









L A N D studio

landscape art neighborhoods development

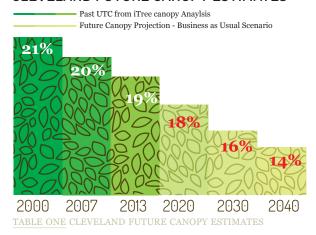
#### THANK YOU TO ALL OF THE STAKEHOLDERS WHO PARTICIPATED IN MEETING AND IN INTERVIEWS

Broadway Slavic Village Development. City of Cleveland: City Planning Commission, Mayor's Office of Sustainability, Cleveland Division of Urban Forestry, Mayor's Office of Capital Projects and Public Works. The Cleveland Foundation. Cleveland Metroparks. Cleveland Metropolitan Housing Authority. Cuyahoga Board of Health. Cuyahoga Landbank. Cuyahoga Planning Commission. Cuyahoga River Restoration. Dominion East Ohio Gas. First Energy. Forest City Working Group. Metro Health. Northeast Ohio Area-wide Coordinating Agency. Northeast Ohio Regional Sewer District. Ohio Department of Natural Resources. Division of Foresty. Old Brooklyn Community Development. Ohio City, Inc. Saint Luke's Foundation.



# EXECUTIVE SUMMARY

#### **CLEVELAND FUTURE CANOPY ESTIMATES**



#### CITY CANOPY COMPARISONS



TABLE TWO CITY CANOPY COMPARISON

### WHAT IS A TREE CANOPY?

As seen from an aerial view, tree canopy cover is the amount of land cover that is as seen in summer months. (with leaves on).

#### WHAT IS AN URBAN FOREST?

All trees within a municipality or community (on private and public lands) comprise the urban forest.

The Cleveland Tree Plan is unique in that it is not a City plan, but a community-wide collaboration to rebuild the urban forest through partnership. The City is just one member of a team of five organizations who banded together to initiate and fund this project: Western Reserve Land Conservancy, Holden Arboretum, LAND studio, Cleveland Neighborhood Progress and the City of Cleveland. During the planning process, the team reached out to over fifty additional stakeholders to assess today's urban forest, determine a unified vision for the future, and develop a way forward together.

Cleveland is in the midst of citywide neighborhood

revitalization to improve the quality of life for all

citizens and address the future challenges that

come with re-development and climate change.

Tree canopy is an important element in all of these efforts. In the late 1800s and early

1900s, Cleveland was nicknamed The Forest City. A public tree inventory from the 1940s counted 220,000 street trees. However, Cleveland has lost significant canopy since then, with that count now

down to approximately 120,000 street trees. Tree canopy cover is low (19%, only one quarter of what is possible) and each year an estimated 97 acres of tree canopy is lost. At this rate, canopy will drop





THE CURRENT CANOPY, EVEN AT ITS LOWER LEVEL, PROVIDES CLEVELANDERS WITH OVER \$28 MILLION IN SERVICES EVERY YEAR.

#### **CLEVELAND URBAN FOREST**

- \* Intercepts 1.8 billion gallons of rainwater every year (value: \$11 million).
- \* Removes 415 tons of air pollution every year (value: \$1.8 million).
- \* Saves residents and business-owners \$3.5 million in energy costs each year.
- \* Reduces stress from high heat days, which has significant impacts on human health and energy needs.
- \* Improves public health across a range of issues, including asthma, obesity, diabetes, and mental health.
- \* Increases property values by an estimated \$4.5 million, which in turn increases city revenues.

#### ADDITIONAL IMPORTANT BENEFITS INCLUDE

- \* Improves business districts by attracting consumers that stay longer and spend more.
- \* Helps maintain habitat for wildlife, both aquatic and forest, which is an important part of wildlife conservation.
- \* Prevents erosion and high sediment levels in waterways and shipping channels.
- \* Builds stronger communities and revitalizes neighborhoods.
- \* Creates safer spaces for the public by slowing traffic speeds, lowering stress and providing buffers for pedestrians.
- \* Blocks noise and reduces pollution by almost 50% for those living near highways.



Further loss of canopy will have significant negative impacts on the city and its inhabitants. Canopy is not equally distributed across city neighborhoods ranging from a low of 4% to a high of 39%. As canopy continues to drop, so do the benefits they provide, with lower canopy neighborhoods feeling the impacts first.



# STATE OF THE URBAN FOREST TODAY

## 26 INDICATORS // ASSESED PERFORMANCE LEVELS

			low	moderate	good
of for	THE TREES	Tree Canopy Size/Age Distribution Condition of Public Trees - streets, parks Condition of Public Trees - natural areas Species Diversity Placement: Right Tree Right Place Species Suitability			
	THE PLAYERS	Neighborhood Action Large Private Landholder Involvement Green Industry Involvement City Dept/Agency Cooperation Funder Engagement Utility Engagement Public Awareness Regional Collaboration			
	THE MANAGEMENT APPROACH	Tree Inventory Canopy Assesment Management Plan Risk Program Maintenance Program- street, parks Maintenance Program- natural areas Planting program Tree Protection City Staffing & Equipment Funding Equitable Distribution			

TABLE THREE Summary of Cleveland Scores in 26 indicators of a Sustainable Urban Forest



#### THE TREES

#### LOW SCORE

There is a lack of accurate data on the public trees in Cleveland, which creates difficulties in management, budgeting, and most importantly ensuring public safety. There is an accurate assessment of overall canopy cover rates from a 2013 Cuyahoga County urban tree canopy assessment. The City Urban Forestry Division inspects 8,000-9,000 trees annually, but the lack of comprehensive information makes data-driven decision making very difficult.

#### THE MANAGEMENT APPROACH

#### LOW to MODERATE SCORE

The lack of a comprehensive and fully updated tree inventory affects almost every indicator in this category, causing low performance scores. The City's tree inventory database has approximately 80,000 accurate records, leaving approximately 40% of trees not recorded fully. Tree protection policies and installation guidelines are outdated and without enforcement penalties, the City has a significant backlog in tree maintenance, is largely reactive in nature, and without adequate funding to catch up. Planting is relatively ad hoc and will not necessarily result in equitable distribution of trees across the city.

Recently the Urban Forester created a new tree preservation plan, specifications, installation specifications and planting details. However, there is not a strategic approach to compliance and enforcement across all relevant city departments.

#### THE PLAYERS

### LOW to MODERATE SCORE

A number of non-profit organizations and volunteers are eager for involvement, and some tree planting, stewardship and other short-term funding and programs are in place. Most have been working independently and thus inefficiently without a unified vision. The city has multiple departments working within the urban forest, but coordination efforts are minimal and goals for each department conflict. City budgets are stretched thin and trees are often not prioritized. The public often views trees as a nuisance because of the perception that they cause significant damage. The players are there and most are interested. The unified vision and movement has been missing.







# UNIFIED VISION

# THROUGH PARTNERSHIP, CLEVELAND WILL ONCE AGAIN BE KNOWN AS THE FOREST CITY.

Residents from every neighborhood in Cleveland will experience the many benefits of our urban forest that increase resilience, health, prosperity and overall quality of life.

#### **CLEVELAND WILL ACHIEVE THIS VISION BY:**

- \* Collaborating effectively amongst a variety of stakeholders.
- \* Prioritizing trees in government, nonprofit, and the business sectors.
- \* Implementing best practices in urban forestry.
- \* Increasing tree canopy and the benefits it provides.
- \* Ensuring that benefits from trees are equitably distributed.
- \* Leveraging the economic advantages of urban trees.
- \* Engaging people to revitalize neighborhoods through community forestry.







# THE WAY FORWARD: A ROADMAP FOR SUCCESS

Three goals were defined that once achieved will pave the way for real and sustainable progress in rebuilding the urban forest:

### **GOAL ONE**

Recognize trees as critical community infrastructure.

### **GOAL TWO**

Reverse the trend of canopy loss

## **GOAL THREE**

Assume full stewardship for the



With these goals in mind, a forward-thinking strategy has been mapped out in the form of 9 actions, each of which contains a lead organization, key partners, executable steps, and progress benchmarks.

**ACTION 1** Establish a Unified Voice, Formalize Partnerships

**ACTION 2** Develop and Implement an Outreach and Education Strategy

**ACTION 3** Develop and Implement a Funding Plan

**ACTION 4** Complete a Tree Inventory

**ACTION 5** Develop and Implement a Management Plan

**ACTION 6** Conduct an Operational Review

ACTION 7 Establish a Canopy Goal
ACTION 8 Institute Policy Changes
ACTION 9 Plant with a Purpose



# AN EQUITABLE APPROACH

Tree planting in Cleveland should be planned based on a "Right Tree, Right Place, Right Purpose" strategy. It is important to ensure that the benefits provided by trees are provided to all residents as equally as possible. In Cleveland, disparities exist between neighborhoods due to the gaps/differences in wealth, social and political status. Equitable distribution of these benefits is a priority for Cleveland and is explored in full in Appendix B.

