

An aerial photograph of a dense forest with a circular paved area in the center. The trees are mostly green, with some yellowing, suggesting autumn. The paved area has a light-colored, possibly stone or concrete, surface with some faint markings. The forest is thick and covers most of the frame.

# New Orleans Reforestation Plan

December 2022

# Acknowledgments

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**Thank you to the Greater New Orleans Foundation for supporting this project and serving as a project partner moving forward.**

Previous Page Image: The Couturie Forest observation deck in New Orleans City Park.

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# Introduction

A group of volunteers is working in a park. In the foreground, a person in a blue long-sleeved shirt and khaki pants is using a pickaxe to dig a hole in the ground. They are wearing blue gloves. In the background, several other people are working, some wearing green shirts. One man in a black hoodie and black pants is using a shovel. A woman in a green shirt and black pants is standing nearby. The scene is outdoors with trees and a building in the background.

## Vision

New Orleans is known for its trees. Grand, majestic Live Oaks, towering Cypress, and flowering Magnolias line the streets and provide shade for people and homes. However, the trees in New Orleans are disappearing, and they are not being replaced at the rate of loss.

This plan lays out a vision for reforesting New Orleans. Through the collective efforts of all of those that care for the city, New Orleans can remain a city of trees for future generations.

Volunteers plant trees in Pontchartrain Park.

# Environmental and Social Challenges Facing New Orleans

New Orleans faces a number of environmental challenges. From hurricanes and storms, increasingly intense rainfall events, to extreme heat, the environment poses risks to public health and economic security throughout the city.

The environmental challenges are closely linked with the urban and social challenges in New Orleans. The city has a high percentage of socially vulnerable people living in our communities and public health issues that are worsened by environmental factors.

Along with lighter colored roofing and paving materials, a healthy urban forest can help the city address these challenges and create a more livable New Orleans.

## Challenge 1: Urban Heat Island Effect

Urban heat islands are metropolitan places where buildings and pavement cause the city to be hotter than the outlying areas. Paved roads, parking lots, and buildings absorb and retain heat during the day and radiate that heat back into the surrounding air.

New Orleans is one of the most significant heat islands in the United States with an average temperature in the city that is about nine degrees hotter than the surrounding rural or undeveloped land, while some areas of the city are upwards of 16

degrees hotter.<sup>1</sup> While trees and parks have a cooling effect, as do lawns and lighter colored surfaces, New Orleans contains a below average amount of these cooling assets.

Historical discriminatory housing practices like redlining, along with other socioeconomic factors, mean that communities of color are often in areas with fewer trees and parks and therefore are exposed to higher urban heat. Increasing urban heat island effect also escalates the burden of energy costs for cooling homes and buildings.<sup>2</sup>

### New Orleans Ranked #1 for Worst Urban Heat Island Effect in US

#### Top Five Cities for Worst Urban Heat Island Effect<sup>3</sup>

1.	New Orleans	+8.94 °F
2.	Newark, NJ	+7.71 °F
3.	New York City	+7.62 °F
4.	Houston	+7.46 °F
5.	San Francisco	+7.37 °F

New Orleans can average almost 9° hotter than the surrounding rural and suburban landscapes due to urban heat island effect. This is an average citywide, so some areas with fewer trees may be even hotter.

## Challenge 2: Increased Intensity of Rain Events

The City of New Orleans is experiencing a higher frequency and intensity of flooding events due to climate change and human impact on the local environment. According to a recent study, “the annual probability of the historical 1-in-100-year rainfall event will roughly double throughout 2041–2060, and triple throughout 2071–2090.”<sup>4</sup> The change in rainfall patterns means “increased flood risk across the city”<sup>5</sup> over the remainder of the century.

## Challenge 3: Hurricanes and Sea-level Rise

Climate change is projected to increase the frequency and intensity of hurricanes, causing higher coastal inundation when combined with sea level rise. The levees protecting New Orleans are meant to defend against a Category 3 storm surge which are expected to become increasingly common in addition to Category 4+ storms. The level of Atlantic basin hurricane activity has risen, with the biggest increases for the strongest storms (with the largest surges), particularly in and around the Gulf of Mexico.<sup>6</sup>

Due to the impacts of climate change, the Gulf of Mexico is predicted to rise by more than 1½ feet in the next three decades, the steepest increase in the United States.<sup>7</sup>

## Challenge 4: Lack of Tree Canopy

New Orleans has a low canopy coverage compared to other cities in the region, despite having similar or lower population

density. According to the Woodwell Report, correlations among a Tree Equity Score, used to identify neighborhoods that are more vulnerable to extreme heat, and income and race reveal discrepancies in New Orleans, necessitating the need for a plan of action to ensure the city is prepared to face the climate crisis.<sup>8</sup> With under 20% canopy coverage in the city, New Orleans has significantly less coverage than comparable cities such as Memphis (37%), Austin (38%), and Atlanta (47%). New Orleans is roughly on par with Houston (18%)<sup>9</sup> (See Figure 2). From 2001 to 2021, Orleans Parish has lost approximately 4,000 acres of tree cover, equivalent to a 28% decrease in tree cover since 2000.

***Following Hurricane Katrina, over 200,000 trees were lost. The canopy still hasn’t recovered.<sup>10</sup>***

A robust tree canopy reduces the loss of trees during hurricanes, as groups of trees are stronger than individual trees in resisting wind. A strong, well-maintained canopy acts as a windbreak to reduce the number of downed trees that can interrupt power service, as will appropriate tree selection.

## Challenge 5: Subsidence

The geographic location of the city was originally very low in relation to sea level, but human interference has caused the city to sink even lower. This sinking effect has led to present day New Orleans being, on average, six feet below sea level.

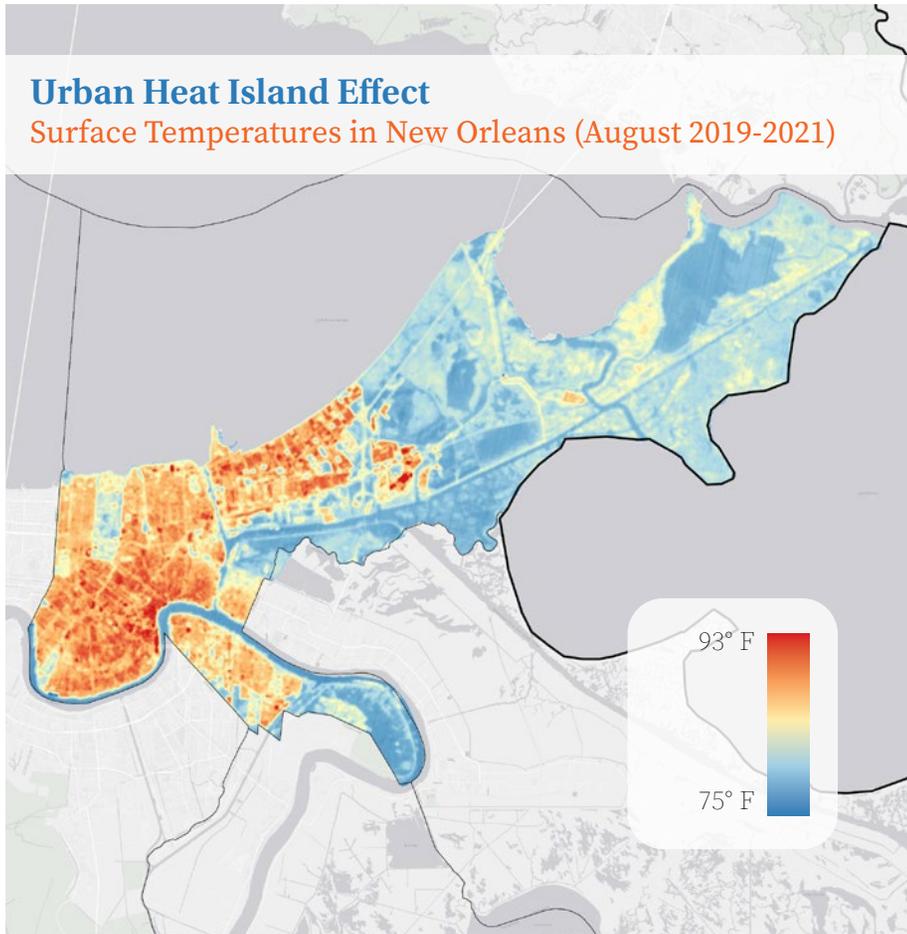


Figure 1: Urban Heat Island Effect

### Extreme Heat

Extreme urban heat is a public health threat, especially for individuals and communities that are more vulnerable due to negative health, social, or economic factors. As climate change continues, scientists forecast hotter temperatures in the decades to come.<sup>11</sup> Planting trees now can help offset this growing challenge.



Figure 2: Existing Tree Canopy

### Tree Canopy Coverage

New Orleans experienced a major reduction in tree cover between 2005 and 2009 which was estimated at about -9.6% of city area<sup>12</sup>. The loss of trees during recent storms, such as Hurricane Ida, are sure to lower the overall tree canopy percentage in the city once the data is analyzed.

The sinking of land in New Orleans is caused by both natural and human forces, but the localized effects are worse in urbanized areas that used to be forest. Subsidence creates what is often referred to as “the bowl” in New Orleans, where the center of the city is lower than the edges, so water has to be pumped out of the city. The roots of trees can help mitigate subsidence by loosening hard, urban soils and allow water to infiltrate back into the ground. The ground water helps reduce the rate of subsidence, and mitigate flooding in the city.

### **Challenge 6: High Percentage of Vulnerable Populations**

New Orleans has a large population with limited mobility, a lack of access to cooling centers during power outages, and a range of chronic health issues. These populations are adversely affected by increased heat and flooding events. New Orleans had the nation’s highest official poverty rate among the 50 largest metro areas in 2017<sup>13</sup>. Many people do not have access to cars, health insurance, or adequate savings for emergencies. In the immediate post-hurricane environment, when power is lost and air conditioning is not available, the cooling effect of trees and their shade can offer significant relief for vulnerable populations that are not able to evacuate the city.

### **Challenge 7: Urbanized Residential Areas**

While the overall population density of New Orleans (2,311 persons/sq mile)<sup>14</sup> is on par with cities like Baton Rouge (2,959

persons/sq mi) and Memphis (2,072 persons/sq mi), and less than Atlanta (3,549 persons/sq mi) and significantly less than cities like New York City (28,211 persons/sq mi)<sup>15</sup>, many of the residential areas in New Orleans are intensely developed, with less percentage of green space on residential lots than many other cities.

## ***In 2040–2060, New Orleans can expect an additional 35 days of high temperatures over 94°F.***

New Orleans’ lack of mid-rise and high-rise dwelling units means the majority of the housing is in historical, small-lot single family residential neighborhoods. Compared to more suburban cities there is less room for trees on lots. This is a challenge as the urbanized areas contribute to the heat gain, pollution, and reduce the ability to plant trees or create green space.

### **Challenge 8: Energy Systems Exposed to Hazards**

Due to recurring hurricanes, tornadoes, and other weather events the power grid in New Orleans is particularly vulnerable. Expectations for outages after hurricanes range from seven days for a Category 1 hurricane to 21 days for Category 4 hurricane, with no range given for a Category 5 storm. The lack of power and increased heat during these events create conditions for severe health risks from heat-related effects.<sup>16</sup>

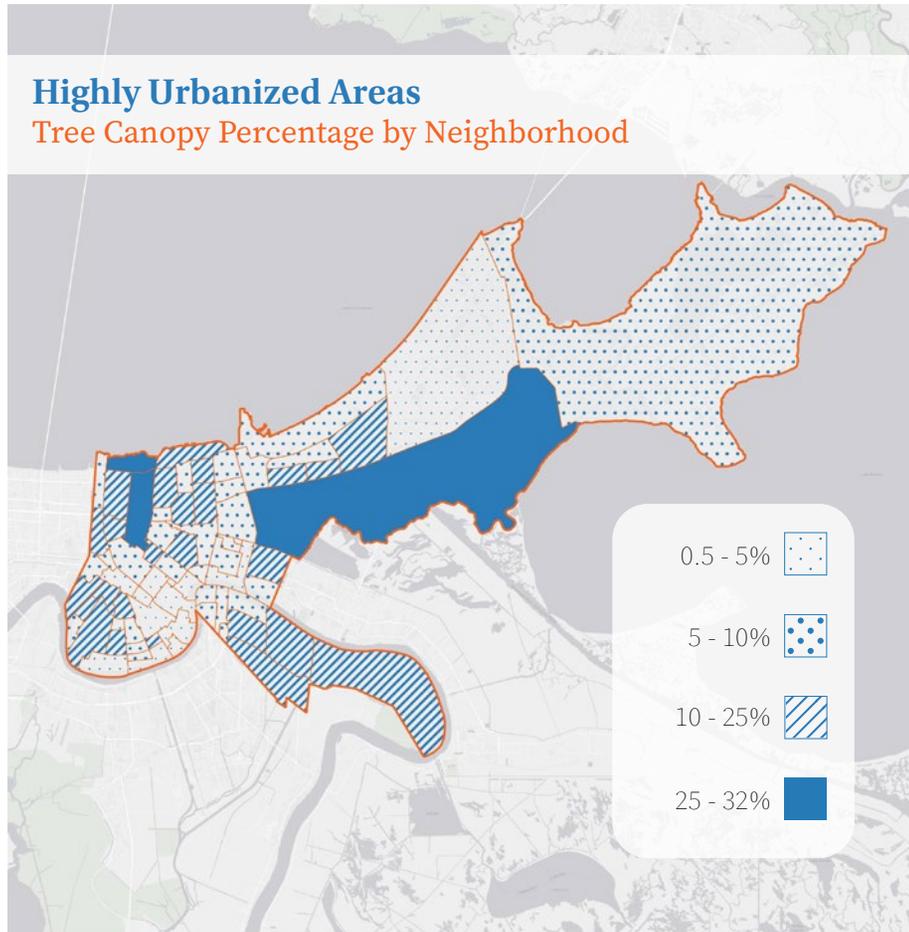


Figure 3: Highly Urbanized Areas

### Urbanized Residential Areas

New Orleans compact urban footprint in many historic areas makes tree planting a challenge, and also increases the heat in those areas. Asphalt, dark shingled roofs, and other hard surfaces collect heat and keep both daytime and nighttime temperatures above average. Over half of the neighborhoods in New Orleans have less than 10% canopy coverage.

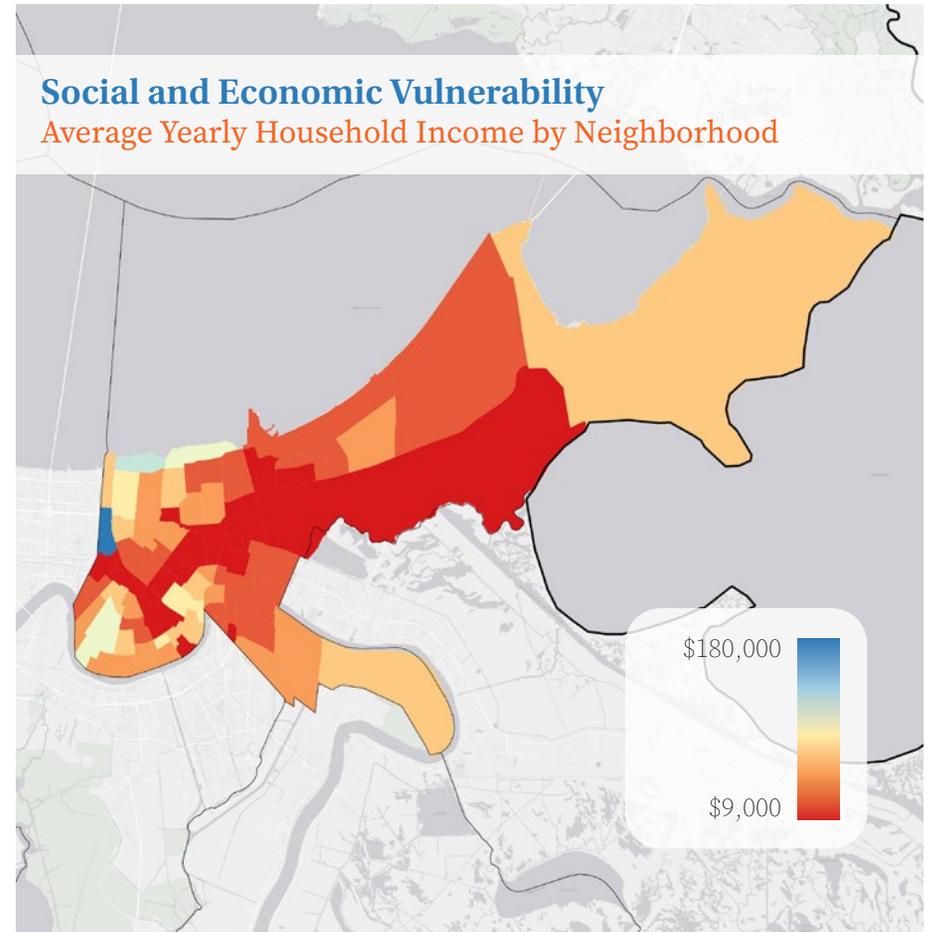


Figure 4: Social and Economic Vulnerability

### Economic and Public Health Challenges

Many people in the city have limited access to private cars, reserve income to repair air conditioners if they fail, and other economic vulnerabilities that make the environmental challenges New Orleans faces more dire. Public health issues, such as asthma, can be more prevalent in New Orleans than in other areas, making people more susceptible to environmental stress.

# The Urban Forest Compared to Other Cities

New Orleans lags behind other cities in terms of canopy coverage and is in the middle for programs or policies that protect and promote a healthy urban forest. A study of 10 other cities found an average overall canopy coverage of roughly 40%. New Orleans is significantly lower than the average at 18.5%, despite being in the middle for population density (per square mile).<sup>17</sup>

***New Orleans ranked last in terms of overall canopy coverage of the 10 other cities in the study\*.***

The median of canopy coverage among the 10 cities is 43%. Half of the cities have canopy coverage between 40% - 50%, with only one city, Charleston, SC, reporting a higher percentage at 63%.

In terms of the 10 recommended best practices for the protection and promotion of an urban forest, New Orleans has seven of the ten recommended practices in place. The average (mean) for Best Practices in place among the other cities is eight.

\*See Other Cities Comparison Chart on p.12

## Other City Canopy Goals: What Percentage of Increased Canopy Coverage is Attainable?

Many other cities have set overall canopy goals to help guide their efforts. While the overall goals are useful for comparison between other cities and New Orleans, each city is starting from a different level of canopy coverage.

### Canopy Coverage Goals<sup>18</sup>

(Increase from Existing Canopy, in % of overall canopy):

1. Charlotte	+3%
2. Atlanta	+3.5%
3. Memphis	+6%
4. Miami	+10%
5. New Orleans*	+31.5%

The goal of 50% canopy coverage from the New Orleans Resilient NOLA plan is equal to that of Atlanta, however, Atlanta is starting with roughly 46.5% canopy coverage, while New Orleans is starting with 18.5%. Out of the 10 other cities reviewed for this plan, half of the cities did not establish an overall canopy goal.

Note: This Reforestation Plan does not recommend an overall goal for canopy coverage (See Goals).

# Other Cities Comparison: Canopy Coverage<sup>19</sup> and Best Practices<sup>20</sup>

In Order of Increasing Population Density

## Jacksonville, FL

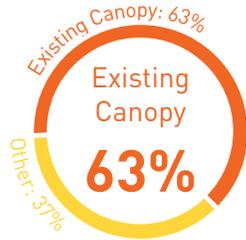
Population Density:  
1,100 psm



Canopy Goal: **No Data**

## Charleston, SC

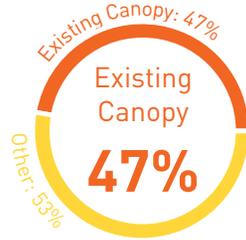
Population Density:  
1,102 psm



Canopy Goal: **No Data**

## Nashville, TN

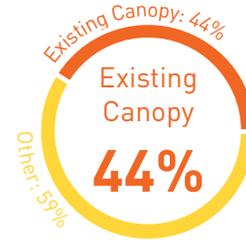
Population Density:  
1,243 psm



Canopy Goal: **Varies**

## Savannah, GA

Population Density:  
1,321 psm



Canopy Goal: **No Data**

## New Orleans, LA

Population Density:  
2,029 psm



\*Previous Climate Resilience Goal

### BEST PRACTICES

- ISA Certified Arborist
- Tree Board
- Tree Inventory (Public)
- Tree Preservation
- Removal Permit
- Heritage Tree
- Specific Protections: Public Property
- Specific Protections: Private Property
- Tree Fund
- Penalties for Violation

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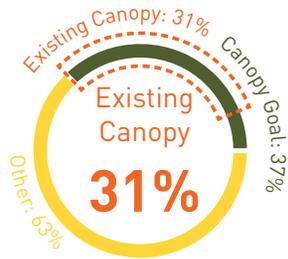
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## Memphis, TN

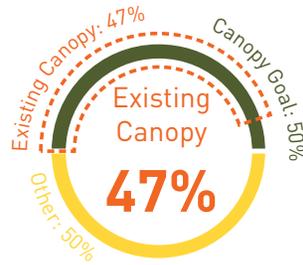
Population Density:  
2,053 psm



Canopy Goal: **37%**

## Charlotte, NC

Population Density:  
2,457 psm



Canopy Goal: **50%**

## Austin, TX

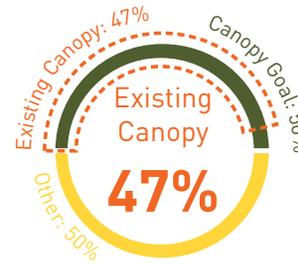
Population Density:  
2,653 psm



Canopy Goal: **No Data**

## Atlanta, GA

Population Density:  
3,154 psm



Canopy Goal: **50%**

## Miami, FL

Population Density:  
11,136 psm



Canopy Goal: **30%**

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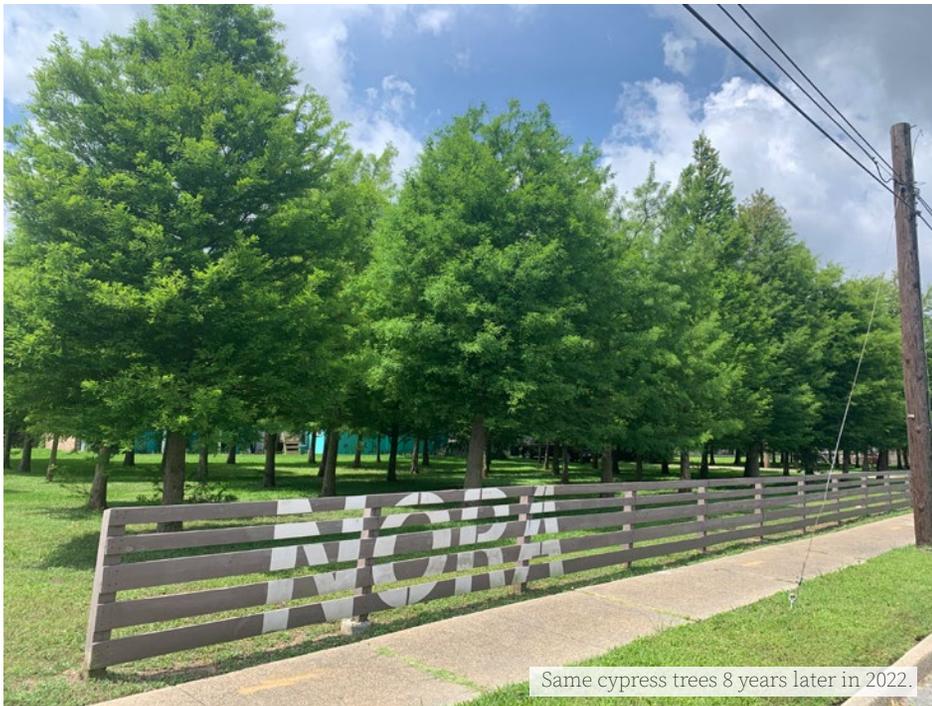
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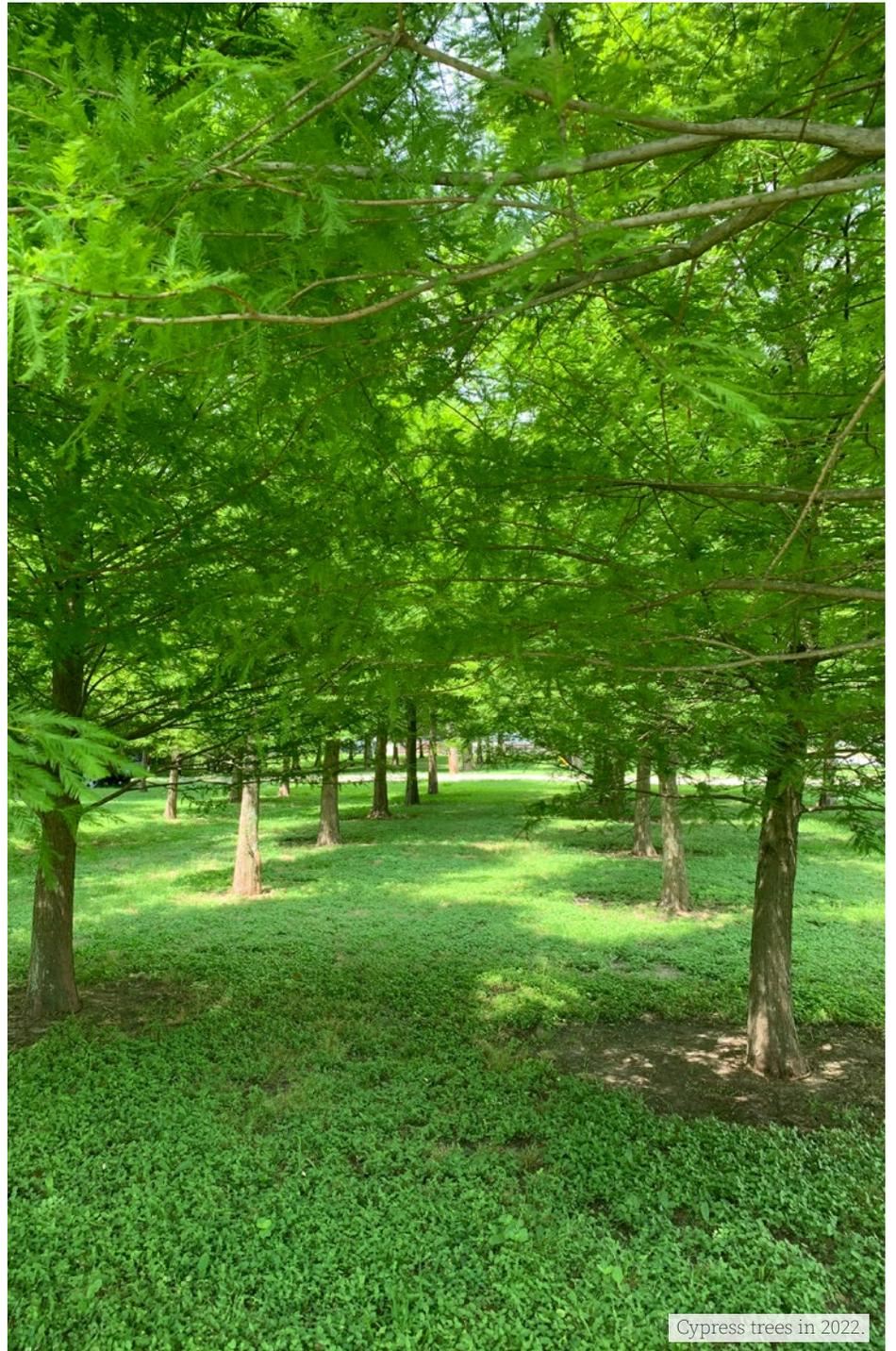
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Cypress planting in 2014.



Same cypress trees 8 years later in 2022.



Cypress trees in 2022.

Reforestation of a vacant lot as part of the New Orleans Redevelopment Authority's (NORA) Alternative Maintenance Strategies for Vacant Lots project.

# New Orleans Spending Compared to the National Average

## Comparisons to National Average

By any metric, the funding for tree care and planting in New Orleans is lacking. Based on data collected in 2014—compared with spending in New Orleans in the 2022 budget—for cities with

a population between 250,000 and 500,000, the national average for Dollars Spent per Public Tree is \$24.58, while New Orleans spends \$14.42 per public tree. The 2014 national average for Per Capita Spending on Public Trees was \$9.28 per capita, while in 2022 New Orleans spends \$3.84 per capita.<sup>21</sup>

## Average Spending on Urban Forestry for Municipalities with 250,00 to 500,000 Residents

Urban Forestry Metric	Spending on Public Trees per Capita	Spending on Trees as a Percent of the Municipal Budget	Spending on Trees as a Percent of the General Fund	Spending per Tree
National Average (2014)	\$ 9.28	0.44 %	n/a	\$ 24.58
New Orleans 2022 Budget	\$ 3.84	0.10 %	0.23 %	\$ 14.42
Projected Budget for New Orleans at the National Average	\$ 3,628,480	\$ 6,537,871	\$ 2,869,146	\$ 2,556,320
Percent Change from 2022 Budget Allocation to Meet National Average	+142%	+336%	+91%	+70%

The 2014 national average for similarly sized cities for the Percent of the Municipal Budget Spent on Forestry Services is 0.44%. The 2022 New Orleans Municipal Budget dedicated 0.10% toward forestry services. Even accounting just for the General Fund of the budget, New Orleans only spent 0.23% on Forestry Services.

***The 2022 New Orleans Budget allocated \$1.5 million towards Forestry Services. New Orleans would need to spend between \$2.5 million and \$3.5 million annually to meet the national average.***

The 2022 New Orleans Budget allocated \$1.5 million towards Forestry Services.<sup>22</sup> Based on a variety of data points, a rough estimate for what comparable cities spend on Forestry Services would be between \$2.5 million and \$3.5 million.

## Overview of Data

Spending amount is based on a survey of over 650 municipalities across the US from a survey conducted in 2014. These numbers

are for forestry related services only, not general parks or open space costs. The numbers are the averages (mean) for cities with a population between 250,000 and 500,000. New Orleans numbers are based on the 2022 Municipal Budget.

### National Averages (2014) for Cities between 250,000 and 500,000 People<sup>23</sup>

Based on a comprehensive national survey of over 650 municipal agencies conducted in 2014, the following are national averages (mean) for cities with a population between 250,000 and 500,000 for annual investments in the Urban Forest:

Municipal Tree Budget:	\$3,074,165
Contract Services Spending:	\$582,603
Full Time Employees (Forestry Only):	21
Number of Volunteers (Persons):	324
Volunteer Effort (Person Hours):	3087
Tree Spending by Electric Utility:	\$1,035,000
Number of Publicly Owned Trees*:	203,044
Value of Publicly Owned Trees*:	\$100,559,126

\*not an annual statistic



Volunteers plant the first 100 cypress trees of a 1,000 tree reforestation project on the Lafitte Greenway in New Orleans.

# Ideas Snapshot: What are Other Cities Doing?

A series of informal phone interviews were held with Forestry Managers and tree advocates to gather ideas about what other cities are doing to build their urban forests.

## Tampa, FL<sup>24</sup>

Population approximately 400,000 over 176 square miles

- There are 17 people in the forestry department
- In Development and Growth Management they have six Forester Managers: three plan reviewers and three in the field
- There are three Groups that work together to manage tree policy in the city:
  - » The Internal Working Group: one person from each relevant agency in the city meets quarterly to discuss tree issues
  - » The Natural Resources Advisory Committee
  - » Variance Review Board: Renders decisions on any appeals to the code
- Completed a canopy study in 2006 with their extension service, study is repeated every five years
- The City plants 1,100 trees annually in parks and on ROWs
- Approximately 33% of their tree loss correlates with their

development boom

- Developed an Urban Forest Management Plan in 2013
- The Tampa Bay Builders Association and grass roots organizations, such as Tree Something, Say Something, have a collaboration to improve practices to preserve and increase the tree canopy
- A tree ordinance was implemented in 1976 and is a part of Chapter 27 Zoning and Land Development
- There are three tree designations in the code:
  - » DBH 5” Protected Tree
  - » DBH 24” Specimen Tree
  - » DBH 32” Grand Tree

## Atlanta, GA<sup>25</sup>

Population approximately 500,000 over 136 square miles

- Recently had 24 foresters, but due to budget cut the number is down to 11 foresters

- The Arborist Division (City of Atlanta) has 45 days to respond to calls
- The Arborist Division (City of Atlanta) has 45 days to prune after a recommendation is made by one of their arborists
- Trees Atlanta (non-profit) plants 7,600 trees annually size 1 gallon up to B&B.
- The Arborist Division (City of Atlanta) plants 2,600 15-gallon trees annually in partnership with Trees Atlanta + 600 B&B trees
  - » Approximately 2000 15-gallon trees
  - » Approximately 400 30-gallon trees
  - » Approximately 300 7-gallon trees
- The Arborist Division (City of Atlanta) also plants about 1,000 replacement trees annually that were lost to development and construction; these must be B&B—this is part of their compulsory replacement of caliper-by-caliper.
- The Arborist Division (City of Atlanta) fulfill a lot of contracts for the city using volunteers
- The Arborist Division (City of Atlanta) manage 136 square miles, 4,212 acres of parkland and nature preserves
- Trees Atlanta’s (non-profit) cost is \$216/tree, includes watering and a warranty.

## Columbus, OH<sup>26</sup>

Population approximately 889,000 over 223 square miles

- City of Columbus planted 3,000 trees annually using contractors and in-house staff
- In 2015-19 the City of Columbus grew 3,000-3,500 trees per year for tree planting in the city:
  - » 800 spring
  - » 1200 fall in house
  - » 1000-1500 by contractors
- Inventoried in 1998 - 101,000 street trees, 25,000 park trees
- Planted 3,500 in 2022 from bare root from nursery stock at 1.75-2” caliper
- City does not plant container trees, B&B are only planted by contractors

## Charlotte, NC<sup>27</sup>

Population approximately 875,000 over 308 square miles

- The City of Charlotte plants approximately 850 trees in the right of way and another 300-1000 by Capital Improvement annually
- The City’s ongiong goal is to plant at least 1,000 trees annually.



# *Reforestation Plan*

## **Vision**

Rebuilding the urban forest in New Orleans will be a multi-faceted effort. It will require, first and foremost, protecting the existing trees in the city. It will also take a massive replanting effort—over many years—to replace the trees that are lost each year to natural causes, storms and development, and begin to increase the tree canopy. Finally, it must bring the benefits of trees to the neighborhoods that are the most vulnerable, and also typically have the least amount of existing tree canopy.

Volunteer installs a magnolia tree during a neighborhood tree planting.

# How an Urban Forest Can Benefit New Orleans

A healthy urban forest can help mitigate the impacts of many of the challenges facing the city. From cooler temperatures, to protection from storms, to healthier and more prosperous communities, trees offer a number of benefits to the city that directly improve the lives of New Orleanians.

## Benefit 1: Reduce Heat in the City

New Orleans ranks #1 in the country in Urban Heat Island Effects, making New Orleans significantly hotter than the surrounding areas. Trees can lower temperatures and reduce heat-related stress throughout the city. According to the EPA, “Trees and vegetation lower surface and air temperatures by providing shade and through evapotranspiration. Shaded surfaces, for example, may be 20–45°F (11–25°C) cooler than the peak temperatures of unshaded materials. Evapotranspiration, alone or in combination with shading, can help reduce peak summer temperatures by 2–9°F (1–5°C).<sup>28</sup>

## Benefit 2: Reduce Flooding and Clean the Water

Trees reduce the speed at which rainfall reaches the ground and thus reduce the amount of runoff that enters stormwater systems. A large Live Oak can capture over 21,000 gallons of water every year.<sup>29</sup> Tree roots also help water soak into the soil beneath them by altering the structure of the soil so that it is able to hold more

water. Water intercepted by trees reduces the amount of trash and debris that is flushed into the drainage system and often makes its way into natural water bodies. Roots clean pollutants from the water and help infiltrate water to help replenish our aquifer.<sup>30</sup>

### Eight Key Benefits of Urban Forests

Among the many benefits of urban trees, these are eight of the most important for New Orleans:

1. Reduce Heat in the City
2. Reduce Flooding and Clean the Water
3. Lower Household Energy Costs
4. Create Windbreaks for Storms
5. Improve Public Health
6. Reduce the City’s Carbon Footprint
7. Help Reduce Crime
8. Improve Local Business Opportunity

### **Benefit 3: Lower Household Energy Costs**

Trees can reduce energy costs throughout the city, but are especially effective at reducing energy costs when planted near buildings on the southern and western sides. Planting trees in residential neighborhoods near homes can reduce energy use by up to 47%.<sup>31</sup> This could be a tremendous savings in electricity costs on the monthly bill. The benefits in New Orleans are greatest in the summer through shading, but there are benefits in the winter as well. Trees block winter winds and keep houses warmer in the winter months.

### **Benefit 4: Windbreaks During Storms**

Trees provide natural protection to storms and high wind events by providing what is called a windbreak. Tree windbreaks add additional protection to the city, lowering the risk of damage to properties. Planted in groups, healthy trees can protect critical infrastructure during storms. When air hits the windbreak some is slowed down by the barrier and passes through, and some is pushed over the top of the windbreak, leaving an area behind the windbreak of much lower wind speed. A windbreak can help slow the winds down before they approach our properties and homes, and they can capture flying debris.

### **Benefit 5: Improve Public Health**

Beyond reducing impacts from heat-related events, trees can improve public health outcomes for childhood diabetes, asthma, and other chronic illnesses.<sup>32</sup> More opportunities for walking,

exercise, and being outdoors—as well as the well-documented impact trees have on improved mental health and stress reduction—are offered by trees that shade sidewalks and parks.<sup>33</sup>

### **Benefit 6: Reduce Carbon Footprint of the City**

New Orleans is one of the most vulnerable cities to climate change in the country. Planting trees has many localized benefits, but it also contributes to combating climate change in a significant way. Because of the multiple benefits of urban trees—reduced electricity usage among other benefits—planting urban trees is more valuable in removing carbon from the air than planting trees in rural areas. According to a recent study, planting one shade tree in a city is equivalent to planting three to five trees in a forest.<sup>34</sup> The city's Climate Action for a Resilient New Orleans plan sets a goal of 40,000 trees planted by 2030.

### **Benefit 7: Help Reduce Crime**

Trees can help reduce crime in a neighborhood. Recent studies show increased tree canopy over time reduces violent and property crimes by as much as 12%.<sup>35</sup>

### **Benefit 8: Improve Local Business Opportunity**

Local business corridors with street trees and pocket parks see more foot traffic and people shop for longer periods of time, increasing the success of businesses along the street.<sup>36</sup>



Uptown



Central City



Central City



Irish Channel

Examples of typical street tree planting disparities throughout different neighborhoods of New Orleans and right of way conditions that limit tree planting opportunities.

# The Planning Process

## Overview

To date, four groups have been involved in the engagement process: the New Orleans Community (public), Professional Focus Groups, Technical Advisory Committees, and the Project Team.

## Project Team

The Project Team assumed the role of facilitating all public meetings, providing technical input and guidance during the engagement process, and documenting all aspects of public input. The Project Team included members of the SOUL staff and engagement consultant Traci Birch.

## New Orleans Community

New Orleans residents were engaged during this planning process to understand their values and knowledge about trees, and to identify important opportunities and challenges. Input gathered from the community is intended to provide important context at the neighborhood scale for understanding community priorities, where New Orleans is today, and how we can work together as a community to grow a greener tomorrow.

## Professional Focus Groups

The Professional Focus Groups provided targeted input about urban forest issues, challenges, and opportunities in the City of New Orleans. Focus group participants represented different organizations throughout the City that are interested or involved in urban forestry, including, environmental, community and non-profit groups, utilities, landscape architecture firms, and various City of New Orleans agencies.

## Technical Advisory Committees

Technical Advisory Committees (TAC) were established to provide input and feedback on the direction, content, and recommendations to be contained within the final Comprehensive Reforestation Plan. Members represent non-profits, landscape professionals, utilities and governmental agencies. Committees are divided into four groups, and will focus on such concerns as long-term funding, intergovernmental coordination, and urban forestry standards. Contents of this report will support the work of these TACs.

# Challenges to Rebuilding the Urban Forest

Out of the public and stakeholder engagement work came a series of challenges that are facing efforts to maintain and expand the urban forest of New Orleans. Many of the challenges identified by the workshop participants—especially those that involve topics such as policy, or inter-agency coordination, or roadwork regulations—are in fact addressed various codes, procedures, and regulations within the city. There is a strong foundation to work from within the current city practices, and aligning these practices in a unified effort is at the heart of many of the observations.

## Challenge 1: Conflicting or Missing Urban Forestry Policies

A community's policies, regulations and practices communicate and reflect the values and priorities of the community. Many of the participants in the meetings identified the need to re-evaluate the current policies, regulations, and guidelines—many which have been in place since the 1960's—and better align them with nationally-recognized best practices in urban forestry.

Key challenges identified by the stakeholder groups include a lack of a tree replacement requirement on private property for development plans, as well as when trees are lost during storms or to disease. Some participants voiced an opinion that current policies or practices often drive the inequitable distribution of trees (i.e. trees are more likely to be removed in

poor neighborhoods, and planted in wealthier ones), although it is recognized that there are no policies in place at the city that purposefully promote this outcome.

Stakeholder groups noted there is a need to enact enforceable policies that protect and buffer trees, provide guidance on species selection, and provide incentives for planting. These groups

### 10 Challenges to Rebuilding the Urban Forest

1. Conflicting Urban Forestry Policies
2. Conflicts with Utilities/Infrastructure
3. Limited Space in the Landscape
4. Lack of Life-Cycle Maintenance Plan
5. Funding/Resources
6. Public Understanding of Tree Benefits
7. Inter-agency Coordination
8. Incomplete Data
9. Inequity
10. Trees on Private Property

identified a need for standards that support green infrastructure and stormwater management practices that includes trees as stormwater infrastructure.

## **Challenge 2: Utilities/Infrastructure**

All utilities have an obligation to provide safe clearance around trees and transmission lines. Despite current regulations for licensed arborists to perform the work, the stakeholder group identified the pruning of trees to clear overhead utility lines as a challenge. The stakeholders indicated that consideration for the health and aesthetics of the trees should be given a higher priority. Regular pruning could reduce the need for drastic canopy reductions that are needed when trees are pruned at less regular intervals.

Roadwork is seen by the stakeholders as a significant challenge to reforestation. Participants noted that roadwork often requires the removal of trees during construction, and long construction times can damage existing trees. Although there are policies in place to protect and replace trees removed or damaged during roadway construction, the stakeholders indicated that more consideration for incorporating trees into the street design—such as right-of-way cutouts for trees—and greater protection for existing trees could be incorporated into the planning and design process.

## **Challenge 3: Limited Space in the Landscape**

Many of New Orleans' historic neighborhoods have limited space

for large-scale planting efforts. Often there are small rights-of-way with little room for street trees. Further, rights-of-way and neutral grounds are used for storm-related parking—or illegal parking for daily or weekly events—which can compact the soil and damage tree roots. An abundance of impervious surfaces (e.g. buildings, parking lots, roads) make planting difficult and flooding more prevalent. There is a need to retrofit many of these areas to plant trees. Stakeholders emphasized the need to work with private property owners to plant in front and backyards to achieve tree canopy goals.

## **Challenge 4: Lack of Life-Cycle Maintenance**

One of the primary underlying issues identified by stakeholder is that trees have historically been a low priority, and this extends to tree maintenance. There are policies and regulations in place that require the basic maintenance needed to sustain a healthy tree canopy. However, these policies could be strengthened and more funding and resources dedicated to maintenance.

Stakeholders indicated that life-cycle maintenance—a proactive approach to maintenance that follows a tree from first planting to removal—is needed to build a robust canopy and establish an equitable urban forest.

## **Challenge 5: Funding/Resources**

A primary challenge identified by stakeholders was the need for dedicated and adequate funding/resources for urban forestry that address both initial planting and long-term management.

The observation of many stakeholders is that current funding streams have not kept up with national best practices. Agencies such as Parks and Parkways, who will be asked to maintain many of the existing and proposed trees, will need a significantly larger budget to maintain a larger tree canopy. Future budgets should also include funds for services such as post-hurricane tree straightening, debris cleanup, and tree watering if reforestation goals are to be met.

### **Challenge 6: Public Understanding of Benefits**

Education of the general public and governmental agencies at all levels is needed to dispel misconceptions about trees. Stakeholders cited a need to teach residents about the importance and value of trees, and have coordinated and open discussions with neighborhood groups about their concerns and questions. There is an opportunity to work with residents to help them understand why trees are paramount to a resilient city and a key to combating climate change. These conversations may take place during neighborhood tree planning sessions, or citywide as part of larger planning efforts (e.g. resilience and/or adaptation planning).

### **Challenge 7: Inter-agency Coordination**

The professional stakeholder group brought a unique set of challenges to the table as the ones trying to navigate the complex system of permitting and project coordination. A key challenge identified includes the need to engage numerous agencies on the same project (e.g. LA DOTD, Parks and Parkways, Entergy, DPW),

which often have inconsistent specifications and competing priorities with regard to tree standards. Despite protocols in place for agency coordination on major projects, the observations of the professional stakeholders is that many departments feel siloed on private and commercial development projects, as well as utility projects.

The stakeholder group commented that there is a need for a central agency in charge of urban forestry, with a coordinated mission and enforceable regulations. Building on this, professionals cited the need to have consistent planting rules that can be counted on from year to year, or periodic online presentations by city agencies of updates to policies or regulations when they change.

### **Challenge 8: Incomplete Data**

Collecting data on trees is an ongoing process in cities across the country. As is the case in New Orleans, these tree inventories often start with municipally-owned trees in parks, along streets, and on city property. The City of New Orleans is a step ahead of many cities as this initial inventory—an inventory of all city-owned trees—has been completed. There are efforts to maintain and update the tree inventory, but more resources are needed to keep the data from becoming obsolete.

Parks and Parkways currently maintains and updates the database of trees on city property and other accessible areas. As new trees are planted, they are added to the GIS database, which is a great foundation for a more comprehensive urban tree dataset.

However, a full accounting of all trees in the city—including low-barrier properties like institutional campuses, state and federal agency property, and school board controlled sites—is not available, and remains a challenge to effectively managing the urban forest. Many of the institutions, such as Tulane University, already have datasets that could potentially be merged into the City of New Orleans tree inventory.

Getting to a full inventory—which would include collecting tree data for trees on private property—is a long-term challenge. Good will from private property owners, or other counting measures that do not require going onto private property, would be needed for such an enterprise.

### **Challenge 9: Inequity**

The benefits of trees are not spread across the city in an equitable way. Many lower income neighborhoods that could benefit from reduced energy costs, shaded streets, tree-filled parks for exercise and play, and reduced flooding are also neighborhoods that have few trees. Many of these neighborhoods have also suffered historically from underinvestment. The perception of stakeholders is that these communities may be wary of new trees for fear that will not be maintained by the city in a proactive way. Education about the benefits of trees and how proactive tree care can reduce long-term problems with trees is also a challenge to bringing the benefits of trees to all of the neighborhoods in New Orleans.

### **Challenge 10: Trees on Private Property**

The majority of trees in New Orleans are on private property. There are existing regulations that address trees on private property—on projects above a certain size—as well as regulations requiring trees in parking lots and as buffers on private property on most projects in New Orleans. However, a permit is not required to remove a tree from private property, and while there are no hard statistics on the number, the stakeholder groups recall that a significant number of trees are lost each year to development and other issues on private property.

Many peer cities require permits to reduce the removal of trees on private property—including the Metairie Ridge Tree Preservation District in neighboring Jefferson Parish. Maintaining existing trees and encouraging planting of new trees on private property is a serious challenge to the reforestation of the city. The larger goals of the plan will be difficult to achieve without a partnership with private landowners and institutions.

# Percent Tree Canopy Coverage by Neighborhood

Highest to Lowest Percent Coverage

## **25% - 35% Canopy Coverage**

30.1% City Park  
29.4% Lakeshore-Lake Vista  
28.3% Viavant-Venetian Isles

## **10% - 25% Canopy Coverage**

20.4% Filmore  
19.6% Audubon  
19.3% Read Blvd East  
19.1% Lakewood  
18.8% New Aurora-English Turn  
18.5% East Carrollton  
17.9% Old Aurora  
17.6% Lower Ninth Ward  
17.3% Tall Timbers-Brechtel  
16.7% Dillard  
16.2% Marlyville-Fontainebleau  
15.5% Behrman  
14.4% Gentilly Terrace  
14.3% Lakeview  
13.8% Read Blvd West  
13.7% Garden District  
13% Lake Terrace & Oaks

13% Plum Orchard  
12.7% Bayou St. John  
11.2% Milneburg  
11% Leonidas  
11% Uptown  
10.9% Broadmoor  
10.8% Navarre  
10.3% Seventh Ward

## **5% - 10% Canopy Coverage**

9.9% St. Anthony  
9.8% West End  
9.7% Gentilly Woods  
9.7% West Lake Forest  
9.2% Florida Area  
9.2% U.S. Naval Base  
9.1% Treme-Lafitte  
8.4% Holy Cross  
8.4% Whitney Corridor  
(Algiers Riverview)  
8.3% Fairgrounds  
8.3% Hollygrove  
8.2% Mid-City

8.2% St. Roch  
8.1% Pines Village  
7.8% St. Claude  
7.7% Desire Area  
7.7% Pontchartrain Park  
7.5% Touro  
7.2% McDonogh  
7.1% Marigny  
6.6% Milan  
6.4% Little Woods  
6.1% Black Pearl  
6.1% St. Bernard Area  
5.7% Algiers Point  
5.6% Dixon  
5.3% East Riverside  
5.2% Fischer Dev

## **0% - 5% Canopy Coverage**

4.9% Village De L'Est  
4.6% Freret  
4.5% Bywater  
3.4% Central City  
2.7% Tulane-Gravier

2.5% Gert Town  
2.3% Irish Channel  
2.3% Lower Garden District  
2.3% West Riverside  
1.8% French Quarter  
1.4% B.W. Cooper  
0.8% Florida Dev  
0.8% St. Thomas Dev  
0.6% Central Business District  
0.5% Iberville

# Percent Canopy Coverage by Neighborhood

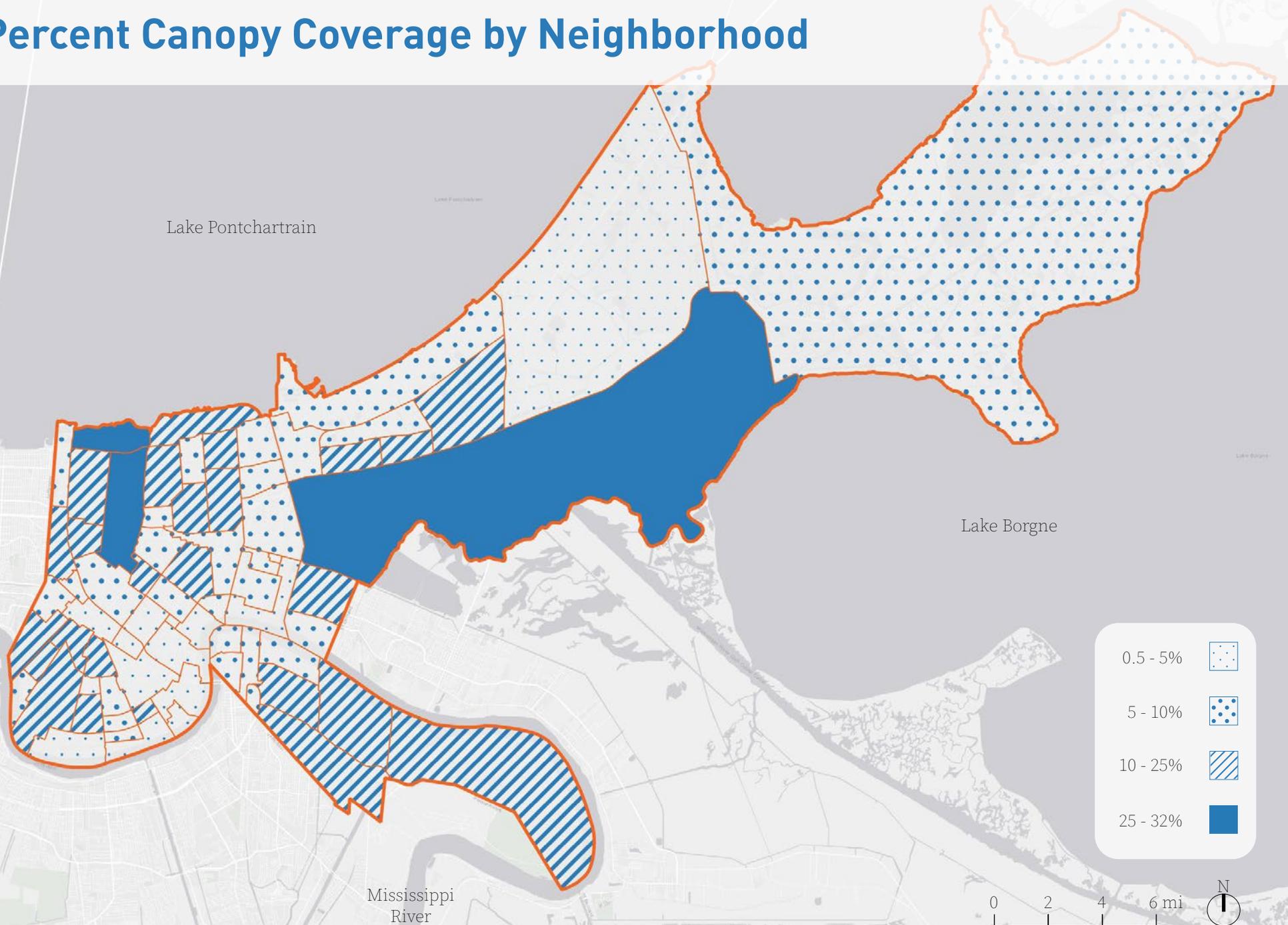


Figure 5: Percent Canopy Coverage by Neighborhood



Pine trees after 8 years of growth.

Reforestation of a vacant lot as part of the NORA's Alternative Maintenance Strategies for Vacant Lots project.

# Citywide Goals

## Overview

The citywide goals are based on the aspirations of the community, as recorded in the Community Engagement and Stakeholder learning sessions, as well as an assessment of the challenges facing New Orleans, both environmental/social challenges and technical/financial challenges identified by the community.

The goals are not mutually exclusive. All three goals can be pursued simultaneously, and in many ways they are interdependent. The first two goals: Create a Unified Tree Policy and No Net Tree Loss are certainly the foundation of the long-term goal of building a healthy, equitable urban forest.

## Equity is the Guiding Principle

As the City of New Orleans embarks on a reforestation plan, it is important to distribute the benefits to communities that are marginalized and have a history of disinvestment. These communities often see the hottest temperatures in a city due to a lack of tree canopy which not only negatively impacts health outcomes but also causes an economic burden of high utility bills and increased medical costs.

A goal of 10% canopy coverage in all neighborhoods will drastically increase the overall canopy coverage of the city, while bringing the benefits of trees to the people that need it the most.

## Quick Start: Neighborhood Pilot Plans 10% Canopy Coverage in 10 Years

A short-term goal that will build toward both No Net Tree Loss and an Equitable Urban Forest is a pilot project to work in five neighborhoods over five years to plant enough trees to increase the canopy coverage to 10% within 10 years, once the trees have grown.

This pilot program will allow the City and its partners to build capacity—a reliable supply of trees, more equipment, larger volunteer pools—while demonstrating the value of trees in the neighborhoods.

### Potential Pilot Neighborhoods

- Hollygrove (Council District A)
- St. Bernard (Council District D)
- Whitney Corridor (Council District C)
- Central City (Council District B)
- Little Woods (Council District E)

Over 10 years, the trees planted in the neighborhood will mature and—along with the existing trees—create an overall canopy coverage of 10% of the neighborhood.

Note: See Pilot Neighborhood Plans for information on the plans and potential planting capacity of the City and non-profit partners at the present time.

# Three Key Goals for the City

## GOAL ONE

### No Net Tree Loss within Three Years

#### Short Term Goal: 2026

One of the key short term goals is to stop overall tree loss in the city. Immediate action is required to help identify potential loss, and replace trees that are lost every year. This goal must also influence the Unified Tree Policy, and include active work to halt the loss of trees in the city due to development and other forces, as well as a robust planting plan to offset natural tree loss.

## GOAL TWO

### Create a Unified Tree Policy

#### Short Term Goal: 2028

One of the most important outcomes of the Reforestation Plan would be the creation of a Unified Tree Policy for the City of New Orleans that coordinates and strengthens policies already in place, coordinates agency policies, and creates new policies and procedures that ensure the urban forest is managed and expanded as a valuable piece of urban infrastructure. Funding strategies to support active oversight, as well as policy enforcement, should be a central part of this plan.

## GOAL THREE

### Plant an Equitable Urban Forest

#### Long Term Goal: 2040

Well over half of the neighborhoods in New Orleans have less than 10% canopy coverage. With equity as a driving principle, the goal is to bring the benefits of trees to the people that live in the most vulnerable communities. Many of the most socially vulnerable communities in the city are also the communities where there are few trees.

The goal for 2040 is bring every neighborhood up to a 10% canopy coverage threshold. This will require 100,000 trees to be planted in neighborhoods across the city.

# Citywide Reforestation Strategies

## Overview

The citywide strategy is built around the three goals established for the Reforestation Plan. The strategies will work in concert to halt the loss of our tree canopy in the short term, and expand the tree canopy in the long term. All of these efforts will be guided by the goal of an equitable urban forest that provides benefits to all New Orleanians, but especially communities that have been historically marginalized and are at the greatest risk of impact from climate change.

Guiding the strategies is a principle of pursuing the soft options first, and building capacity and knowledge as the program develops over the years. For example, the plan prioritizes planting in areas that are less contested, have the fewest utility conflicts, and are the easiest to maintain. From an equity standpoint, this would mean working in vulnerable neighborhoods that have established tree planting programs, while starting educational initiatives in neighborhoods where tree planting is a new idea.

As the program develops, and lessons are learned in the early phases, more challenging areas will become a part of the program. If the city is going to reach its long-term goals, techniques for planting and managing trees in highly urbanized areas will need to be a part of the plan. Building the policies, capacity, and knowledge to accomplish this will be an ongoing process within the reforestation strategy.

## Strategy 1: Convey the Value of Trees

One of the key components of a reforestation plan is education. Similar to how the city discussed the importance of stormwater management, investing in open and transparent discussions around the issue of trees is vital for the success of the program. The public must embrace the fundamental goals of the plan—that trees are beneficial to our city and to them personally—for the plan to be sustainable over the long term.

### ACTION ITEMS

#### 1.1 Initiate a Citywide Tree Education Initiative

- Select and fund an organization to lead a Citywide Tree Education Initiative.
- Develop educational concepts, narratives, and data that will be useful in discussing the importance of trees with the community.
- Create materials about the value of trees that can be used in community meetings, online, and in other discussion settings.
- Develop a plan and schedule for a three year educational initiative across the city.
- Develop a reporting mechanism so organizations working on other areas of the plan can benefit from the citizen feedback during the educational meetings.

## 1.2 Promote Trees as Infrastructure

- Work with elected officials to promote the concept that trees are infrastructure and are valuable to the city and request they speak about trees at community gatherings.
- Meet with leaders and project managers at key city agencies (DPW, SWB, CPC) to discuss the role of trees as infrastructure, and how this message can be communicated within the departments.
- Build on relationships with federal agencies such as FEMA and the USACE to promote trees as infrastructure and change policies that will allow those agencies to fund tree planting in their local projects.

## Strategy 2: Develop a Unified Tree Policy

Creating a unified set of policies for the preservation, management, and planting of trees within the municipal government is critical for the success of the reforestation plan. It is a complex task, as it will require a series of both incentives and requirements, across multiple agencies within the City of New Orleans.

### ACTION ITEMS

#### 2.1 Coordinate Requirements of Key Agencies and Stakeholders

- Create and fund a working group overseen by a selected non-profit, such as the Water Collaborative, with a representative

- of each key agency or stakeholder to map out the opportunities and challenges to creating a Unified Tree Policy.
- Conduct an in-depth audit of current city policies and practices for best-practices, overlap, lack of coordination between policies, and any oversights that are not covered by existing policies.
- Working with City Council, develop recommendations to amend the policies at the ordinance level to promote a coordinated effort to increase tree canopy across the city.

#### 2.2 Create an Early Review Process for Tree Protection

- Create a process within the project pre-planning process where the protection of trees is considered, rather than

### Policy Ideas for Consideration

- Consider new requirements for one to five unit residential front yard tree planting where sufficient space is provided. Current requirements are for 6+ units.
- Encourage variances for creative design to enable tree preservation.
- Require significant tree preservation in yard and buffer areas.
- Establish tree preservation districts that neighborhoods may opt-into.
- Establish a tree fund payment in lieu for significant tree removal.

further along in the process where major project decisions have been made, such as massing and building layout, that make protecting trees a difficult task.

- Identify the places in the early planning process, like City Planning, where this information is critical.
- Require an Existing Tree Plan to be submitted with any pre-project planning application or preliminary meeting.

### 2.3 Create Incentives to Plant/Save Trees on Private Property

- Create incentives within the zoning code for saving trees on private property.
- Strengthen and expand guidelines that will require tree planting on large developments or conditional use projects.

### 2.4 Incorporate Trees into Stormwater Ordinance

- Develop metrics to allow for the preservation of existing trees to count toward stormwater management requirements for a project.
- Develop metrics to allow newly planted trees to contribute to the stormwater management requirements for a project.

### 2.5 Create Better Tree Protection Regulations During Roadway Construction

- Require a separate pre-construction meeting on site with

an arborist and the roadway contractor to discuss the measures that will be taken to protect trees during roadway construction.

- Work with City Council to develop better tree protection guidelines during roadway construction with the input of DPW and other local agencies.
- Establish a transparent process for asking questions and receiving answers about trees and roadwork.

#### Detail: Action Item 2.1

Review of Current City Policies and Practices

Many of the recommendations in the plan are already on the books within the City of New Orleans. Action Item 2.1 calls for the coordination of requirements for key agencies and stakeholders.

In this critical step the following existing policies—among others—should be considered for transparency, consistency, and effectiveness:

- Article 23 CZO Planting Requirements
- Article IV of the Municipal Code of Ordinances
- PKW Permit Requirements
- PKW Plant a Tree Trust Fund
- DPW Specifications & Details
- Enforcement Mechanisms within Existing Policies
- Safety & Permits Review
- Permit Tracking System (LAMA)

## 2.6 Develop a Guidebook for Planting Trees in New Orleans

- Develop a best practices guidebook for planting trees in New Orleans that addresses the unique urban conditions of the city.
- Develop best practices with local utilities for planting trees in the city.

## 2.7 Enforce Tree Policy

- Create a task force within an agency in the city that is dedicated to enforcement of the current, and any future, tree regulations.
- Develop more robust penalties for violations of the tree policies.

## Strategy 3: Build a Sustainable Planting Program

Reaching a No Net Loss goal requires a robust tree planting program in the city. The city loses a large percentage of its trees through natural causes every year, with hurricanes, development, and roadway construction adding to that number. A sustainable tree planting program must be a key component of a plan to increase tree canopy in New Orleans.

Building a sustainable tree planting program relies on spaces within the city to plant trees, and for the trees to be able to mature to full canopy, as well as a system to provide trees for

planting, crews and volunteers to do the installation.

## ACTION ITEMS

### 3.1 Launch Pilot Projects in Tree Deserts

- Launch a series of pilot projects in areas of the city where the need is greatest in terms of economic and social challenges.
- Incorporate educational initiatives into the planting programs.

### 3.2 Prioritize Planting in Under-resourced Neighborhoods

- Begin educational efforts in the most under-resourced neighborhoods first.
- Focus planting efforts in neighborhoods identified as under-resourced.
- Prioritize maintenance and management of trees in under-resourced neighborhoods.

### 3.3 Build Partnerships with Large Landholders

- Build partnerships with large landholders such as universities, hospitals, and state-operated parks to plant and maintain trees
- Develop multi-year planting strategies with these organizations



## Pontchartrain Park

A New Orleans Precedent

Local non-profit groups continue to be key partners in replanting the urban forest since Hurricane Katrina. Several great precedents have emerged, including an active push to focus replanting in a neighborhood.

Sustaining Our Urban Landscape (SOUL) has been actively reforesting Pontchartrain Park since fall 2021. By December 2023, every block will have been planted with trees. Its approach is to offer at least one tree to every address, and tenants and property owners can easily opt-out of the project if they wish to. The project will plant 1,750 trees total.



Volunteer groups installing trees as part of a planting project .

### 3.4 Build Partnerships with Neighborhood Leaders and Associations

- Engage neighborhood leaders in the effort to increase the tree canopy.
- Engage neighborhood leaders in the educational effort to promote tree planting and maintenance.

#### Strategy 4: Plan for Sustainable Management

The management of the urban forest is critical both for the health of the forest itself, as well as the acceptance of trees by the community as a valuable resource. Many fears around trees stem from the improper care which allow trees to be seen as hazards in a neighborhood. A healthy urban forest will be welcomed by a wide range of people in the city.

To build a healthy urban forest, a robust management plan must be developed and funded. This plan should be comprehensive, efficient, and sustainable over the long term. The plan should take into account the growth of the forest, as well as the need to train people over time to perform the maintenance.

#### ACTION ITEMS

##### 4.1 Plan for Life Cycle Maintenance

- Identify an agency within the City of New Orleans that will lead the citywide Life Cycle Maintenance effort.
- Create a detailed Life Cycle Maintenance Plan that will

consider the needs of trees in each stage of their life, from establishment to eventual removal.

##### 4.2 Establish Regular Maintenance Schedules by Neighborhood

- Create a regular maintenance schedule for each neighborhood or district in the city that focuses on a Life Cycle Maintenance approach.
- Coordinate the various non-profit and volunteer groups that work on the urban forest to assist with observation and maintenance in different geographic areas of the city.

##### 4.3 Build a Robust Urban Forest Database

- Coordinate all tree inventory databases within the city's GIS Department to create a Master Tree Inventory.
- Develop a system to track all new plantings of trees, both in the public right-of-way as well as on private property.
- Complete a comprehensive Tree Inventory update every five years to coordinate any missing information and update the database to the latest technology.

#### Strategy 5: Assemble a Reliable Funding Stream

Assembling a steady stream of funding for reforesting the city will be a challenge, as it is for all city programs. Building funding capacity should grow over time with the needs of the program. The initial effort to accomplish No Net Tree Loss could

be started with minimal new funding sources, such as funding from the City for a staff position to coordinate the assist with the development of a Unified Tree Policy and coordination between agencies during the first five years of new policy implementation. Early in the plan, funding for community outreach will be critical as it will take time to discuss these issues.

As the program and the urban forest grows—and the community begins to see the urban forest as beneficial—funding for ongoing maintenance and accelerated tree planting will be needed. There is an opportunity for seed money to have a large impact by funding the early develop of capacity, such as establishing maintenance training programs and developing supply chains and techniques for better planting programs.

## **ACTION ITEMS**

### **5.1 Establish a Funding Sources Plan**

- Identify the agency or organization that will coordinate and report on the funding initiatives.
- Establish a realistic funding schedule for a long-term maintenance plan and identify potential funding sources.
- Include growth targets for funding that take into account yearly inflation, the growth of the forest, and increases in efficiency and knowledge over time.

### **5.2 Create a Flexible Funding Strategy with Targets**

- Create a 5-year, 10-year, and 20-year Funding Strategy based

on anticipated needs of the program.

- Develop early “Capacity Building” funding strategies and prioritize the funding of these programs within the first 12 months of the plan.
- Distinguish between one-time revenue sources and ongoing funding and plan accordingly.

### **5.3 Prioritize Funding within Existing Revenue Streams**

- Seek initial funding from existing revenue streams within the City of New Orleans and related governmental agencies.
- Create a 1% for Trees Initiative that promotes tree planting in all development and city infrastructure projects.

### **5.4 Explore Outside Funding Sources**

- U.S. Forest Service’s Urban and Community Forestry Program
- U.S. Department of Agriculture

An aerial photograph of a residential neighborhood with many houses. A semi-transparent blue banner is overlaid across the top half of the image, containing the title 'Pilot Neighborhood Plan' in white, italicized text.

# *Pilot Neighborhood Plan*

## **Vision**

With equity as a driving force, this pilot project will work in five neighborhoods over five years to plant enough trees to increase the canopy coverage to 10% within 10 years, once the trees have grown.

This pilot program will allow the City and its partners to build capacity—a reliable supply of trees, more equipment, larger volunteer pools—while demonstrating the value of trees in the neighborhoods. And in the process plant 25,000 trees where people need them the most.

Planting on the Lafitte Greenway.

# Pilot Neighborhood Plans: 10% Canopy Coverage in 10 Years

As efforts to create a Unified Tree Policy commence, a simultaneous effort to begin the process of building a more equitable urban forest can also be underway. This plan will plant trees in one neighborhood per year, over five years, to bring each neighborhood up to the 10% canopy goal in 10 years of growth.

## Overview

One of the primary goals of the Reforestation Plan is to create an equitable urban forest, where the benefits of trees are provided to the most vulnerable neighborhoods. The specific goal is to achieve 10% canopy coverage in all neighborhoods in the city. Over half of the neighborhoods currently do not meet this goal, and one in five neighborhoods have less than 5% coverage.

Building off of the success and lessons learned in other planting efforts across the city—including the Pontchartrain Park planting efforts over the last several years—this Pilot Neighborhood Plan calls for a concentrated effort to plant trees in five neighborhoods over the first five years of the plan—one neighborhood per year. The goal is to achieve 10% canopy coverage in each neighborhood 10 years from the planting date which is the approximate time it would take the trees to grow to provide the expected canopy coverage.

Based on self-reported annual tree planting numbers from local non-profits and the new, direct tree plantings of Parks

and Parkways in 2022-2023 (which is 1,165 trees), the current capacity for planting trees is roughly 3,000 trees annually. These pilot projects will be opportunities to build planting capacity—establish a reliable source of trees, increase equipment inventory, form volunteer relationships—over the course of the first five years. The individual neighborhood plans will increase in ambition, in terms of number of trees planted, over the course of the five year pilot project.

To be successful, this project will involve not only the planting of trees, but the continual care of all trees in the neighborhood, both newly planted and existing. It will require planting on city-owned land such as parks, streets, and neutral grounds, as well as teaming with local institutions and private property owners. Education and Outreach (Action Items 1.1 and 1.2) will also play a key role in the pilot project.

## Detailed Approach to Each Neighborhood Plan

The Neighborhood Plans feature one neighborhood in each Council District that meets the following criteria:

- Lack of Tree Canopy
- High Urban Heat Island Effect
- Increased Vulnerability in Community

Within each of these neighborhoods the goal is to plant enough

trees to achieve an overall 10% canopy coverage in 10 years. The neighborhoods chosen in this Pilot Project all have less than 10% canopy coverage, have a high percentage of vulnerable citizens living in the community, and are among the hottest places in the city due to urban heat island effect.

The Neighborhood Plan identifies potential areas for planting within the neighborhoods along with a target number of trees to plant. Working with the community in outreach efforts, forming relationships with institutions, and identifying ways to incorporate trees on private property will be a part of the process.

Planting within each neighborhood will offer different challenges and opportunities, but generally would be prioritized based on the following opportunities:

- City-owned Open Space (Parks, Neutral Grounds, Streets)
- Public Properties (Schools, Libraries, Other)
- Institutional Partners (Universities, Hospitals, Other)
- State and Federal Properties (Highways, Interstates, Other)
- Private Property (Homeowners, Businesses)

## **Building Capacity During the Pilot Projects**

The Neighborhood Plans become more ambitious throughout the five year pilot program. The current capacity for planting is less than the 3,000+ trees per year some of the larger neighborhoods will require to reach the 10% in 10 years goal. This incremental approach allows for a gradual building of capacity over time which is necessary to reach the city-wide Climate Action Goal of 40,000 trees planted by 2030.

As the capacity for planting grows, and the outreach and education process becomes more streamlined, more Neighborhood Plans will be developed. There are at least 42 neighborhoods in the City of New Orleans (out of 72 total) that are currently under 10% tree canopy. To achieve the goal of 10% coverage for all residential neighborhoods, multiple neighborhoods will need to have tree planting programs each year. The capacity for planting will have to increase dramatically to accomplish this feat.

## **Level of Difficulty (one to three; Least to Most Challenging)**

The Level of Difficulty for planting is a rough assessment of the challenges facing the planting of trees in the neighborhood based on two simple metrics: permissions needed to plant on the site; and site/utility/current use conflicts.

A neighborhood with plenty of wide, vegetated planting strips in the public ROW and minimal overhead utilities or on-curb parking would be considered Least Challenging.

Neighborhoods that are the Most Challenging would require more robust coordination with private or public entities outside of the City of New Orleans, a lack of vegetated planting areas (concrete), neighborhood use— such as parking—in areas typically used for street trees, and a large amount of overhead or underground utilities.

A Level of Difficulty of one is considered Least Challenging, and three being the Most Challenging.

## Potential Costs for the Pilot Project

The potential costs for the pilot projects are largely dependent on the organization that will be planting the trees. Non-profit organizations that can mobilize community support through volunteer planting efforts are more cost effective than hiring landscape contractors. Also, planting is more expensive the higher the Level of Difficulty.

These are rough order-of-magnitude costs, not implementation budgets. They should be used for planning purposes only, and do not factor inflation into the costs. They are based on information provided in the fall of 2022 by local organizations.

The range of costs per tree is between \$250 and \$750. The low end of the cost range is for a tree planted by a non-profit organization, on a clear and accessible site, with community and volunteer support. The high end of the range is for a contractor planted tree in a more difficult setting. Watering and a one-year warranty is assumed for all trees.

Two full time positions for a year are included in the estimates, one for Education/Outreach and another Administrative position. These are assumed to be \$75,000/year per position. A 15% contingency for all costs is included.

## 5-Year Plan: Capacity Building and Costs

### **Year 1: Hollygrove Neighborhood**

Tree Goal: 1,500 Trees  
Difficulty: 1 (Least Challenging)

Install: Non-Profit/City  
Cost: \$500,000

### **Year 2: St. Bernard, Whitney, & Central City 1**

Tree Goal: 3,200 Trees  
Difficulty: 2 (Moderately Challenging)  
Install: Non-Profit/City  
Cost: \$2,000,000

### **Year 3: Central City 2 & 3**

Tree Goal: 5,300 Trees  
Difficulty: 2-3 (Moderately to Most Challenging)  
Labor: 50% Non-profit/City Staff; 50% Contract  
Cost: \$4,000,000

### **Year 4: Little Woods 1**

Tree Goal: 7,500 Trees  
Difficulty: 1 (Least Challenging)  
Install: 75% Non-Profit/City Staff; 25% Contract  
Cost: \$3,000,000

### **Year 5: Little Woods 2**

Tree Goal: 7,500 Trees  
Difficulty: 1 (Least Challenging)  
Install: 75% Non-Profit/City Staff; 25% Contract  
Cost: \$3,000,000

## Summary

Total Trees Planted: 25,000  
Total Program Cost: \$12.5 million  
Cost per Tree: \$500 (includes Admin + Outreach)

# YEAR 1 Hollygrove Neighborhood

## Planting Opportunities

The Hollygrove neighborhood consists of approximately 400 acres and has 8.3% canopy coverage. The key opportunities for planting in the neighborhood are the streets. There are numerous streets without trees, and while there are some parking conflicts, there remains plenty of easily accessible planting spaces in the right of way.

Other key opportunities include a former railroad corridor that runs through the center of the neighborhood. Planting in the roughly 14 NORA lots may be another opportunity. An active school site with an adjacent parcel and a small neighborhood park offer further areas that may be potential planting areas.

## Planting Goals

To achieve a 10% canopy coverage across the neighborhood in 10 years would require the planting of approximately **750 to 1,500 trees** with an expected 10-year canopy coverage of 400 square feet each. These numbers are approximate, but can act as a guide to organizing a year-long planting effort in the neighborhood.

**Neighborhood Goal: 1,500+ trees**

### Potential Tree Planting Opportunities

Area	Lower Range	Higher Range
Neutral Grounds	80	100
Streets	1000	4000
School/Park	40	50
NORA Lots	50	60
Rail Line	120	150
Total Trees	1,290	4,360

## Level of Difficulty: 1

There appear to be a number of accessible planting spaces along the streets and it is unlikely that residential or private property programs will be required to meet the planting goals. Utility and parking conflicts appear to be minimal compared to the overall area available for planting.

While roughly 750 trees would bring this neighborhood to 10% canopy, there are potentially over 4,000 planting opportunities in the this neighborhood, due to the fact that the majority of the existing canopy in the neighborhood is on private property. Increasing the goal to 1,500+ in Year 1 would be a good check on current capacity for plantings.

# HOLLYGROVE NEIGHBORHOOD - Council District A

## Potential Planting Opportunities

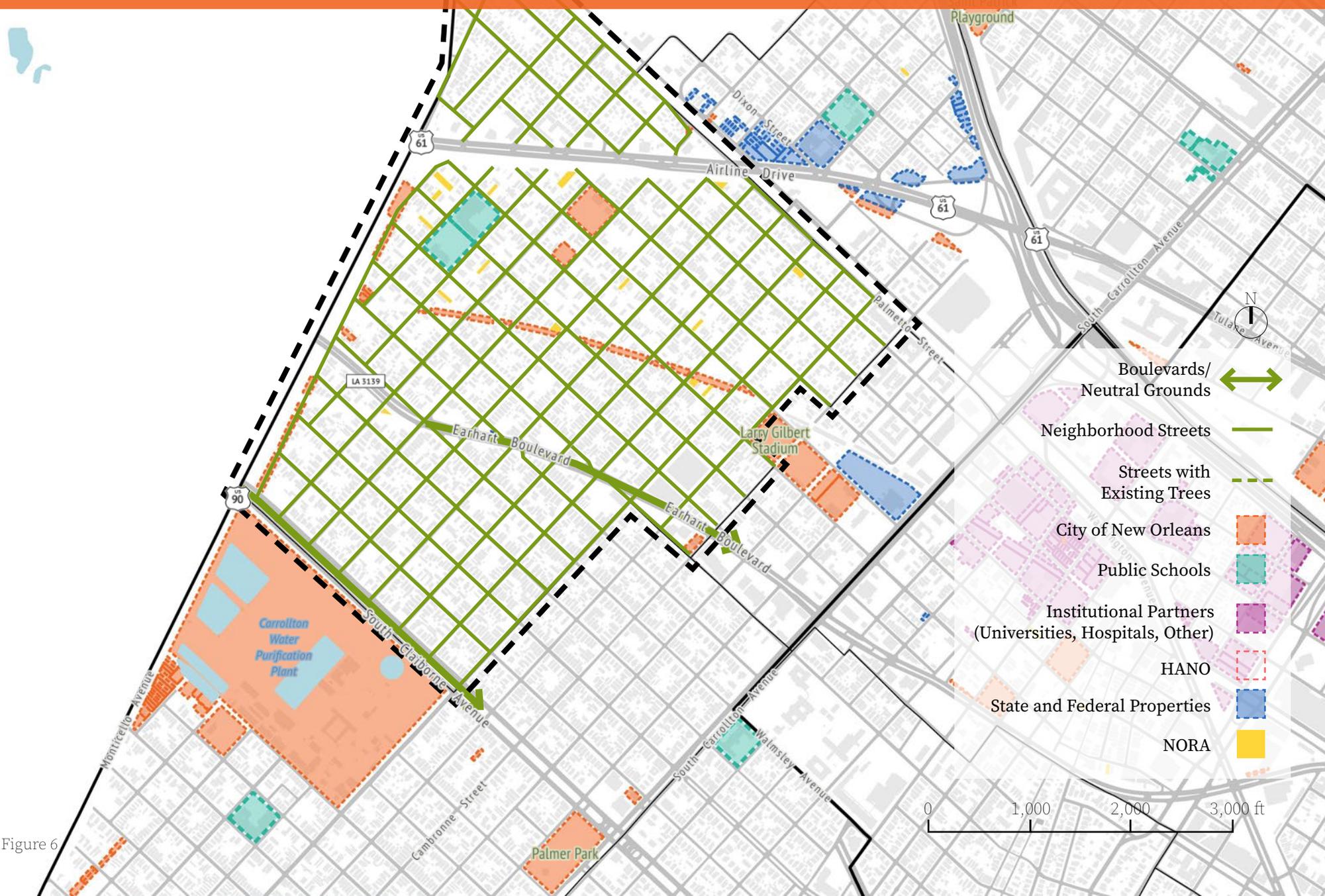


Figure 6

# YEAR 2 St. Bernard Neighborhood

## Planting Opportunities

The St. Bernard neighborhood consists of approximately 225 acres and has 6.1% canopy coverage. The key opportunity for planting in the neighborhood is the interplanting of the neutral ground along St. Bernard Avenue, Harrison Avenue, and Paris Avenue. There are numerous opportunities to plant trees along the streets in the neighborhood, with the exception of the streets around Columbia Parc, which already features many vibrant street trees.

Other key opportunities include the land at the New Orleans Youth Study Center as well as McDonogh 35 High School and Harris Playground which is located on the same block. Engagement with the school would be critical to understand their future needs. There are a few other dispersed lots and small parcels in the neighborhood that could be good opportunities for planting, such as a NORA lot in the neighborhood and a few small city-owned lots.

One potential partner is the Housing Authority of New Orleans (HANO). There are areas within Columbia Parc, especially in the parking lots, that could be planted with trees. HANO also owns large parcels of land in the neighborhood that may hold potential for a planting partnership.

The St. Thomas Community Health Center is a potential institutional partner in the neighborhoods, with a large campus on St. Bernard Avenue. There may be pockets of planting

**Neighborhood Goal: 1,000 trees**

### Potential Tree Planting Opportunities

Area	Lower Range	Higher Range
Neutral Grounds	90	100
Streets	500	750
School/Park	750	1000
City Property	300	350
Columbia Parc	50	100
Total Trees	1,690 trees	2,300 trees

opportunities within the campus. An engagement and planning process with the institution would be needed to understand their future needs.

## Planting Goals

To achieve a 10% canopy coverage across the neighborhood in 10 years would require the planting of approximately **1,000 to 2,000 trees** with an expected 10-year canopy coverage of 400 square feet each. These numbers are approximate, but can act as a guide to organizing a year-long planting effort in the neighborhood.

## Level of Difficulty: 2 (Moderately Challenging)

It is not likely that all trees needed for the neighborhood can be planted on publicly controlled, clear, grassy, unobstructed ground. Many of the streets offer excellent planting conditions, there are not enough of these areas to plant the entire allotment of trees needed. Coordination with neighborhood institutions such as schools is likely required.

It is likely that some trees will need to be planted on private property, or more densely planted trees will be required in areas such as neutral grounds to achieve the tree planting goal

Large open areas controlled by HANO, other than Columbia Parc, have not been included in the potential calculations. If some portion of these properties were to be planted, it could potentially provide plenty of space to meet the goal without planting on private property.

# ST. BERNARD NEIGHBORHOOD - Council District D

## Potential Planting Opportunities



Figure 7

# YEAR 2 Whitney Corridor of Algiers Riverview Neighborhood

## Planting Opportunities

The Whitney neighborhood consists of approximately 423 acres and has 8.4% canopy coverage. The key opportunities for planting in the neighborhood is planting along the streets, along the neutral ground (Whitney/LB Landry Ave), and potential partnerships with land-holding agencies.

Other key opportunities include perimeter plantings at Fischer Playground (in cooperation with HANO) and Fox Playground (in cooperation with the OPSB), as well as potential cooperative agreements with LB Landry High School and the Elan Academy Charter School. Engagement with the school would be critical to understand their future needs. The LASPCA could be another potential partner for tree planting.

One potential partner is the Housing Authority of New Orleans (HANO). There area number of developments that could benefit from additional tree canopy. The Sewerage and Water Board also owns a large tract that could be forested pending any logistical needs of the agency.

## Planting Goals

To achieve a 10% canopy coverage across the campus in 10 years would require the planting of approximately **750 to 1,000 trees** with an expected 10-year canopy coverage of 400 square feet

**Neighborhood Goal: 1,000 trees**

### Potential Tree Planting Opportunities

Area	Lower Range	Higher Range
Neutral Grounds	40	100
Streets	800	1200
School/Park	50	100
HANO Property	100	500
LASPCA	100	600
SWB New Orleans	20	200
Total Trees	1,110 trees	2,700 trees

each. These numbers are approximate, but can act as a guide to organizing a year-long planting effort in the neighborhood.

## Level of Difficulty: 1

There appear to be a number of accessible planting spaces along the streets. While some streets have overhead utility and driveway conflicts, there are many open spaces for this number of trees. Partnerships with land-holding agencies is another opportunity for relatively unencumbered planting areas.

# WHITNEY CORRIDOR OF ALGIERS RIVERVIEW - Council District C

## Potential Planting Opportunities

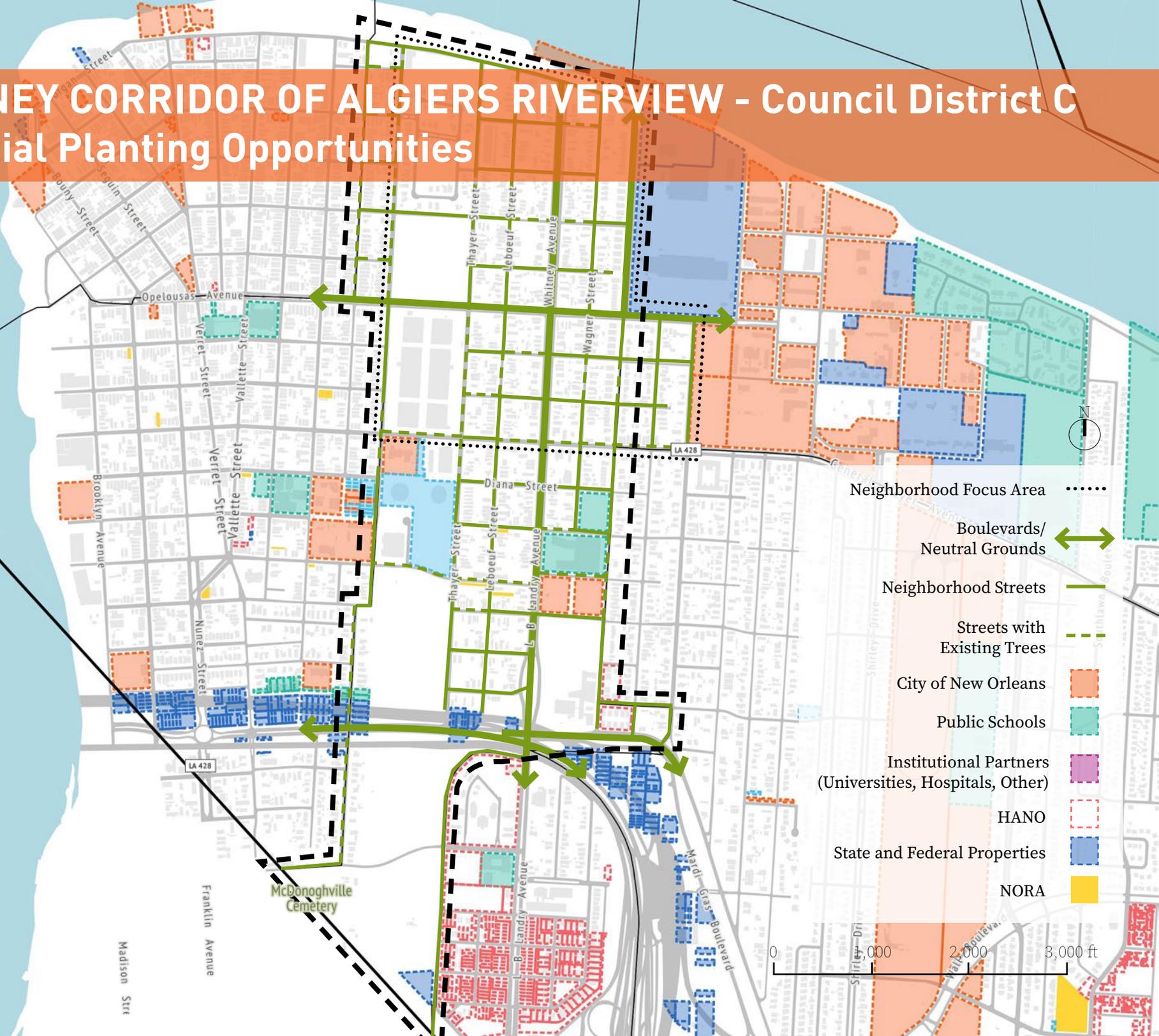


Figure 8

# YEAR 2 Central City 1 - Hoffman Triangle

## Planting Opportunities - Hoffman Triangle

The Hoffman Triangle area of the Central City neighborhood consists of approximately 172 acres and has 3.4% canopy coverage. The key opportunities for planting in the neighborhood are the streets. There are few viable street trees in the neighborhood other than on neutral grounds. There are a number of areas with a planting strip along the side of the street. However, one serious challenge is that many cars are parked along the right of way, in the prime locations for tree planting. Close work with the neighborhood during an outreach phase would be recommended prior to planting.

Other key opportunities include the roughly 18 NORA lots in the area and the site of the former Derham Middle School. Engagement with the school board would be critical to understand their future needs. There are a few other dispersed lots and small parcels in the neighborhood such as a site owned by the Sewerage and Water Board.

There are opportunities to replant felled trees, or intersperse new trees along mature ones, along the two major neutral grounds running through the neighborhood: South Claiborne and South Galvez. However, these boulevards are fairly well planted given the infrastructure restraints.

**Neighborhood Goal: 1,200 trees**

### Potential Tree Planting Opportunities

Area	Lower Range	Higher Range
Neutral Grounds	20	45
Streets	1000	1500
School/Park	150	200
SWB Property	10	20
NORA Lots	60	85
Total Trees	1,240	1,850

## Planting Goals

To achieve a 10% canopy coverage across the Hoffman Triangle area in 10 years would require the planting of approximately **1,200 to 1,400 trees** with an expected 10-year canopy coverage of 400 square feet each. These numbers are approximate, but can act as a guide to organizing a year-long planting effort in the neighborhood.

## Level of Difficulty: 2 (Moderately Challenging)

It is not likely that all trees needed for the neighborhood can be planted on publicly controlled, clear, grassy, unobstructed ground. Many of the streets offer excellent planting conditions, there are not enough of these areas to plant the entire allotment of trees needed. Coordination with neighborhood institutions such as schools is likely required.

It is likely that some trees will need to be planted on private property, or more densely planted trees will be required in areas such as neutral grounds to achieve the tree planting goal

Large open areas controlled by HANO, other than Columbia Parc, have not been included in the potential calculations. If some portion of these properties were to be planted, it could potentially provide plenty of space to meet the goal without planting on private property.

# YEAR 3 Central City 2 - S. Claiborne to Simon Bolivar/Lasalle

## Planting Opportunities - South of Claiborne

The area of the Central City neighborhood between S. Claiborne Avenue and Simon Bolivar Ave/Lasalle Street consists of approximately 275 acres and has 3.4% canopy coverage. The key opportunities for planting in the neighborhood are the streets. There is a wide range for how many trees could be planted on streets, depending on funding. There are many relatively easy planting areas along streets, but some areas would require removing concrete.

Other key opportunities include the large, open school board and HANO sites near Harmony Oaks. A.L. Davis Park is heavily programmed and offers limited, but important, opportunities for planting. There are a few other dispersed NORA lots and small parcels in the neighborhood that could be used for planting. Working directly with Harmony Oaks offers another targeted opportunity for new planting.

## Planting Goals

To achieve a 10% canopy coverage across the South of Claiborne area in 10 years would require the planting of approximately **2,100 to 2,200 trees** with an expected 10-year canopy coverage of 400 square feet each. These numbers are approximate, but can act as a guide to organizing a year-long planting effort in the neighborhood.

**Neighborhood Area Goal: 2,100 trees**

### Potential Tree Planting Opportunities

Area	Lower Range	Higher Range
Neutral Grounds	70	85
Streets	1200	2300
School/Park	325	375
HANO Property	85	100
NORA Lots	20	40
Harmony Oaks	50	100
Total Trees	1,750	3,000

## Level of Difficulty: 2 (Moderately Challenging)

It is not likely that all trees needed for the neighborhood can be planted on publicly controlled, clear, grassy, unobstructed ground. Many of the streets offer excellent planting conditions, there are not enough of these areas to plant the entire allotment of trees needed. Coordination with neighborhood institutions such as schools is likely required.

# YEAR 3 Central City 3 - St. Charles to Simon Bolivar/LaSalle

## Planting Opportunities - North of St. Charles

The area of the Central City neighborhood north of St. Charles Avenue consists of approximately 367 acres and has 3.4% canopy coverage. The key opportunities for planting in the neighborhood are along the streets, as there are few opportunities in open spaces like parks or school board properties for mass plantings in this part of the neighborhood. However, while there are plenty of streets with few street trees—therefore plenty of spaces to plant trees—many of the right-of-ways are concrete or have significant utility conflicts. This area of Central City will likely be the most difficult in the neighborhood because of the challenging street conditions and lack of large open spaces.

While there are fewer opportunities, they include the roughly 12 NORA lots in the area that could be sites for trees. There is one significant City of New Orleans site, around the Allie May Williams and Van McMurray properties, that could accommodate additional tree planting. The Dryades YMCA could be another potential partner, as they control some vacant parcels in the neighborhood.

Planting on private land, perhaps in partnership with religious organizations, may be required to meet the goals in this part of Central City.

**Neighborhood Area Goal: 2,500 trees**

### Potential Tree Planting Opportunities

Area	Lower Range	Higher Range
Neutral Grounds	30	50
Streets	1500	2500
School/Park	65	75
NORA Lots	50	65
Dryades YMCA	10	30
Total Trees	1,655	2,720

## Planting Goals

To achieve a 10% canopy coverage across this area of Central City in 10 years would require the planting of approximately **2,500 to 2,700 trees** with an expected 10-year canopy coverage of 400 square feet each. These numbers are approximate, but can act as a guide to organizing a year-long planting effort in the neighborhood. Based on available area in the neighborhood, a rough estimate of trees that could be planted is:

## Level of Difficulty: 2 (Moderately Challenging)

It is not likely that all trees needed for the neighborhood can be planted on publicly controlled, clear, grassy, unobstructed ground. Many of the streets offer excellent planting conditions, there are not enough of these areas to plant the entire allotment of trees needed. Coordination with neighborhood institutions such as schools is likely required.

It is likely that some trees will need to be planted on private property, or more densely planted trees will be required in areas such as neutral grounds to achieve the tree planting goal

Large open areas controlled by HANO, other than Columbia Parc, have not been included in the potential calculations. If some portion of these properties were to be planted, it could potentially provide plenty of space to meet the goal without planting on private property.

# CENTRAL CITY NEIGHBORHOOD - Council District B

## Potential Planting Opportunities



# YEAR 4 Little Woods 1 - West of Read Boulevard

## Planting Opportunities

The entire Little Woods neighborhood consists of approximately 3,950 acres and has 6.4% canopy coverage. The key opportunities for planting in the neighborhood are the streets. There are numerous opportunities for tree planting in the street ROW. The majority of properties have a driveway, which will be the major challenge for tree planting.

Other key opportunities include the six main boulevards that run perpendicular to the lake. Many of the neutral grounds along these boulevards are well planted, but there are still many tree planting opportunities.

Kenilworth Playground offers additional planting opportunities, but there are not a lot of institutional or school-board properties for tree planting.

## Planting Goals

To achieve a 10% canopy coverage across the campus in 10 years would require the planting of approximately **7,500 - 8,000 trees** with an expected 10-year canopy coverage of 400 square feet each. These numbers are approximate, but can act as a guide to organizing a year-long planting effort in the neighborhood.

**Neighborhood Area Goal: 7,500 trees**

### Potential Tree Planting Opportunities

Area	Lower Range	Higher Range
Neutral Grounds	200	300
Streets	5,000	8,000
School/Park	50	100
City Property	10	15
Total Trees	5,260	8,415

## Level of Difficulty: 1

There appear to be a number of accessible planting spaces along the streets. The conflict with driveways will be a challenge. Utility conflicts appear to be minimal compared to the overall area available for planting.

# YEAR 5 Little Woods 2 - East of Read Boulevard

## Planting Opportunities

The entire Little Woods neighborhood consists of approximately 3,950 acres and has 6.4% canopy coverage. The key opportunities for planting in the neighborhood are the streets. There are numerous opportunities for tree planting in the street ROW. The majority of properties have a driveway, which will be the major challenge for tree planting.

Other key opportunities include the three main boulevards that run perpendicular to the lake. Many of the neutral grounds along these boulevards are well planted, but there are still many tree planting opportunities.

Kingswood Playground offers an additional planting opportunity, but there are not a lot of institutional or school-board properties for tree planting.

## Planting Goals

To achieve a 10% canopy coverage across the campus in 10 years would require the planting of approximately **7,500 - 8,000 trees** with an expected 10-year canopy coverage of 400 square feet each. These numbers are approximate, but can act as a guide to organizing a year-long planting effort in the neighborhood.

**Neighborhood Area Goal: 7,500 trees**

### Potential Tree Planting Opportunities

Area	Lower Range	Higher Range
Neutral Grounds	200	300
Streets	5,000	8,000
School/Park	50	100
City Property	10	15
Total Trees	5,260	8,415

## Level of Difficulty: 1

There appear to be a number of accessible planting spaces along the streets. The conflict with driveways will be a challenge. Utility conflicts appear to be minimal compared to the overall area available for planting.

# LITTLE WOODS NEIGHBORHOOD- Council District E

## Potential Planting Opportunities

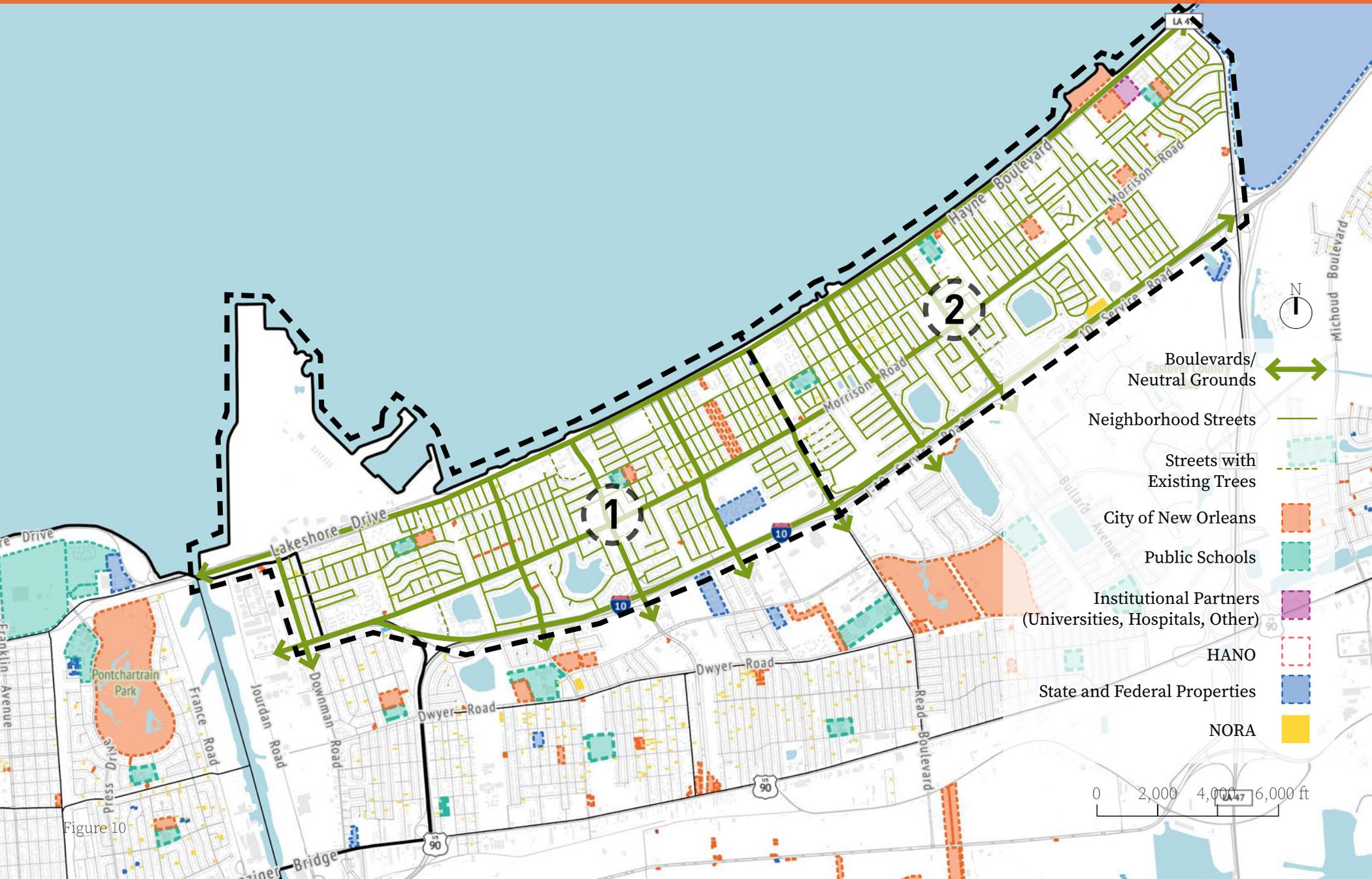


Figure 10

# *Moving Forward*

## **Vision**

As the work commences—and the monthly projects begin to take shape—it is important to remember the long-term view. This is an adaptive plan, one that is meant to grow and change as the people working towards its goals test new ideas, build relationships, and learn from their successes and failures. This plan should serve as a framework to guide the efforts, but also be a living document that reflects its time and situation.

Installation of cypress trees as part of NORA's Alternative Maintenance Strategies for Vacant Lots project.

# Preparing for the Future

## Building Capacity

Long-term success for the urban forest in New Orleans requires a number of different systems to work well—and work well together. Currently, New Orleans does not have the resources or systems in place to achieve the goals laid out in the plan. Like any complex system it will take time and purposeful effort to build the capacity needed to increase the urban forest.

Creating an integrated system that could make lasting changes for the city is built into the Reforestation Plan. Incrementally, as each Action Item is undertaken and fulfilled, a more capable urban forestry network will begin to emerge. Educational initiatives will increase demand for trees in the neighborhoods, supply chains for new trees will be established, volunteer and contract planting operations will grow, and policies to maintain and protect the trees will solidify.

It will be important to keep capacity building as a guiding principle, even as it starts to develop organically.

## Learning and Adapting

As capacity is increasing, learning from successes and failures, and more importantly, adapting to the lessons learned will be important. This plan is a framework that can be built upon, and returned to when needed. The core goals are simple, flexible, and

rooted in the values and culture of New Orleans.

Learning will require communication between the different project groups set up in the Action Items. People working toward a Unified Tree Policy need to understand the feedback from the educational initiatives. Tree planting groups need to work with the outreach teams, and so on. The spirit of the plan is collaborative and adaptive, with a strong, clear vision of the importance of a healthy urban forest for New Orleans.

The plan itself should be revisited every five years to incorporate new ideas, build upon successful initiatives, and evaluate the goals for the urban forest.

## Measuring the Milestones

This amazing gift to the children of New Orleans is a long-term project, even in the relative timeline of cities. A full realization of the goals in the plan may take 20-30 years—just in time for the extra 20-30 days a year of +95°F temperatures. Recording progress on a regular basis brings hope, and funding. It is also valuable on a day-to-day basis to understand the needs for future planting and maintenance operations.

In addition to the regular upkeep of the database, a comprehensive survey of the city's trees should be done at least every five years, according to best practices among other cities.

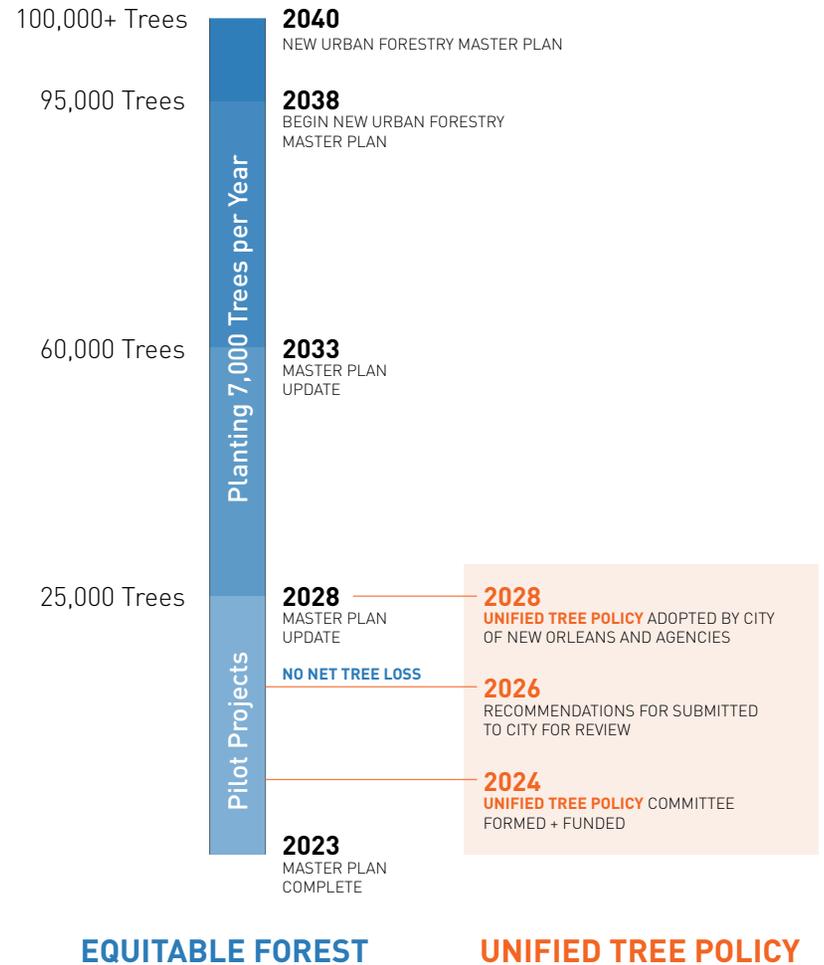
# A Path Forward

## Reaching the Planting Goal by 2040

This plan places equity at the center of its recommendations: bringing trees to the neighborhoods that can benefit from them the most. In that light, the primary long-term goal of this plan is to restore 10% canopy coverage to all neighborhoods in our city. Bringing all of the underforested neighborhoods up to a minimum of 10% tree canopy coverage (10 years after the trees are planted) will require planting approximately 100,000 trees. That is roughly 7,000 trees per year for 15 years. That should be well within the combined capacity range of the city and its partners—assuming, of course, that funding challenges can be met.

An essential first phase—a ramping-up period that will allow New Orleans to hone its approach—is the five year pilot project outlined in the plan. By the conclusion of the pilot project the city and its partners will need to triple the supply of suitably mature street trees, perfect the logistics required to permit, source, deliver, plant, water and care for thousands upon thousands of trees; and find the resources that will allow them to deal with a myriad of tasks ranging from design and permitting to planting and caring for trees.

In approximately 2028, the first five neighborhoods will be fully planted, and our collective supply and logistics capacity should be fully in place. If successful, the pilot projects will have planted over 25,000 trees, which would be 25% of the way to the



## Charting a Course to 100,000 Trees by 2040

The three goals of the plan, No Net Tree Loss, Create a Unified Tree Policy, and Build an Equitable Forest are all realistically within reach by 2040. The first five years of the plan are critically important to the long-term success of the plan.

goal. From this strong platform, the city and its partners can expand their efforts to scale up—and a reasonable completion date based on planting 7,000 trees per year is 2040.

While 2040 appears to be far away, 17 years represent a fraction of a tree’s life. Live oaks and cypresses live well over 200 years. Restoring New Orleans’ canopy will require a sustained, patient, tenacious effort, backed by robust supply chains, public support, funding, logistics, and public support. Inevitably, there will be problems along the way, from hurricanes to supply shortages to tree diseases. The champions of this effort will need to be highly adaptive, learn from each other along the way, and help show the world how New Orleans, by sheer force of will and civic commitment, has learned how to live in a hotter and wetter world.

# Figures

Figure 1: Potter, Christopher. “Changes in the Vegetation of New Orleans from the Disturbance Impacts of Hurricane Katrina in 2005.” Remote Sensing Applications: Society and Environment 24 (2021). <https://doi.org/10.1016/j.rsase.2021.100611>.

Figure 2: Morton, Nathaniel, and Andrew Brenner. “City of New Orleans Tree Canopy Project.” Saint Petersburg, FL: NV5 Geospatial, May 18, 2021.; Potter, Christopher. “Changes in the Vegetation of New Orleans from the Disturbance Impacts of Hurricane Katrina in 2005.” Remote Sensing Applications: Society and Environment 24 (2021). <https://doi.org/10.1016/j.rsase.2021.100611>.

Figure 3: Morton, Nathaniel, and Andrew Brenner. “City of New Orleans Tree Canopy Project.” Saint Petersburg, FL: NV5 Geospatial, May 18, 2021.; Potter, Christopher. “Changes in the Vegetation of New Orleans from the Disturbance Impacts of Hurricane Katrina in 2005.” Remote Sensing Applications: Society and Environment 24 (2021). <https://doi.org/10.1016/j.rsase.2021.100611>.

Figure 4: US Census Bureau. “Household Income in New Orleans, Louisiana.” The Demographic Statistical Atlas of the United States. Accessed October 13, 2022. <https://statisticalatlas.com/place/Louisiana/New-Orleans/Household-Income#figure/neighborhood>.

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Figure 6: Potter, Christopher. “Changes in the Vegetation of New Orleans from the Disturbance Impacts of Hurricane Katrina in 2005.” Remote Sensing Applications: Society and Environment 24 (2021). <https://doi.org/10.1016/j.rsase.2021.100611>.

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# Appendix A

**SOUL REFORESTATION PLAN  
SYNOPSIS: PUBLIC ENGAGEMENT  
MARCH 2022**

**WRITTEN BY TRACI BIRCH**



This report provided a synopsis of eleven public meetings engaging a number of participants. The following provides a synopsis of the comments provided by each of these participants, as interpreted by myself (Traci Birch), who served as a member of the Project Team. I would like to thank Susannah Burley, the SOUL staff, and the many professionals and community members who gave their time and expertise to move this process forward.

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## INTRODUCTION

### **WHAT**

The New Orleans community and a range of stakeholders were invited to participate in a series of public meetings and focus groups to address issues related to trees and the City's urban forest. This engagement process included seven public meetings engaging the general public (*need number or participants*), which were organized around the City of New Orleans' official planning districts (see Appendix A). In addition, there were four round-table meetings held that engaged 35 landscape professionals, non-profit, utility and government agency representatives. While work is ongoing, this report focuses specifically on the input provided during these public meetings and focus groups, with the intention of supporting the completion of the City of New Orleans Comprehensive Reforestation Plan. The report is organized in the following manner: Citywide findings that compile the comments from all public meetings together; planning district-specific comments with a brief synopsis the character of each neighborhood; and the collective findings of the four focus groups. Included in the Appendix are a series of reference documents to help guide the project team moving forward.

## WHO

To date, four groups have been involved in the engagement process: the Project Team, the New Orleans Community (public), Professional Focus Groups, and Technical Advisory Committees.

*Project Team:* The Project Team assumed the role of facilitating all public meetings, providing technical input and guidance during the engagement process, and documenting all aspects of public input. Moving forward, the Project Team will develop recommendations and action steps based on feedback and input from the Technical Advisory Committees, Professional Focus Groups, and the New Orleans community. The Project Team included members of the SOUL staff and engagement consultant Traci Birch.

*New Orleans Community:* At the broadest level, New Orleans residents were engaged during this planning process to understand their values and knowledge about trees, and to identify important opportunities and challenges. Input gathered from the community is intended to provide important context at the neighborhood scale for understanding community priorities, where New Orleans is today, and how we can work together as a community to grow a greener tomorrow.

*Professional Focus Groups:* The Professional Focus Groups provided targeted input about urban forest issues, challenges, and opportunities in the City of New Orleans. Focus group participants represented different organizations throughout the City that are interested or involved in urban forestry, including, environmental, community and non-profit groups, utilities, landscape architecture firms, and various City of New Orleans agencies.

*Technical Advisory Committees:* Technical Advisory Committees (TAC) were established to provide input and feedback on the direction, content, and recommendations to be contained within the final Comprehensive Reforestation Plan. Members represent non-profits, landscape professionals, utilities and governmental agencies. Committees are divided into four groups, and will focus on such concerns as long-term funding, intergovernmental coordination, and urban forestry standards. Contents of this report will support the work of these TACs.

## WHERE & WHEN

New Orleans Community Meetings :

- Planning District 5: Lakeview Presbyterian Church, 11/1/2021
- Planning Districts 2 & 3: Loyola University, 11/4/2021
- Planning Districts 9, 10 & 11: Camp Restore, 11/6/2021
- Planning Districts 4 & 6: City Park Pavilion of Two Sisters, 11/8/2021
- Planning Districts 7 & 8: Our Lady of Guadeloupe Church, 11/11/2021
- Planning Districts 12 & 13: Althea Holmes Center, 11/15/2021

Roundtable Meetings: New Orleans City Park Administrative Offices, 6/23, 6/25, 6/28 & 6/30/2021

## WHY PLANNING DISTRICTS

During the process, the Project Team chose to use official City of New Orleans Planning District boundaries to organize meetings and present data. These boundaries generally do not match those of neighborhood associations, redevelopment corridors, residential subdivisions, or historic districts. However, by organizing in this manner there is a) a guarantee that all communities are engaged in the planning process, b) residents are provided the opportunity to give input at the neighborhoods scale, and c) these recommendations can be translated to similar typologies, in line with the City's Urban Design Framework and other pertinent ordinances.



## CITYWIDE PRIORITIES

Through the input and engagement activities, the community and focus group participants identified a set of urban forestry priorities for the City of New Orleans. The following provides a list in order based on the frequency each was referenced by participants. For example, "public outreach/education/communication" is listed first, because it was referenced the most. See Appendix B for a complete list of comments provided during the participation process.

## **PUBLIC OUTREACH/EDUCATION/COMMUNICATION**

For the Comprehensive Reforestation Plan to be successful, it will require the continued engagement and education of the general public, civic associations, and agency representatives to instill the importance of trees and their protection. Priorities include the need for sustained, data-driven information on the current state of urban forests and progress toward citywide goals, and a connection of these goals to pressing issues such as climate change, localized flooding, and excessive heat. Educational curricula for schools, and workshops for homeowners and neighborhood associations were identified as key priorities. Strategic communications through social media and neighborhood campaigns (i.e. yard signs) should be used to disseminate messages about the importance of trees. Participants also identified the education of officials from agencies such as LA DOTD, Entergy, NO Sewerage & Water Board, and insurance companies as critical to reforestation success.

## **EQUITY**

In every public meeting, more equitable distribution of trees and the benefits they provide was prioritized. Comparing social equity factors (e.g., health, demographic, economic), environmental factors (e.g. flooding, urban heat island, blight), and the distribution of tree canopy across the City were identified as ways to help prioritize tree planting, programming, and maintenance in under-served neighborhoods. An analysis of the New Orleans tree canopy was conducted for this plan, and the Project Team has further examined the relationship between tree canopy cover and several of these factors. The analysis, and the resulting GIS-based maps, along with public comments, can be used to identify equitable strategies for tree planting and maintenance.

## **TREE PLANTING/MAINTENANCE**

A primary priority for participants is the need to manage tree maintenance, care, and planting activities more effectively by improving data, planting techniques, and collaboration. As noted by one resident, it means planting the "right species in the right place at the right time." Maintenance priorities include both existing and new trees, and call for a proactive approaches to forestry management - including the identification of problem trees for removal and replacement - rather than the current reactive response. Priority planting strategies include the identification of contiguous plantable areas (e.g. parks, tree deserts, city-owned property, vacant or blighted land) and tree protection such as groves and buffering. Finally, engagement of residents in the planting and maintenance process was also identified as critical for long-term success.

## **CONSTRUCTION PLANS/PERMITTING**

While specific challenges are discussed in the following section, participants identified the low prioritization of trees as a key underlying issue hampering reforestation. The perception that City departments, businesses, state agencies, and the development community see trees as nuisances or only aesthetic amenities. This is evident in the conflicting goals among City departments, limited protections, and a lack of planting and replacement requirements. Participant prioritized the updating and coordination of regulations and policies to "get the job done right the first time." Further, there is a need for greater accountability and enforcement.

## **PROGRAMS**

Development of existing and new programs provide key opportunities to achieve long-term reforestation goals. Programming prioritized includes 1) tax and need-based incentives to encourage private property planting; 2) tree give-aways - including fruit trees to address food insecurity; and 3) subsidized tree removal and replacement programs for problem trees. Identification of steady funding sources was also prioritized by participants.

## **PARTNERSHIPS**

For the Comprehensive Reforestation Plan to be successful, it will require building and strengthening a network partners to build momentum and a unified voice around the issue. Key partners identified include neighborhood leaders and associations; large landholders such as the City of New Orleans, universities, and businesses; and intergovernmental coordination to streamline development and protect forestry investments.



## CITYWIDE CHALLENGES

Many individual issues, challenges, and opportunities were unearthed during the planning process. While specific challenges were discussed, they are often symptoms of larger, underlying issues. It is important to identify and address the real and perceived barriers to a productive and sustainable urban forest, and to identify opportunities for improvement. Through the input and engagement activities, the community and focus group participants identified a set of challenges for the City of New Orleans. The following provides a list in order based on the frequency each was referenced by participants. For example, "conflicting or missing tree policies" is listed as first, because it was referenced the most. See Appendix B for a complete list of comments provided during the participation process.

## **CONFLICTING OR MISSING URBAN FORESTRY POLICIES**

A community's policies, regulations and practices communicate and reflect the values and priorities of the community. Participants in all meetings identified the need to re-evaluate regulations and guidelines to align with proposed urban forestry best practices. Key challenges identified include a lack of tree replacement requirements in development plans, or when trees are lost during storms or to disease. Some participants noted that policies often drive the inequitable distribution of trees (i.e. trees are more likely to be cut down in poor neighborhoods, and planted in wealthier ones). There is a need to enact enforceable policies that protect and buffer trees, provide guidance on species selection, and incentivize planting. Further, there is a need for standards that support green infrastructure, the reduction of runoff from impervious surfaces (e.g. parking lots), and stormwater management. The lack of strategic partnerships and coordination between government and other organizations are both challenges to achieving long-term forestry goals.

## **UTILITIES/INFRASTRUCTURE**

All utilities have an obligation to provide safe clearance around trees and transmission lines. But pruning to clear lines without a thought for the health of the tree was mentioned frequently as a challenge during the engagement process. This conversation included overhead power and telecommunications lines, and underground pipes. The challenge of coordinating and/or avoiding utilities is that locations for planting are severely limited, particularly in the dense urban core. Further, roadwork throughout the city is seen as a significant challenge to reforestation. Participants noted that a) roadway construction requires the removal of trees without replacement; and b) long construction times and incomplete roadways kill trees and inhibit planting efforts.

## **LIMITED SPACE IN THE LANDSCAPE**

Many of New Orleans' Pre-War historic neighborhoods have limited space for large-scale planting efforts. Often there are small rights-of-way with little room for street trees. Further, rights-of-way and neutral grounds are needed for daily or storm-related parking, which can damage tree roots. An abundance of impervious surfaces (e.g. buildings, parking lots, roads) make planting difficult and flooding more prevalent. There is a need to retrofit many of these areas to insert trees. Participants emphasized the need to work with private property owners to plant in front and backyards to achieve tree canopy goals.

## **LACK OF MAINTENANCE**

As previously noted, one of the primary underlying issues is that trees have historically been a low priority. This extends from policies and regulations to the required maintenance needed to sustain a healthy tree canopy. Issues identified include a lack initial maintenance to establish new trees, the cost of long-term maintenance for those without means, and a lack of skilled labor (i.e. arborists) to care for tree and green infrastructure plantings.

## **SAFETY CONCERNS**

Numerous safety concerns were brought up by participants, some of which stem from a lack of information and education about the benefits of trees. Of primary concern are the fear of trees falling on houses during storms, and the headache of debris cleanup afterwards. These fears are compounding by the fact that insurance companies encourage or require the removal of trees on private property. Damage to sidewalks, foundations, and plumbing by roots is also a significant concern. Finally, there are concerns for personal safety with too many trees in parks - which includes both crime and the exposure to "critters" that may hide within.

## **LIMITED RESOURCES**

The primary challenge identified by participants is the need for a dedicated funding stream for urban forestry that addresses both planting and long-term management of resources. This is particularly true in poor neighborhoods, and/or those with a large rental populations. In both cases, residents have fewer resources, less time, and are less likely to be empowered to plant and maintain trees.

Iconic buildings  
and live oak trees  
lining Jackson  
Square



## PLANNING DISTRICTS 1A & 1B

### CENTRAL BUSINESS DISTRICT FRENCH QUARTER

This study area encompasses the historic core of the city, including the Central Business District (1A) and French Quarter (1B). Both are characterized by a high density mix of uses, including retail, commercial, office and residential. Both have pocket parks, large parking lots, and riverfront sites, each of which may provide opportunities for tree planting. However, outside of this, there is a limited amount of open space available to plant trees given the preponderance of zero lot line structures.

Palm trees lining  
Poydras Street  
with view of the  
Four Seasons  
Hotel



## **PRIORITIES**

Environmental mitigation: Stormwater, heat  
Under-served communities  
Education on benefits of trees  
Incentives for homeowners and contractors  
Coordinating construction of roads and tree planting

## **CHALLENGES**

Lack of plantable area (excessive concrete/asphalt)  
No tree replacement policies  
Need for neighborhood maintenance plans  
Lack of education on the benefits of trees  
Trees carry perception of risk

## **FOCUS AREAS**

Parks: Lafayette Square, stormwater pocket parks  
Public and private parking lots  
Community gardens  
Large planters on the street  
Green roofs and roof gardens

Historic home and  
live oak trees lin-  
ing Prytania Street



## PLANNING DISTRICTS 2 & 3

### CENTRAL CITY, LOWER GARDEN DISTRICT RIVERSIDE, UPTOWN, CARROLLTON, LEONIDAS

These districts encompass a range of historic neighborhoods, including (but not limited to) Central City, Lower Garden District, Uptown, Carrollton, and Leonidas. The existing land use character is residential Pre-War low density, which may/may not include small front yards, and generally does include small rear yards. In addition, there are numerous new residential and mixed-use areas that reflect a shift in densities and development patterns in the area. Further, PDs 2 & 3 include several big box retail centers (e.g. Claiborne Avenue/Toledano, Carrollton/Palmetto) and campuses (e.g. Loyola & Tulane Universities), which present opportunities for large-scale tree planting.

Hammock  
between two  
trees at the Fly



## **PRIORITIES**

Education for young adults, homeowners, & officials  
Incentives for planting and maintaining trees  
Neighborhood tree protection and maintenance plan  
Tree requirements and removal of paving  
University and neighborhood partnerships

## **CHALLENGES**

Lack of tree protection and maintenance  
No incentives to plant or retain trees  
Large renting population  
Root impacts on sidewalks and utilities  
Trees carry perception of risk

## **FOCUS AREAS**

Parking lots

Campuses:

- Universities
- Hospitals

Corridors:

- Claiborne Avenue
- Tchoupitoulas Street
- Willow Street
- Tulane Avenue
- I-10 corridor

Streetscape along  
historic Gentilly  
Boulevard



## PLANNING DISTRICTS 4 & 6

### GENTILLY MIDCITY

While adjacent to each other, these planning districts represent distinctly different development patterns and land use character. PD 4 - which encompasses neighborhoods such as Midcity, the Fairgrounds, and Treme - exhibits similar land use character to other residential Pre-War low density neighborhoods (e.g. PD 2 & 3) including small front and rear yards, though many houses sit directly on the sidewalk. These characteristics shift as development moves away from the river, with larger lots and yards the further one gets from the Mississippi. Corridors within PD4 for tree planting consideration include the Lafitte Greenway, Carrollton, Canal, and Tulane Avenues. Planning District 6 - which encompasses numerous neighborhoods collectively known as Gentilly - is predominantly Post-War single family residential. The density is lower than in the historic areas of the city, often with larger yards surrounding homes. Corridor opportunities include Gentilly Blvd, Elysian Fields Ave, and Chef Menteur Hwy west of the Industrial Canal. Further, the area is home to several campuses, including Dillard University, the University of New Orleans, and Southern University New Orleans which may present opportunities for large-scale tree planting.

Midcity sign at  
Orleans and  
N. Carrollton  
Avenues.



## **PRIORITIES**

Messaging and education about benefits of trees  
Identification of plantable land  
Work closely with under-served communities  
Corridor tree replacement and enforcement  
University and business partnerships

## **CHALLENGES**

Lack of maintenance and enforcement  
Perceived risk: storms, critters  
Trees aren't prioritized  
No neighborhood associations  
Small yards and excessive paving

## **FOCUS AREAS**

Bayou St. John  
University Campuses  
Corridors:

- St. Bernard Avenue
- De Saix Avenue
- N. Broad Street
- I-10 corridor

Retail use along  
Harrison Avenue in  
Lakeview



## NAVARRE, CITY PARK LAKEVIEW, LAKESHORE, LAKE VISTA

This district is predominantly single-family low density residential, with significant new development on lots that has increased impervious coverage. PD 5 includes several open spaces, including West End, New Basin Canal, Lakeshore and City Parks, all of which present opportunities for large-scale tree planting. Corridors for consideration include Canal (New Basin Canal Park), Harrison, Milne and Robert E Lee Blvds.

Lake  
Pontchartrain  
shoreline



## **PRIORITIES**

Incentives to plant trees on private property  
Data-drive education  
Partnerships with neighborhood groups  
Focus on smaller continuous areas  
Resources and dedicated funding

## **CHALLENGES**

Neutral grounds needed for parking during storms  
Utilities and existing infrastructure  
Lack of funding  
Lack of maintenance and protection  
Trees carry perception of risk

## **FOCUS AREAS**

Campuses

- Hynes School
- Universities

Parks:

- New Basin Canal Park
- Tourmaline Park
- Lakeshore Park
- West End Park

Corridors:

- Milne Boulevard
- Pontchartrain Boulevard
- Lakeshore Drive
- I-10 corridor

The historic St. Roch Market on St. Claude Avenue



## MARIGNY, BYWATER UPPER & LOWER 9TH WARDS

These districts encompass a range of historic neighborhoods, including (but not limited to) Marigny, Bywater, and the Upper and Lower 9th Wards. The existing land use character in the majority of these districts is residential Pre-War low density, with many houses sitting right on the street creating a dense urban fabric. The exception to this is the Lower 9th Ward, which has a post-war development pattern and a significant amount of vacant land remaining since Hurricane Katrina devastated the neighborhood in 2005. Key corridors for consideration include St. Claude, Elysian Fields, Claiborne and Florida Avenues. Further, there are large previously industrial sites, including some owned by the City, that could support more dense tree planting within the area.

Sun setting in the  
Lower 9th Ward  
along Alvar Street



## **PRIORITIES**

Low income and hard to plant areas  
Concrete removal  
Use trees to define sidewalks and neighborhoods  
Education about types and importance of trees  
Create job opportunities related to trees

## **CHALLENGES**

Small yards and right-of-ways  
Too much concrete  
Concerns about safety in parks with trees  
Lack of maintenance  
Lack resources to plant and maintain

## **FOCUS AREAS**

Lower 9th Ward empty lots  
Neutral grounds  
Bayous and waterways  
Relic swamps  
School campuses

A view of Joe W.  
Brown Park in New  
Orleans East



## PLANNING DISTRICTS 9, 10, & 11

### NEW ORLEANS EAST LAKE ST. CATHERINE, VENETIAN ISLES

PD 9 & 10 encompass a wide area of predominantly single, double, and multi-family residential areas, while PD 11 is predominantly single-family homes, camps, and marine activities with waterfront access. Single-family homes are predominantly Post-War, with large lots, individual yards and communal lakes unifying the subdivisions. Subdivisions are often represented by well-organized neighborhood associations, which have expressed interest in working on reforestation plans for their communities. PD 9 & 10 also includes large vacant commercial and industrial tracts, particularly along or within the corridors leading to I-10, which pose a possibility for large-scale tree planting with redevelopment. Key corridors for consideration include Chef Menteur, Dwyer, Bundy, and Wright.

Birds-eye view  
of Lake St.  
Catherine  
community



## **PRIORITIES**

Planting in areas that flood  
Neighborhood association partnerships  
Education on benefits and maintenance  
Large lots such as campuses and industrial sites  
Identifying appropriate trees for soils

## **CHALLENGES**

Long-term maintenance of trees  
Loss of trees to construction and storms  
Large paved areas (e.g. parking lots) cause flooding  
Lack of coordination between agencies  
Need information and education about trees

## **FOCUS AREAS**

Neighborhoods:

- Mount Carmel
- Tamaron
- Village de L'est

Churches:

- St. Gabriel Church
- Franklin Avenue Baptist Church
- Household of Faith
- Mary Queen of Vietnam

Corridors:

- Bundy Road
- Chef Menteur Highway
- Neutral grounds on Dwyer, Mayo, Wright and others.

Iconic corner  
grocery store in  
Algiers Point



## ALGIERS POINT LOWER ALGIERS, ENGLISH TURN

The majority of PD 12 contains residential land uses, including Pre-War low-density housing closer to Algiers Point, and Post-War Residential Single- and Multi-family areas closer to Lower Algiers (PD 13). Lower Algiers maintains a uniquely rural character, with large lot development (both within and outside subdivisions) and significant parcels of undeveloped forested lands. Key areas for consideration include major street corridors and parks. Further, there are large tracts of land, including some owned by the City, that could support more dense tree planting along major roadways.

Tulane's  
*Studio in the  
Woods* at  
English Turn

## **PRIORITIES**

Maintenance of new and existing trees  
More variety and native trees  
Tree plantings to help with stormwater management  
Tree maintenance workshops and education  
Education for insurance companies on tree benefits

## **CHALLENGES**

Cost of tree and debris maintenance  
Concerns about root systems on infrastructure  
Lack of education about benefits and maintenance  
Lack of space for trees  
Few neighborhood champions and little City support

## **FOCUS AREAS**

Algiers Point  
LB Landry High School  
Rights-of-way and bus stops  
McDonough Park  
Corridors:

- General DeGaulle Boulevard
- Mardi Gras Boulevard
- Newton Street
- Teche Street
- Brooklyn Street/River Road





## ROUNDTABLE FINDINGS: CHALLENGES

Many individual issues, challenges, and opportunities were unearthed during the professional focus group process. While specific challenges follow, some of the most robust conversations and questions arose from the overarching goal of 50% canopy goal including the the City's Master Plan. Questions of this goal included where the 50% was derived from, whether there is physically enough space in the City to achieve this goal, and how the city could maintain this many trees considering the challenges with maintaining what exists today. Overall, professionals are on board with setting ambitious goals, with a systematic approach to how to achieve these goals. Through input and engagement activities, the focus group participants also identified a specific set of challenges for the City of New Orleans. The following provides a synopsis of these challenges. See Appendix C for a complete list of comments provided on this topic.

## **MAINTENANCE**

As previously noted, the historic undervaluing of trees means that maintenance has often been haphazard or non-existent. The result is a severely stressed tree canopy prone to catastrophic failures during stressful events (e.g. hurricanes, freezes, droughts). This undervaluing means there is no long-term maintenance plan for existing resources, including trees in the public right-of-way and those on private property. Moving forward, maintenance capacity should be expanded, through additional funding, planning, and workforce training. Policies related to maintenance need to be enacted that protect trees and larger green infrastructure strategies.

## **FUNDING/RESOURCES**

A primary challenge identified by professionals was the need for dedicated and adequate funding/resources for urban forestry that address both initial planting and long-term management. Professionals noted that current funding streams have not "caught up with science" and best practices. Agencies such as Parks & Parkways, who will be asked to maintain many of the existing and proposed trees, will need a significantly larger budget to maintain a larger tree canopy. Future budgets should also include funds for services such as post-hurricane tree straightening, debris cleanup, and tree watering if reforestation goals are to be met.

## **INCENTIVES**

The lack of incentives was identified as a key challenge to achieving a reforested city. First, professionals cited the need to incentivize homeowners to install and maintain trees. This may include tax credits/breaks, stormwater fee reductions, tree give-aways, training for tree maintenance, and other long-term maintenance assistance (e.g. rain barrels, subsidized tree pruning). Linking incentives to education efforts was also seen as a key challenge and priority for the City. Further, there are opportunities to engage and incentivize the private sector, as many companies are banking on green infrastructure as a burgeoning economic sector.

## **UTILITIES**

Utilities make tree planting challenging because of the strict parameters around transmission lines. However, professionals emphasized that it is critical to plant in these spaces if the city is to achieve ambitious tree canopy goals. There is a lack of clarity on how much plantable area lies within utility corridors, which needs to be studied further. Utilities are aware of, and have a vested interest in, urban forestry initiatives. As such, there needs to be further engagement and dialogue with utility companies to advance citywide urban forestry goals and objectives. Further, there is a need to refine other infrastructure specifications such as paving and sidewalk standards to encourage permeability and less damage from tree roots.

## **EDUCATION**

Education of the general public and governmental agencies at all levels is needed to dispel misconceptions about trees. Professionals cited a need to teach residents about the importance and value of trees, and have coordinated and open discussions with neighborhoods about their concerns and questions. There is an opportunity to work with residents to help them understand why trees are paramount to a resilient city and a key to combating climate change. These conversations may take place during neighborhood tree planning sessions, or citywide as part of larger planning efforts (e.g. resilience and/or adaptation planning).

## **INTERAGENCY COORDINATION**

The professionals engaged brought a unique set of challenges to the table as the ones trying to navigate the complex system of permitting and project coordination. A key challenge identified includes the need to engage numerous agencies on the same project (e.g. LA DOTD, Parks and Parkways, Entergy, DPW), which often have inconsistent specifications and competing priorities with regard to tree standards. Generally these agencies and departments are siloed, with little conversation or coordination between. There is a need for a central agency in charge of urban forestry/canopy, with enforceable regulations. Building on this, professionals cited the need to have consistent planting rules that can be counted on from year to year.



## **ROUNDTABLE FINDINGS: OPPORTUNITIES**

Through the input and engagement activities, the focus group participants also identified a set of urban forestry opportunities for the City of New Orleans. The following provides a synopsis of these challenges. See Appendix C for a complete list of comments provided on this topic.

## **REFRAMING TREES AS INFRASTRUCTURE**

During the focus groups, the concept of trees as critical infrastructure was mentioned repeatedly. Professionals emphasized the need to shift from "landscaping" to "infrastructure" when talking about tree canopy, and necessary city, state and federal policy and funding changes (e.g. disaster recovery funding does not cover 'landscaping', but covers 'infrastructure'.) Key benefits to emphasize include stormwater volume and pollution control (bio-retention); heat and energy consumption reduction; and links to public health issues related to heat, air quality, recreation, etc. As noted by many, this conversation should extend beyond the trees to include the soil as well. Soil health, and its impact on stormwater retention and tree viability are key elements not well understood by many landscape professionals.

## **PLANTING HOT SPOTS**

Professionals identified a diversity of short-, medium-, and long-term strategies for expanding the City's tree canopy. Recommendations stress the need for limited implementation to streamline processes before city-wide rollouts occur. Limited implementation may include engaging specific pilot communities (preferably low income), or planting in key corridors, parks, and/or campuses (e.g. hospitals, universities) to test technologies and develop community partnerships. Specific methods include prioritizing species for emphasis (e.g. bald cypress, live oak) and others for removal (e.g. Chinese tallow, water oak), with proactive management plans for eradication and replacement. As noted, these plans need to include further studies of soil conditions/health, and the encouragement of small and understory tree planting to increase biodiversity and habitat.

## **EDUCATION**

As noted by the general public, engagement and education to instill the importance of trees and their protection is critical. Education efforts should include research and evidence-based approaches - inserting science into the reforestation process in a way that can inform all residents, from school-aged children to college students and homeowners. Professionals prioritized identification of community leaders and champions for reforestation; relating the importance of tree planting to resilience and equity; and connecting education to larger conversations about climate change, localized flooding, excessive heat, and public health. Professionals also identified engagement and education of agency officials (e.g. LA DOTD, Entergy, NO SWB, and City of NO) critical to reforestation success. Further, translating reforestation priorities into tools for use by stakeholder agencies - such as GIS mapping, case studies, and up-to-date data - was prioritized.

## **POLICY CHANGES**

Policy changes were recommended at multiple scales. The overarching tenor of recommendations was the need to shift to a forestry management framework - focusing on proactive approaches, science, and canopy expansion rather than a reactive responses to individual tree issues. Advocating for state and federal changes, particularly related to disaster recovery (e.g. Stafford Act) was prioritized. Further, city codes need to be modernized to prioritize trees and green infrastructure in all aspects of land development. The need for dedicated funding was also prioritized by professionals if reforestation goals are to be achieved. Potential funding schemes include homeowner incentives, "1% for Trees" (See "1% for Art" state policy as precedent), and LA DOTD funding to support Parks & Parkways et al. with an integral role in maintenance of the tree canopy.

## **WORKFORCE DEVELOPMENT**

Historically, work related to the care and maintenance of trees has been undervalued. Professionals cited the need to showcase the work of arborists as worthy of reverence. Recently, similarly focused efforts to support education and workforce development in water management and green infrastructure implementation have been supported in Greater New Orleans. Funders of these initiatives include HUD through the National Disaster Resilience Competition (\$3 million for resilience workforce development), and JP Morgan Chase (\$5 million for blue-green infrastructure, including workforce development). Positioning urban forestry as a career with an integral role to play in regional resilience was identified as critical component of reforestation success.

# Appendix B

## Existing Urban Forestry Policies - City of New Orleans

### 1. DPW and Parkways' tree protection and planting/maintenance policies for construction projects:

<https://nola.gov/nola/media/PPW/PKWY-Section-01-56-39-TEMPORARY-TREE-AND-PLANT-PROTECTION-v01-2021.pdf>

<https://nola.gov/dpw/construction-engineer-resources/drawings/std10-tree-protection-detail/>

<https://nola.gov/dpw/construction-engineer-resources/drawings/mc3-miscellaneous-details-for-tree-planting-and-ro/>

<https://nola.gov/nola/media/PPW/PKWY-Section-32-90-00-PLANTING-v01-2021.pdf>

[https://nola.gov/nola/media/PPW/Sidewalk\\_Bridging\\_Detail.pdf](https://nola.gov/nola/media/PPW/Sidewalk_Bridging_Detail.pdf)

<https://nola.gov/nola/media/PPW/Tree-Planting-Detail.pdf>

<https://nola.gov/nola/media/PPW/STD10-Tree-Protection.pdf>

<https://nola.gov/nola/media/PPW/Working-with-Trees.pdf>

### 2. Parkways' tree planting permit, including 1-year maintenance requirement:

<https://nola.gov/onestop/residential/tree-planting-permit/>

### 3. Parkways' tree work permit (including removal):

<https://nola.gov/onestop/residential/tree-work-permit/>

### 4. Municipal Code of Ordinances (Article IV. - Protection of Vegetation) includes tree protection policies and penalties: Sec. 106-211, 106-212, 106-216, 106-217, 106-218, 106-219, 106-220, 106-221, 106-223, 106-224, 106-225, 106-228, 106-229

[https://library.municode.com/la/new\\_orleans/codes/code\\_of\\_ordinances?nodeId=PTIICO\\_CH106PARE\\_ARTIVPRVE](https://library.municode.com/la/new_orleans/codes/code_of_ordinances?nodeId=PTIICO_CH106PARE_ARTIVPRVE)

### 5. Comprehensive Zoning Ordinance - Contains tree planting requirements and some preservation incentives for development projects:

<https://nola.gov/city-planning/czo/>

### 6. Stormwater Code (Sec. 26-15., Chapter 1, Section 121 of the Building Code)

<https://nola.gov/safety-and-permits/stormwater-management/stormwater-management-for-development/>

<https://nola.gov/nola/media/One-Stop-Shop/Safety%20and%20Permits/27702-MCS.PDF>

[https://library.municode.com/la/new\\_orleans/codes/code\\_of\\_ordinances?nodeId=PTIICO\\_CH26BUBUREHOST\\_ARTIINGE\\_S26-15SAME](https://library.municode.com/la/new_orleans/codes/code_of_ordinances?nodeId=PTIICO_CH26BUBUREHOST_ARTIINGE_S26-15SAME)

### 7. Plant-A-Tree Trust Fund (Municipal Code Section 70-281)

[https://library.municode.com/la/new\\_orleans/codes/code\\_of\\_ordinances?nodeId=PTIICO\\_CH70FI\\_ARTIIIFU\\_DIV10PLTRFU](https://library.municode.com/la/new_orleans/codes/code_of_ordinances?nodeId=PTIICO_CH70FI_ARTIIIFU_DIV10PLTRFU)