Urban and Community Forest Master Plan

City of Saratoga Springs, New York - Adopted 5/21/2013

EXECUTIVE SUMMARY

In a June 2008 resolution, Saratoga's City Council declared that "the preservation and expansion of the Urban Forest will serve the public interest by improving the community's physical, social, cultural and economic environment." Trees provide the City and its residents with numerous benefits. The urban forest enhances retail and restaurant profitability, increases property values, saves energy, improves air quality, reduces water pollution and water treatment costs from stormwater runoff, and enhances the mental and physical health of the population by reducing stress and encouraging outdoor activity that reduces obesity and depression. Beyond these tangible and measurable benefits that research has documented, trees beautify our city, provide habitat for songbirds and other wildlife, and provide a direct link to our vibrant history.

The 2008 resolution authorized the application for a New York Dept. of Environmental Conservation matching grant to fund a tree inventory and the development of an urban forest master plan. With the help of over 125 citizen volunteers, Sustainable Saratoga produced the inventory of 4800 street trees and 800 park trees, submitting it *pro bono* to the City in September 2012. The City hired Cardinal Direction Landscape Architecture to draft the Urban Forest Master Plan (UFMP), which City Council adopted in May 2013.

The history of Saratoga Springs' urban forest begins with Gideon Putnam, who operated a saw mill and produced staves and shingles that he shipped to New York. In building the town, he and other European settlers cleared the forest. Early 19th-century pictures of Broadway show few trees. In 1828, a "wise, politic act" by the village trustees—a highway tax reduction of sixty-two and a half cents for property owners who planted trees—set Saratoga on the path where trees would become "the crowning glory of the city." Travelers to Saratoga in its "golden age" mentioned its shade trees almost as lovingly as they did its spectacular hotels and the waters. Disaster struck in the middle of the twentieth century, when Dutch elm disease denuded our streets at the same time that Saratoga hit an economic low point. The Plan of Action, a grassroots business revitalization effort of the 1970s, saw tree planting as an essential tool in downtown improvement. They deployed citizens, in collaboration with the DPW, to plant 250 trees downtown.

The tree inventory shed considerable light on the state of our urban forest, producing data that should increasingly guide City decisions and planning. It revealed a dangerous overreliance on maples: over 50% of our street trees come from this genus. Nearly 30% of our street trees are Norway maples, now categorized as an invasive species. Almost 12% are sugar maples. To protect against disease, diversifying our tree population should be a primary goal, moving towards no more than 10% from any one species, or 20% from any genus. The City no longer plants (or allows developers to plant) invasives such as Callery pear and Norway maples, or shrubs such as burning bush and Japanese barberry. Inventory maps revealed sharp differences between well-treed streets and bleak streets, information that will shape future planting priorities.

Using Forest Service software, the inventory yielded a cost-benefit analysis that showed clearly that trees "pay us back," that they are an investment rather than an expense. The $128,000 DPW tree budget was repaid with over $600,000 in annual community benefits (energy, pollution mitigation, real estate value, etc.), counting only the trees in the city's core. An average tree produces about $127 in benefits annually.

The Plan includes analysis and discussion of current tree-related City policies (ordinances, budgets, and planning documents) and recommends possible revisions and new policy directions for these documents.

FIVE MAIN ACTION STRATEGIES

In order to achieve its goals of preserving and expanding the urban forest, the City commits to the following five action strategies.

Action Strategy 1: Use planning, legislation, and enforcement to integrate trees more fully into Saratoga Springs' infrastructure

A. Review and strengthen provisions regarding publicly owned trees in all appropriate City ordinances, regulations, and planning documents. Enforce these provisions and limit exemptions. – *Update City Charter (Title 5), Zoning Ordinance, Subdivision Regulations, and Chap. 220 of the City Code.*
B. Preserve mature trees - *Enact a clear Tree Removal Policy that will protect the City's tree infrastructure by limiting removal to situations of "danger to public safety" or "health of the tree."*
C. Revise standard details, City Code (Chapter 203-23) and other appropriate documents to establish design standards that will allow for greater flexibility in sidewalk design
D. Require the planting of large-species trees throughout the City, except where physical constraints limit the maximum mature size of the tree. *Large species trees provide proportionately more benefits. Use small species trees only when there are no other solutions.*
E. Reclaim and increase growing space for trees – *Increase the use of full tree belts; enlarge tree wells; stop paving tree lawns and tree wells; design parking areas to accommodate large species trees.*
F. Incorporate trees fully into the City's Comprehensive Plan. *Beginning with the 2013 Comprehensive Plan revision process, lay out a vision of how Saratoga would look with a better preserved and expanded urban forest. Set planting targets and strategic priorities.*
G. Integrate trees into all infrastructure planning and project development in ways that preserve and expand the urban forest. – *Integrate trees into Complete Streets and stormwater mitigation design.*
H. Ensure that new land development projects preserve and expand the urban tree canopy - *Enforce conformity to ROW standards to provide for ample tree belt and vertical room for large trees.*
I. Provide City Board members with training on tree preservation and expansion topics. - *Emphasize limiting variances that reduce the number of trees, that do not require large-species trees where possible, and that diminish growing space for large-species trees in the public ROW.*
J. Establish citizen advisory Tree Board
K. Commit to gaining Tree City USA status
L. Commit the City of Saratoga Springs and related municipal entities to the same standards of review processes as applied to private developments – even though municipal projects are exempt by law.
M. Explore how the City and its utility partners can creatively integrate both utility wires and more large-species trees

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Action Strategy 2: Appoint City Arborist; update inventory information regularly; review plans and adjust strategy annually - *Bring modern forestry techniques to the management of our urban forest. Routine maintenance of a data-base of information will allow the City to monitor the changing condition of the urban forest, and to make adjustments to ensure steady progress with our goals for the urban forest.*

A. Appoint a full-time, certified City Arborist
B. Update the tree inventory and maintain an up-to-date database. - *Develop a process for regularly sharing information, between DPW & Sustainable Saratoga, regarding plantings and removals.*
C. Set planting targets (annual, mid-term, long-term) for progress on the urban forest:
D. Promote planting native species and near-native species trees and shrubs on all land, public and private
E. Base our forestry practice on current scientific information - *Draw on local or regional resources (Cornell Cooperative Extension, Sustainable Saratoga, NYS DEC, Skidmore College, and others).*

Action Strategy 3: Develop and implement Best Management Practices in DPW - *Ensure that trees are planted and maintained properly for maximum tree health and survival.*

A. Select trees best suited to planting conditions
B. Select trees that will improve the diversity, resiliency, and function of the urban forest - *Goal of no more than 10% of any one species, no more than 20% of any one genus, and 30% of any one family*.
C. Plant trees in continuous planting beds whenever possible.
D. Explore opportunities to re-use tree material withdrawn from the City's urban forest to mitigate the environmental and economic costs of tree removal.
E. Update the Standard Planting Details to reflect BMPs for Tree Planting Practices. *Minimum 40 square foot tree wells.*

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Action Strategy 4: Identify, leverage, and commit more resources for the trees - *With the knowledge that the benefits from trees far outweigh the costs, mobilize financial and human resources, public and private, to preserve and expand our urban forest.*

A. Leverage City funds whenever possible by applying for matching grants
B. Impose a fee permit to remove a tree from within the City's current or future Right of Way. Such fees should go directly into funding the Urban Forestry program.
C. Share the expense for preserving and expanding the urban forest with homeowners by developing cost share programs for tree planting.
D. Engage civic partners such as Yaddo Gardens, Skidmore College, the New York Racing Association, the Chamber of Commerce, the Downtown Business Association, or Saratoga Spa State Park to participate in planting programs or campaigns (150 trees in 2013 to celebrate the City's Sesquicentennial).
E. Find creative ways to incentivize citizens, developers, business owners, and homeowners to expand and preserve the urban forest.
F. Continue to build a partnership with and negotiate with National Grid to plant and maintain large species trees wherever possible – only planting small species when necessary.
G. Use Sustainable Saratoga's not-for-profit status to channel private funding into the City's urban forest.
H. Formalize the "Meet the Trees" program in Congress Park and establish ways for individuals to donate, plant, and care for trees throughout the City.
I. Engage community volunteers to help plant, inventory and "track" trees.

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Action Strategy 5: Promote and cultivate citizen involvement - ***Engage the public in the care and stewardship of our urban forest. Build public-private partnerships to achieve the City's goals.***

A. Raise awareness—through education, collaboration, and the exchange of information—among stakeholders about the value and needs of the urban forest. – *Engage with the downtown property owners, the business leaders, the developers and the design community, and the City's land use boards to promote its goals for the urban forest*. *Educate about the rationale behind the new planting list. Reduce the predominance of maples and gradually diversify our urban forest.*
B. Educate the public about the value and needs of the urban forest - *Produce and distribute information through educational brochures and web-based media. Encourage the public to value diversity and to eliminate invasive species trees and shrubs*.
C. Encourage direct citizen stewardship - *Encourage and incentivize private planting & maintenance. Organize community planting days. Train citizen pruning teams. Train volunteers to assist DPW with care of young trees and monitoring the health of the urban forest.*
D. Determine and formalize the ongoing role of a partnership with Sustainable Saratoga's Urban Forestry Project.- *Draw on its forestry expertise, its database management & mapping skills, its grant writing abilities, its capacity to raise funds as a 501c3 not-for-profit organization, and its ability to recruit and supervise volunteer stewardship*.

The Urban Forest Master Plan included a set of timetables to guide the implementation of the plan.

- Among the **Short-Term Actions** (to be accomplished *within one year of the May 2013 adoption*) were: the appointment of a City Arborist; various legislative actions (revisions to Title 5 of the Charter, to the Zoning Ordinance, and to the Subdivision Regulations); various types of education (including training for the land-use boards) and awareness-building (for the public, including outreach to Special Assessment District and Downtown Business Association leaders); developing a process between DPW and Sustainable Saratoga for updating the inventory; and planting initiatives (including contributing to the Saratoga 150 celebrations by planting 150 trees).
- The **Medium-Term Actions** (to be accomplished *within three years of the May 2013 adoption*) included: reclaim tree planting areas by removing illegally and unpermitted tree belt pavement; complete a major overhaul of the City's Tree Ordinance (Chapter 220 of the Code); update city's standard details; plant various strategically chosen initiatives (priority areas; in celebration of the City's centennial in 2015; uncover and replant paved tree wells); complete deferred tree maintenance; develop some demonstration road construction plans to showcase integration of "green streets" and "complete streets;" expand inventory using a sampling method; and become a Tree City USA.
- The Plan called for a short list of **Long-Term Actions** (to be accomplished *within six years of the May 2013 adoption*): to work toward a goal of planting 500 trees per year; to complete a five-year review of the Urban Forestry Master Plan; and to set a date additional review five years hence.

Setting priorities and planting goals will require that we find a suitable metric for measuring the results. Canopy cover, because it is so complicated and difficult to quantify, would be a challenging primary metric, but it is probably worth exploring and trying to measure, if only for what we learn from the effort. A simpler metric for general use in setting goals would be the raw number of trees on our streets. Using the 40-foot and 100-foot intervals between trees (from current zoning requirements) as a guide, the City has a full planting capacity of perhaps 19,000 trees. According to DPW estimates, we currently have about 14,000. Even without factoring in lost and removed trees, it would take twenty consecutive years of planting 250 trees to reach the 19,000. Adding in the roughly 500 trees lost from our streets each year yields an annual planting target of 750 trees that will be required to "preserve and expand" our urban forest. (In recent memory, DPW has typically planted only about 70-80 trees per year.)

A full-blown planting plan that detailed areas of the City for planting priority was beyond the scope of the UFMP. It did, however, identify four priority areas, using the street tree inventory and its maps as guidance. Planting the commercial core was given highest priority. Tree-lined streets have positive impacts on retail and restaurant profits by enticing more shoppers, who also stay longer and spend more money when trees are present. Planting the barren streetscapes on many core streets surrounding Broadway will benefit our City's vibrant businesses. A second priority area for planting was Washington Street and Congress Plaza, a retail center and a key corridor linking Broadway to the west side. Because this area will likely see considerable development in the next decade, it is an area in which the City can demonstrate alternative designs and planting techniques to enhance tree survival that will benefit the area. The housing complexes at Vanderbilt and Jefferson Terraces comprise the third priority, one addressing issues of environmental justice. In addition to street tree plantings that the City alone controls, the plan recommends working with the federal authority to develop a planting plan for the entire campus of apartments. The fourth priority area is the inner southwest neighborhood, a relatively treeless area bounded by Ballston Ave., West Circular Street , Aletta Street, and South Street.

The appendices include many useful items. Appendix B is a detailed draft of a revised Tree Ordinance that builds on the best templates available from the ISA and DEC. It also freely draws ideas from existing ordinances in comparable towns and cities from the region. Appendices D, E, and F give detailed information about Best Management Practices covering all kinds of tree issues, from planting to removal.