capital improvement projects with no private sector contributions). This policy does not apply to routine maintenance activities undertaken by the City.
- In the design phase, the design professional shall take care to design the project to minimize the number of trees disturbed or removed. In the construction phase, the contractor shall take care not to damage trees within the project boundaries. Attachments A and B include template language that shall be included in the scope of work for professional service contracts and construction contracts, respectively, that involve construction on City property and in the City right-of-way.
- If removing trees are necessary in a construction project, the project's scope shall include replacement of trees removed. Replacement shall occur on the site of the project, if practical. For projects where on-site replacement is not practical, the funding department(s) shall provide separate payment to the Department of Recreation and Parks' tree fund (058511-0819 Fund 234). Attachments C through E detail the City's Tree Protection and Mitigation Policy.

TREE PROTECTION REGULATIONS

Private Tree Damage and Removal

	Columbus, OH	Gahanna, OH	Dublin, OH	Charlotte, NC
Private Tree Damage and Removal				
Restricts tree removal on private property	X	X	X	X
City permit or approval required for tree removal on private property		X	X	X
Requires preservation of trees during development on private property	X	X	X	X
Prohibits damage to preserved/protected trees		X	X	X

Columbus: Chapter 3325 § 3325.903
(Applies only to development - University District Zoning Overlay – Apartment Residential Zoning Districts; Lacks requirements for how trees should be protected (e.g. fencing))

TREE PROTECTION REGULATIONS

Regulated Features

	Columbus, OH	Gahanna, OH	Dublin, OH	Charlotte, NC
Regulated Features on Private Property				
Forests/woodlands		X	X	X
Specific species and/or size tree (e.g. heritage/significant trees)	X	X	X	X
Tree Critical root zone/dripline			X	X
Amount of canopy cover (minimum amount set)				X
Riparain buffers, natural areas, preservation zones		X		X

Columbus: Chapter 3325 § 3325.903 University District Zoning Overlay – Apartment Residential

- Trees greater than 10" caliper within building footprint/parking area "consider" preservation
- Trees greater than 10" caliper outside building footprint/required parking areas **must be preserved** unless approved for removal by City Forester

TREE PROTECTION REGULATIONS

Regulated Features

	Columbus, OH	Gahanna, OH	Dublin, OH	Charlotte, NC
Regulated Features on Private Property				
Forests/woodlands		X	X	X
Specific species and/or size tree (e.g. heritage/significant trees)	X	X	X	X
Tree Critical root zone/dripline			X	X
Amount of canopy cover (minimum amount set)				X
Riparain buffers, natural areas, preservation zones		X		X

Gahanna: Chapter 914

- Specifies trees greater than 6" in diameter or larger as Protected Trees
  - Provides a list of *Preferred Tree Species* for protection

- Requires minimum trees on site (1 tree per 1,000 sq. ft of impervious area) after development
  - Preserved trees can be credited towards meeting tree requirement

TREE PROTECTION REGULATIONS

Regulated Features

	Columbus, OH	Gahanna, OH	Dublin, OH	Charlotte, NC
Regulated Features on Private Property				
Forests/woodlands		X	X	X
Specific species and/or size tree (e.g. heritage/significant trees)	X	X	X	X
Tree Critical root zone/dripline			X	X
Amount of canopy cover (minimum amount set)				X
Riparain buffers, natural areas, preservation zones		X		X

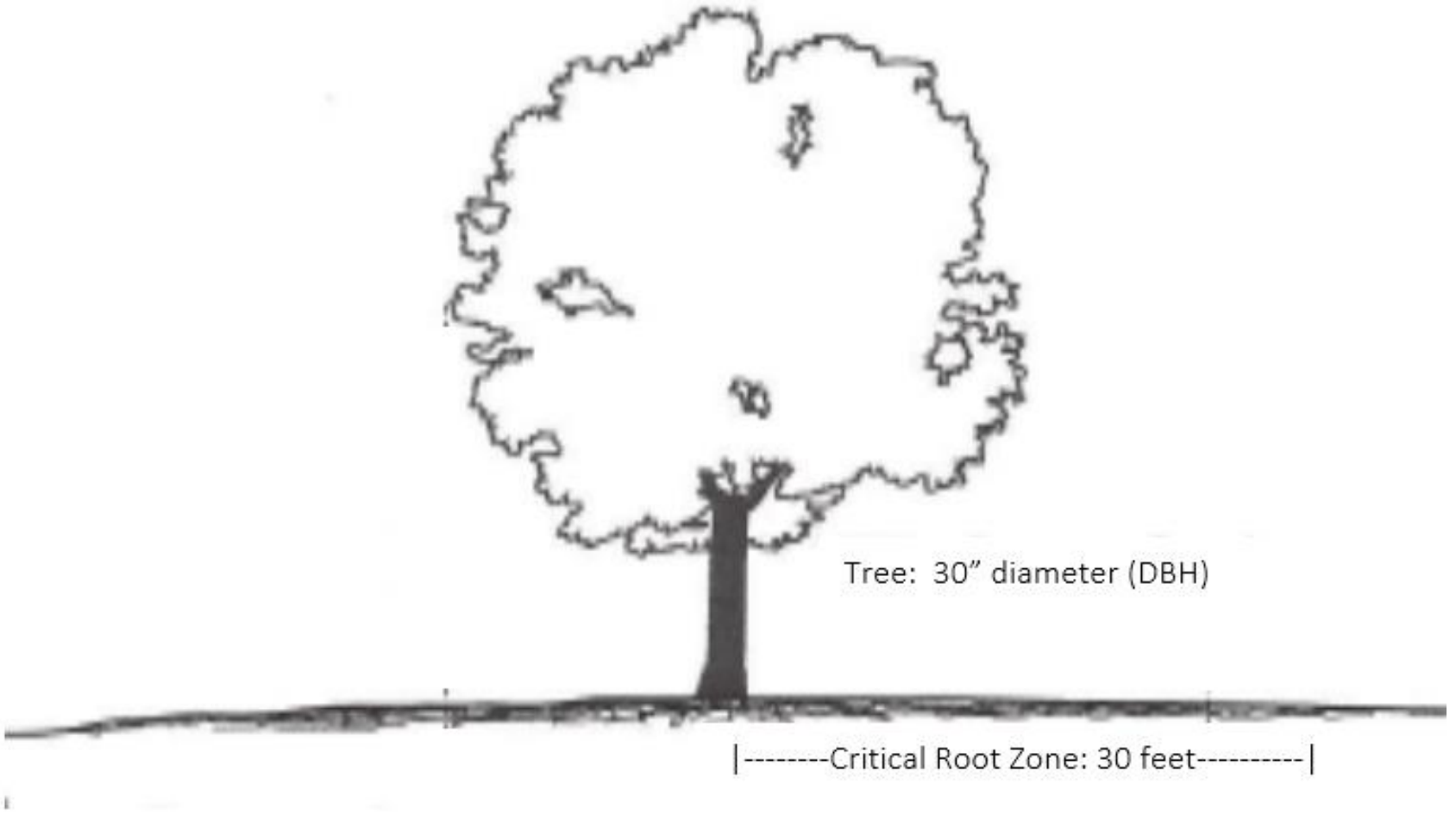
Dublin: Chapter 153

- Regulates all trees > 6" diameter at breast height (DBH) on all public and private property in all zoning districts. (Provides specific replacement requirements for lots with single-family detached units)
- Prohibits encroachment into critical root zone of protected trees
  - Critical Root Zone: Radius equal to one foot for every inch in tree diameter

TREE PROTECTION REGULATIONS

Regulated Features

Example of a critical root zone.



TREE PROTECTION REGULATIONS

Regulated Features

	Columbus, OH	Gahanna, OH	Dublin, OH	Charlotte, NC
Regulated Features on Private Property				
Forests/woodlands		X	X	X
Specific species and/or size tree (e.g. heritage/significant trees)	X	X	X	X
Tree Critical root zone/dripline			X	X
Amount of canopy cover (minimum amount set)				X
Riparain buffers, natural areas, preservation zones		X		X

Charlotte, NC: Chapter 21

- Regulates trees on private and public property
  - Public Property: All trees
  - Private Property: Regulates trees based on location, zoning of property and type of development

- Requires a minimum percentage of canopy cover post-development ("Tree Save")
  - Commercial: 15%
  - Single Family: 5-10%

TREE PROTECTION REGULATIONS

Tree Protection Measures

	Columbus, OH	Gahanna, OH	Dublin, OH	Charlotte, NC
Tree Protection Measures				
Tree protection/preservation plan required		X	X	X
Identification of prohibited activities in dripline/critical root zone		X	X	X
Tree protection fencing or other protection measures required		X	X	X
Credits/incentives for tree preservation		X		X

Columbus: Does not require tree protection during development and construction activities

Gahanna, Dublin and Charlotte:

- Require fencing and other measures to protect preserved trees during construction and development activities

TREE PROTECTION REGULATIONS

Site Plan / Development Requirements

	Columbus, OH	Gahanna, OH	Dublin, OH	Charlotte, NC
Site Plan/ Development Requirements				
Inventory and location of trees/forests/woodlands on site		X	X	X
Tree Protection/Preservation Plan		X	X	X
Location of tree protection measures (e.g. fencing, soil protection, trunk protection)		X	X	X
Landscape plan with mitigation plantings		X	X	X
Grading and Utility plans with trees		X	X	X

Columbus: Does not require a tree inventory or tree protection/preservation plan as part of site plan or development projects

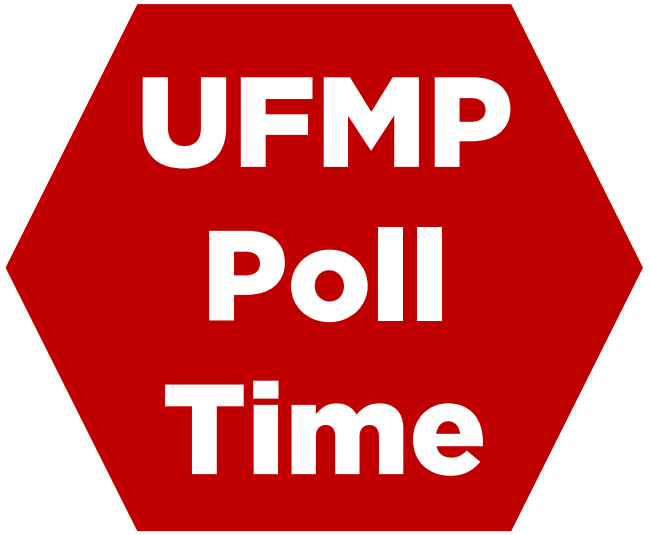
TREE PROTECTION REGULATIONS

Mitigation / Penalties

	Columbus, OH	Gahanna, OH	Dublin, OH	Charlotte, NC
Mitigation/Penalities				
Tree planting requirements for removal of regulated trees	X	X	X	X
Fee in lieu of planting mitigation trees	X		X	X
Tree mitigation planting establishment, maintenance and survival requirements		X	X	
Penalities established for damage and removal of preserved/saved trees		X	X	X
Tree Fund	X	X	X	X

Columbus: Mitigation and penalties are limited to residential apartments in the University Overlay District and City capital improvement projects.

	Columbus, OH	Gahanna, OH	Dublin, OH	Charlotte, NC
Tree Protection and Preservation				
Land Use Regulated				
Single/Two-family Residential		X	X	X
Multi-Family Residential	X	X	X	X
Commercial/Industrial		X	X	X
Public Land	X	X	X	X
Public Tree Damage and Removal				
Restricts tree removal on public property	X	X	X	X
City permit or approval required for tree removal, pruning or excavating near public trees	X	X	X	X
Prohibits damage to public trees (e.g. attaching ropes, signes, wires, excavation)	X	X	X	X
Private Tree Damage and Removal				
Restricts tree removal on private property	X	X	X	X
City permit or approval required for tree removal on private property		X	X	X
Requires preservation of trees during development on private property	X	X	X	X
Prohibits damage to preserved/protected trees		X	X	X
Regulated Features on Private Property				
Forests/woodlands		X	X	X
Specific species and/or size tree (e.g. heritage/significant trees)	X	X	X	X
Tree Critical root zone/dripline			X	X
Amount of canopy cover (minimum amount set)				X
Riparain buffers, natural areas, preservation zones		X		X
Tree Protection Measures				
Tree protection/preservation plan required		X	X	X
Identification of prohibited activities in dripline/critical root zone		X	X	X
Tree protection fencing or other protection measures required		X	X	X
Credits/incentives for tree preservation		X		X
Site Plan/ Development Requirements				
Inventory and location of trees/forests/woodlands on site		X	X	X
Tree Protection/Preservation Plan		X	X	X
Location of tree protection measures (e.g. fencing, soil protection, trunk protection)		X	X	X
Landscape plan with mitigation plantings		X	X	X
Grading and Utility plans with trees		X	X	X
Mitigation/Penalities				
Tree planting requirements for removal of regulated trees	X	X	X	X
Fee in lieu of planting mitigation trees	X		X	X
Tree mitigation planting establishment, maintenance and survival requirements		X	X	
Penalities established for damage and removal of preserved/saved trees		X	X	X
Tree Fund	X	X	X	X



TOPIC #3

SETTING GOALS

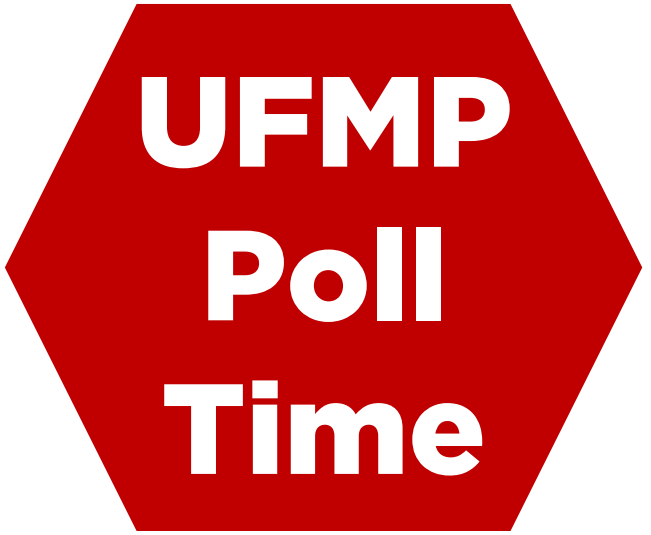
SHORT PRESENTATION

What is a canopy goal?
How are they used?
What ways can they be developed?
What should the Columbus goal be?

URBAN TREE CANOPY GOALS

Many ways to measure progress in tree canopy efforts.

- Tree Canopy Cover % Goal (common)
- Raising Levels of Benefits Provided
- Tree Planting Goal
- Equalizing Canopy by Neighborhood (ie. getting number of neighborhoods above mid point canopy cover)
- Canopy Goals by Land Uses
- Numbers of neighborhoods engaging in urban forestry projects



URBAN TREE CANOPY GOALS

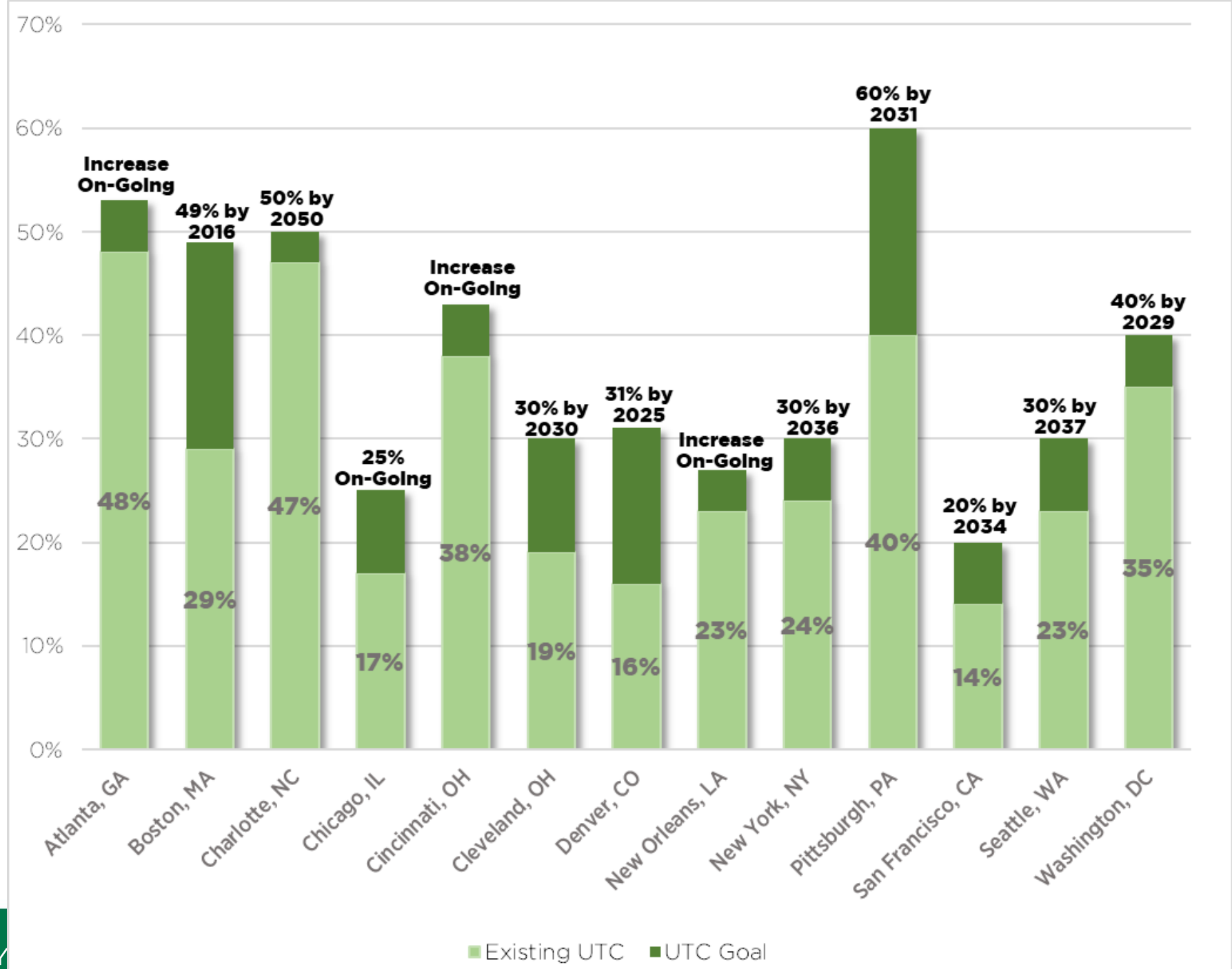
What are they? Why have one?

A specific target set to optimize tree canopy.

- **Measure progress**
- **Established reasoning** for efforts (regulations, resources, partnerships)
- **Serves as a rallying cry.** Important for use in marketing, sound byte, easily absorbed
- A tree-related metric **for use in other plans/sustainability efforts.**

URBAN TREE CANOPY GOALS

Canopy goals in other cities.

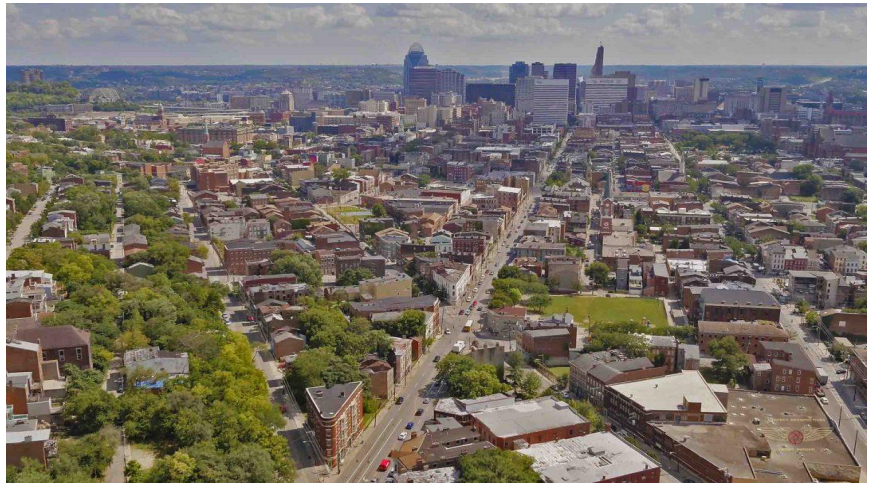


URBAN TREE CANOPY GOALS

Canopy goals in other cities.

Boston – lost canopy, lowered goals.

Cleveland – lost canopy, revisiting goals.



Cincinnati – getting neighborhoods above 30%.

Charlotte – No net loss, revisiting goals.

URBAN TREE CANOPY GOALS

Some math for consideration.

Objective in Assessment Matrix on Canopy: *"Achieve the desired tree canopy cover according to goals set for the entire city and neighborhoods. Alternatively, achieve 75% of the total canopy possible for the entire city and in each neighborhood."*

How to Grow Canopy

1. Preservation of Existing
2. Care of Existing
3. Planting New

22%

Canopy Cover in 2013
Based on 2015 tree canopy assessment (2013 imagery)

59%

Total Possible Canopy Cover in Columbus
Based on 2015 tree canopy assessment (2013 imagery)

44%

Canopy Goal Based on Reaching 75% of What is Possible in Columbus
Based on 2015 tree canopy assessment (2013 imagery)

1 Year

Canopy Assessment Data Available
Based on 2015 tree canopy assessment (2013 imagery)

1,800 acres

Additional Canopy Needed to Add 1% Point to City-Wide Canopy Cover in Columbus
Based on 2015 tree canopy assessment (2013 imagery)

1,726 acres

OSU Main Campus

URBAN TREE CANOPY GOALS

Some math for consideration.

Total Acres in Columbus:	143,000
Acres of Tree Canopy:	31,000
Resulting Canopy Cover	22%

To Reach By 2030	**Total Canopy Acreage**	**Additional Acres of Canopy Needed**	**Canopy Acres Needed Per Year** *(over 10 yrs, accounting for annual mortality rate)**
To Maintain No Net Loss (22%)	31,000	0	800
To get to 25%:	35,000	4,000	1,200
To get to 30%:	42,000	11,000	1,900
To get to 40%:	55,000	24,000	3,300

** Assumes annual natural mortality rate of 2.6%*

URBAN TREE CANOPY GOALS

What should the goal in Columbus be?

LONG-TERM CANOPY COVER GOAL (VISION): ?

City-Wide Goal with or without timeline

- No Net Loss
- 25% (by set year or ongoing)
- 30% (by set year or ongoing)
- 40% (by set year or ongoing)
- 44% (by set year or ongoing) – 75% of what is possible
- 59% (by set year or ongoing) – 100% of what is possible

SHORT TERM CANOPY COVER GOAL: ?

Project Team will work on more achievable, shorter-term goals.

UFMP Poll Time

THANK YOU!

NEXT STEPS

April:
Finish Discovery Phase

May / June:
Develop Recommendations & Plan

TBD:
In-Person Event on Next Steps

www.ColumbusUFMP.org
We'll keep you updated!!

COLUMBUS URBAN FORESTRY MASTER PLAN

Don't forget to submit your Online Comment Form
https://forms.gle/BS1yPiBUcestUnDD9