March 2021
City of Morris Tree Board

City of Morris Urban Forest Management Plan

The following plan contains three goals with Best Management Practices (BMPs) outlined to achieve them. These strategies or BMPs will be used by the City Forester who will work with the Tree Board to achieve these goals. These strategies will follow City Code Section 7.11 (Regulation of Trees, Grass, and Weeds in Streets).

Introduction

The City of Morris's trees, whether standing in parks, boulevards, or other public lands, are a vital part of the city's infrastructure. Trees contribute to the beauty and character of our community, as well as providing essential environmental benefits.

This urban forestry management plan provides goals and strategies to help insure that this invaluable asset is managed in a sustainable, successful, and cost-effective way to provide maximum benefit to the community, both today and into the future.

This plan is primarily directed at trees growing on land owned or managed by the City of Morris. It is estimated that these trees comprise about 25% of all trees in Morris.

Benefits of Trees

Trees provide enormous environmental, economic, and aesthetic benefits to the community. In general, the larger the tree, the greater its contribution. Some of the greatest benefits of our urban forest are the following:

Energy Conservation

Trees reduce natural gas and electricity consumption, resulting in lower utility bills for Morris residents. Trees shade our homes and businesses, significantly reducing air conditioning costs. In winter, trees break the force of winter winds, lowering heating costs. A study conducted in Hutchinson, Minnesota, in 2016 found that trees in winter, without leaves, were reducing energy costs for homes up to six blocks away.

Stormwater Runoff and Water Quality

During and after rain events, trees play a vital role in reducing stormwater runoff. Trees intercept rainwater and hold it in their canopy and trunk where it evaporates rather than entering the storm sewer system. One Colorado blue spruce can intercept more than 1,000 gallons of water annually when fully grown. Collectively, Morris's trees reduce stormwater runoff by hundreds of thousands of gallons per year.

Trees help water soak into the ground where it recharges the watertable.

The leaves and roots of trees filter water and remove pollutants. This improves water quality by absorbing sediment, nutrients, and chemicals before they can enter lakes and streams.

Trees slow the movement of stormwater and hold the soil in place, thereby reducing erosion.

Air Quality

Urban forests intercept and absorb pollutants from the air. Trees help reduce sulfur dioxide, nitrogen oxides, ozone, and airborne particles such as soot, dust, and pollen that can exacerbate conditions like asthma. Large, healthy trees can remove more than 70 times more pollution than small trees.

Trees help reduce carbon dioxide, a "greenhouse" gas, by absorbing (sequestering) carbon from the atmosphere and storing it in roots, trunks, branches, and leaves thereby preventing its release.

Trees produce oxygen. One mature deciduous tree produces as much oxygen in a season as 10 people inhale in a year.

Wildlife Habitat

Trees provide essential habitat for wildlife, especially birds, insects, and mammals. Trees increase species diversity and can provide a refuge for species in decline. Trees lower air temperatures through respiration. This creates microclimates more habitable for wildlife.

Aesthetic Benefits and Enhanced Property Values

Trees make our neighborhoods more neighborly by creating privacy and screening views.

Trees visually "soften" buildings and other manmade structures. They add color, shape, and texture to our world.

Trees make our neighborhoods quieter by muffling noise.

Trees can increase curb appeal and boost property values up to 10%.

A healthy and vibrant urban forest makes the city attractive to residents, businesses, and visitors.

Goal 1:   The City of Morris Sheltered by Maximum Tree Canopy

Strategy A: Preserve the Community's Large Trees

Preserving large trees is important since most environmental and other benefits increase as a tree matures. Large trees have the greatest impact on the community's overall tree canopy. Preserving mature trees allows current residents to benefit from the canopy while the next generation of trees is growing for future residents.

Action Items
- Prioritize the preservation of large trees in management decisions. For example, favor pruning rather than removal whenever possible.

- Prioritize the preservation of large existing trees over planting of new trees since large trees provide greater environmental and social benefits and require less maintenance.

- Identify a select number of high value Heritage Elm Trees and encourage chemical treatment by the City to protect them from Dutch Elm Disease. Encourage the public to participate by continuing a Dutch Elm Disease treatment cost-share program. Plant replacement trees near large elms and ash to take over their role in the canopy.

- Work with the Planning Commission to encourage tree preservation in conditional use permits and similar land use and zoning actions and decisions.

- Establish and publicize a local Big Tree Registry with a Champion in each species to help bring attention to our large trees.

Strategy B: Remove Trees Only When Necessary

Removing trees only when necessary is one of the most cost-effective ways to preserve the community's overall tree canopy and realize its environmental, economic, and aesthetic benefits.

Action Items
- As possible, provide for Tree Board review, with the City Forester and using established criteria, of proposed removal of public trees over 15 inches DBH except in the case of:
  -- trees infected with Dutch Elm Disease (DED)
  -- trees infested with Emerald Ash Borer (EAB)
  -- trees dead or in severe decline
  -- trees causing immediate hazard where removal, rather than pruning, is the only viable option
  -- trees identified for removal as part of an established Tree Board-reviewed plan or policy

- Whenever possible prioritize pruning rather than tree removal to address poor structure or health, broken limbs, utility conflicts, and similar issues.
- Review the city code and suggest revisions to encourage tree preservation and planting.

Strategy C: Increase the Number of Trees Planted

The urban forest is a living ecosystem with individual trees having limited lifespans. Continual planting is important to ensure successive generations of trees.

Action Items
- Fully populate available planting sites on city boulevards and other road rights-of-way.

- Actively plant and replace trees as time and budget allow.

- Plant the largest species suitable on each planting site to improve overall canopy size. Plant short species such as crabapples under utility lines. Reserve open sites (that is, sites with no vertical restriction) for larger species.

- Plant more trees in parks and on the grounds of public buildings to improve the density of the overall canopy and to ensure the next generation of trees.

- Explore and implement programs and policies to encourage tree planting on private property.

- In coordination with the Planning Commission, review and revise ordinance language to encourage tree planting in new development.

Strategy D: Preserve Wooded Natural Areas, Rights-of-Way, and Miscellaneous Parcels

Wooded marginal or miscellaneous areas contribute to the overall tree canopy as well as providing windbreaks, wildlife cover, scenic value, neighborhood amenities, and other benefits.

Action Items
- Preserve trees and shrubs on edge parcels, marginal land, rights-of-way, and other miscellaneous parcels.

- Remove buckthorn from wooded parcels; replant with natives or other appropriate species. Develop recommended city code language for buckthorn control.

Goal 2:   A Healthy and Resilient Urban Forest

Strategy A: Achieve Good Age and Species Diversity in the Canopy

An urban tree canopy with a mix of ages and species is better able to withstand pests, diseases, storms, drought, and man-made threats.

Action Items
- Plant a diverse mix of species to reduce losses to pests and diseases.

- In the annual boulevard planting program, limit the number of over-represented species such as maples and increase the number of under-represented species.

- Identify sources for obtaining planting stock of recommended uncommon species.

- Explore establishing a tree nursery and/or gravel bed to cost-effectively obtain planting stock and increase planting of uncommon species.

- Conduct and maintain an inventory of existing public trees and open planting sites to facilitate management.

Strategy B: Increase the Number of Young Trees that Live to Become Healthy Mature Trees

Protecting and maintaining our young trees protects the City's investment and helps ensure the quality and longevity of the next generation of mature trees. Focusing on the care of young trees will reduce future maintenance costs; trees that live longer reduce costs.

Action Items
- Plant species that are disease resistant and low maintenance.

- Plant the right tree in the right place in the right way to reduce future management issues.

- Unless rainfall is adequate, water newly planted trees for three years to protect the investment and ensure healthy establishment.

- Protect trees from mower and string trimmer damage with tree guards and similar physical protection and through staff and public education.

- Make a concerted effort to prune young trees to develop strong form and branch structure.

- Cyclically prune all public trees to removed deadwood, correct faults, and increase resistance to storm damage.

- Because most trees are located on private property, help promote best management practices for private landowners.

Strategy C: Protect Trees From Construction Damage

Protecting trees from accidental damage is important to preserving and improving the community's tree canopy.

Action Items
- Educate contractors and public works staff on ways to protect trees from mechanical damage and soil compaction during street improvements and other City construction projects.

- Ensure that construction contracts include special provisions that require tree protection.

- Assess damage and enforce penalties for unwarranted damage to increase contractor care during City construction projects.

- Explore ways to repair sidewalks and construct curbs to avoid drastic root pruning and removal of mature trees.

- Encourage and facilitate the preservation and protection of trees on private property during private construction projects.

Strategy D: Make the Best Use of Limited Resources

The City's urban forestry budget is limited; staffing and funds need to be used effectively and efficiently.

Action Items
- Increase funding for urban forestry, as possible, given our growing recognition of the environmental benefits of the city's urban forest and the need to prepare for Emerald Ash Borer (EAB) and similar threats.

- Develop and implement cost-effective methods so limited urban forestry funds are well spent.

- Integrate urban forestry into new stormwater management efforts.

- Explore opportunities for grant-writing and other fundraising to help stretch City dollars.

- Encourage partnerships between units of government, boards and commissions, major institutions, the business community, and the public on urban forestry issues.

- Provide for submission of Tree Board minutes to the City Council, and an annual Tree Board summary report to the Council with an update on goals and activities.

- Encourage public works staff and Tree Board members to attend training to increase technical expertise and knowledge of best practices.

- Facilitate annual refresher training for public works staff on pruning, planting, and maintenance.

- Increase the number of MnDNR-certified Tree Inspectors and individuals certified by programs like Minnesota Tree Stewards, Citizen Pruners, and Tree Care Advocates.

- Educate the public and enlist their help in watering and protecting young trees.

Strategy E: Address Threats to the Urban Forest

Protecting Morris's urban forest from Dutch Elm Disease (DED), Emerald Ash Borer (EAB), and other threats is essential to preserving and cultivating the community's tree canopy.

Action Items
- Continue timely identification and prompt removal of trees with Dutch Elm Disease.

- Develop and implement an Emerald Ash Borer Readiness Plan.

- Stay abreast of pest and disease threats identified by the Minnesota Department of Agriculture.

- Develop a policy to reduce potential tree-solar panel conflicts.

Goal 3: Morris Citizens Knowledgeable About and Supportive of the Urban Forest

Strategy A: Improve community-wide understanding of the benefits of the urban forest and the need to preserve, maintain, and plant trees

The City's efforts to preserve and maximize its urban forest will be most successful when citizens are engaged and knowledgeable about urban forestry issues. About three-quarters of Morris's trees are located on private property.

Action Items

- Promote the understanding that, like roads, sewers, bike paths and parks, trees are an essential part of Morris's infrastructure.

- Regularly educate the public to promote an understanding of the City's tree management efforts.

- Use social media platforms to increase awareness of community forestry issues.

- Annually educate the public on the importance of protecting tree trunks from mower and string trimmer damage.

- Educate the public on the Emerald Ash Borer threat including the dangers of moving firewood.

- Enlist the public's help in watering trees during dry spells.

- Train and maintain a group of volunteers who can, under City Forester direction, supplement public works staff with activities like conducting tree inventories, installing trunk guards and water bags, pruning suckers, monitoring tree condition, and helping with special planting projects.

- Include youth in urban forestry outreach, education, and activities.

- Observe Arbor Day with promotion and activities.

- Maintain Tree City USA certification.

- Review and update this urban forest management plan on a regular basis.