



Springfield Urban Forestry Commission

Tree Plan

Vision

The Urban Forestry Commission (“UFC”) will strive to preserve, maintain, restore, and expand the Springfield urban forest with a focus on enhancing the health of the forest, preserving its multi-aged structure, and increasing the diversity of trees.

Urban Forestry

The urban forest is the collective of all the trees in the City, found on both public and private property. The urban forest is a valuable City asset. It is green infrastructure that provides services just as critical as the gray infrastructure of utilities, roads, and stormwater systems. Throughout the year, the urban forest quietly performs beneficial services. Trees provide, not only shade, but they enrich the aesthetic experience of a community, with their shapes and colors, and by screening unwanted views. Trees provide economic benefits by reducing energy usage throughout the year. They also mitigate storm runoff and soil erosion, caused by water runoff over large areas of concrete. Trees absorb pollution, intercept dust, release oxygen, mitigate climate change, increase property values, and create wildlife habitat. The urban forest also plays an important role in the attachment people feel to their community.

Urban Forestry is the cultivation, management, and preservation of trees and related vegetation in urban areas for their present and potential contribution to the economic, psychological, social, cultural and ecological well-being of urban society. Urban forestry is an investment into the future of our community. The effects of planting a single tree are felt in its vicinity for decades. Likewise, the benefits of the urban forest are felt throughout the city for decades. The larger the trees and the greater diversity of the urban forest, the larger the benefits. The benefits of the urban forest are not achieved from resolving day-to-day issues or the planting of a single tree. The benefits are realized from thoughtful, established policies implemented over generations. The urban forest must therefore be managed with a long-range plan, guided by urban forestry expertise, to bring together best urban forestry practices and community planning. Decisions to preserve, to plant, or to remove trees will affect the residents of the City for generations.

Goal 1

Expand the Green Canopy

Encourage the planting of city-appropriate trees in public spaces.

The urban forest is green infrastructure that works to mitigate the negative side effects of gray infrastructure. Large areas of concrete or asphalt, because they do not absorb water like soil, channel water which can lead to flooding, erosion, and sewer back-up. The forest provides a buffer to slow down the movement of rain and wind, while the soil and root system absorbs water, reducing flooding and erosion. The gray infrastructure absorbs the heat from the sun, creating heat islands. The urban forest shades houses, streets and parking lots, reducing the ambient temperature. Also, water movement through trees, evapotranspiration, has a cooling effect. Trees therefore reduce the amount of energy needed to heat and cool our buildings. This increases comfort, while saving money and cutting emissions from power plants. Reduction of the heat load also decreases costs by prolonging the life of asphalt surfaces.

The urban forest is good for the local economy. Trees increase home values. The presence of larger trees in yards and along streets can add 3% to 15% to home values. Studies have found that commercial offices have higher rental rates when they have high quality landscaping. Trees increase foot traffic in commercial centers; people will make a greater effort to go to and are likely spend more time in a commercial center that has high quality trees. A healthy urban forest also makes our city attractive to both new businesses and to employees.

Trees are good for our health. The urban forest improves air quality by processing pollutants. Trees produce oxygen. The urban forest quiets unwelcome traffic, railroad, and other community noise. Trees add pleasing shapes and colors, fragrance, texture, scale and seasonal change. They often screen unwanted views. The urban forest decreases mental fatigue and establishes visual harmony along streets. Trees add a distinctive character to neighborhoods and the community as a whole. Trees enhance people's sense of connection to nature and their community. They make people feel safe in their community and encourage healthy outside activities.

UFC's Role. The UFC will collaborate with the Mayor, City Council, private citizens, neighborhood associations, and not-for-profits, to develop funding sources for planting and maintaining the green canopy. Priority will be given to planting trees along residential streets and along City gateways. The UFC will discourage the removal of healthy trees. As the green canopy expands, Springfield's urban forest will provide increasing benefits to the City and its residents. Our investment in Springfield's urban forest will be enjoyed for generations.

Goal 2

Emphasize Native Trees and Diversity

The City of Springfield encourages the planting of Illinois native trees and diverse trees to build its urban canopy. Although the diversity (number of tree species) of the Springfield urban forest is presently unknown, the UFC will develop an expansive recommended list of genus and species of trees to be planted in the City. Species diversity affects maintenance costs, canopy continuity, and the ability to respond to threats from invasive pests or diseases. Low species diversity can lead to severe losses in the event of species-specific epidemics such as the Dutch elm disease. Beginning in

the 1930's, the Dutch elm disease devastated urban forests throughout New England and the Midwest, stripping them of their mature shade trees. The devastation is currently being repeated as the non-native, Emerald Ash Borer, annihilates our ash trees, many of which were planted to replace the elms.

In recent years, the Emerald Ash Borer has decimated the tree canopy in communities all across the country. As devastating as this infestation is for the trees and the urban canopy, it also demonstrates the need to have tree populations that are taxonomically diverse. This diversity will ensure that if another deadly tree disease or infestation comes along that it will not cause as much damage to the urban tree canopy as the emerald ash borer has done.

In addition to guarding against disease, diversity is important for safety and convenience in our neighborhoods. For example, in many parts of the inner city, a large number of sweet gum trees were planted in neighborhoods over 40 years ago, without considering their fruit. Those trees have now matured and are beautiful. However, the number of sweetgum trees and the profusion of gumballs they produce make them a high maintenance tree near sidewalks. As a result, many of the trees have been removed, resulting in damage to and loss of the urban tree canopy. Planting a diversity of trees is insurance against unforeseen consequences of planting any one species or genus of tree. The UFC will strive to establish a tree population which follows the 10-20-30 Rule for species diversity: no single species should represent more than 10% of the urban forest, a single genus no more than 20%, and a single family no more than 30%.

Just as important as diversity is the City emphasis on the importance of native trees in the redevelopment of the urban canopy. By shifting the focus to native Illinois trees, the City will ensure that these new trees will have the best chance of survival as they naturally occur in this climate. By emphasizing native trees, the City will also be working to support and promote the other parts of the ecosystem that thrive in the Springfield area. Native trees serve as food sources for native insects, birds, and small mammals. Other plants, such as flowers and other types of trees can also benefit by having trees in the landscape. Native trees help ensure that native bees, butterflies, and other essential pollinators are also supported. Although nonnative trees will continue to play a role in Springfield's urban forest and are good choices in many circumstances, they cannot provide the habitat role that our native trees provide.

Goal 3

Establish Programs to Encourage Tree Planting and Maintenance

The City will build a culture of tree planting by working with residents, developers, homeowners, neighborhood associations, and school children. This will involve re-establishing residential tree planting programs; establishing and enforcing landscaping requirements for developments; and promoting tree-awareness through Earth Day, Arbor Day, and other environmentally focused programs. The City's website will provide information about the trees and the activities of the UFC.

With developers, it is recommended that the City adopt tree planting and green space requirements for any new development within the City. This includes

developments for commercial and residential properties. This will also include the upkeep and maintenance of these green spaces to ensure that they are kept up for the enjoyment of residents.

With homeowners, the City should work to re-establish programs that once existed that allowed residents to purchase, at a discounted rate, trees that they can plant on their own properties. The City should also adopt a policy of actively replacing trees that have to be cut down. This commitment to tree maintenance and allowing for residents to more easily access and plant their own trees will help, not only create a culture of environmental stewardship, but also maintenance of the canopy. These programs will reinforce the understanding that the urban forest is everyone's responsibility.

With school children, the City should create and sustain Earth Day and/or Arbor Day activities to promote being a good caretaker of the environment with the students. These programs should be built-in partnerships with schools and community groups to maximize the impact. These programs should take place on an annual basis and should emphasize the importance of trees and stewardship of the environment.

On the City's website, the City should provide basic information about each of these programs. The website should also provide some additional facts for the residents, including recommended trees to plant, the benefits of trees including how planting trees saves residents, taxpayers and ratepayers money. The City can also include helpful items for those wanting to plant trees, things to remember when planting and a copy of this plan all to help guide residents that are interested in helping to build and maintain the urban tree canopy in Springfield.

Goal 4

Establish Long term Planning

The urban forest is an investment in the future. Most trees are long-lived, and choices made today can affect the City and its residents for decades if not centuries. Therefore, the City should develop a long-term tree plan to ensure the maintenance of a diversity of age as well as genus and species in the urban forest. The long-term tree plan should be coordinated with the City's long-term plan for growth and its gray infrastructure. The Tree Plan should identify species to be avoided because of maintenance cost, high-storm damage potential, high hazard and/or nuisance factors. In the long-term, the City should monitor the number, age (size), and percentage of trees within each species. When percentage imbalances occur (see 10-20-30 rule above), strategies should be devised to correct the over- or under- planting of a particular species genus, or family. The long-term plan should also consider the changing climate as well as the importance of historical native species. Given the longevity of trees, planting street trees that do well in Illinois as well as more southern climates may become increasingly important to creating an urban forest that is resilient to climate change.

Challenges

The challenges to developing and maintaining an effective Urban Forestry Plan are:

1. Conducting a thorough tree inventory to know baseline conditions for Springfield's urban forest;

2. Developing an efficient and effective forest maintenance program;
3. Building support for preservation and maintenance of the urban forest; and
4. Establishing partnerships and community support.

Strategies

- 1) Tree planting
 - a. Plant 500 trees, annually;
 - b. Space and height limitations to be considered in choosing trees;
 - c. Trees will be chosen from the City Recommended List (Springfield Arboricultural Specifications Manual, Appendices A, B, and C);
 - d. Diversity of the neighborhood forest will be a priority;
 - e. Native species will be prioritized
- 2) Tree replacement
 - a. Plant 3 trees for every tree removed
 - i. 1 tree in location of removed tree; and
 - ii. Other trees planted in locations at the discretion of the arborist. Consideration will be given to the health and diversity of the neighboring forest relative to other parts of the City.
- 3) Tree Removal
 - a. Hazardous trees will be removed;
 - b. When possible, trees to be removed shall be identified with a sign and a letter will be sent to affected property owners;
 - c. Requests for tree removal will be reviewed by arborist in consultation with UFC;
 - d. Healthy trees will not be removed except for good cause;
 - e. In circumstances where a permit for removal of a healthy tree is granted, the person/entity requesting removal will provide funds for the 3 replacement trees before removal of the healthy tree; and
 - f. The stump, roots, and, to the extent possible, sawdust of the prior tree shall be removed to a depth of at least 18 inches is required before replacing a tree.
- 4) Disposal of trees
 - a. To extent possible, upon removal trees shall be put to their highest use.
- 5) Inventory of City trees.
 - a. Secure funds to inventory trees across Wards and neighborhoods;
 - b. Analyze the diversity of species and age of trees within the City and develop species planting guidelines based on this analysis
- 6) City Code Amendments