

SMC TREE SUBCOMMITTEE WHITE PAPER – 3-3-17 DRAFT

INTRODUCTION

A healthy, dense and varied population of canopy trees provides many important benefits for our city. Their shade and evapotranspiration mitigates urban heat and cools buildings, reducing energy use and peak demand as well as storing large amounts of carbon. They significantly reduce stormwater run-off, improve air quality and abate urban noise. Trees improve the streetscape and increase property values. Studies have shown that canopy trees reduce stress levels, slow traffic, and create outdoor environments which encourage people to get outdoors, walk and bike and stay more active – all of which encourage better health. These benefits must be considered in calculating the costs of preserving and maintaining our urban forest.

The Forestry Division of the Parks Department provides tree planting, pruning and maintenance for over 96,000 trees along Madison's 700 miles of city streets. In addition, Forestry is responsible for hundreds of thousands of trees located in the City's parks, golf courses and cemetery.

PROCESS

The Sustainable Madison Committee (SMC) works to further the goals of our Sustainability Plan and provide a healthy environment for the citizens of our city. During the past year, City residents spoke to the SMC of their concern about the City's removal of mature trees, especially under power lines, and replacing them with much shorter "ornamental" trees that wouldn't provide the environmental, aesthetic and even economic benefits of canopy-sized trees. Some noted that they are not allowed to pay to treat and preserve Ash trees on the terrace in front of their properties. These residents acknowledged that removing large numbers of trees is partially driven by efforts to control the Emerald Ash Borer invasion, but are concerned that our EAB policies and practices are severely reducing our urban canopy, as well as leaving the public and homeowners out of the decision process.

In July, 2016, the SMC created a Tree Subcommittee (TS) to review policies, practices and problems affecting the tree canopy and develop recommendations to preserve and grow our urban canopy. The Tree Subcommittee held a series of public meetings to review pertinent documentation, hear testimony from city staff and citizens, and consult with a variety of experts. Members of the SMC serving on the TS include Alder David Ahrens, Jesse Shields, Michael Vickerman, and Lance Green. Parks Dept. Assistant Supt. Charles Romines and City Forester Marlys Eddy regularly attended meetings and advised the subcommittee.

The group focused on those portions of the canopy managed by City operations, such as street terraces, parks, and other public spaces, but considered issues in the light of the whole city-wide canopy. We also considered goals and actions in [Madison's Sustainability Plan](#), adopted in 2012, which call for the City to:

- Preserve and expand urban forest resources.
- Create a comprehensive tree program, with tree maintenance, tree preservation ordinance, and species variation.
- Minimize loss of tree cover and green space in public rights of way.
- Create a policy to facilitate underground placement of power lines and overhead wires.

- Promote tree planting by residents to complement municipal planting through a well-planned and systematic program, including education.

ISSUES

1. EAB Response Plan, Treatment, Removals, Power Lines, Equity

The Emerald Ash Borer (EAB) invasive insect has been infesting Madison's Ash trees since 2013. Since that time, Madison Parks Forestry has implemented the [EAB Response Plan](#), treating nearly 14,000 terrace Ash trees, removing about 3800 and replacing about 1600. The EAB policies, originally adopted in 2012, with some minor modifications since, call for treating terrace Ash trees 10 inches or more diameter (at 4 ½ feet height) and removing Ash trees in poor condition or under power transmission lines.

To reduce possible damage, tall canopy trees under power lines have been trimmed, thus retaining the tree but often creating the "big Y" look. Most of these trees adapt to the trimming and remain healthy. Under the EAB plan all Ash trees under power lines must all be removed, no matter their condition.

Removing all Ash trees under power lines often creates a significant equity disparity for residents and property owners on one side of the street versus their neighbors across the street, and for those neighborhoods with above ground power versus those with undergrounded power. Power lines have been placed underground in nearly all new development since 1978, leaving older neighborhoods to face the devastating results of our EAB policy.

Owners of properties which have smaller but healthy Ash trees in the terrace in front of their property have not been allowed to treat and save those Ash trees or replace them. Some have claimed this would create an inequitable situation for those who cannot afford to treat or replace their trees. Others feel all residents should be able to voluntarily assist in the maintenance of a healthy urban canopy as they do in the cultivation of terrace gardens.

Madison's web page on our Urban Forestry Special Charge appears to address this equity issue: "A healthy, vibrant, and sustainable urban forest provides benefits to all residents of Madison through a number of ways and not just to those who have parcels adjacent to City trees. Urban trees enhance the quality of oxygen, retain stormwater run-off, increase property values, and overall quality of life. Thus, residents of all parcel types shall help uphold the quality of the urban forest in the City of Madison."

In addition, Ash trees removed under power lines are now being replaced by low growing, ornamental trees. While costing nearly the same amount to plant and maintain, these trees do not provide a fraction of the ecological and economic benefits of large canopy trees.

2. No Comprehensive Tree Management and Low Priority for Trees

While Madison's tree canopy is ostensibly managed by the [Forestry Division](#), its viability is determined by a wide range of policies, ordinances and practices and overseen by several City agencies, including Parks, Engineering, Public Works, Streets, Fire and Planning as well as MG&E's pruning program. As city streets are reconstructed or developments are built, planning for and planting trees receives a low

priority, and often lead to loss of many mature canopy trees. In addition, current design standards for street-scapes often do not provide enough soil access or set-backs for planting canopy trees. Other threats to existing or planned canopy trees are posed by salt, vehicles, improper mowing and weed-whackers, fire truck clearance, underground utilities, street lights and signs.

The City has no clear, set goals or policy to assure no further loss of canopy, set a percent tree canopy goal for the city (currently approximately 22%), or maximize the canopy tree cover citywide. Our current “right tree in the right place” policy should be modified to assure the “right place for the right trees.”

As has been done in other cities, the development of a truly comprehensive Urban and Community Forest Master Plan will complement and support the objectives of the City’s adopted Comprehensive Plan and serve as a guide to future investment in this essential resource.

RECOMMENDATIONS

A. Review and revise portions of the Emerald Ash Borer Response Plan:

- Remove the requirement that all Ash trees under power lines be removed, possibly saving up to 1500 mature Ash trees on our terraces. The criteria for Ash trees should be the same as for other trees under power lines – remove them when their health or structure is determined to pose a threat, not because of the location in which they are planted.
- Allow residents to pay for treatment of Ash trees on the terrace in front of their property.
- Adopt a policy like that in Milwaukee, where all healthy Ash trees are being treated. Use the Urban Forestry Special charge and other funding means to distribute the cost equitably.

B. Underground Power Lines. Develop a plan and timeline to underground utility wires that require severe trimming of nearby trees. Special consideration should be made for lower-cost “partial undergrounding” of the high-power utility lines that require much more severe trimming than low-power and non-power lines. Because this initiative would take a number of years to implement, in the interim, we should develop clear guidelines for trimming or elimination of trees under utility wires.

C. Start the process to develop and adopt an Urban and Community Forest Master Plan to specify planning, regulatory, and enforcement policies to encourage the preservation and expansion of the urban forest on public land.

For systemic change in the survival and expansion of Madison’s tree canopy, it is necessary to form an inter-agency workgroup to evaluate city policies and practices that affect tree planting and survival and make recommendations for improvement. Members of the workgroup should consist of representatives of Engineering, Planning, Parks (including Parks Forestry and Habitat Stewardship Committee), Fire, possibly MGE and interested residents. Other agencies may participate in the discussion on an as needed basis.

The Master Plan should including these goals at a minimum:

- Develop a Tree Assessment and Tracking System to accurately track all terrace and Park trees and provide regular reports on the state of our publically-owned trees.
- Adopt a “No net Loss, Only Net Gain” policy for annual work with trees on public property.
- Develop and adopt a Canopy Coverage Goal for the City including public and private canopy trees. One 2013 study found the City had a 22% canopy cover.
- Work to attain these goals should consider equity of neighborhoods, diverse species variation, local conditions and historic trends.
- Develop a clear statement for invasive and disease treatment methods and goals.
- Clearly state the means for priority treatment of existing and new trees in street building and reconstruction and developments, both new and rebuilds, including providing appropriate soil, water and space for healthy trees.
- Improve the design and capacity of tree-planting spaces to increase survival rates.
- Integrate street trees into the stormwater infrastructure and complete streets objectives of the City
- Evaluate the effects of city policies on complete streets, building set-backs and bike and auto parking on tree placement and viability.
- Increase citizen involvement in projects that expand or maintain the urban forest.
- Increase funding for the street tree program through public, private or grant funded opportunities.
- Educate the public about the values of trees and the requirements of Madison’s urban forest management program.

CONCLUSION

The preservation and expansion of Madison’s Urban Forest will serve the public interest by improving the community’s physical, social, cultural and economic environment. We must take steps now to assure the growth and maintenance of this precious resource.

REFERENCES

[Legistar File # 44959](#) – Street Tree Subcommittee Documents

The cities of [Sarasota Springs, New York](#) and [Baltimore Maryland](#) provide useful models for Urban Canopy Planning.