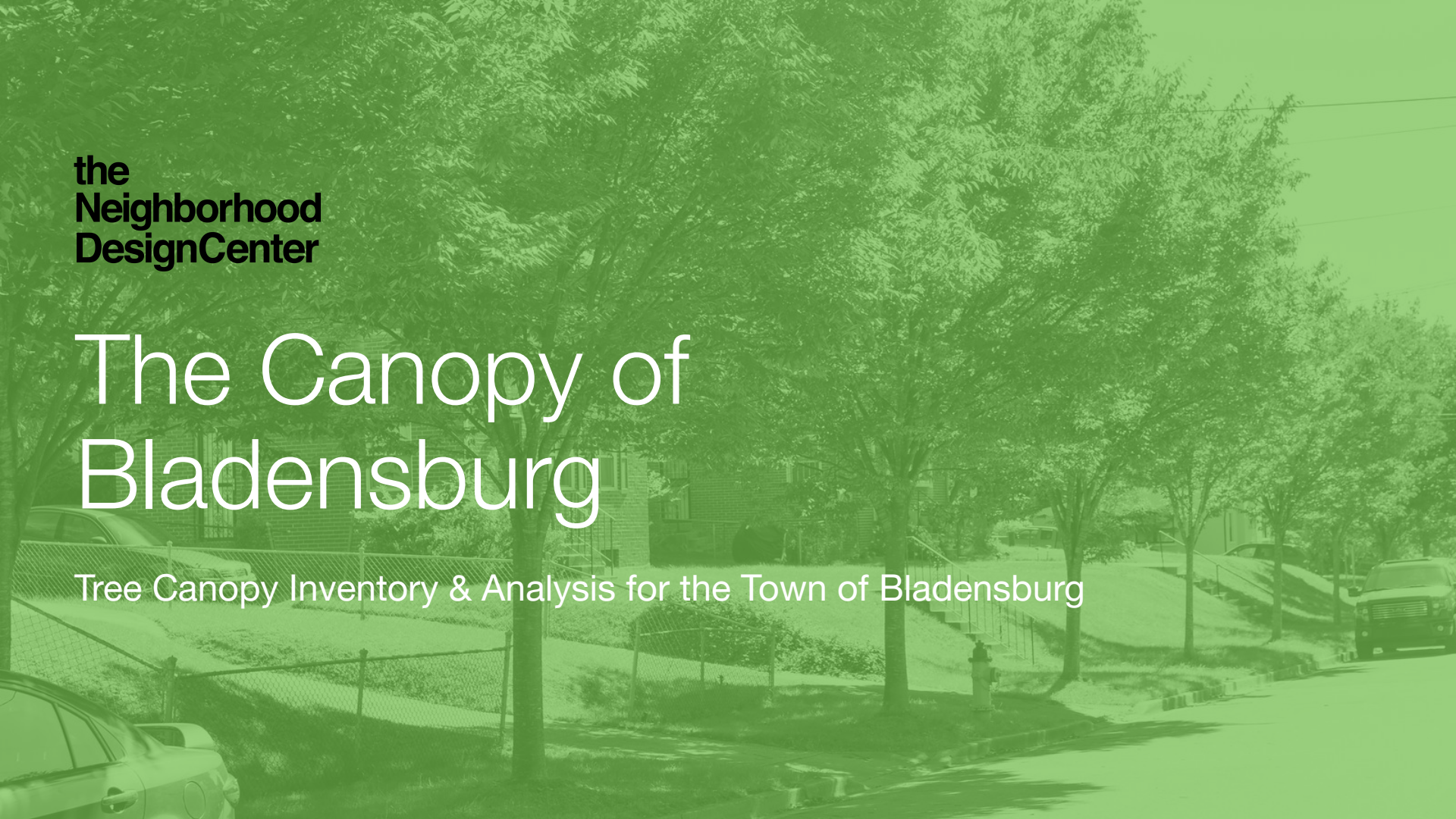
the Neighborhood DesignCenter

The Canopy of Bladensburg

Tree Canopy Inventory & Analysis for the Town of Bladensburg



Agenda

Introduction

Who we are?
About the grant
What can trees do for you?

Fieldwork/Tool

What did we do?

Findings

Existing trees
Possible new trees
Maps and Data

Recommendations

Next Steps

Community engagement / community champions
Funding opportunities
Questions?

Who We Are

Micaela Ada *(she/her/hers)*
Project Coordinator, Landscape Designer

Collin Breidenbach *(he/him/his)*
Urban + Community Forestry Project Manager
ISA Certified Arborist #MA-6563A, TRAQ

Catharine Love *(she/her/hers)*
Urban + Community Forestry Technician

National Fish and Wildlife Foundation Grant

1. **Inventory**
   NDC has partnered with Bladensburg to complete a tree inventory for all trees within the public right-of-way on municipality roads

2. **Analysis**
   NDC to provide Bladensburg with a urban canopy analysis report, amd recommendations on tree maintenance and future planting

3. **Education**
   NDC to facilitate a maintenance training workshop with public works

What Can Trees Do for You?

Environmental Benefits

- Improve air quality
- Combat the effects of climate change
- Provide habitat for native wildlife like pollinators and songbirds
- Reduce stormwater runoff

Community Benefits

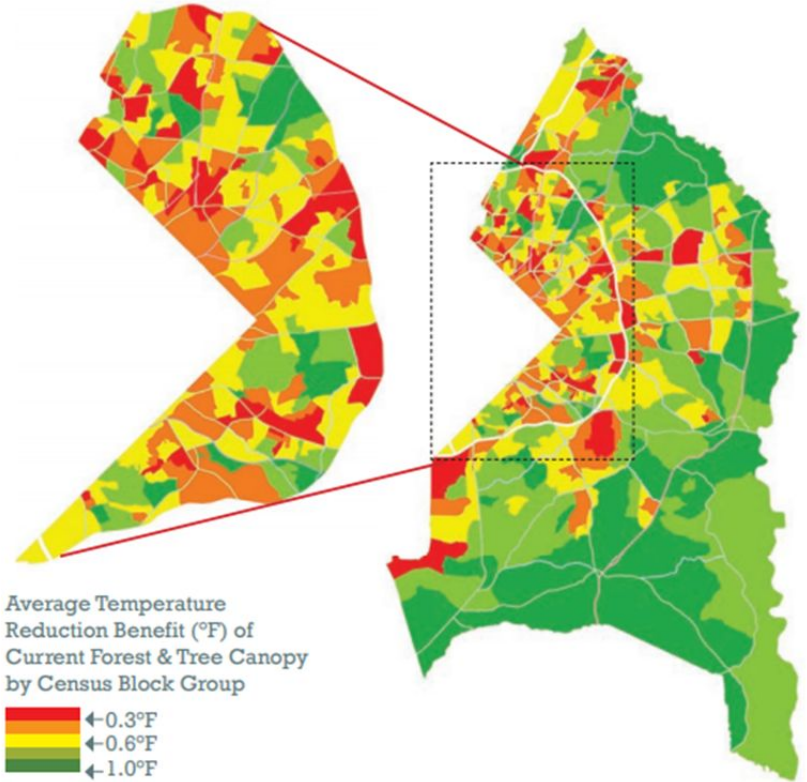
- Contribute to the character and beauty of the community
- Reduce street noise
- Reduce traffic speed
- Provide shade to keep streets cooler in the summer
- Correlated with increased positive health outcomes

Mitigating the Urban Heat Island Effect

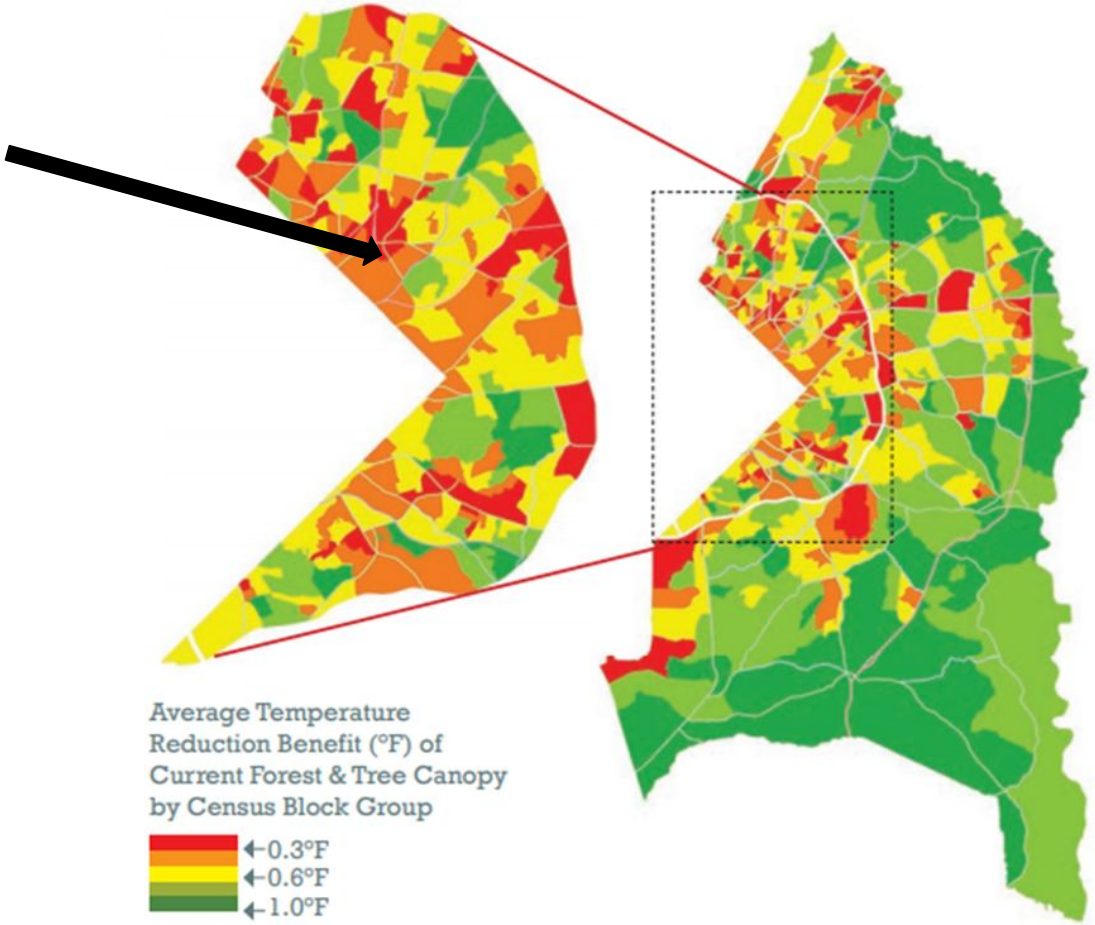
Shade from trees can:

- Reduce asphalt temperatures by **36°**
- Reduce air temperatures by **13°F**
- Reduce heat related hospitalizations and deaths

(*McPherson, 1998; Scott, et al., 2001)*



Bladensburg



Road Safety & Traffic Reduction

According to Prince George's County Maryland Crash Data, on average…

114 fatal crashes a year

20.9% involve speeding

Studies show that the presence of street trees reduce traffic speeds up to 15 mph on residential streets (*Burden, 2006*).

Community Health Benefits

Studies show that spaces with trees:

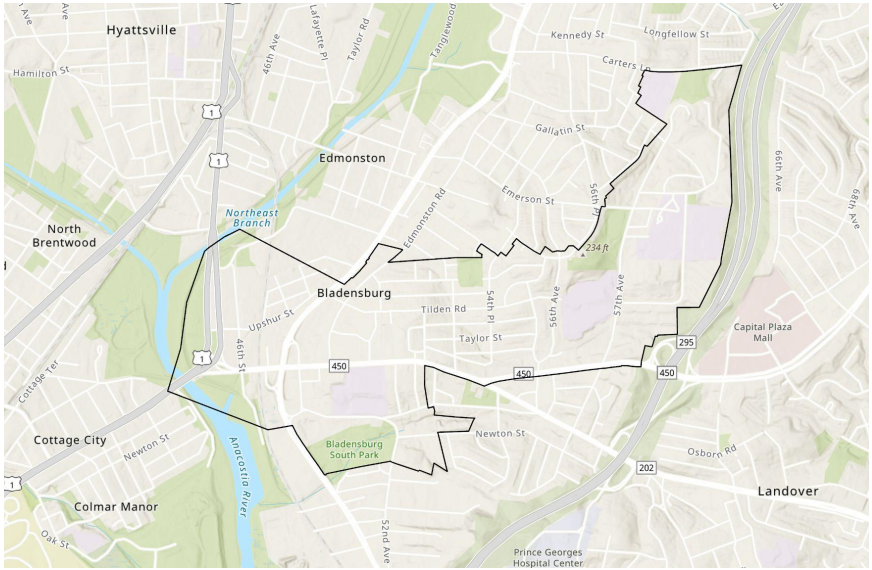
- Reduce the risk of **heart attack, stroke, and other cardiovascular diseases**
- Reduce the risk of **respiratory maladies**
- Improve **mental health and wellbeing**
- Increase **productivity and happiness**

(*Wolf, 2020; Ulrich, 1981; Kaplan & Kaplan, 1989; Kaplan & Kaplan, 1995*)

Fieldwork

Fieldwork Completed

- Data collected:
  - Location / Address
  - Species
  - Diameter at Breast Height (DBH)
  - Stem count
  - Single or multi-stemmed
  - Tree health
  - Maintenance needed
  - Overhead wire presence
  - New tree locations



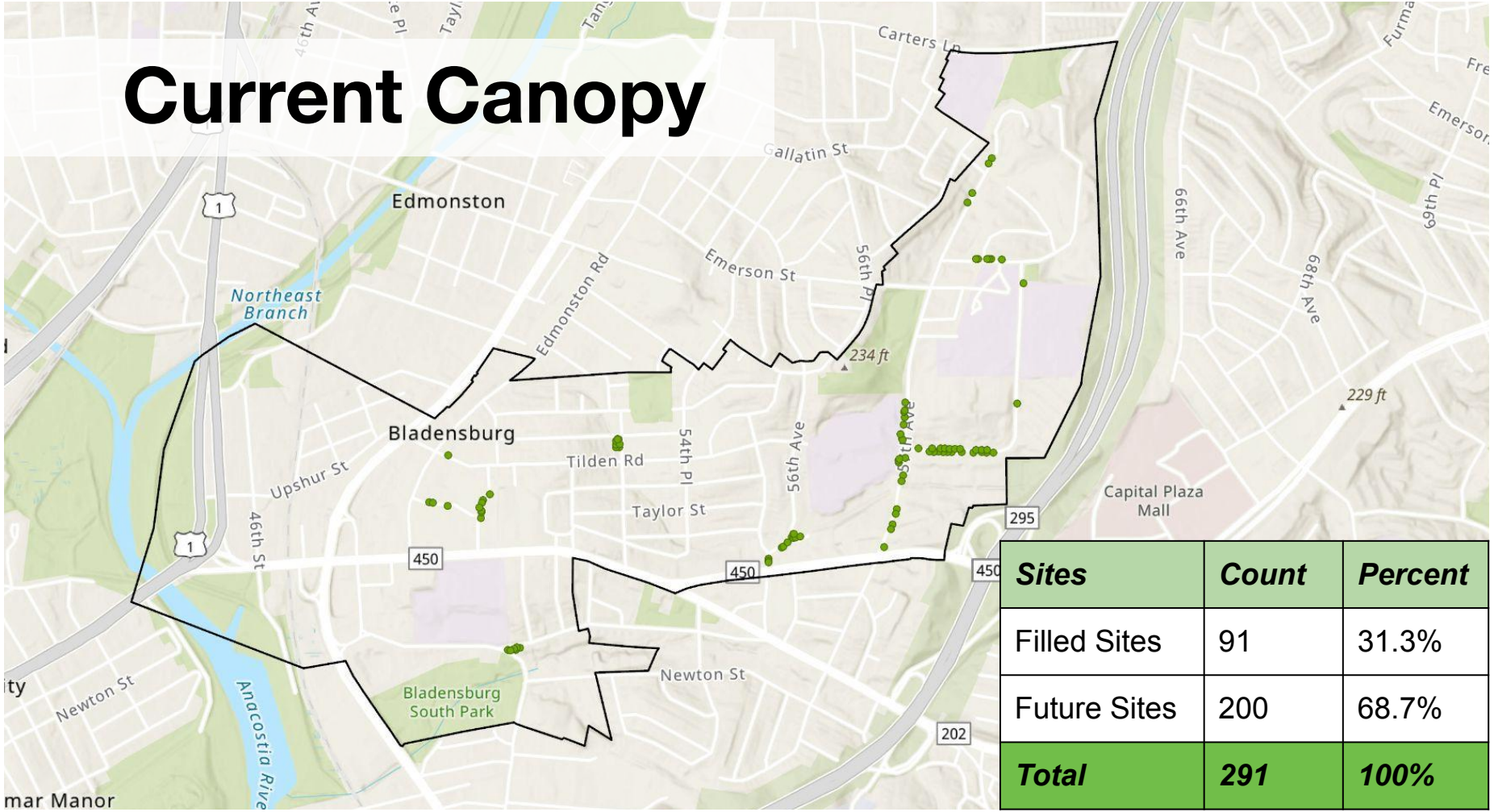
Inventory Findings

Data Summary

# of existing ROW trees	**91**
# of removals needed	**18**
# of trees requiring pruning maintenance	**6**
# of available ROW spaces for new trees	**200**

Note: Removals and maintenance needs are determined by the certified arborists based on tree health and risk of failure.

Current Canopy

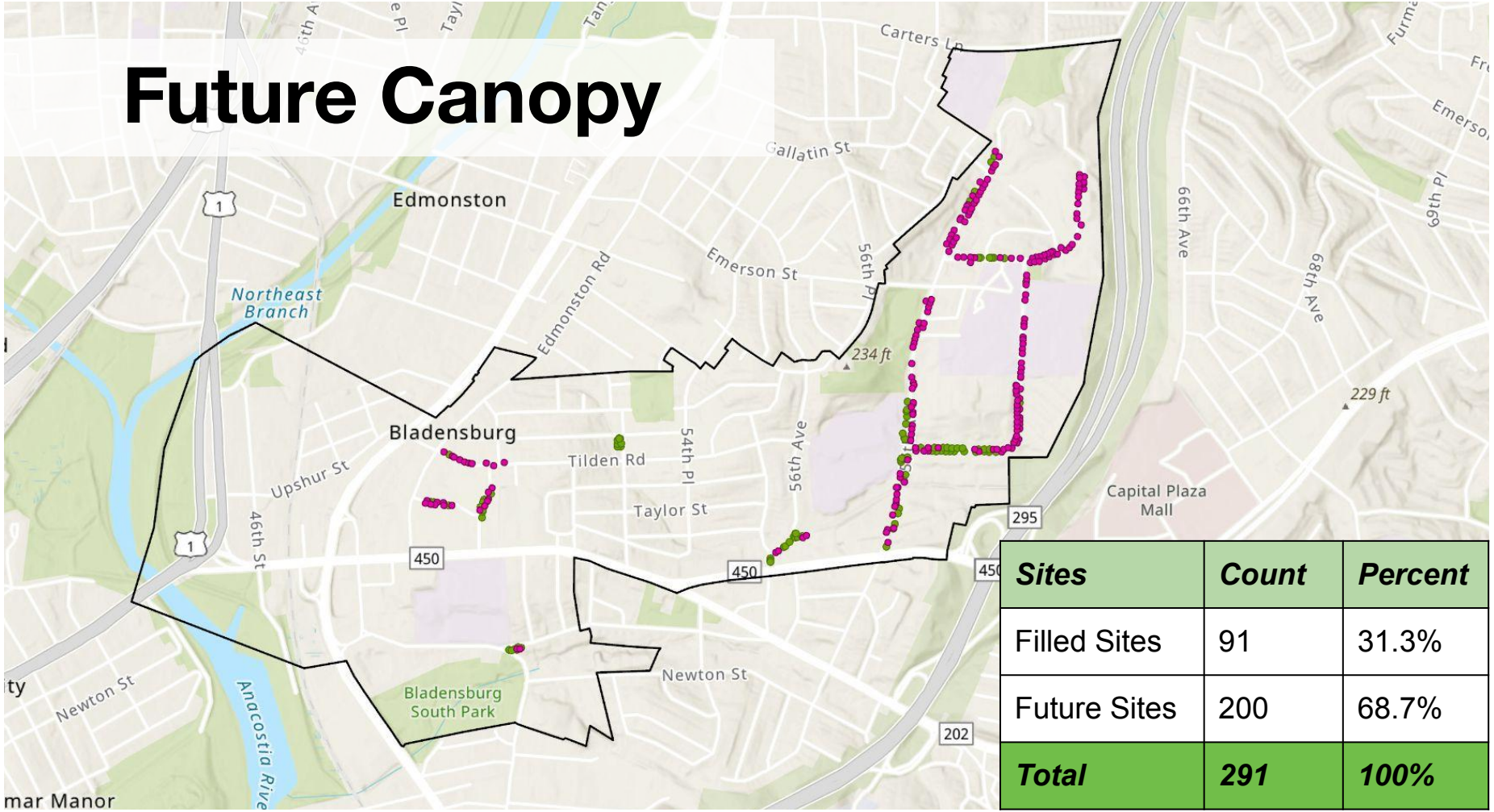


Sites	Count	Percent
Filled Sites	91	31.3%
Future Sites	200	68.7%
Total	**291**	**100%**

Available Sites

Sites	Count	Percent
Filled Sites	91	31.3%
Future Sites	200	68.7%
Total	**291**	**100%**

Future Canopy



Sites	Count	Percent
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Future Sites	200	68.7%
Total	**291**	**100%**

Existing Tree Species

Species diversity is important because a diverse forest has greater resiliency to diseases, pests, and other threats.

Top 10 Species

- Bradford Pear
- Purple Leaf Plum
- Crape Myrtle
- Sawtooth Oak
- Red Maple
- Flowering Dogwood
- Serviceberry
- Eastern Redbud
- Snowgoose Cherry
- Sweetbay Magnolia

Existing Tree Species

Bradford Pear

Purple Leaf Plum

Crape Myrtle

Sawtooth Oak

Red Maple

Flowering Dogwood

Serviceberry

Eastern Redbud

Snowgoose Cherry

Sweetbay Magnolia

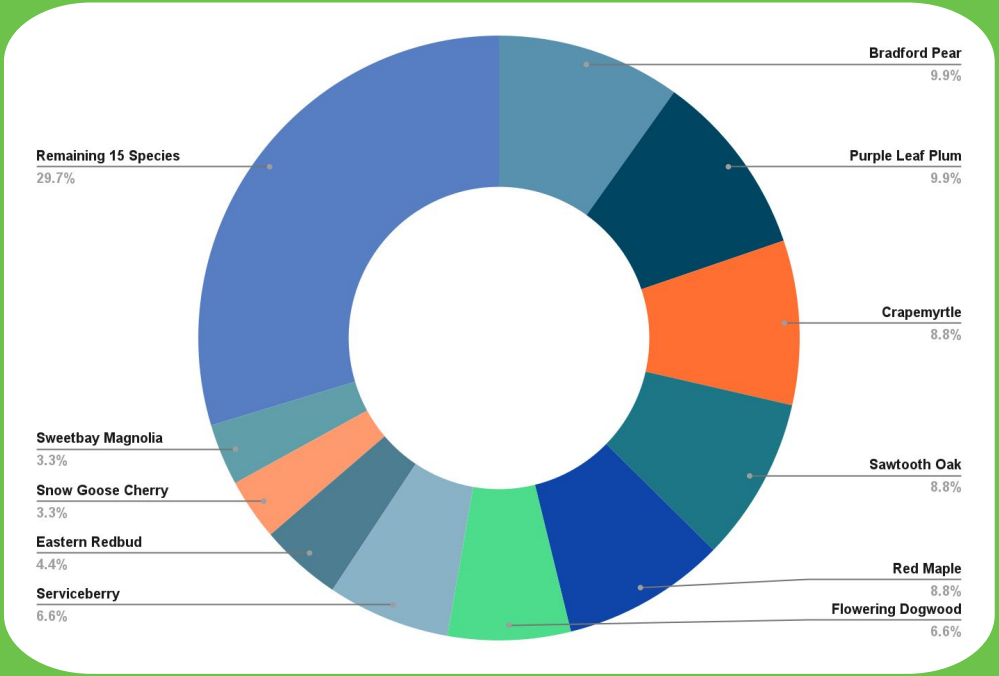
Existing Tree Species

Existing Taxonomic counts

- 25 species
- 17 genera
- 14 families

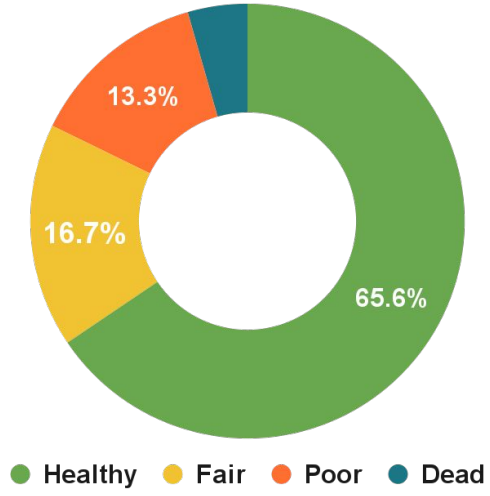
The 30:20:10 Rule

- Bradford Pear ***9.89%*** (species limit 10%)
- Purple Leaf Plum ***9.89%*** (species limit 10%)
- All genera and families are within range

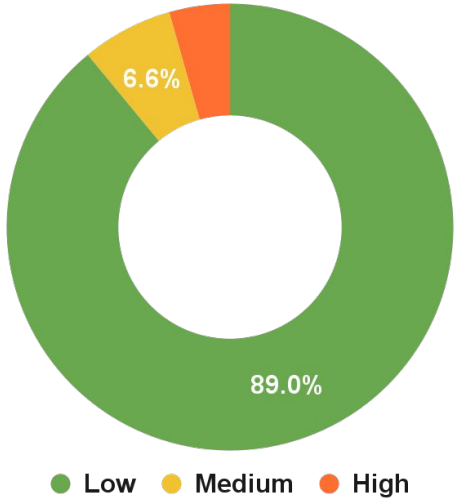


Health & Risk Summary

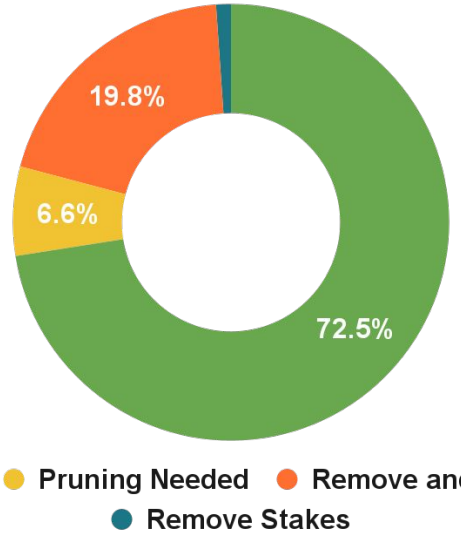
Health Condition



Risk



Maintenance Needed



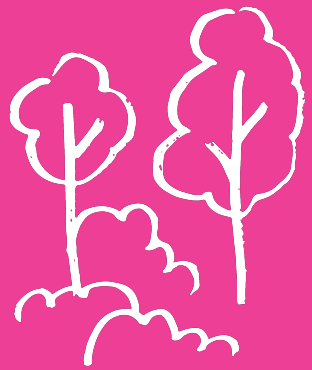
Recommendations

MAINTAIN!

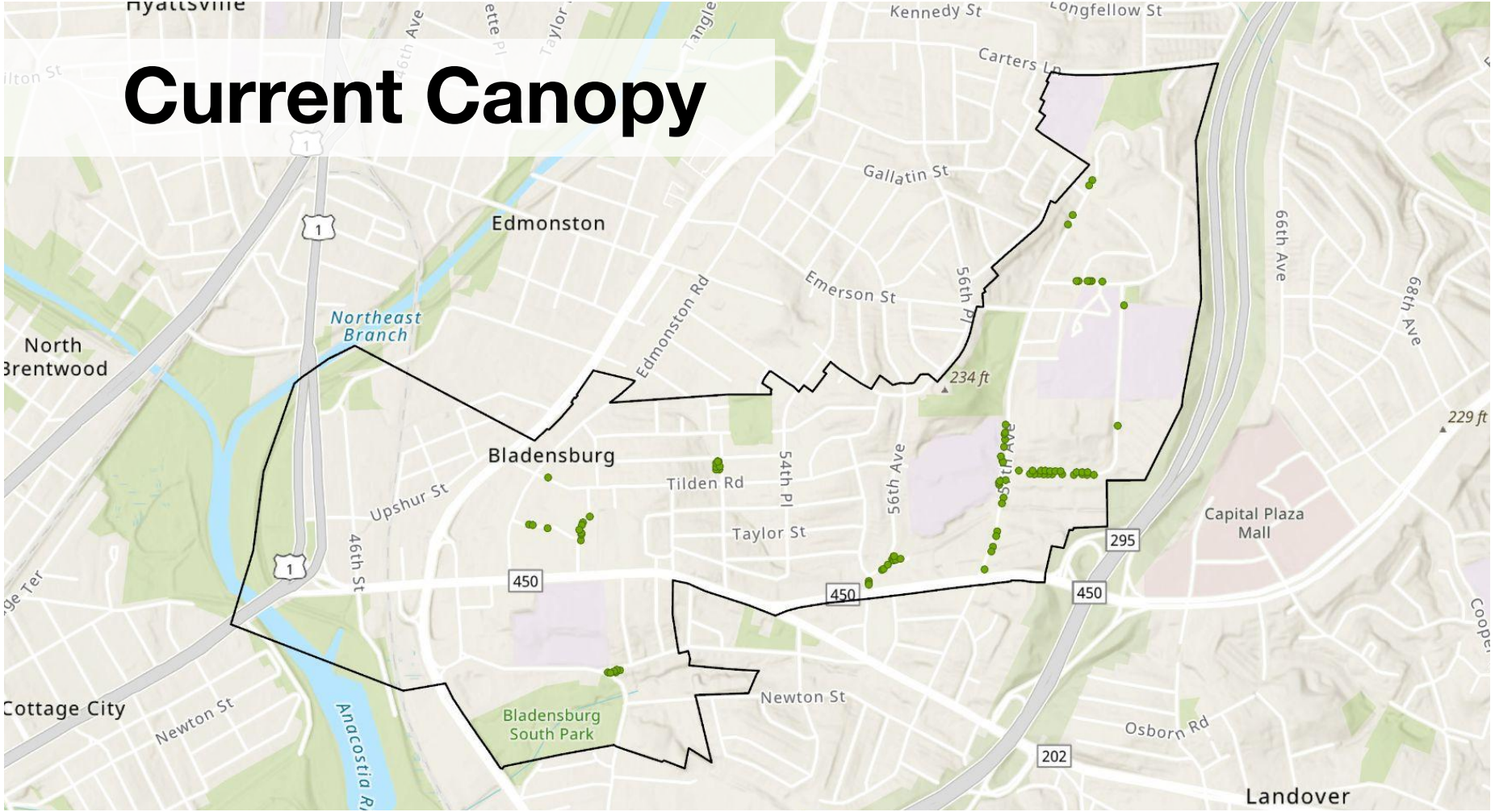
- Address high risk removals such as the Bradford Pears
- Continue pruning practices
- Watering the newly planted canopy to help them establish

PLANT!

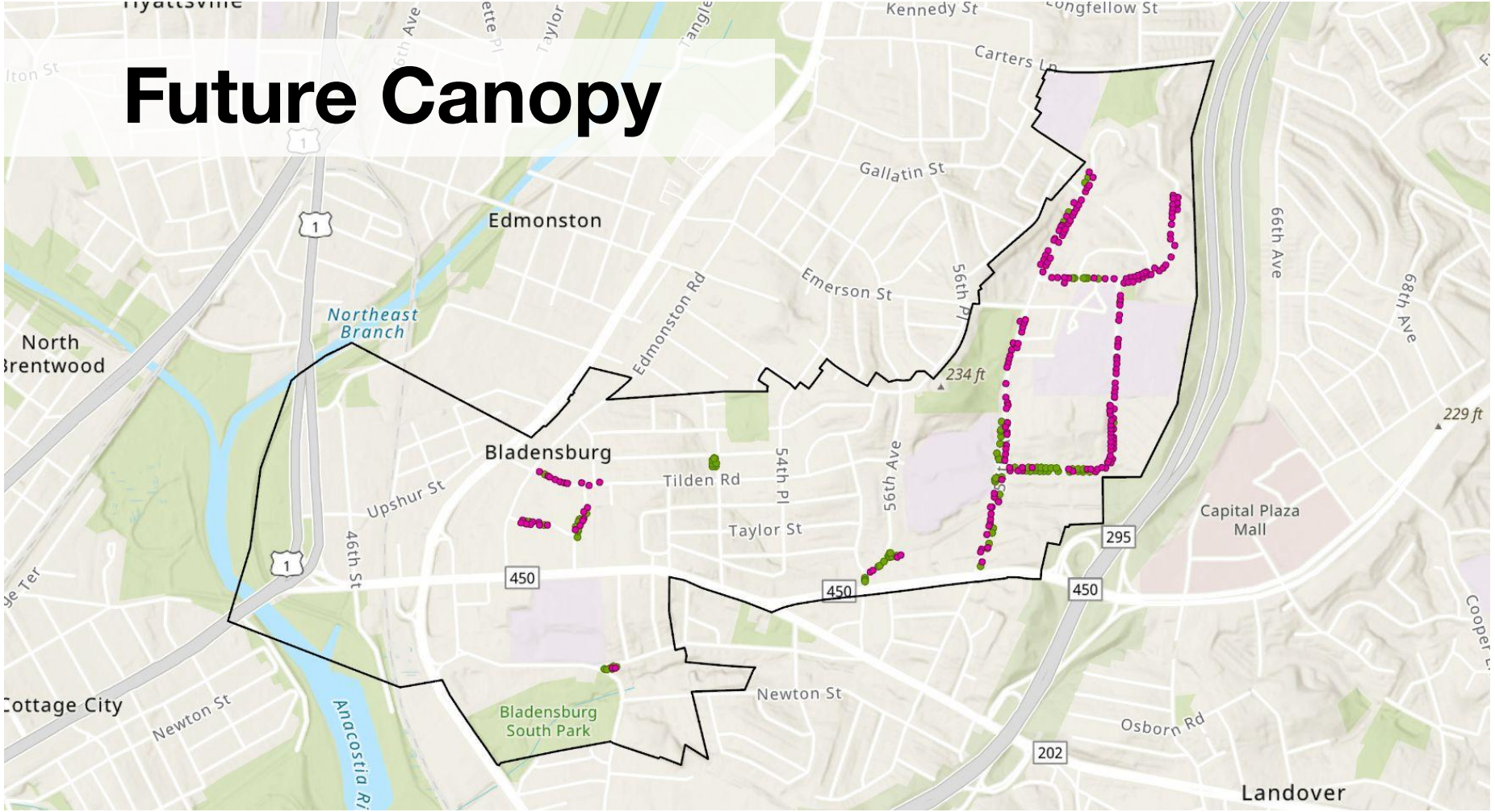
- Get those available sites filled with trees!
- More large canopy species = more environmental benefits
- NDC will assist Bladensburg Green Team and Public Works team with creating a species list



Current Canopy



Future Canopy



Eco-Benefits

Monetary value of carbon sequestration, carbon storage, air pollution reduction and avoided runoff by the urban forest

Current Urban Forest

Current Total Annual Costs Saved in Environmental Benefits:

$2,197.80

Proposed Urban Forest (10 Years)

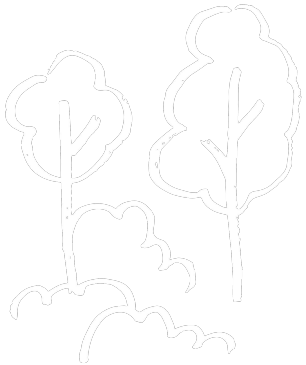
Potential Total Annual Costs Saved in Environmental Benefits:

$4,611.60

Next Steps

What Can You Do With This Inventory?

- Apply for grant funding for tree planting
- Easily plan for maintenance and planting contracts
- Continue the inventory the urban forest grows
- Quickly identify tree locations and concerns
- Pursuing designations or awards
- Create an interactive map for community engagement and championing



Thank you!

NFWF

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