



Massachusetts DCR Urban and Community Forestry Challenge Grant Face Sheet

Application Deadline (Post-marked on or before) November 1

Environmental Justice

Contact Person: Vanessa Boukili

Applicant (Entity Name): City of Somerville
(*First-time applicant*)

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Grant Request: \$ 20,000 + Match: \$ 21,400 + Volunteer Value \$1,883 = Total Project Cost \$ 43,283

Short Project Title: (Seven words or less) New Urban Forestry Management Plan for Somerville

Project Summary: In the following space, briefly describe the project, including what you expect to be developed, produced, performed, and/or implemented. The project must relate to urban and community forestry:

Somerville will hire an experienced urban forestry consulting firm to develop a new Urban Forestry Management Plan for the City, replacing an outdated plan from 2009. The new Management Plan will include a comprehensive planting plan, operations review, invasive insect and disease management strategy, and storm preparedness plan. The Plan will also review Somerville's tree ordinance, policies, and guidelines relating to tree management; another section will address future funding needs and public relations/outreach strategies. The Somerville Urban Forestry Committee, comprised of residents and staff, will provide community-based input during plan development and work with the City's Arborist to develop and implement a community engagement and education component, with events to be held in Spring 2019 to promote the final Urban Forestry Management Plan.

✓ Please attach a more detailed budget indicating sources of match, details of expenses, etc.

This application has the support of the entity that is applying.


Signature of Authorized Agent


Date

Joseph A. Curtatore, Mayor
Printed Name and Title

Mail to: Julie Coop, DCR Urban Forestry Program, 251 Causeway St., Suite 600, Boston, MA 02114

City of Somerville
Application to the Urban and Community Forestry Challenge Grants
October 26, 2017

Background

The City of Somerville values urban forestry as a way to promote a more beautiful and healthful city, engage residents in preserving their community's natural elements, enhance low- and moderate-income areas to promote environmental justice, and stimulate development that can increase job opportunities and tax revenue. Thus, Somerville has placed its Urban Forestry program and full-time Arborist within the Transportation and Infrastructure Division of its Office of Strategic Planning and Community Development. The Arborist's mission is to "maintain, preserve, and expand a healthy and diverse urban forest to maximize environmental, economic, safety, and aesthetic benefits for Somerville's community today and in the future." Her goals are to: 1) Expand tree canopy by planting the right tree, for the right place, in the right manner, and with the right maintenance; 2) Engage in proactive and preventive tree pruning, maintenance, and removal; 3) Protect the tree canopy from manmade and natural threats, such as urban development, pests, and diseases; 4) Create and implement a new Urban Forest Management Plan with strategies for resource management, funding, and community outreach; and 5) Engage community members and key stakeholder groups in urban forestry education and stewardship. The Arborist shares implementation duties with the City's Tree Warden, based at the Department of Public Works. The Tree Warden is responsible for the physical elements of tree protection and care, including pest control and storm preparedness. He oversees purchase and maintenance of forestry tools and equipment, as well as a crew of laborers (the "Tree Crew"). In addition, a Consulting Arborist, with more than 20 years of experience advising on Somerville's trees, works as needed with the Arborist and Tree Warden to complete complex tree risk assessments.

The City of Somerville began developing a formal urban forestry program in 2009 when it hired Davey Resource Group to do the City's first *Street and Park/Public Space Tree Inventory and Management Plan*. In accordance with the plan, Somerville hired its first credentialed, full-time Arborist; established its first community-based Tree Committee; initiated an organized program of tree maintenance; and began planting approximately 100 new trees each year, with a focus on lower-income neighborhoods and neighborhoods adversely impacted by development.

2017 is proving to be an important year for Somerville's urban forestry program. The Mystic River Watershed Association, in partnership with the City, has received a National Fish and Wildlife Service Five Star Grant to plant 100 new trees near the Mystic River. This will complete the City's 2017-18 strategic tree-planting goals in two Environmental Justice neighborhoods: Ten Hills and East Somerville. Somerville's Arborist has begun working with Davey Resource Group on the City's first comprehensive tree inventory since 2009 (anticipated completion in Spring 2018). The inventory will cover all city-owned trees. The Arborist and Board of Aldermen are also revitalizing Somerville's Tree Committee (now called the Urban Forestry Committee). The Board has approved expansion of the Committee's duties to include review of policies and project proposals, as well as community education. In late 2017 Somerville's Arborist will issue a Call to Participation to re-establish membership around the new duties, the new inventory, and development of the new management plan described below.

Project Description and Workplan

Since completing its *Street and Park/Public Space Tree Inventory and Management Plan* in 2009 Somerville has significantly expanded the City's tree canopy, increased tree diversity, and improved tree health but the eight-year-old plan is severely out-of-date. The City needs a new Urban Forestry Management Plan that can guide the Urban Forestry program for the next five years, with room for adaptations that could extend the plan for as long as 10 years.

Somerville will issue a formal Request for Quotes and contract with a reputable urban forestry consulting firm to help complete the new plan. The plan will consist of nine sections as described below. Those involved in producing each section are indicated in parentheses:

- 1. Standard Urban Forest Management Plan (Consultant)**
 - a. Executive Summary with overview of findings and recommendations.
 - b. Inventory Analysis that discusses tree population characteristics and how they relate to management (ex. species diversity, diameter size distribution, general health and risk levels, potential pest-related threats, and opportunities for improvement).
 - c. Tree Management Program that includes processes and activities to improve urban forest health and public safety, and which provides a list of all necessary processes and activities along with a realistic timeline and budget.
 - d. References, glossary, and appendices with details regarding the inventory analysis and tree management program.
- 2. Urban Tree Canopy Cover (Consultant/Arborist)**

This section will provide maps and assessments of urban tree canopy and other land cover types throughout the city, using existing satellite imagery or pertinent software. The Arborist will contribute an ecosystem service benefits assessment based on the tree inventory and canopy cover analysis, and compare Somerville's urban forest to the urban forest of other communities in the area.
- 3. Comprehensive Planting Plan (Consultant/Arborist/Urban Forestry Committee)**

Based on the Urban Tree Canopy Cover and Inventory Analyses, the plan will identify the capacity for new trees throughout the city and identify locations that would benefit most from new plantings. It will include strategies for increasing canopy cover and diversity, identify types of planting sites available, and specify which species would be most appropriate to plant in the different types of sites. It will also detail best planting practices and planting specifications that can be shared with planting contractors.
- 4. Operations Review (Consultant/Arborist/Tree Warden/Consulting Arborist)**

The review will evaluate Somerville's urban forestry program and operations, compare its practices to current practices in other cities, and include specific, actionable recommendations to improve operations efficiency and effectiveness, including standard operating procedures, equipment, staffing patterns, and other resources.
- 5. Funding Analysis (Consultant)**

The analysis will cover current funding patterns and identify additional funding needed to implement the new plan, including funds for planting, maintenance, public education, and code enforcement. This section will suggest additional revenue streams, including grants.

6. Public Relations Plan (Consultant/Urban Forestry Committee/Somerville Community Growing Center)

The plan will provide ideal strategies for public outreach and education, including current and potential partnerships for community engagement and citizen involvement. It will also provide basic public relations tools and recommend specific outreach projects.

7. Invasive Insect and Disease Management Strategy (Consultant/Tree Warden/Arborist)

This section will identify current and potential pest threats to Somerville's tree population, including EAB, ALB, aphids, and fungal diseases, and provide strategies for dealing with them. It will also explain the fundamentals of an Integrated Pest Management Program, and provide information on how to monitor the urban forest, manage tree debris, utilize wood, and improve public education for pest management.

8. Ordinance/Policy Review (Consultant/Arborist)

The review will cover Somerville's tree ordinance, policies, specifications, and guidelines relating to tree management; summarize the findings; and recommend changes and additions that can strengthen the policies, address particular needs, and help Somerville's Urban Forestry program to meet community goals. It will also provide language that can be incorporated into future ordinances, policies and guidelines.

9. Storm Preparedness Plan (Consultant/Tree Warden/Arborist)

This will be a practical document that details policies and procedures to be followed for effective storm response, including the roles of the local, county, state, and federal government following different types of storm events. It will recommend strategies and procedural changes in regards to short- and long-term program priorities, management objectives, and operational details.

The Arborist will attach Somerville-specific case studies (specific to each City Ward) to sections 1, 2, 3, and 7 to ensure a strong connection between the written plan and the realities of implementation.

Upon completion of the plan, the Arborist will work with the Urban Forestry Committee to develop a community engagement and education component. This will:

- Introduce the Arborist and explain the roles of the Arborist and Tree Warden
- Introduce the Somerville Urban Forestry Committee and its work
- Report on impacts and outcomes from the completed 2009 plan
- Roll out the new plan, explain its purpose, and provide examples of how residents can expect to see the plan in action
- Engage residents in helping to maintain the urban forest through actions such as joining the Urban Forestry Committee, watering the street trees near their homes during hot summer months and droughts, and contacting constituent services or notifying their alderman if they see a tree that is damaged or failing

The Arborist will join with other Committee members to present the community engagement and education component via a live presentation, followed by discussion/Q&A, during seven Spring 2019 ResiStat meetings. ResiStat meetings take place twice per year in each of the City's seven wards. They create a community forum at which City departments can introduce new programs and services, update residents on ongoing initiatives, report on the impacts and outcomes of

completed work, and answer residents' questions. Each meeting is held in a fully-accessible location and well-advertised in multiple languages by both the City's Communications Department and the alderman for each ward. Simultaneous translation into Spanish, Portuguese and Haitian Creole, as well as refreshments are provided. Each meeting typically attracts 40-80 people. In addition, the Arborist, with support from the Committee, will engage residents during an Arbor Day event and at least three tabling opportunities at the Somerville Community Growing Center.

Who

Project Leader: Vanessa Boukili, Arborist for the City of Somerville, will have primary responsibility for project leadership and implementation. She will oversee the consultant's work; partner with the Tree Warden to ensure that the resulting plan is feasible, affordable, and specific to Somerville; write sections of the plan that she and the consultant decide would be best written from an in-house perspective; add other local elements, such as neighborhood case studies, to consultant-led sections of the plan; ensure the participation of the City's Urban Forestry Committee; create and present the project's community education component; and oversee grant management and reporting. Dr. Boukili has a Ph.D. in Plant Community Ecology from the University of Connecticut and is a Massachusetts Certified Arborist.

Additional Participants:

- **Tree Warden:** Steven MacEachern, Superintendent of Highways, Lights & Lines, and Sanitation within the Somerville Department of Public Works, has served as Somerville's Tree Warden since 2007. His work as Tree Warden naturally dovetails with his work as Superintendent; for example, the Highway Division oversees the Tree Crew responsible for pruning, tree removal, and plantings. It also oversees sidewalk repairs, which affect tree wells and roots. The Lights & Lines Division prunes tree limbs that have created hazards around power lines. The Sanitation Division manages tree waste from leaf drop, pruning and tree loss. During development of the new Urban Forestry Management Plan, Mr. MacEachern will work with the Arborist, consultant, and Consulting Arborist to create a feasible, affordable plan; provide the consultant with information on our current implementation strategies and areas in need of improvement; provide comprehensive oversight for plan elements concerning storm preparedness and pest management; review and comment on final drafts of the plan; and participate in community events to publicize the plan.
- **Somerville Urban Forestry Committee:** The nine Committee members (including the City's Arborist and Tree Warden) will participate directly in development of two Management Plan components: the Comprehensive Tree Planting Plan (providing strategies for increasing tree canopy and diversity and recommending species for individual sites); and the Public Relations Plan (recommending partnerships, projects and tools and plans for acquiring them). They will play an integral part in Plan roll-out, including development and implementation of the ResiStat presentations.
- **The Somerville Community Growing Center** is a community nonprofit built around an urban greenspace. Dedicated to educating residents about the natural environment, it hosts educational events for all ages and serves as a learning lab for the City's schools. Growing Center staff will participate in developing the plan's Public Relations component, use its networks and outreach tools to notify its followers about the new Management Plan, and host

an Arbor Day event and at least three tabling opportunities at which the Arborist and/or Committee members can educate the public about the new Plan and related activities.

- Green & Open Somerville is a community-based group that advocates for safe and healthy greenspace in Somerville, with a strong community engagement and education focus. Its members will assist with publicizing the development and roll-out of the new Management Plan through its member networks and social media.

Sustainability

The City of Somerville's Arborist, Consulting Arborist, Tree Warden and Tree Crew will provide the in-house staffing needed to implement the new Urban Forestry Management Plan over the next 5-10 years. Funding to support the Arborist position will come from the federally-funded Community Development Block Grant, as well as annually-allocated funds within the City's budget, which is supported by municipal taxes. Funding for the Tree Warden, Tree Crew and Consulting Arborist, as well as funding needed for plan implementation, will also be allocated each year within City's budget. Somerville has placed a premium on creating a plan that is realistic and affordable. In developing the new plans' parameters and exploring preliminary pricing with vendors, Somerville has included an Operations Review and Funding Analysis to ensure that the City can use best practices going forward and that each element of the plan has funding already attached or there is a reasonable plan in place for obtaining the funding. Both the Arborist and Tree Warden expect to be actively involved in reviewing drafts of the plan, with a specific focus on ensuring its feasibility over time.

Evaluation and Accomplishments

Somerville will track this project through its SomerStat initiative, which requires departments to establish annual goals that are published as part of the City's annual budget, and then to collect and report financial, personnel, and operational data related to those goals to City administration on a regular basis. The data are also made available for public comment through the ResiStat meetings mentioned above. City leadership then uses the data and resident comments to track implementation outputs and impacts, and produces an annual outcomes review and cost analysis.

Measurable accomplishments will include:

- Timely project launch
- Information gathering with consultant
- Completion of Urban Forestry Management Plan (checked at 50%, 75%, 90%, and 100% completion)
- Publishing and dissemination of plan
- Development of community engagement and education presentation
- Implementation of community engagement and education presentation at seven (7) ResiStat meetings, one Arbor Day event, and three tabling events