

2017–2021

Community Forestry Management Plan

Borough of Haddonfield

Camden County, New Jersey

2017 – 2021 COMMUNITY FORESTRY MANAGEMENT PLAN



**Borough of Haddonfield
Camden County
New Jersey**

Borough Commission

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John Moscatelli, *Commissioner of Public Works, Park and Public Property*
Neal Rochford, *Commissioner of Public Affairs and Public Safety*

Borough Administrator

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Department of Public Works

Greg Ley, *Superintendent*
Bill Ober, *Foreman*





Table of Contents


| | |
|---|-----------|
| MUNICIPAL INFORMATION | 1 |
| <i>Municipal Information Form</i> | 1 |
| INTRODUCTION | 2 |
| <i>Scope</i> | 2 |
| <i>Mission Statement</i> | 2 |
| <i>Overall Program Goals</i> | 2 |
| <i>Tree Hazards & Liability</i> | 3 |
| COMMUNITY OVERVIEW | 4 |
| <i>2012 – 2016 Shade Tree Program Review</i> | 4 |
| <i>Community Forestry Management Plan Benefits</i> | 8 |
| <i>Current Public Tree Assessment</i> | 8 |
| <i>Tree Canopy Cover</i> | 11 |
| <i>Relation to the Borough Master Plan</i> | 11 |
| <i>Relation to the Borough's Stormwater Management Plan</i> | 12 |
| PROGRAM ADMINISTRATION | 16 |
| <i>Shade Tree Program Structure</i> | 16 |
| <i>Shade Tree Program Responsibilities</i> | 16 |
| <i>Related Ordinances</i> | 19 |
| <i>Tree Service Request Procedures</i> | 20 |
| <i>2017 – 2021 Objectives</i> | 20 |
| BUDGET & RESOURCES | 21 |
| <i>Overview</i> | 21 |
| <i>2012 – 2016 Grants Received</i> | 21 |
| <i>Employee Salary & Wages</i> | 21 |
| <i>Operations</i> | 21 |
| <i>Borough Equipment</i> | 21 |
| <i>Tree Planting</i> | 22 |
| <i>Tree Waste Recycling</i> | 22 |
| <i>Volunteer Services</i> | 22 |
| <i>Totals</i> | 22 |
| TRAINING & PROFESSIONAL DEVELOPMENT | 23 |
| <i>Training & Professional Development Goals</i> | 23 |
| <i>Existing Programs, Policies & Procedures</i> | 23 |
| <i>Current Training Needs</i> | 24 |
| <i>2017 – 2021 Objectives</i> | 24 |

| | |
|---|-----------|
| PUBLIC EDUCATION, AWARENESS & OUTREACH | 26 |
| <i>Public Education, Awareness & Outreach Goals</i> | 26 |
| <i>Existing Programs, Policies & Procedures</i> | 26 |
| <i>2017 – 2021 Objectives</i> | 27 |
| TREE INVENTORY & ASSESSMENT | 30 |
| <i>Tree Inventory & Assessment Goals</i> | 30 |
| <i>Existing Programs, Policies & Procedures</i> | 30 |
| <i>2017 – 2021 Objectives</i> | 30 |
| TREE HAZARD MANAGEMENT | 32 |
| <i>Tree Hazard Management Goals</i> | 32 |
| <i>Existing Programs, Policies & Procedures</i> | 32 |
| <i>2017 – 2021 Objectives</i> | 32 |
| TREE PLANTING | 33 |
| <i>Tree Planting Goals</i> | 33 |
| <i>Existing Programs, Policies & Procedures</i> | 33 |
| <i>2017 – 2021 Objectives</i> | 35 |
| TREE MAINTENANCE | 37 |
| <i>Tree Maintenance Goals</i> | 37 |
| <i>Existing Programs, Policies & Procedures</i> | 37 |
| <i>2017 – 2021 Objectives</i> | 39 |
| TREE WASTE RECYCLING | 40 |
| <i>Tree Waste Recycling Goals</i> | 40 |
| <i>Existing Programs, Policies & Procedures</i> | 40 |
| <i>2017 – 2021 Objectives</i> | 40 |
| TREE CARE DISASTER PLAN | 41 |
| <i>Tree Care Disaster Plan Goals</i> | 41 |
| <i>Existing Programs, Policies & Procedures</i> | 41 |
| <i>2017 – 2021 Objectives</i> | 42 |
| PLAN PREPARATION & EVALUATION | 43 |
| <i>Plan Preparation & Evaluation Goals</i> | 43 |
| <i>Existing Programs, Policies & Procedures</i> | 43 |
| <i>2017 – 2021 Objectives</i> | 43 |
| SUMMARY OF 2017 – 2021 OBJECTIVES | 44 |
| <i>Timeline</i> | 44 |
| RELATED ORDINANCES | 49 |
| <i>Related Ordinances</i> | 49 |
| <i>Chapter 56. Shade Tree Commission</i> | 50 |



Municipal Information

Municipal / County Information Form

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| MUNICIPALITY | Borough of Haddonfield | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| COUNTY | Camden | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| ORGANIZATION | Shade Tree Commission | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| MAYOR'S SIGNATURE |  | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| DATE SUBMITTED | March, 2017 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TIME PERIOD | January, 2017 – December, 2021 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CSIP PRACTICES IDENTIFIED IN PLAN | <table><tr><td><input checked="" type="checkbox"/></td><td>CSIP #1</td><td>Training</td><td>p. 23</td></tr><tr><td><input checked="" type="checkbox"/></td><td>CSIP #2</td><td>Community Forestry Ordinance Establishment</td><td>p. 19</td></tr><tr><td><input checked="" type="checkbox"/></td><td>CSIP #3</td><td>Public Education & Awareness</td><td>p. 26</td></tr><tr><td><input checked="" type="checkbox"/></td><td>CSIP #4</td><td>Arbor Day</td><td>p. 26, 27</td></tr><tr><td><input checked="" type="checkbox"/></td><td>CSIP #5</td><td>Tree Inventory</td><td>p. 8, 30</td></tr><tr><td><input checked="" type="checkbox"/></td><td>CSIP #6</td><td>Hazard Tree Assessment</td><td>p. 32</td></tr><tr><td><input checked="" type="checkbox"/></td><td>CSIP #7</td><td>Storm Damage Assessment</td><td>p. 32, 41</td></tr><tr><td><input checked="" type="checkbox"/></td><td>CSIP #8</td><td>Tree Maintenance & Removals</td><td>p. 37</td></tr><tr><td><input checked="" type="checkbox"/></td><td>CSIP #9</td><td>Insect and Disease Management</td><td>p. 24, 34, 36, 38, 39, 41</td></tr><tr><td><input checked="" type="checkbox"/></td><td>CSIP #10</td><td>Wildfire Protection</td><td>p. 42</td></tr><tr><td><input checked="" type="checkbox"/></td><td>CSIP #11</td><td>Tree Planting</td><td>p. 33</td></tr><tr><td><input checked="" type="checkbox"/></td><td>CSIP #12</td><td>Tree Recycling</td><td>p. 40</td></tr><tr><td><input checked="" type="checkbox"/></td><td>CSIP #13</td><td>Sidewalk Maintenance Program</td><td>p. 34, 38</td></tr><tr><td><input checked="" type="checkbox"/></td><td>CSIP #14</td><td>Stormwater Management</td><td>p. 12</td></tr><tr><td><input checked="" type="checkbox"/></td><td>CSIP #15</td><td>Other</td><td>various sections</td></tr></table> | <input checked="" type="checkbox"/> | CSIP #1 | Training | p. 23 | <input checked="" type="checkbox"/> | CSIP #2 | Community Forestry Ordinance Establishment | p. 19 | <input checked="" type="checkbox"/> | CSIP #3 | Public Education & Awareness | p. 26 | <input checked="" type="checkbox"/> | CSIP #4 | Arbor Day | p. 26, 27 | <input checked="" type="checkbox"/> | CSIP #5 | Tree Inventory | p. 8, 30 | <input checked="" type="checkbox"/> | CSIP #6 | Hazard Tree Assessment | p. 32 | <input checked="" type="checkbox"/> | CSIP #7 | Storm Damage Assessment | p. 32, 41 | <input checked="" type="checkbox"/> | CSIP #8 | Tree Maintenance & Removals | p. 37 | <input checked="" type="checkbox"/> | CSIP #9 | Insect and Disease Management | p. 24, 34, 36, 38, 39, 41 | <input checked="" type="checkbox"/> | CSIP #10 | Wildfire Protection | p. 42 | <input checked="" type="checkbox"/> | CSIP #11 | Tree Planting | p. 33 | <input checked="" type="checkbox"/> | CSIP #12 | Tree Recycling | p. 40 | <input checked="" type="checkbox"/> | CSIP #13 | Sidewalk Maintenance Program | p. 34, 38 | <input checked="" type="checkbox"/> | CSIP #14 | Stormwater Management | p. 12 | <input checked="" type="checkbox"/> | CSIP #15 | Other | various sections |
| <input checked="" type="checkbox"/> | CSIP #1 | Training | p. 23 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input checked="" type="checkbox"/> | CSIP #2 | Community Forestry Ordinance Establishment | p. 19 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input checked="" type="checkbox"/> | CSIP #3 | Public Education & Awareness | p. 26 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input checked="" type="checkbox"/> | CSIP #4 | Arbor Day | p. 26, 27 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input checked="" type="checkbox"/> | CSIP #5 | Tree Inventory | p. 8, 30 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input checked="" type="checkbox"/> | CSIP #6 | Hazard Tree Assessment | p. 32 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input checked="" type="checkbox"/> | CSIP #7 | Storm Damage Assessment | p. 32, 41 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input checked="" type="checkbox"/> | CSIP #8 | Tree Maintenance & Removals | p. 37 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input checked="" type="checkbox"/> | CSIP #9 | Insect and Disease Management | p. 24, 34, 36, 38, 39, 41 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input checked="" type="checkbox"/> | CSIP #10 | Wildfire Protection | p. 42 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input checked="" type="checkbox"/> | CSIP #11 | Tree Planting | p. 33 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input checked="" type="checkbox"/> | CSIP #12 | Tree Recycling | p. 40 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input checked="" type="checkbox"/> | CSIP #13 | Sidewalk Maintenance Program | p. 34, 38 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input checked="" type="checkbox"/> | CSIP #14 | Stormwater Management | p. 12 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input checked="" type="checkbox"/> | CSIP #15 | Other | various sections | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

** I Certify that this Community Forestry Management Plan was developed specifically and exclusively for the Borough of Haddonfield*

Official Use Only Certification

The above named municipality has made formal application to the New Jersey Forest Service. I am pleased to advise you that after our review, the NJ Forest Service has concluded that this plan meets the standards set forth by the State and the NJ Community Forestry Council and is approved for the period covered.

Signed

Original copy signed and dated

State Forester

Approved Date



| | |
|------------------------------|--|
| SCOPE | <p>The following Community Forestry Management Plan outlines the programs and procedures through which public tree resources under the jurisdiction of the Borough of Haddonfield will continue to be managed through December 31, 2021.</p> <p>Recognizing that trees help improve the quality of urban and suburban life, Haddonfield has developed this fourth consecutive five-year plan in accordance with statewide efforts to preserve and promote sustainable community forest resources, and the goals and objectives of the Borough Master Plan.</p> <p>A healthy and productive shade tree population is an essential component of Haddonfield's unique beauty and character, and the Borough appreciates the value and ecosystem services trees offer in improving the quality of life. Simultaneously, the Borough recognizes its responsibility and the associated costs of providing proper tree maintenance and ongoing replacement to ensure that those benefits are perpetuated.</p> <p>Bacterial leaf scorch of oak continues to be a major forest health issue in Haddonfield and will continue to demand focus and budgetary resources. Likewise, the recent arrival of emerald ash borer in New Jersey will require a similar plan of action for proactive tree removal and replacement. As these issues are addressed, efforts to insulate the Borough's tree resource against such attacks through increased species diversity will continue.</p> <p>Elsewhere, efforts will continue to build upon the successes realized in implementing the Borough's previous community forestry management plans since 2002. During the current management period, the Borough will continue to enhance programs for managing its public street trees to help ensure a productive, beneficial and sustainable resource.</p> <p>In addition, it is expected that elements of this Plan will continue to help stimulate the public's appreciation for trees and help encourage the planting, protection and proper care of trees on private property for the benefit of the entire community.</p> |
| MISSION STATEMENT | <p>To cost-effectively develop, maintain and promote a sustainable, safe and productive shade tree resource that benefits the physical, economic, environmental, and social well-being of the Haddonfield community.</p> |
| OVERALL PROGRAM GOALS | <p>The New Jersey Community Forestry Council has identified fifteen Community Stewardship Incentive Program (CSIP) practices that together comprise a complete and comprehensive community forestry program.</p> <p>In each element of this Plan, existing Borough programs, policies and procedures are described, intermediate and element-specific goals are established, and CSIP-based objectives for the 2017 – 2021 management period are set. Systematic fulfillment of these CSIP-specific goals and objectives will continue to move Haddonfield's Shade Tree Program toward its overall program goals, which remain as follows:</p> <ol style="list-style-type: none">1. Develop and perpetuate a beneficial shade tree resource.2. Maximize the benefits of trees to the community. |

3. Maximize long-term stability and sustainability in the shade tree resource.
4. Optimize the balance between tree health, maintenance costs and budgetary constraints.
5. Minimize the risk of trees to public safety.
6. Minimize conflicts between trees and infrastructure.
7. Improve and maintain public interest, appreciation and support for public shade tree programs and encourage volunteer participation.
8. Encourage the planting and proper stewardship of trees on private property.
9. Increase and maintain Boroughwide tree canopy cover at 45%.
10. Meet all eligibility requirements of the NJ Shade Tree & Community Forestry Assistance Act.

TREE HAZARDS & LIABILITY

Public trees are regarded as a valuable asset that contributes immeasurably to the character of Haddonfield.

The Borough also recognizes, however, that the benefits of trees carry costs and potential liabilities. As with all municipal assets – perhaps even more so – trees require maintenance, and as they mature, eventually require replacement. Despite active tree management, it is inevitable that potentially hazardous conditions will emerge. The Borough acknowledges that not all such hazardous conditions can or will be predicted.

Nevertheless, experience has shown that comprehensive and proactive community forestry programs that strive to prevent, anticipate, and correct such problems will cost-effectively maximize the benefits of trees while minimizing the threat to public safety and exposure to liability. All elements of this plan are designed to optimize the balance between tree benefits and risks.

Comprehensive and proactive management will reduce the probability of hazards, but unpredictable events will still occur. The Borough's resources are limited and it may not be able to meet every need of the tree population immediately.

The intent of this plan is to direct available resources toward the greatest needs and systematically develop and maintain a healthy community forest with a commensurate reduction in threats to public safety.

Public safety must be a primary consideration in the development and implementation of all community forestry plans and programs. Accordingly, Haddonfield maintains a strong proactive stance when developing and implementing its policies and procedures. This plan provides a means of identifying and systematically addressing existing tree hazards. Further, it provides a means of reducing the potential for future hazards and liability through responsible planting and preventative maintenance.



2012 – 2016 SHADE TREE PROGRAM REVIEW

Haddonfield Borough's Shade Tree Program has remained active, deliberate and consistently effective for many years. With astute forward thinking and making best use of limited resources, trees are planted annually, maintenance is completed routinely, emergencies are addressed quickly, and residents are continually informed and engaged.

In recognition of its efforts, the Shade Tree Commission received a 2014 Green Communities Award from the New Jersey Urban and Community Forestry Program, in cooperation with the New Jersey Community Forestry Council and the New Jersey Tree Foundation. A key factor in this success has been a Mayor and Board of Commissioners who are very aware of the importance of the tree resource to the Borough and who are very supportive of the Program.

Nevertheless, the Borough has continued to face significant challenges. In particular, the continued devastating impact of bacterial leaf scorch disease on Haddonfield's grand oak population continues to stretch Shade Tree Program resources, while the inevitable loss of more trees to emerald ash borer looms.

The following is a summary of the Shade Tree Program's activities and accomplishments as they relate to objectives outlined in its 2012 – 2016 Community Forestry Management Plan.

1. **Program Administration**

- a) The Borough continued to implement most of its previously existing administrative programs, policies and procedures. (*Program Administration, Objective #1*)
- b) The Shade Tree Commission continued to work closely with the Planning Board to ensure that subdivision applications were reviewed with regard to the protection of publicly and privately owned trees from construction injury. The Shade Tree Commission, working in close cooperation with the Borough Construction Office, has played an active role in administration of 2014 Code amendments, which provide for critical root zone protection for public trees during construction as part of the permitting process.
- c) In 2015, the Borough adopted a new Green Building and Environmental Sustainability element of its Master Plan, with the Shade Tree Commission taking an active role in framing the review. The document addresses a wide range of initiatives, including Complete Streets programs, tree protection and preservation, public and private construction, and a variety of environmentally focused activities.

2. **Training & Professional Development**

- a) The Borough continued its existing training programs on a consistent basis, made training opportunities available to all individuals serving the Shade Tree Program, and attended both in-person and webinar-based training programs that addressed current needs and issues. (*Training & Professional Development, Objective #1*)
- b) The Borough met or exceeded its requirements for CORE training and continuing education under the New Jersey Shade Tree and Community Forestry Assistance Act and maintained Approved Status each year. (*Training & Professional Development, Objective #2*)
- c) Shade Tree Commission members and Department of Public Works employees regularly attended general educational sessions of the New Jersey Shade Tree Federation Annual Conference, which cover a wide variety of arboricultural and urban forestry topics, including young tree pruning and tree hazard identification and management. (*Training & Professional Development, Objective #4 and #5*)

- d) In 2012, four Shade Tree Commission members attended a seminar on New Jersey Trees sponsored by the New Jersey Native Plant Society.
- e) The Shade Tree Commission began seeking and utilizing online webinars produced by appropriate authorities to help ensure that training in topics of timely importance are readily available to all its members.
- f) Each year, qualified members of the Shade Tree Commission teach workshops in tree pruning and planting to current and potential members of the Haddonfield Branch Managers, as well as residents of Haddonfield and other nearby municipalities.

3. **Public Education, Awareness & Outreach**

- a) The Borough continued to implement its existing public education, awareness and outreach programs on a regular basis. *(Public Education, Awareness & Outreach, Objective #1)*
- b) Official Arbor Day celebrations continued to be held every year in Haddonfield. These programs have typically involved elementary school students and celebrations included talks by Borough dignitaries, tree plantings, student research and presentations on the history of Arbor Day, and student creation of tree-related poems, puzzles and art. *(Public Education, Awareness & Outreach, Objective #2)*
- c) The Borough continued to be designated as a Tree City USA through the National Arbor Day Foundation, an honor that it has held continuously since 1993. *(Public Education, Awareness & Outreach, Objective #3)*
- d) Haddonfield was awarded the Tree City USA Growth Award for 2015 in recognition of the advanced level of commitment and care provided to its urban forest resources. *(Public Education, Awareness & Outreach, Objective #3)*
- e) The Shade Tree Commission published on its webpage a copy of its street tree inventory providing general information regarding tree species and size by address. *(Public Education, Awareness & Outreach, Objective #4)*
- f) As part of the rollout of new requirements for protecting Borough trees from construction, the Shade Tree Commission hosted two public information sessions for developers, architects and others to review the policy, explain the purpose of the policy and answer questions and concerns.
- g) The Shade Tree Commission submitted numerous press releases and provided interviews to local print and online media regarding the Shade Tree Program's activities and accomplishments and timely information on tree health issues and care.
- h) With the strong support of the Borough Commissioners, the Shade Tree Commission continued to publicize and implement its Commemorative Tree Program, which allows residents to donate larger memorial trees to be planted in the downtown business district.
- i) The Shade Tree Commission frequently updated and supplemented its page on the Borough website with a wide variety of information regarding Haddonfield's Shade Tree Program, downloadable information regarding the benefits of trees and their care, tips on tree planting and new tree care, recruiting information for Haddonfield Branch Managers, the current inventory of Borough-owned street trees, Commission meeting dates and minutes, and *Frequently Asked Questions*.
- j) The Shade Tree Commission recently established social media presence with a Twitter account (@HaddonfieldSTC) which is designed to promote and encourage participation in volunteer efforts and disseminate information similar to that contained on the webpage.
- k) The Shade Tree Commission took an active role in completing the Borough's application for Silver Status under the Sustainable Jersey program.
- l) Shade Tree Commission members regularly teach courses at the Haddonfield Adult School and provide lectures on tree selection and care for local garden clubs, community garden members, local library associations, and Master Gardener classes.
- m) The Borough's 2012-2013 Community Calendar was entitled "In the Company of Trees" and included photos and information about featured tree species, tree maintenance tips, tree

facts, poems, and drawings from school children. This calendar was sent to over 4000 residents, businesses and schools.

- n) The Shade Tree Commission developed a fifteen stop Town Tree Tour, which was introduced in the Community Calendar and made available in brochure and audio format via the Commission webpage.
- o) The Shade Tree Commission staffs a table annually at the Haddonfield Fall Festival to highlight the Borough's Shade Tree Program and answer questions. At the 2012 Festival, Commission members and Branch Manager volunteers led trolley tours based on the Town Tree Tour for over 100 people and oversaw activities for over 300 children.
- p) The Shade Tree Commission regularly staffs a table at the Haddonfield Farmers' Market to promote the Shade Tree Program. In 2013, this included promoting and recruiting planting volunteers for the Tricentennial Tree Program.

4. Tree Inventory & Assessment

- a) The Borough continued to utilize and update its existing *ArborPro* tree inventory software system. The system is used to record and schedule tree maintenance and planting tasks, as well as to extract both individual tree and broad-view information about the tree population for use in management planning and decision making. (*Tree Inventory, Objective #1*)

5. Tree Hazard Management

- a) The Borough continued to implement its previously existing programs, policies and procedures for identifying and addressing trees requiring priority maintenance to minimize potential tree hazards on an ongoing basis. (*Tree Hazard Management, Objective #1*)
- b) The Borough completed all priority maintenance needs identified by the 2010 inventory while continuing to identify and address emerging new needs. (*Tree Hazard Management, Objective #2*)
- c) Members of the Shade Tree Commission surveyed their assigned zones of the Borough regularly to identify priority maintenance needs in addition to planting opportunities and lower priority maintenance needs. These surveys were in addition to the ongoing identification of issues by the Department of Public Works and others in the course of the normal daily routines.

6. Tree Planting

- a) Despite budget impacts that significantly reduced the number of trees planted over the past five years, the Borough continued to implement its previously existing tree planting programs, policies and procedures and continued to improve species composition and sustainability in the public tree population by planting a variety of species and cultivars and carefully selecting species to suit existing site conditions. (*Tree Planting, Objective #1*)
- b) Reduced budgets and the increased need to allocate resources to the removal of bacterial leaf scorch affected oaks continued to severely limit the number of replacement trees the Borough planted over the past five years. To maintain what forward progress it could, the Shade Tree Commission worked diligently with the Board of Commissioners and the Borough Administration to find what monies it could and secured a Community Stewardship Incentive Program (CSIP) grant from the NJ Forest Service to continue limited replanting of lost trees. Currently, budgets are improving and the Borough is gradually working back toward a planting budget that is in balance with tree losses. (*Tree Planting, Objective #2*)
- c) In 2013, The Shade Tree Commission sponsored a Tricentennial Tree Program through which approximately 100 trees were purchased for private property or donated for public property by a long list of individuals and organizations and planted and provided follow-up care by a large team of volunteers and professional landscape partners. A Tricentennial Tree Celebration community event was hosted by the Shade Tree Commission to commemorate the great success of the program. (*Tree Planting, Objective #2*)
- d) The Shade Tree Commission continued to promote and expand its successful Commemorative Tree Program, through which trees are donated for planting in

Haddonfield's business district with a plaque honoring the individual for whom the donation was made and including the botanical and common species name of the tree. While the number of Commemorative Trees planted per year is typically less than ten, interest has remained steady and the trees are very meaningful to the community. *(Tree Planting, Objective #2)*

- e) The Shade Tree Commission reviewed and revised its tree planting standards and procedures regarding species selection, root ball specifications, delivery, installation, and post-planting care. Primary changes included: 1) transition from pot-in-pot to balled-and-burlapped stock and conformance to NJ Forest Service requirements for tree planting grants, and 2) refinement of its species selection list with regard to suitability for use under utility wires, park strip capacity, and other parameters. *(Tree Planting, Objective #5)*

7. Tree Maintenance

- a) The Borough continued to implement its previously existing tree maintenance programs, policies and procedures. *(Tree Maintenance, Objective #1)*
- b) Haddonfield continued to manage the ongoing problem of rapid loss of many large oaks to bacterial leaf scorch proactively and effectively. The Shade Tree Commission, working closely with the Department of Public Works, continuously monitored disease progression, ranked the condition and life expectancy of infected trees and made decisions for removal when safety-focused thresholds were reached. Removal of trees lost to the disease were and continue to be completed by a cost-effective mix of in-house crews and private contractors. *(Tree Maintenance, Objective #2)*
- c) Based on detailed analyses completed, the Borough significantly increased its Shade Tree Program operations budget to permit additional hiring of outside tree service contractors to keep pace with the necessary removal of bacterial leaf scorch oak trees, as well as to proactively removed low-quality ash trees in advance of emerald ash borer infestation. *(Tree Maintenance, Objective #2)*
- d) The Shade Tree Commission continued to sponsor the Haddonfield Branch Managers, now a 35-member group of trained volunteers, which meets monthly throughout the winter and early spring to complete structural pruning on young public trees and periodically during the rest of the year to remove mulch, ivy and girdling roots where necessary.

8. Tree Waste Recycling

- a) The Borough continued to implement all its previously existing tree waste recycling programs, policies and procedures. *(Tree Waste Recycling, Objective #1)*
- b) The Shade Tree Commission, Department of Public Works and Borough Administration reviewed potential outlets for the sale of wood waste and determined that, given the current cost of disposal at recycling facilities, there was no compelling reason to change current practices. *(Tree Waste Recycling, Objective #2)*

9. Tree Care Disaster Plan

- a) Haddonfield remained ready to implement its previously existing tree care disaster plan programs, policies and procedures and worked to minimize future issues by implementing other elements of this Plan, such as improving species diversity and applying sound tree maintenance principles. With its capable in-house tree maintenance crew and expanded contractor base, Haddonfield remains well-equipped to handle serious emergencies. *(Tree Care Disaster Plan, Objective #1)*

10. Plan Preparation & Evaluation

- a) Haddonfield continually reviewed its Community Forestry Management Plan, monitored progress toward its goals and objectives and made appropriate adjustments in the Shade Tree Program's activities to address current needs. *(Plan Preparation & Evaluation, Objective #1)*

**COMMUNITY
FORESTRY
MANAGEMENT
PLAN BENEFITS**

- b) The Borough submitted all necessary Annual Accomplishment Reports to the NJ Forest Service in accordance with the Requirements of the New Jersey Shade Tree & Community Forestry Assistance Act and maintained its approved status under the Act. *(Plan Preparation & Evaluation, Objective #1)*
- c) The Borough has prepared this fourth five-year Community Forestry Management Plan for the 2017 – 2021 management period with the assistance of a NJ Green Communities Challenge Grant and based on a thorough review of its goals, objectives and current needs. *(Plan Preparation & Evaluation, Objective #2 and #3)*

Since 2002, the Borough of Haddonfield has used this Community Forestry Management Plan to document its policies and procedures and to guide its efforts in managing and continually improve its Shade Tree Program. Implementing this plan over the past fifteen years has helped the Borough realize several benefits.

1. Haddonfield has faced a rapidly growing trend of “tear-down” home construction in recent years that has severely injured or killed many Borough trees. Existing ordinances and a clear set of community forestry goals and plans provided a clear path for implementing measures to require the trees be protected or assess fines to the builders.
2. This Community Forestry Management Plan establishes standard operating procedures that remain constant as volunteers and employees change over time. Following sweeping changes in Haddonfield’s Shade Tree Commission membership, the Borough Administration, and Department of Public Works leadership, as well as a change from in-house to contracted tree services in 2007, this Plan helped maintain continuity and limited disruption in the Shade Tree Program.
3. The Borough Commission’s and taxpayer’s support of the Shade Tree Program has remained as strong as it can be during trying economic times, with the Plan providing clear justification of the costs, relative to the benefits, that the Shade Tree Program provides.
4. Training and professional development completed in accordance with the New Jersey Shade Tree & Community Forestry Assistance Act requirements has continued to increase the number of individuals that have improved their level of knowledge in the principles and day-to-day practices of urban forest management. This, in turn, has improved the overall management of Haddonfield’s shade tree resource.
5. Despite a large number of aging trees rapidly declining in health and damaging storms, the Borough has remained relatively safe as a result of the Shade Tree Program constantly evaluating the public tree population, identifying potentially hazardous conditions, and directing efforts toward the pruning and removal of problem trees in logical order and in an efficient, proactive manner.
6. Having a Community Forestry Management Plan and approved status under the NJ Shade Tree & Community Forestry assistance Act, the Borough has benefited from grant programs that it would not otherwise have been eligible for.
7. With clearly stated goals, and methods and flexible schedules for attaining them, this Community Forestry Management Plan serves as an effective working manual for both the Shade Tree Commission and the Department of Public Works. Additionally, it serves as an excellent source of information and instruction for new Shade Tree Commission members and Borough residents.

**CURRENT
PUBLIC TREE
ASSESSMENT**

Haddonfield maintains a complete, computerized inventory of its street tree stock, which it uses routinely for both for scheduling and recording day-to-day maintenance treatments, and to inform long range management planning decisions. The inventory was originally collected between 2000 and 2005 and stored in an ACRT *TreeManager* database. The inventory was fully updated in 2010 and is currently managed and continually updated through the *ArborPro Urban Forest Management* software system.

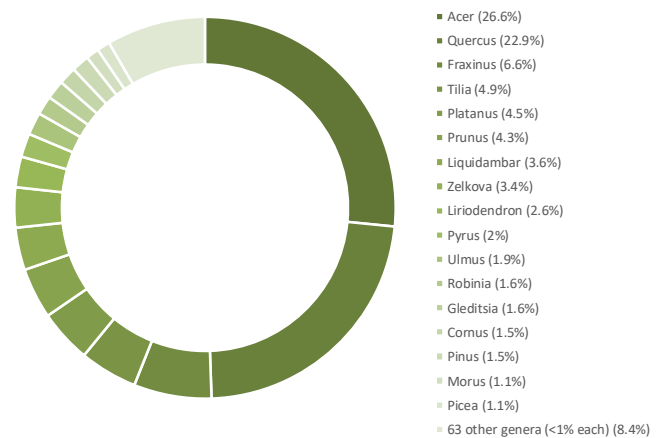
The Borough currently lacks a full, detailed inventory of trees in Borough parks and on Borough properties. It does, however, have recent assessments of trees on Borough school grounds and in the portions of parks where trees intersect with playgrounds, ballfields, roads, and other high-use areas.

Based on current inventory data, the following is currently known about the Borough's public street tree population. Figures from 2012 are provided in parenthesis for comparison.

1. The street tree population currently contains 8,800 (9,063) trees.
2. Streets in most areas of the Borough are well stocked, though the level of stocking varies significantly between localized areas. In many areas, the street tree population is overstocked due to unnecessarily close spacing and crowding of driveway and other hardscape fixtures.
3. As in most municipalities in New Jersey, many street-side sites in Haddonfield offer a limited amount of growing space and have numerous conflicts in the form of overhead and below-ground utilities, signs, fire hydrants, and pavement.

2016 Genus Composition

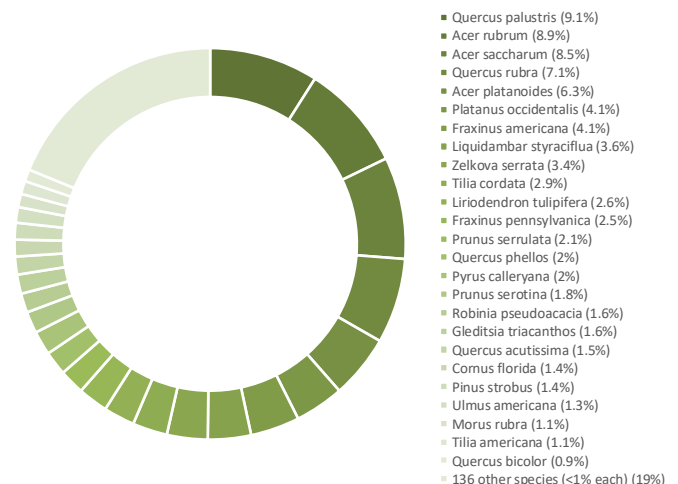
1. The most frequent genera in the street tree population are *Acer* (maple) at 26.6% (26.5%), *Quercus* (oak) at 22.9% (25.9%), *Fraxinus* (ash) at 6.6% (6.7%), *Tilia* (linden) at 4.9% (4.4%), *Platanus* (sycamores and planes) at 4.5% (4.1%), *Prunus* (cherries) at 4.3%, *Liquidambar* (sweetgum) 3.6% (3.6%), and *Zelkova* 3.4% (3.2%). An additional 63 genera each comprise less than 1% of the street tree population.



2. *Acer* (maples) and *Quercus* (oaks) together comprise nearly 50% of the street tree population. This leaves the Borough vulnerable to extensive losses from insect and disease issues that are specific to those genera.

2016 Species Composition

1. Existing street trees currently represent 160 (174) different species. The most frequent species in the street tree population are *Quercus palustris* (pin oak) at 9.1% (11.6%), *Acer rubrum* (red maple) at 8.9% (8.0%), *Acer saccharum* (sugar maple) at 8.5% (9.0%), *Quercus rubra* (red oak) at 7.1% (8.1%), *Acer platanoides* (Norway maple) at 5.3% (5.6%), *Platanus occidentalis* (American sycamore) at 4.1% (4.0%), *Liquidambar*

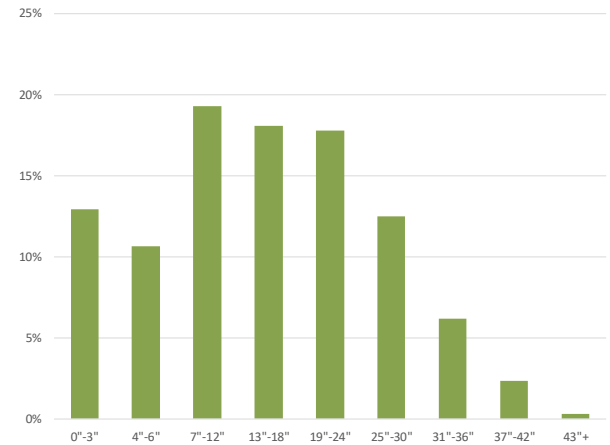


styraciflua (sweetgum) at 3.6% (3.6%), *Zelkova serrata* (Zelkova) at 3.4%, *Tilia cordata* (littelleaf linden) at 2.9%, *Liriodendron tulipifera* (tulip) at 2.6%, *Fraxinus pennsylvanica* (green ash) at 2.5%, and *Prunus serrulata* (Japanese flowering cherry) at 2.1%. 11 additional species each comprise 1% - 2% and 136 additional species each comprise less than 1% of the street tree population.

2. *Quercus palustris* (pin oak), *Acer rubrum* (red maple), *Acer saccharum* (sugar maple), *Quercus rubra* (red oak), and *Acer platanoides* (Norway maple) currently comprise a larger percentage of the street tree population than is currently recommended to protect the Borough against extensive losses to species-specific insects and diseases, such as bacterial leaf scorch.

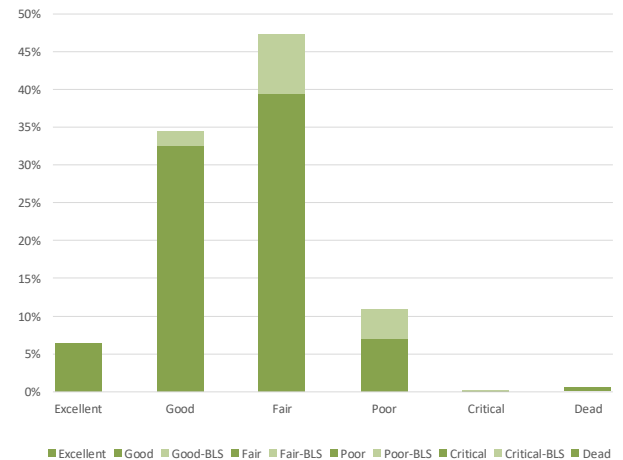
2016 Diameter Distribution

1. The age structure of the street tree population is irregular uneven aged, meaning that there are significant numbers of trees in at least three age classes, but they are not evenly distributed from young to old.
 - a) 43% (37.7%) of the street trees are 12-inches or less in diameter.
 - b) 48% (52.1%) of the street trees are in the 13"-18", 19"-24" and 25"-30" diameter classes.
 - c) 8% (10.2%) of the trees are 31-inches in diameter and larger.



2016 Condition Rating

1. A majority of the street trees were rated in fair to good condition.
 - a) 41% (35.2%) were rated in "Excellent" or "Good" condition.
 - b) 47% (47.1%) were rated in "Fair" condition.
 - c) 11% (17.1%) were rated in "Poor" or "Critical" condition.
 - d) 0.5% were dead.
2. 13.8% (18%) of the street tree population was judged to be infected with bacterial leaf scorch and in varying states of decline.



Significant changes in the street tree population over the past several years include:

1. Continued improvements in the age diversity as a result of proactive removal and replacement of aged and bacterial leaf scorch infected oaks and ongoing replanting efforts, which have combined to increase the number of young and young-mature trees.
2. The most significant change in genus and species diversity is the reduction of oaks, which is attributed to proactive efforts to remove aged and bacterial leaf scorch infected oaks and focus on introducing new and under-represented species in replacement plantings.
3. A significant reduction in the number of potentially hazardous trees as a result of proactive efforts to identify and address these trees in priority order.
4. A significant reduction in the number of emergency storm-related tree failures as potentially hazardous trees are recognized and addressed in a proactive manner.

5. A significant increase in both the number of trees infected with bacterial leaf scorch and the number of diseased trees progressing to a critical point of requiring frequent and extensive pruning or removal.
6. Given the arrival of emerald ash borer in New Jersey, and although there had previously been accelerated decline due to ash yellows or other unknown causes, the fate of Haddonfield's 500+/- ash trees has become a significant management concern.

TREE CANOPY COVER

Statistics derived from the National Land Cover Database's (NLCD's) 2011 Multi-Resolution Land Characteristics Consortium (MRLC) indicate that the Borough of Haddonfield's public and private urban forest canopy collectively covered an estimated 41.1% of its total land area.

While this data is derived from a national study and is therefore imprecise for areas as small as an individual municipality, it does provide a reasonable and useful estimate of the Borough's average canopy cover.

Differences between this most recent estimate of 41.1% and estimates previously reported for Haddonfield are attributed to two primary factors: 1) Significant loss of trees over the past 10 years to advanced age, disease, storms, and land development, which is partially offset by 2) Ongoing growth of remaining trees and increased canopy closure, particularly in less-developed and wooded portions of the Borough, as well as replacement plantings.

At least 40% tree canopy cover is widely recommended for metropolitan areas in the northeast to ensure sufficient physical benefits community-wide and to address climate change.

RELATION TO THE BOROUGH MASTER PLAN

All aspects of this Community Forestry Management Plan are consistent and compatible with the goals, objectives and general intent of the Borough's *Master Plan* (1984 and updated through 2009). Open space management is addressed in the Borough's *Parks, Recreation and Open Space Master Plan* (last updated 2005).

Although there is no formal link at this time between this Community Forestry Management Plan and the Borough *Master Plan* or *Parks, Recreation and Open Space Master Plan*, there are several parallel goals and objectives that provide an informal link and a common purpose.

In 2015, the Borough adopted a new Green Building and Environmental Sustainability element of its Master Plan, with the Shade Tree Commission taking an active role in framing the review. The document addresses a wide range of initiatives that are directly or indirectly related to shade tree management efforts, including Complete Streets programs, tree protection and preservation, public and private construction, and a variety of environmentally focused activities.

With regard to the Master Plan goal to maintain the visual attractiveness of Haddonfield, comprehensive shade tree management efforts outlined in this Plan will contribute both tangibly and intangibly to improving the character and aesthetic appeal of streetscapes and residential neighborhoods, maintaining a healthier environment, protecting water quality, and enhancing property values. Further, they will ensure that the aging shade tree resource is perpetuated so that the physical, economic and social benefits they provide to the community will continue, uninterrupted, over the long term.

The plans are further linked through existing Borough ordinances regarding trees and various elements of the Borough's land use code, which contain requirements for shade trees, buffers and landscaping in conjunction with land development.

All programs outlined in this Plan will continue to be developed and implemented in a manner that will directly or indirectly satisfy or support the goals and the general intent of the Borough's Master Plan.

**RELATION TO
THE BOROUGH'S
STORMWATER
MANAGEMENT
PLAN**

The *Municipal Stormwater Management Plan* element of the Borough Master Plan and related chapters of the *Code of the Borough of Haddonfield* establish policies and detail requirements and recommendations to minimize the impact of stormwater runoff on water quality, reduce the quantity of water directed into water bodies, and maintain groundwater recharge. All aspects of this Community Forestry Management Plan are consistent with and directly support the purpose of these requirements.

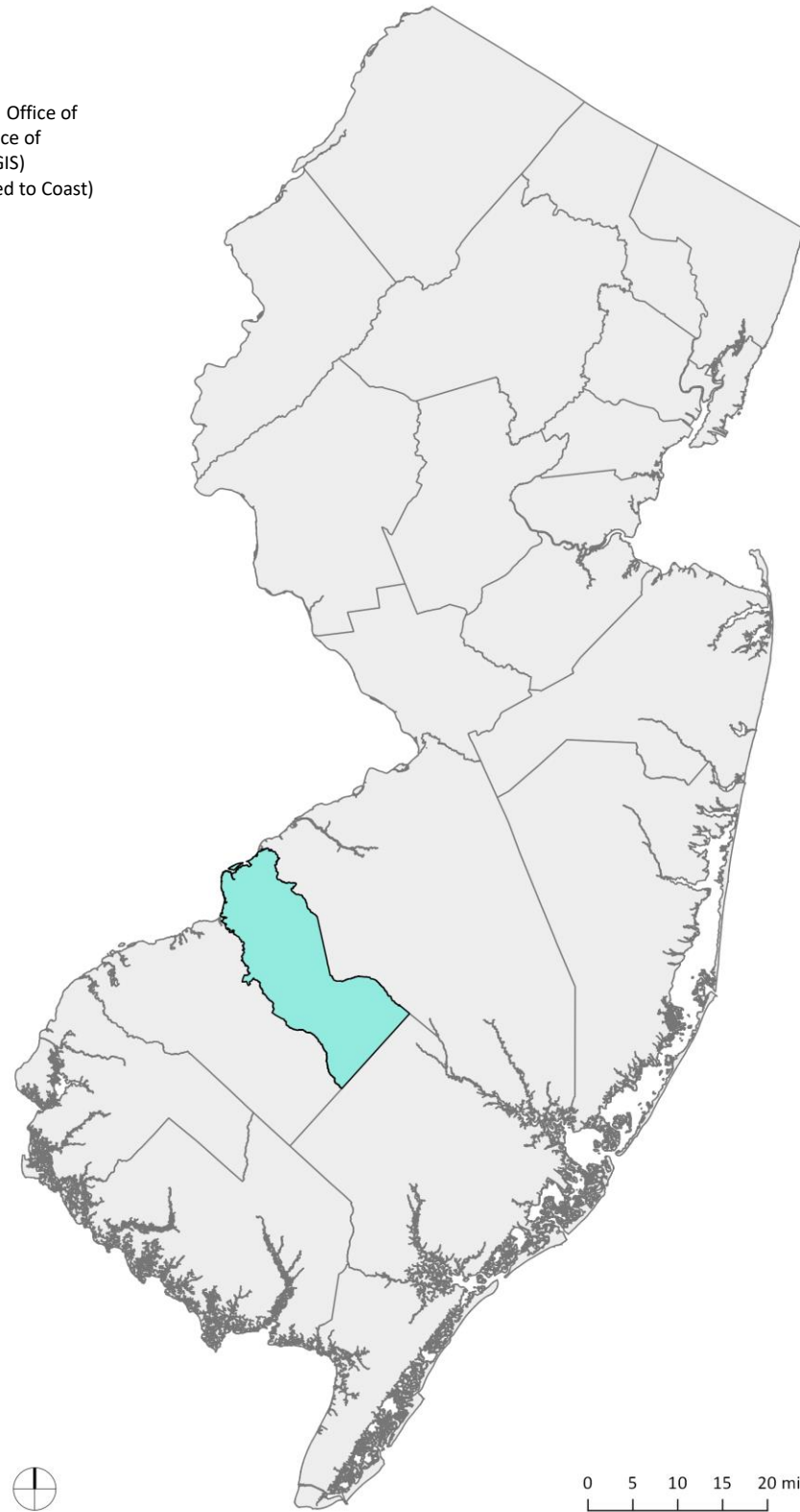
To the extent feasible, it is Haddonfield's preference to implement nonstructural and low impact techniques for flood control, groundwater recharge and pollutant reduction before relying on structural methods. Trees and other vegetative cover reduce soil erosion and siltation, sequester pollutants, and improve soil permeability, thereby reducing the runoff of pollutant laden stormwater into surface water bodies and increasing groundwater recharge. Higher levels of tree canopy and vegetative cover are directly correlated to improved water quality and reduced risk of flooding.

While rain gardens and other "green" strategies have their place in an integrated stormwater control plan, it is the Shade Tree Commission's position that trees and well-distributed tree canopy cover provide more significant and longer-lasting benefits, in addition to many other substantial ecosystem services, and should be favored unless there is a specific reason to utilize other methods.

The concentration of leaves in stormwater is known to contribute to the malfunction of drainage systems and an increase in potentially harmful nutrients in water bodies. To combat this, Haddonfield has installed restrictive covers on storm drains along Borough streets. Further, the Borough has actively communicated and enforced the requirement of residents to manage fallen leaves and other vegetative debris in a manner that minimizes their entry into stormwater drainage systems.

The Borough encourages private property owners to preserve, plant and maintain trees, shrubs and other vegetation on their property to further reduce impervious groundcover, ensure efficient, natural drainage, reduce the risk and severity of flooding, and minimize the runoff of silt, nutrients, and pollutant laden stormwater into local water networks. The planting of low-maintenance landscapes that minimize pesticide and fertilizer usage is particularly recommended.

Counties map generated from the NJ Office of Information Technology (NJ OIT), Office of Geographic Information Systems (OGIS) "Municipalities of New Jersey (Clipped to Coast) Edition 20121228" data.



Municipalities map generated from the NJ OIT, OGIS "Municipalities of New Jersey (Clipped to Coast) Edition 20121228" data (2012).

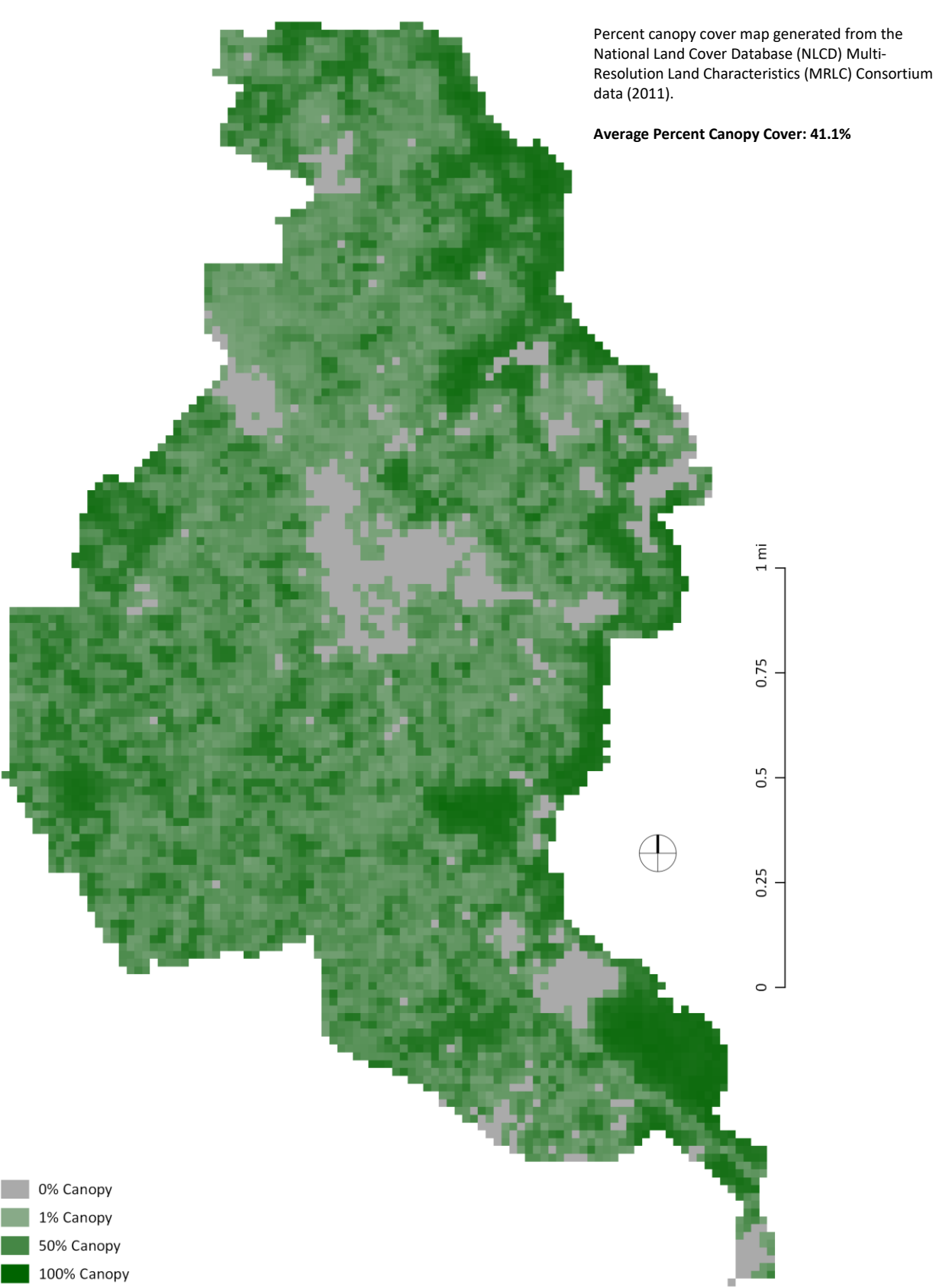
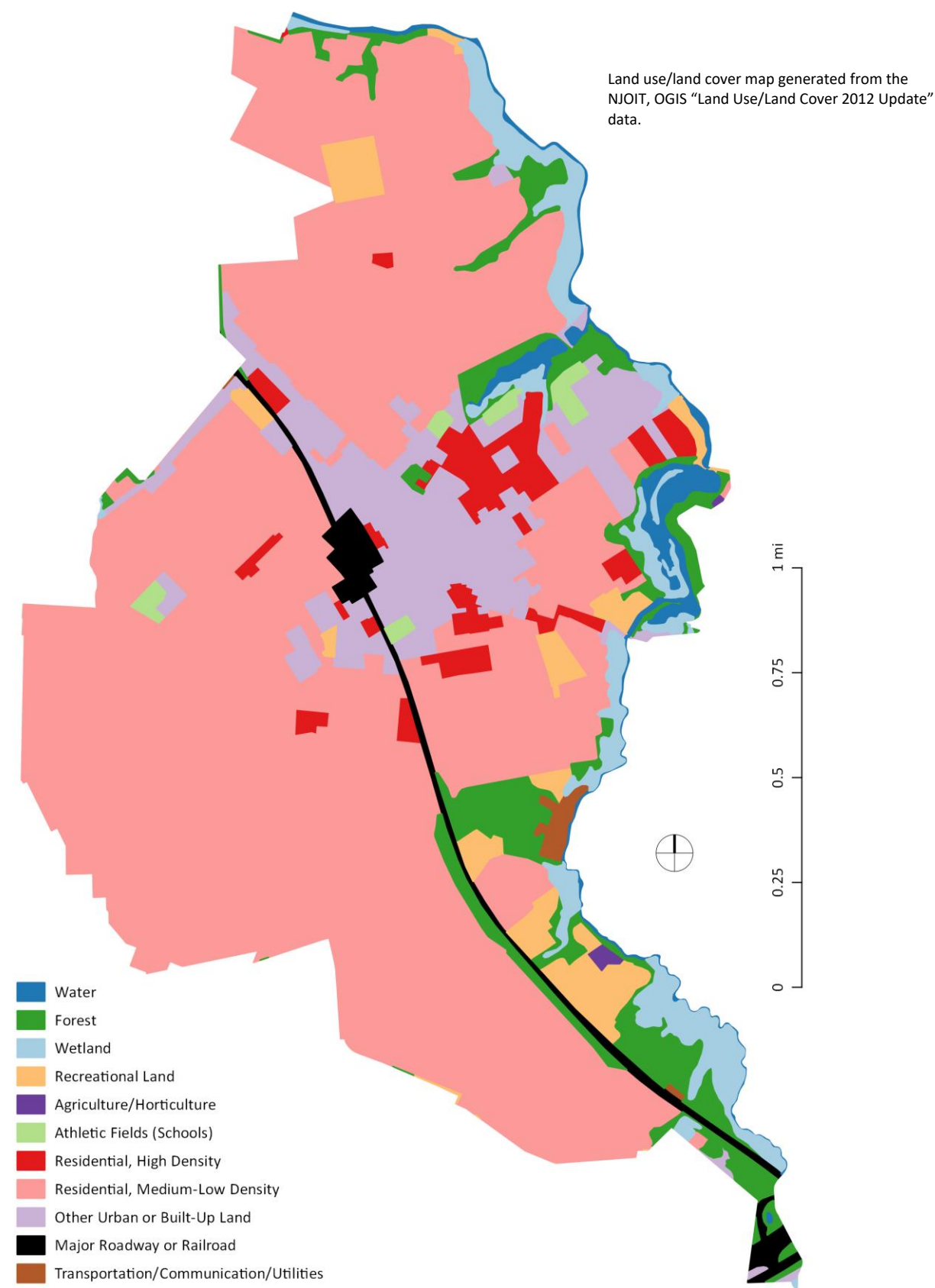


BOROUGH STREETS



SATELLITE IMAGE

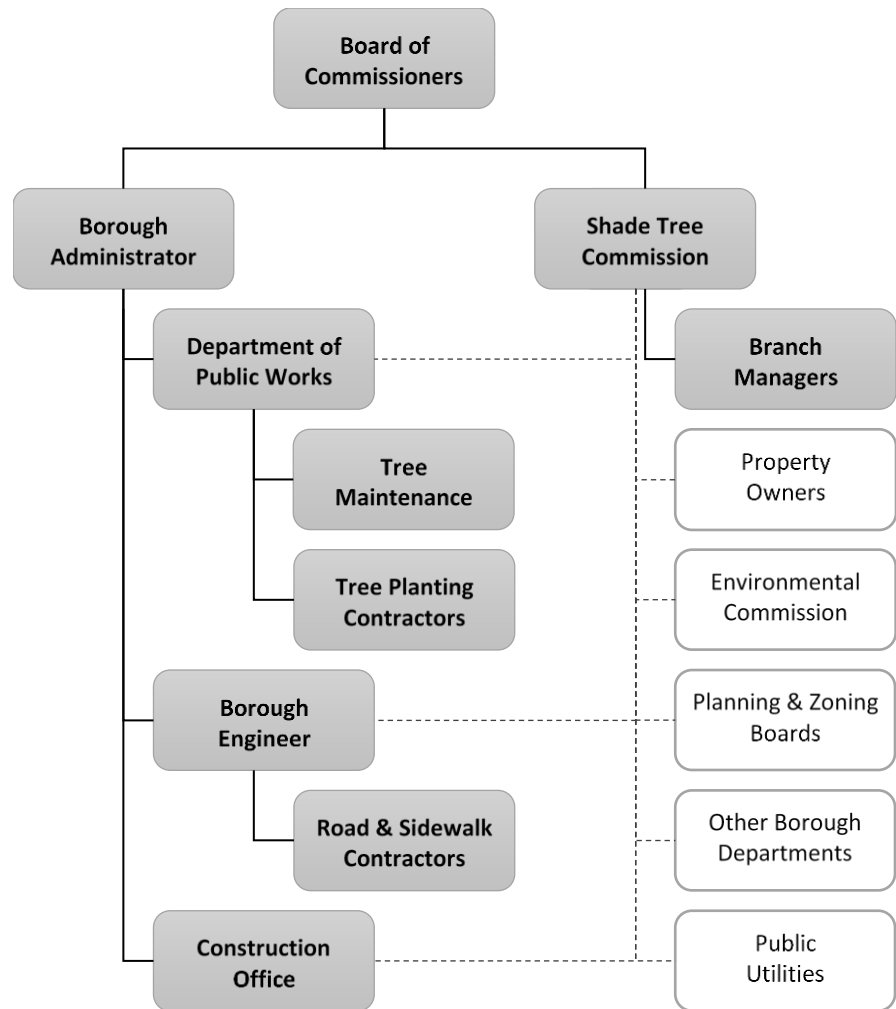




SHADE TREE PROGRAM STRUCTURE

In accordance with State Statute and Borough ordinance, the Shade Tree Commission is primarily responsible for the management of all municipally controlled trees in the Borough of Haddonfield.

Administration and day-to-day operation of the Borough's Shade Tree Program is the cooperative effort of the Borough Commission, the Shade Tree Commission, the Borough Administrator, the Department of Public Works, and various other internal and external groups and individuals, as follows:



SHADE TREE PROGRAM RESPONSIBILITIES

1. *Borough Commission*

- a) The Mayor is responsible for appointing members to the Shade Tree Commission.
- b) The Borough Commission is responsible for approving the Shade Tree Program's budget and authorizing debt.
- c) The Commissioner of Public Works, Parks & Public Property is responsible for overseeing the Department of Public Works, which handles the daily operations of the Shade Tree Program.

2. *Borough Administrator*

- a) The Borough Administrator:
 - i) Serves as the chief administrative official of the Borough.
 - ii) Approves, by purchase order, specific expenditures against the budget.
 - iii) Submits the Shade Tree Program budget to the Board of Commissioners for approval.
 - iv) Is responsible for the hiring, discipline and dismissal of department personnel.

3. *Shade Tree Commission*

- a) The Shade Tree Commission is a fully empowered commission per NJSA 40:64 – 1.
- b) The Shade Tree Commission is a group of seven resident volunteers (5 members and 2 alternates) who are appointed by the Mayor.
- c) By ordinance or policy, the Shade Tree Commission is empowered to, and/or is responsible for:
 - i) Exercising full and exclusive control over the planting and care of trees and shrubbery in Borough rights-of-way and easements, in Borough parks, and on Borough properties.
 - ii) Regulating and controlling the use of the ground surrounding public trees to ensure the proper growth, care and protection of root systems.
 - iii) Removing or otherwise treating trees found dangerous to public safety.
 - iv) Receiving requests for tree planting from property owners and other sources and incorporating them into the Borough's tree planting plans.
 - v) Planning and assisting in implementing various tree planting projects.
 - vi) Developing the goals that steer the Borough's Shade Tree Program and the policies that govern its day-to-day operation.
 - vii) Reviewing and approving proposals for the planting and/or removal of shade trees within applications before the Planning Board.
 - viii) Tracking and evaluating progress toward the long-term goals of this Community Forestry Management Plan and adjusting short-term goals and annual tasks, as necessary.

4. *Department of Public Works*

- a) The Department of Public Works manages the daily operations of the Shade Tree Program. Specifically, it is responsible for:
 - i) In cooperation with the Shade Tree Commission, administering applicable ordinances, rules and regulations relating to public trees.
 - ii) Maintaining street trees and trees in Borough parks and on Borough properties, and completing related tasks.
 - iii) Receiving requests for tree maintenance from property owners and other sources and scheduling and completing the necessary inspections and work.
 - iv) Providing emergency response service, when appropriate.
 - v) Administering contracts and supervising contractors hired to plant and maintain Borough trees.
 - vi) Developing and maintaining an inventory of the Borough's public tree resource, with the assistance of the Shade Tree Commission.

5. *Borough Engineer*

- a) The Borough Engineer is responsible for developing plans and overseeing the implementation of tree removal and planting on capital projects in consultation with the Shade Tree Commission.

6. Borough Construction Office

- a) The Borough Construction Office is responsible for enforcing proper implementation of permitted site work and construction, including critical root zone protection for Borough trees.

7. Tree Maintenance & Planting Contractors

- a) Private contractors currently complete some public tree removal work and some tree planting. Specifically:
 - i) Qualified contractors are hired regularly to complete tree removal work requiring special equipment, manpower or skills, or when there are insufficient in-house resources to complete the work in a timely fashion. Contractors currently complete approximately 55% of the Borough's tree removal work and in-house crews complete at least 45%.
 - ii) Over the past five years, a portion of the Borough's tree planting was completed by outside landscape contractors and a portion by Borough personnel.
 - iii) Additional crews and/or contractors may be retained on an as-needed, project basis.
- b) Contractors are, within the terms of their agreement, responsible for:
 - i) Completing all work to the specifications and under the supervision of the Superintendent of Public Works in an efficient and safe manner.
 - ii) Following all current and accepted arboricultural standards and practices and abiding by all current and applicable safety standards relating to tree care operations.
 - iii) Reporting any tree-related hazards or other problems immediately to the Borough.

8. Branch Managers

- a) The Haddonfield Branch Managers are volunteers working under the auspices of the Shade Tree Commission who actively participate in caring for Haddonfield's public trees. After completing a training short course, Branch Managers complete a variety of maintenance tasks including:
 - i) Pruning of young trees for structure and sidewalk clearance.
 - ii) Removing ivy and excess mulch.
 - iii) Participating in public education, awareness and outreach programs.

9. Property Owners

- a) Private property owners assist the Shade Tree Program to the extent that they:
 - i) Notify the Borough of service requests for trees within Borough rights-of-way (*see procedures below*).
 - ii) Assist in maintaining and protecting new tree plantings adjacent to their properties in accordance with instructions provided by the Shade Tree Commission.
 - iii) Are encouraged to plant and properly care for trees on private property.

10. Other Borough Departments, Boards & Commissions

- a) Other departments, boards and commissions participate in the Shade Tree Program to the extent that they administer and implement Borough ordinances, policies and procedures that directly or indirectly relate to shade trees.
 - i) The Superintendent of Public Works cooperates with the Borough Engineer's office and road construction and sidewalk contractors on street renovation projects as they relate to the root pruning, pruning, removal, and/or replacement of existing trees.
 - ii) The Planning Board and Zoning Board of Adjustment are responsible for requiring applicants to follow various elements of the Borough Code that relate to the planting and protection of trees, landscaping, and buffers during development.

- iii) The Environmental Commission is responsible for making recommendations with regard to planning and managing the Borough's open space resources.
- iv) Various other departments and boards notify the Shade Tree Commission of plans and projects as they relate to shade trees and seek their input.
- v) All departments notify the Department of Public Works of tree related hazards for emergency response.

11. *Public Utilities*

- a) Public utility companies are responsible for minimizing conflicts between trees and their facilities.
- b) While working on or around Borough trees, public utilities and their contractors are responsible for:
 - i) Abiding by all applicable ordinances.
 - ii) Keeping the Borough informed as to their work plans and schedules.
 - iii) Exercising reasonable diligence in the installation and maintenance of their facilities so as to avoid damage to public and private trees.
 - iv) Not removing any tree without prior approval of the Borough or its owner.
 - v) Following all current and accepted arboricultural standards and practices.
 - vi) Assisting Department of Public Works crews or Borough contractors in completing tree removal and maintenance work around their facilities, where necessary.

RELATED ORDINANCES

The following portions of the *Code of the Borough of Haddonfield* directly or indirectly relate to the Borough's Shade Tree Program:

1. Chapter 56, *Shade Tree Commission*, which establishes and empowers a Shade Tree Commission in the Borough of Haddonfield, and which provides for the control, planting, protection and improvement of Borough trees (*see Appendix*).
2. Chapter 135, *Land Development*, Article IX, *Site Design Standards*, which contains requirements and standards relating to the preservation of certain trees, buffers, landscaping, and street trees in conjunction with the development of private lands in the Borough.
3. Chapter 154, *Parks and Recreation Areas*, which provides for the protection of trees in municipal parks and recreation areas in the Borough.
4. Chapter 173, *Property Maintenance*, which contains requirements and standards regarding the maintenance, appearance, safety, and condition of residential and non-residential properties, including the growth and condition of trees, shrubs and other vegetation.
5. Chapter 195, *Solid Waste*, Article II, *Placement of Brush, Landscaping Materials, and Rubbish in streets and gutters*.
6. Chapter 195, *Solid Waste*, Article III, *Recycling*, which contains requirements for the recycling of vegetative wastes.
7. Chapter 199, *Streets and Sidewalks*, which places responsibility for the maintenance and repair of sidewalks and curbing on the adjacent property owner.

These ordinances currently provide the Shade Tree Program with sufficient authority to fulfill its responsibilities and duties.

The Borough periodically establishes and operates under written policies relating to the planting, protection and maintenance of public trees.

**TREE
SERVICE
REQUEST
PROCEDURES**

Requests for the pruning, removal or other treatment of public trees are most often received from the adjoining property owners, but also may be initiated by Borough departments and personnel.

1. All requests for tree maintenance or inspection are processed as follows:
 - a) Requests are received in a variety of ways including:
 - i) Via phone calls, emails and a web-based inquiry form on the Borough website, which are received by or forwarded to the Department of Public Works.
 - ii) Via the Community Comment portion of regularly scheduled Shade Tree Commission meetings.
 - iii) Emails to Shade Tree Commission members.
 - b) Service requests are evaluated and prioritized based on the nature of the problem and the urgency of the request.
 - c) For tree pruning requests:
 - i) A work order is generated and scheduled for completion. Typically, all trees at the location are pruned at the same time.
 - ii) If the tree does not require pruning, no work is completed and the work order is closed.
 - iii) If, in the opinion of the Tree Crew, the tree should be removed rather than pruned, the work order is returned and added to the removal inspection list.
 - d) For tree removal requests:
 - i) An "Inspect" work order is generated.
 - ii) All trees are inspected by the Department of Public Works Foreman and/or the Shade Tree Commission prior to removal.
 - iii) If the request is valid, a work order for removal is generated and scheduled for completion on a prioritized basis.
 - iv) If necessary, the tree will be "safety trimmed" and made safe until the tree can be removed fully.
 - e) All necessary work is completed by Department of Public Works personnel or a contractor retained by the Borough.
 - f) Emergency service requests are responded to immediately. All others are completed in order of priority, as time and resources permit.
 - g) Information on trees at the requester's location (e.g. diameter, condition, etc.) is updated in the Borough's Street Tree Inventory at the time work is completed.
2. All requests for tree planting are processed as follows:
 - a) Planting requests received by the Department of Public Works or others are consolidated and forwarded to the Shade Tree Commission.
 - b) Requests for tree planting from adjacent property owners that have been validated are typically given priority over planting opportunities identified via other means.
 - c) The Shade Tree Commission reviews each planting request and determines the appropriate number of trees, species and optimum placement at each location.
 - d) Prepared planting lists are then forwarded to the Department of Public Works for implementation.

**2017 – 2021
OBJECTIVES**

1. ***Ongoing Administrative Programs***
 - a) *2017 – 2021*
 - i) Continue implementing all administrative programs, policies and procedures already in effect.



Budget & Resources

OVERVIEW

The following is a summary of the resources available to the Borough of Haddonfield's Shade Tree Program, on average, over the period of 2014 through 2016.

Objectives contained within this Plan may require resources beyond those currently available. The Borough's ability to fully satisfy these objectives may be dependent upon its ability to secure additional funding through internal or external sources.

2012 – 2016 GRANTS RECEIVED

During the 2012 – 2016 management period, the Borough of Haddonfield received the following grants to assist its Shade Tree Program:

1. A \$3,000.00 Green Communities grant through the New Jersey Forest Service, which was used to retain a consulting arborist to assist in preparing this fourth five-year Community Forestry Management Plan.
2. A \$20,000.00 Community Stewardship Incentive Program (CSIP) grant received through the New Jersey Forest Service in 2013, which was used to plant public street trees.

EMPLOYEE SALARY & WAGES

Borough Administrator
Department of Public Works Personnel
Administrative staff

*Subtotal (total salary and benefits prorated by
percent of time dedicated to the Shade Tree
Program)*

\$232,368.00

OPERATIONS

Materials and supplies
Contracted tree maintenance and removal
Training and professional development
Other miscellaneous expenses

Subtotal

\$126,300.00

BOROUGH EQUIPMENT

(1) Bucket Truck
(1) Chipper
(1) Chip Truck
(1) Large Stump Grinder
(1) Skid-steer loader
(1) Skid-steer auger attachment
(1) Watering Truck
(1) Front End Loader
Various chainsaws
Related small tools and equipment

| | | |
|-----------------------------|--|---|
| | <i>Subtotal (estimated annual value based on value amortized over 5 – 15 year service life, plus annual maintenance, repairs, etc. and prorated by percent of time used by the Shade Tree Program)</i> | \$68,000.00 |
| TREE PLANTING | Contracted tree supply and planting Trees purchased for in-house planting <i>Subtotal</i> | \$12,000.00 |
| TREE WASTE RECYCLING | Chipping and grinding services Trucking costs and tipping fees Recycling facilities maintenance Leaf composting <i>Subtotal</i> | \$39,500.00 |
| VOLUNTEER SERVICES | Advisory Shade Tree Commission members Other volunteers <i>Subtotal (530 hrs per year @ \$23.07)</i> | \$12,227.10 |
| <hr/> | | |
| TOTALS | <i>Borough Resources</i> <i>Value of Volunteer Services</i> | <i>\$478,168.00</i> <i>\$12,227.10</i> |



Training & Professional Development

TRAINING & PROFESSIONAL DEVELOPMENT GOALS

1. Ensure that individuals within the Shade Tree Program have sufficient knowledge to make sound and effective management decisions.
2. Ensure that tree inspections and evaluations follow accepted standard procedures and that the results are objective, technically correct and consistent.
3. Ensure that programs are implemented using the latest technical information and industry accepted standard practices.
4. Ensure continuity in the overall level of knowledge and expertise within the Shade Tree Program as individuals leave the Program and new ones join.
5. Satisfy the requirements of the New Jersey Shade Tree & Community Forestry Assistance Act, Training Skills & Accreditation Program without interruption, making the Borough eligible for its benefits.

EXISTING PROGRAMS, POLICIES & PROCEDURES

1. ***Training Provisions & Funding***
 - a) Training and professional development opportunities in arboriculture and urban forestry continue to be made available to volunteers and employees serving the Shade Tree Program.
 - b) These opportunities include CORE Training and Continuing Education as required under the New Jersey Shade Tree & Community Forestry Assistance Act.
 - c) The cost of training is funded by the operating budget of the attendee's respective department or board.
2. ***NJ Community Forestry's Training Skills & Accreditation Program***
 - a) At the time this Plan was prepared, the following had satisfied the CORE Training requirements of the New Jersey Shade Tree & Community Forestry Assistance Act Training Skills & Accreditation Program:
 - i) (2) Borough employees
 - ii) (0) elected officials
 - iii) (6) program volunteers
3. ***Current Expertise, Licenses and Certifications***
 - a) Three members of the Shade Tree Commission are Rutgers Master Gardeners.
 - b) One member of the Shade Tree Commission teaches courses and workshops in woody plant selection and care and tree identification through the Haddonfield Adult School, the Master Gardeners of Camden County Homeowner Series and the Pennsylvania Horticultural Society's Tree Tenders program.
4. ***Recent Training Completed***
 - a) Shade Tree Commission members and Department of Public Works personnel regularly attend professional meetings and seminars, such as the NJ Shade Tree Federation Annual Meeting, for training covering a variety of arboriculture and urban forestry subjects.
 - b) The Shade Tree Commission members periodically attend online webinars produced by appropriate authorities covering a variety of topics of timely importance.

| | |
|---------------------------------------|---|
| | <ul style="list-style-type: none"> c) Shade Tree Commission members and Borough employees attended a variety of training programs over the past five years. Subject matter included: <ul style="list-style-type: none"> i) Hazardous tree identification. ii) Mature tree pruning. iii) Young tree developmental pruning. iv) Soil compaction as it relates to tree protection during construction. |
| CURRENT TRAINING NEEDS | <p>The Borough has reevaluated its existing programs and personnel and identified the following areas in which training is currently needed or desired.</p> <ol style="list-style-type: none"> 1. New Jersey Community Forestry CORE Training for new Shade Tree Commission members, Department of Public Works employees, and other Borough employees and elected officials. 2. Ongoing training in tree hazard identification and evaluation for Department of Public Works personnel and Shade Tree Commission members. 3. ACRT Qualified Line Clearance Tree Trimmer training for Department of Public Works personnel. 4. Planting site analysis and tree species selection for Shade Tree Commission members. 5. New species and cultivars to consider for future planting and problematic and invasive species to avoid for Shade Tree Commission members. 6. Young tree pruning techniques for encouraging the development of a structurally sound branch structure in young trees for Department of Public Works employees and Shade Tree Commission members, preferably through hands-on training. |
| 2017 – 2021 OBJECTIVES | <ol style="list-style-type: none"> 1. <i>Ongoing Training Programs</i> <ol style="list-style-type: none"> a) <i>2017 – 2021</i> <ul style="list-style-type: none"> i) Continue implementing the existing programs, policies and procedures listed above consistently and in a manner that maximizes the number of individuals who increase their level of expertise. ii) Attend training programs, in addition to the following objectives, that address the Current Training Needs listed above as appropriate programs become available. 2. <i>NJ Community Forestry's Training Skills & Accreditation Program</i> <ol style="list-style-type: none"> a) <i>January – March, Annually</i> <ul style="list-style-type: none"> i) Review training needs versus upcoming training opportunities. ii) Ensure that the Borough will accumulate the necessary continuing education credits as required under the New Jersey Shade Tree & Community Forestry Assistance Act by the end of each year. iii) Schedule NJ Community Forestry CORE Training for additional individuals, as necessary to maintain compliance with New Jersey Shade Tree & Community Forestry Assistance Act requirements. 3. <i>Emerald Ash Borer Treatment Options</i> <ol style="list-style-type: none"> a) <i>January – December 2017</i> <ul style="list-style-type: none"> i) Train Shade Tree Commission members and key Department of Public Works personnel in evaluating the application, efficacy and costs of various options for controlling emerald ash borer infestations via a webinar, such as those available on <i>EAB University</i> (www.emeraldashborer.info/eabu.php), or a locally hosted training session. |

4. *Electrical Hazard Awareness Training*

a) *January – December 2018*

- i) Train at least two Department of Public Works employees that regularly complete tree maintenance work to recognize and avoid electrical hazards relating to tree care operations in accordance with current industry standards via an appropriately sanctioned training program.

5. *Young Tree Pruning Training*

a) *January – December 2019*

- i) Train at least five people representing the Shade Tree Commission, Haddonfield Branch Managers and the Department of Public Works and in pruning of young trees in accordance with ANSI A300 standards to promote the development of a structurally sound trunk and crown form, minimize conflicts with roads and utilities, and minimize the need for severe pruning as the trees mature.
- ii) To the extent feasible, preference will be given to an in-house, hands-on training session by a NJ Certified Tree Expert.

6. *Tree Hazard Evaluation Training*

a) *January – December 2020*

- i) Train at least two individuals actively involved in the Haddonfield's Shade Tree Program to further advance his or her abilities to recognize and evaluate potential tree hazards using the latest information and techniques. Preference will be given to advanced level instruction via available classroom programs or an in-house program led by a qualified expert.



Public Education, Awareness & Outreach

PUBLIC EDUCATION, AWARENESS & OUTREACH GOALS

1. Increase and maintain public interest and support for Haddonfield's Shade Tree Program.
2. Encourage the public's assistance in implementing various programs, protecting public trees, and beautifying the Borough.
3. Encourage the planting, protection and proper care of trees on private property for the benefit of the entire community.
4. Educate citizens in the value of environmental stewardship.

EXISTING PROGRAMS, POLICIES & PROCEDURES

1. **Arbor Day**
 - a) Formal Arbor Day celebrations have been held annually in Haddonfield since 1993.
 - b) Annual Arbor Day programs are organized by the Shade Tree Commission and have involved the Borough Commissioners, the Department of Public Works, and others.
 - c) Recent programs have included:
 - i) Ceremonies, tree plantings, and a variety of tree-related projects by students at local elementary schools.
 - ii) Tree plantings dedicated to notable Borough residents.
 - iii) Dedication of Commemorative trees by Borough Commissioners.
 - iv) Press releases to announce and summarize Arbor Day events.
2. **Tree City USA**
 - a) Haddonfield has received the Tree City USA award through the National Arbor Day Foundation every year since 1993.
 - b) The Borough was awarded the Tree City USA Growth Award in 2015 in recognition of the advanced level of commitment and care provided to its urban forest resources.
3. **Property Owner Relations**
 - a) The Shade Tree Program has developed form letters to keep property owners informed of its activities. Currently, these include:
 - i) A letter informing adjacent property owners of plans to plant street trees.
 - ii) A letter hand-delivered to adjacent property owners at the time of planting informing them of the species and age of the tree and providing detailed instructions for watering and protection.
 - iii) A letter describing work completed, which is left with adjacent property owners after Branch Managers prune trees in the park strip.
4. **Awareness & Outreach Programs & Materials**
 - a) *Commemorative Tree Program:* The Borough's Commemorative Tree Program allows residents to donate larger sized memorial trees to be planted in the downtown business district in honor of a loved one. Donation of the tree includes marking it with a decorative inscribed plaque.
 - b) *Educational Displays:* The Shade Tree Commission periodically prepares various educational displays to promote the Shade Tree Program, the benefits of trees, and proper tree planting

and care. Recently, the Commission participated in a photography display entitled, *Community Focus: Haddonfield's Trees*, which was displayed at the Markeim Art Center.

- c) *Fall Festival & Farmers' Market:* The Shade Tree Commission staffs a table at the Borough's annual Fall Festival. Assisted by Camden County Master Gardeners, the group answers residents' questions about the publicly managed trees and tree care in general. In addition, there have been a variety of activities, such as sidewalk chalk tree drawing programs and trolley tours of historic trees and landscapes in the Borough. Similar outreach is provided regularly at the Haddonfield Farmers' Market.
- d) *Haddonfield Town Tree Tour:* Both printable and audio versions of the Haddonfield Town Tree Tour take individuals through the Borough to visit its historic, impressive and unusual trees and learn their stories.
- e) *Borough Website:* The Shade Tree Commission page of the official Borough website contains a wide variety of information regarding Haddonfield's Shade Tree Program, downloadable information regarding the benefits of trees and their care, tips on tree planting and new tree care, recruiting information for Haddonfield Branch Managers, the current inventory of Borough-owned street trees, Commission meeting dates and minutes, and *Frequently Asked Questions*.
- f) *Press Releases:* The Shade Tree Commission routinely submits press releases and provides interviews to local print and online media regarding the Shade Tree Program's activities and accomplishments and timely information on tree health issues and care.
- g) *Haddonfield Branch Managers:* The Haddonfield Branch Managers, working under the auspices of the Haddonfield Shade Tree Commission, are volunteers who actively participate in pruning young trees and otherwise caring for Haddonfield's shade trees. New Branch Managers are required to attend a 2-hour hands-on workshop taught by a Shade Tree Commission member.
- h) *Education:* Shade Tree Commission members regularly teach courses at the Haddonfield Adult School and provide lectures on tree selection and care for local garden clubs, community garden members, local library associations, and Master Gardener classes. Additional programs have been provided for the general public in tree selection, planting and care through the Master Gardeners of Camden County's Homeowner Series at the Camden County Parks office.
- i) *Community Calendar:* The theme of Haddonfield's 2012-2013 Community Calendar was "In the Company of Trees" and included photos and information about featured tree species, tree maintenance tips, tree facts, poems, and drawings from school children. This calendar was sent to over 4000 residents, businesses and schools.
- j) *Social Media:* The Shade Tree Commission recently established social media presence with a Twitter account (@HaddonfieldSTC) which is designed to promote and encourage participation in volunteer efforts and disseminate information similar to that contained on the webpage.

2017 – 2021 OBJECTIVES

1. ***Ongoing Public Education, Awareness & Outreach Programs***

- a) *2017 – 2021*
 - i) Continue all existing public education, awareness and outreach programs listed above on a regular basis.

2. ***Annual Arbor Day Programs***

- a) *January – April, Annually*
 - i) Continue to organize and conduct annual Arbor Day celebrations.
 - ii) Continue to seek assistance from local civic groups, the Board of Education, local businesses, and others to help spread the workload and maximize exposure and attendance at the programs.

- iii) Vary the location, activities, and target audience each year to help increase interest and support for the Town's Shade Tree Program and maintenance of the collective community forest in general.

3. Tree City USA

a) October – December, Annually

- i) Continue to submit the annual application for designation as a Tree City USA through the National Arbor Day Foundation.
- ii) Submit applications for the Tree City USA Growth Award when eligibility requirements have been met.
- iii) Continue to advertise the designation throughout the Borough and in public relations materials (road signs, plaques, truck decals, stationary logo, etc.).

4. Community Forest Health Awareness Program

a) January – March 2018

- i) In partnership with one or more local organizations, develop an outreach program designed to educate Borough residents about current and impending forest health issues, particularly bacterial leaf scorch and emerald ash borer. The program should focus on:
 - The impact these issues have already had and the associated costs.
 - How to identify susceptible trees.
 - How to identify active infestations.
 - How to report findings.
 - Treatment options.

b) April – December, 2018

- i) Begin and continue implementing the outreach program per the plans and schedules developed.

5. Tree Planting Campaign

a) 2017 – 2021

- i) In an effort to counter the accelerated removal of trees from private properties as an apparent result of increasing concern about the safety of trees and/or a lack of appreciation of their benefits among some residents, the Shade Tree Commission will develop and continually implement a multi-faceted and far-reaching long-term education program. The primary goal of this program will be to encourage the planting of new shade trees, and the maintenance of existing shade trees, on private properties. This program is directly tied to the Borough's overall tree canopy cover goal.
- ii) Develop and produce educational materials for distribution that address the issues identified, such as:
 - The history of Haddonfield, its Shade Tree Program and the Borough's long tradition of tree appreciation and care.
 - The physical, social, and economic value of trees to the community and the environment.
 - The impact of trees in increasing property values.
 - A brief summary of Haddonfield's ordinance requirements regarding the care and protection of public trees.
 - How to contact the Shade Tree Commission regarding issues and concerns with public trees.
- iii) Partner with various civic groups, institutions and businesses to consistently and effectively promote Tree Planting Campaign goals and disseminate information.

- iv) Continue to identify suitable methods of disseminating the materials through a variety of channels, such as:
 - Through the existing public education, awareness and outreach programs, policies and procedures outlined above.
 - The Borough website.
 - Social media.
 - Press releases and educational articles in local newspapers.
 - Direct mail.
 - Outreach through houses of worship, civic groups, etc.
 - Speaking engagements.
 - School programs.
 - Scout groups.



TREE INVENTORY & ASSESSMENT GOALS

1. Provide accurate baseline information necessary for making sound management decisions and upon which proactive management programs can be established or improved.
2. Improve the efficiency of day-to-day tree management activities by identifying, prioritizing and scheduling planting, replanting, maintenance, and hazard abatement needs.
3. Track management activities and evaluate their long-term impact on the tree population and progress toward the overall goals and objectives of the Shade Tree Program.
4. Maintain records of maintenance for individual trees.

EXISTING PROGRAMS, POLICIES & PROCEDURES

1. **Existing Tree Inventory Systems**
 - a) The Borough maintained a computerized inventory database of its street tree population through ACRT's *Tree Manager* for well over ten years. This system was used routinely by the Department of Public Works and the Shade Tree Commission in both day-to-day operations, and management planning.
 - b) In 2010, the Shade Tree Commission contracted for a complete update of its street tree inventory. The updated inventory is maintained by the Department of Public Works and used in a similar manner through the *ArborPro* software system.
2. **Inventory Utilization**
 - a) The computerized Street Tree Inventory database is used on a daily basis by the Department of Public Works to:
 - i) Record service requests received by the Department.
 - ii) Create, prioritize and schedule tree maintenance work orders and contract lists.
 - iii) Maintain records of tree evaluation results and maintenance completed.
 - iv) Track the condition and history of individual trees.
 - v) Document and evaluate the overall state of the street tree resource as it relates to the Borough's short and long term management efforts.
 - b) The tree inventory is also used regularly by the Shade Tree Commission to inform its discussions and long-term planning strategies.
3. **Current Tree Assessment**
 - a) A current assessment of the Borough's street tree population and how it has changed over the past five years is provided on page 8.

2017 – 2021 OBJECTIVES

1. **Ongoing Tree Inventory Programs**
 - a) **2017 – 2021**
 - i) Continue utilizing the new tree inventory system in day-to-day operations, evaluating the state of the street tree resource and directing efforts toward established Shade Tree Program goals.
 - ii) Ensure that the tree inventory database is continually updated as trees are planted and removed and maintenance tasks are completed to ensure that the data remains current.

- iii) Routinely update individual tree data (trunk diameter, condition rating, etc.) each time trees are inspected and maintenance tasks are completed to ensure that the inventory maintains currency over time.

2. *Field Computer Purchase*

a) *January – June 2017*

- i) Research and price suitable ruggedized laptop or tablet computers that will permit the Public Works Tree Crew to use the ArborPro-based tree inventory more effectively on a daily basis and immediately enter updates as work is completed.

b) *July – September 2017*

- i) Purchase and deploy the selected field computer.



TREE HAZARD MANAGEMENT GOALS

1. Minimize the risk of trees to public safety.

EXISTING PROGRAMS, POLICIES & PROCEDURES

1. ***Tree Hazard Identification***

- a) Potentially hazardous tree conditions are identified via:
 - i) Service requests from adjacent property owners.
 - ii) Observations by Department of Public Works personnel during the course of their daily activities.
 - iii) Regular surveys completed by Shade Tree Commission members in their assigned zones of the Borough.
 - iv) Results of the 2010 Street Tree Inventory Update.

2. ***Tree Hazard Abatement Procedures***

- a) Work orders to evaluate and/or mitigate potentially hazardous tree conditions using the Borough's *ArborPro* tree inventory system as soon as they are identified.
- b) These work orders are prioritized and completed immediately, when time and available resources permit, or at the appropriate time in the future, based upon the degree of hazard potential.

3. ***Record Keeping***

- a) Records of all tree maintenance and hazard abatement work are maintained in the *ArborPro* tree inventory system by the Department of Public Works.

2017 – 2021 OBJECTIVES

1. ***Ongoing Tree Hazard Management Programs***

- a) *2017 – 2021*
 - i) Continue to address hazard abatement needs as they are identified in order of priority.
 - ii) Continue to review and analyze records for trees that required hazard abatement work for trends in species, age, location, prior maintenance history, etc. and adjust future planting and maintenance efforts accordingly to help minimize the occurrence of similar conditions in the future.
 - iii) Continually strive to improve the Borough's ability to identify and mitigate potentially hazardous conditions as new programs and procedures outlined in this Plan are implemented.



TREE PLANTING GOALS

1. Achieve and perpetuate the public tree population at maximum practical stocking (the maximum number of public trees the Borough can effectively manage given available resources).
2. Increase and maintain Boroughwide tree canopy cover at 45% (public and private collectively).
3. Optimize and maintain tree species diversity to maintain long-term stability in the public tree population to the extent that:
 - a) No single genus comprises more than 10% of the public tree population.
 - b) No single species comprises more than 5% of the public tree population.
4. Optimize and maintain age diversity in the public tree population so that the number of trees lost to advanced age is relatively consistent from year to year.
5. Minimize conflicts between trees and sidewalks, utilities and other public and private fixtures.
6. Minimize future maintenance needs and costs.
7. Improve aesthetic appeal, seasonal variation, and physical benefits to adjacent properties and the Borough overall.

EXISTING PROGRAMS, POLICIES & PROCEDURES

1. ***Planting Jurisdiction***
 - a) The Borough currently plants trees on:
 - i) Borough rights-of-way.
 - ii) Borough parks.
 - iii) Borough-owned properties.
 - iv) Borough school grounds.
 - b) The Borough does not plant trees on privately owned property.
2. ***Planting to Removal Ratio***
 - a) The number of trees planted has increased modestly over the past few years after a decade of annual decreases.
 - i) From 2003 through 2006, the Borough planted approximately 100 trees per year.
 - ii) From 2007 through 2011, the Borough planted an average of 86 trees per year.
 - iii) In 2012, just 22 trees were planted due to sharp budget reductions.
 - iv) Over the past two years, the Borough has planted an average of 67 trees per year.
 - b) Despite the modest recent increases, planting has fallen well short of removals, which have averaged 210 trees removed per year over the past five years.
 - c) While this planting to removal ratio has resulted in a moderate net decrease in the number of public trees, it is not the Borough's intent to provide one-for-one replacements in every case. Rather, it is striving to reduce conflicts caused by trees previously planted too closely to driveway, intersections and hardscape fixtures while maintaining overall canopy cover with fewer trees that are less crowded and, subsequently, healthier and better formed. Nevertheless, recent loss of canopy cover has been substantial due to the number of large mature trees lost to age, disease and storms. It is anticipated that the decrease in canopy cover will continue over the next five years due to the ongoing removal of bacterial leaf

scorch infected oaks and the expected loss of ash trees to emerald ash borer, while budgets for replanting remain relatively low.

3. *Planting Location & Tree Placement*

- a) Public tree planting locations are identified via:
 - i) An annual survey of Borough streets conducted by the Shade Tree Commission.
 - ii) Planting requests from adjacent property owners.
 - iii) Planting plans and designs for special projects and needs for parks and public properties, as determined by the Superintendent of Public Works in cooperation with the Shade Tree Commission.
- b) Most street trees are planted within the public right-of-way. Street trees are occasionally planted outside the right-of-way where the curbside zone is constrained and there is consent from the property owner.
 - i) Placement is selected and marked in the field by the Shade Tree Commission.
 - ii) Trees are not planted, however, until the placement has been inspected and approved by the Department of Public Works with respect to potential hardscape, utility and traffic conflicts.
 - iii) Typically, the Borough will not plant a tree if the adjacent property owner objects. In cases where an area is in particular need of tree cover, however, the Borough will plant public trees even over objections from the adjacent property owner.
- c) It is the Shade Tree Commission's position that street trees are over-stocked in some areas of the Borough due to close spacing and encroachment on driveways and other hardscape fixtures. By slightly increasing tree spacing and minimum distances from driveways, the same level of canopy cover can be achieved with fewer healthier trees at a reduced cost.
- d) Tree placement in parks and on Borough properties, when applicable, is determined by the Superintendent of Public Works.

4. *Species Selection*

- a) Species are selected:
 - i) By the Shade Tree Commission for planting along Borough streets.
 - ii) By the Superintendent of Public Works for planting in parks and on other Borough properties.
- b) In all cases, species are selected with consideration to a broad range of recently reviewed and updated criteria, including:
 - i) Existing soil conditions, park strip width, and available growing space.
 - ii) Potential conflicts with hardscape fixtures, such as above- and below-ground utilities.
 - iii) Insect and disease resistance, with special emphasis on species resistant to bacterial leaf scorch.
 - iv) Future maintenance requirements and past species performance.
 - v) The Borough's preference for native species.
 - vi) Improving the overall species diversity of the Borough's tree resource.
 - vii) Availability.

5. *Tree Supply & Installation*

- a) Most trees planted by the Borough are:
 - i) Purchased by the Borough directly from the grower or wholesaler.
 - ii) Installed by Borough personnel or a private contractor under the supervision Superintendent of Public Works and to the specifications of the Shade Tree Commission.

- b) Property owners may plant trees within the Borough right-of-way after making formal application to and receiving approval from the Shade Tree Commission.
 - c) The Borough has moved away from planting tree stock produced via pot-in-pot methods due to issues with root structure and survivability and now prefers balled-and-burlapped stock.
- 6. *Post-Planting Care***
- a) Post-planting maintenance includes:
 - i) Irrigation and protection of street trees by adjacent property owners in accordance with instructions delivered at the time of planting.
 - ii) Irrigation by Department of Public Works personnel, Shade Tree Commission members, and Branch Manager volunteers.
 - iii) Timely removal of *TreeGator* bags by Department of Public Works personnel, Shade Tree Commission members, and Branch Manager volunteers.
- 7. *Funding***
- a) The purchase and planting of public trees is currently funded in whole, or in part, by:
 - i) The Department of Public Works operating budget in the case of routine street tree replacement planting.
 - ii) The Borough capital budget in the case of road and other improvement projects.
 - iii) Tree replacement assessments and penalty fees associated with private construction activities within the Borough.
 - iv) Occasional donations from individuals.
 - v) Grant funding, when available.
- 1. *Ongoing Tree Planting Programs***
- a) *2017 – 2021*
 - i) Continue implementing all existing tree planting programs where appropriate and with changes dictated by the following objectives.
 - ii) Continue to avoid planting bacterial leaf scorch susceptible species into the Borough’s tree population. Although the disease primarily affects red oak and pin oak in New Jersey, other oaks species are also vulnerable. Additionally, several other species are affected in other states. These susceptible but unlikely hosts may be planted, but there use should be somewhat limited.
 - iii) Continue to avoid planting ash into the Borough’s tree stock, given the impending emerald ash borer infestation.
 - iv) Limited the number of maples and oaks planted to improve overall species diversity. Continue to plant some every few years, however, to spread them out across all age classes.
- 2. *Street Tree Stocking & Age Structure Goals***
- a) *January – March 2019*
 - i) Using current street tree inventory data, calculate “maximum practical stocking” – the maximum number of public street trees that the Borough can effectively manage in accordance with all elements of this Plan, given available resources.
 - ii) Calculate the number of street trees that must be planted each year to achieve maximum practical stocking over a period of time that will ensure that the uneven age structure of the existing young trees is carried through to all age classes over the long term. Although the tendency is to plant more trees faster, achieving maximum practical

stocking over a longer period of time will result in more age diversity and more stability in the tree population over the long term.

- iii) Establish a feasible target date for achieving maximum practical stocking based on these calculations with realistic allowances for existing tree mortality, transplant mortality, etc.
- iv) Establish intermediate progress goals for increasing the level of stocking during each five-year management period to maintain consistent progress toward the long-term stocking goal.

b) April 2019 – 2021

- i) Design and complete planting programs in accordance with the stocking goals and planting rates established.

3. Street Tree Species Composition Goals

a) January – March 2019

- i) Using current street tree inventory data, establish a long-term goal for an optimum street tree species mix that provides sufficient genus and species diversity, provides insect and disease resistance, etc.
 - No single genus should comprise more than 10% of the street tree population.
 - No single species should comprise more than 5% of the street tree population.
 - Each species should include a variety of clonal cultivars and seed-source trees to ensure genetic diversity.
 - A variety of improved, insect and disease resistant cultivars should be favored over historically problematic species.
- ii) Establish intermediate progress goals for altering the existing street tree species composition by the end of each five-year management period (e.g. reducing oaks and maples by 5% by 2026, etc.) to provide clear targets and help maintain consistent progress toward the long-term goal.

b) April 2019 – 2021

- i) Design and complete planting programs in accordance with the species composition goals set.
- ii) Vary the species planted from year to year to provide species diversity across all age classes.

4. Contract Growing

a) January – March 2020

- i) Based on the Street Tree Species Composition Goals set, develop a list of species desired for planting that will satisfy the goals and most likely grow well in Haddonfield while minimizing future maintenance costs.
- ii) Poll nursery growers to determine current and expected future availability of the target species.

b) April – December 2020

- i) Develop relationships with suitable growers and negotiate informal agreements or formal growing contracts, as necessary, to ensure that species are available to suit the Borough's future planting plans.
- ii) Cooperate with neighboring communities that have similar purchasing needs to create greater economic potential for growers that might not otherwise invest in growing certain species.



TREE MAINTENANCE GOALS

1. Improve and maintain the long-term health and condition of the Borough's public tree population.
2. Maximize the service life of existing trees.
3. Minimize tree hazards and maintain public safety.
4. Maximize the cost-efficiency of tree maintenance activities.
5. Respond promptly and effectively to citizen complaints and service requests.

EXISTING PROGRAMS, POLICIES & PROCEDURES

1. *In-House Crews*

- a) The Department of Public Works currently has one two-person Tree Crew in-house to complete all tree pruning work and a majority of stump grinding and emergency storm damage work for the Borough.
- b) The Department of Public Works Tree Crew currently completes approximately:
 - i) 45% or more of all tree removal work
 - ii) 95% of all tree pruning work
 - iii) 70%-80% of all stump grinding work
 - iv) 95% of all emergency response, miscellaneous and specialty tree work
- c) The Department of Public Works is currently equipped with:
 - i) (1) Bucket Truck
 - ii) (1) Chipper
 - iii) (1) Chip Truck
 - iv) (1) Large Stump Grinder
 - v) (1) Skid-steer loader
 - vi) (1) Skid-steer auger attachment
 - vii) (1) Watering Truck
 - viii) (1) Front End Loader
 - ix) Various chainsaws
 - x) Related small tools and equipment
- d) Shade Tree Commission members and Haddonfield Branch Managers complete some maintenance work, typically irrigation, mulching and pruning of recently planted trees.

2. *Private Contractors*

- a) The Borough regularly hires tree maintenance contractors to complete tree removal and other maintenance work on an as-needed basis.
 - i) In 2016, the Borough began contracting approximately 25% of its stump grinding work to address an accumulated backlog and keep pace with the large number of trees removed in recent years.
- b) Contractors working on behalf of local utility companies complete all line clearance pruning along Borough, County and State rights-of-way.

3. *Inter-Local & Mutual Assistance Agreements*

- a) Public Service Electric & Gas Company is responsible for assisting the Borough in the pruning and removal of Borough trees growing in proximity to their electric lines.
- b) The Borough Shade Tree Program shares tree maintenance related personnel and equipment with the Haddonfield Board of Education.

4. *Systematic Maintenance Programs*

- a) In the past, the Department of Public Works has implemented programs for pruning all trees within a section of the Borough on a systematic rotation basis. These programs have not been implemented recently, however, due to the increasing and overwhelming pruning and removal needs resulting from trees infected with bacterial leaf scorch.

5. *Work Identification, Prioritization & Scheduling*

- a) Currently, most maintenance needs are identified via service requests from adjacent property owners and observations by Borough employees and the Shade Tree Commission.
- b) These needs are recorded, prioritized, scheduled, and recorded as described in *Shade Tree Program Administration – Service Request Procedures* on page 20.

6. *Tree Removal*

- a) It is the Borough's policy not to remove live public trees unless they pose a threat to public safety.
 - i) Trees may not be removed without the approval of the Shade Tree Commission.
 - ii) The Superintendent of Public works is, however, authorized to remove public trees when they are dead or dangerous.
- b) In recent years, the Borough has removed an average of 210 public trees per year as a result of advanced age, disease, and storm impacts.

7. *Plant Health Care & Specialty Treatments*

- a) The Borough generally does not complete insect and disease treatments except on an occasional, small scale basis to control significant problems on high value trees.
- b) Cabling, bracing and other specialized treatments are not typically completed.
- c) Post-planting maintenance treatments are routinely provided for young trees including irrigation, mulching, stake removal, structural pruning and crown raising, and ongoing monitoring by the Borough.

8. *Sidewalk Maintenance*

- a) Adjacent property owners are responsible for replacing or repairing unsafe sidewalks, including those damaged or lifted by roots from Borough trees.
 - i) Currently, owners of residential and most commercial properties pay private contractors for the full cost of sidewalk replacement and repair. However, a limited program was previously implemented for the Kings Highway business district. During a Borough project to improve tree wells, property owners could choose to have sidewalk replacement outside the tree well area done by contractors working for the Borough and reimburse the Borough for half the cost.
 - ii) Root pruning necessary to allow the repair of sidewalks by homeowners is completed by the Department of Public Works Tree Crew to help minimize tree damage.
 - iii) To help minimize future tree and sidewalk conflicts, the Borough selects species and places trees in a manner that "fits" each site and will minimize conflicts in the future.

9. *Funding*

- a) The Department of Public Works operating budget typically covers the cost of tree maintenance completed by its crews and contractors.

1. *Ongoing Tree Maintenance Programs*

a) *2017 – 2021*

- i) Continue implementing all existing tree maintenance programs, policies and procedures on a regular basis.
- ii) Continue implementing the programs for managing bacterial leaf scorch infected oaks already in place, including ongoing monitoring of disease progression and structural deterioration, the emergence of new infections, and proactive removal and replacement once infected trees cross a critical threshold of decline.

2. *Emerald Ash Borer Response Plan*

a) *July - December, 2018*

- i) Develop a plan to cope with tree losses caused by infestations of the approaching emerald ash borer. Development of this plan should include:
 - Verifying the extent, locations, sizes, and current condition of the Borough's public ash tree population from current street tree inventory data and field surveys.
 - Completing a cost-benefit analysis of preventively treating subsets of the ash population to provide long-term protection to certain high value trees and/or to simply spread the rate of losses over time to reduce the financial burden.
 - Developing plans and schedules for proactively removing ash trees of limited value.
 - Monitoring the ash tree population for initial infestation and rate of spread.
 - Determining and securing budgets for removing and replacing infested trees promptly.
 - Educating the public in best management practices for coping with emerald ash borer on private property.

b) *January, 2019 and continually thereafter*

- i) Implement the plan per the procedures and schedules set.



TREE WASTE RECYCLING GOALS

1. Minimize the cost of tree waste disposal to the Borough.
2. Produce beneficial recycled products for use on public properties and by Borough residents.

EXISTING PROGRAMS, POLICIES & PROCEDURES

1. *Recycling Facilities*

- a) The Department of Public Works currently stockpiles some wood and recycled materials at their maintenance yard.
- b) The remaining materials are transported to outside recycling facilities for processing and distribution.

2. *Material Processing, Use & Distribution*

a) *Leaves*

- i) Each year, approximately 12,000 – 15,000 cubic yards of leaves are delivered to the Township of Gloucester Municipal Utilities Authority, which acts as the lead recycling agency for Camden County.
- ii) The Borough receives back a portion of the resulting compost and stockpiles it for:
 - Pickup and use by property owners at no cost.
 - Use by the Borough as a soil conditioner on athletic fields, with plantings, etc.

b) *Wood Chips*

- i) Some wood chips are stockpiled for pickup and use by property owners as mulch.
- ii) The remaining wood chips are delivered to the Township of Gloucester Municipal Utilities Authority.

c) *Bulk Wood*

- i) Bulk wood is made available to two local woodworkers and a local farm where it is used as firewood. Excess bulk wood is delivered to a private recycling facility where it is ground into decorative mulch and other products.
- ii) At the time that a tree is removed, firewood is left for the residents at no cost if the homeowner requests.

3. *Recycling Income*

- a) Currently, no income is derived from the sale of tree waste materials or recycled products.

2017 – 2021 OBJECTIVES

1. *Ongoing Tree Waste Recycling Programs*

a) *2017 – 2021*

- i) Continue implementing all existing tree waste recycling programs, policies and procedures.



TREE CARE DISASTER PLAN GOALS

1. Enable the Borough to respond to tree-related emergencies promptly and effectively.
2. Minimize the risk and impact of widespread tree damage and losses to weather, insect and disease infestation and other forces.
3. Provide the Borough with a viable plan to repair or replace widespread tree damage or losses.

EXISTING PROGRAMS, POLICIES & PROCEDURES

1. *Tree Emergency & Disaster Threats*

- a) Severe weather remains a serious threat to the Borough's tree population. In recent years, severe storms have caused substantial damage to both public and privately owned trees.
- b) In addition to the threat to the trees themselves, the widespread structural failure of tree failures poses a serious threat to electrical service, communications, and the Borough's ability to provide critical emergency services.

2. *Insect & Disease Threats*

- a) The impact of bacterial leaf scorch disease on the Borough's public and privately owned oak populations remains at a critical level. The effects of the disease have resulted in the removal of many mature trees over the past two decades, particularly the past five years, and the need for removal and replacement will continue for the foreseeable future. Highly susceptible oak species still represent a majority of the oldest and largest trees in the community.
- b) Emerald ash borer promises to place a similar extended period of accelerated tree removal and replacement demands on the Borough, though on a lesser scale than bacterial leaf scorch.
- c) The risk of widespread tree damage and losses to other biotic threats is currently considered moderate, but manageable over the long term through increased species diversity and cultivar selection.

3. *Existing Emergency & Disaster Plans*

- a) The Borough's State-mandated Emergency Operations Plan outlines procedures for vital services and cooperative efforts between all Borough departments and neighboring communities during an emergency or disaster.
- b) The Borough currently lacks a formal plan specific to the repair and replacement of widespread tree damage and losses beyond initial emergency response efforts.
- c) The Borough has, however, consistently implemented programs over the past several years that are helping to minimize the tree population's vulnerability to widespread damage and losses during all but the most severe weather. These efforts have included:
 - i) Diligent pruning and removal of trees at risk for structural failure.
 - ii) Selecting species and placing new trees in a manner that will help reduce future storm damage and uprooting.
 - iii) Selecting species and cultivars for inherent insect and disease resistance and to increase overall species diversity, thereby minimizing the risk of population-wide insect and disease epidemics.

**2017 – 2021
OBJECTIVES**

4. Emergency Response

- a) In accordance with Borough procedures, the Department of Public Works and their contractors are on call to respond to tree-related emergencies and to clear trees and debris to open roadways and permit restoration of electrical service and communications.

5. Wildfire Protection

- a) Wildfire is not considered to be a significant threat to the public tree resources in the Borough of Haddonfield at this time.

1. Ongoing Programs

a) 2017 – 2021

- i) Continue implementing all existing programs, policies and procedures.
- ii) Continue to implement or expand technically sound and responsible planting, preventive maintenance and hazard identification and abatement programs, as detailed elsewhere in the Plan, to reduce the risk of future tree failures and losses.

2. i-Tree Storm Assessment

a) January – March 2020

- i) Develop plans to prepare documentation of the Haddonfield's public tree resource that can be used to evaluate future storm losses utilizing the *i-Tree Storm* software program (*Storm Damage Assessment Protocol Utility*).
- ii) Development of these plans will or may include identification of primary vulnerabilities, preparation of current street tree inventory data and, if necessary, additional sampling.

b) April – December 2020

- i) Complete any additional field data collection and data entry that may be necessary in accordance with the plans developed.

c) January – March 2021

- i) Run the *i-Tree Storm* analysis on the data collected.
- ii) Store the data and analysis for future use in determining the extent of tree and monetary losses following future storms or other events that result in widespread tree losses.



PLAN PREPARATION & EVALUATION GOALS

1. Ensure that Haddonfield's Shade Tree Program continues to follow a well-defined, consistent and efficient course of action toward its overall goals.
2. Provide a means of continually evaluating the success of past programs and activities and making adjustments to address changing conditions and needs.
3. Remain in compliance with and eligible for the benefits of the New Jersey Shade Tree & Community Forestry Assistance Act.

EXISTING PROGRAMS, POLICIES & PROCEDURES

1. Preparation of this fourth five-year Community Forestry Management Plan was the cooperative effort of the Haddonfield Shade Tree Commission, the Department of Public Works and their consulting arborist.
2. Goals and objectives contained in this Community Forestry Management Plan are based on the ongoing evaluation of the Borough's implementation of its 2012 - 2014 Plan.
3. Preparation of this Plan was made possible through a Green Communities Challenge Grant from the New Jersey Forest Service and the in-kind services of Borough volunteers and employees.

2017 – 2021 OBJECTIVES

1. **Annual Program Evaluation**
 - a) *December, Annually*
 - i) Evaluate the success of the year's activities and accomplishments relative to the goals and objectives contained within this Plan.
 - ii) Adjust programs and procedures, as necessary, based upon the evaluation.
 - iii) Prepare and submit the Annual Accomplishment Report to the New Jersey Forest Service in accordance with the requirements of the New Jersey Shade Tree & Community Forestry Assistance Act.
2. **Five-Year Evaluation**
 - a) *January – March 2021*
 - i) Evaluate the success of all objectives completed to date.
 - ii) Evaluate progress toward the overall goals of the Shade Tree Program.
 - iii) Begin formulating new objectives and adjustments to existing policies, programs and procedures, if necessary to address changing needs, for the 2022 – 2026 management period.
3. **2022 – 2026 Management Plan Development**
 - a) *April – September 2021*
 - i) Finalize new objectives and adjustments to existing policies, programs and procedures for the 2022 – 2026 management period.
 - ii) Prepare and submit a Community Forestry Management Plan for the 2022 – 2026 management period.
 - b) *October – December 2021*
 - i) Obtain Plan approval from the New Jersey Community Forestry Council.



Summary of 2017 – 2021 Objectives

| Objectives / Tasks | 2017 | 2018 | 2019 | 2020 | 2021 |
|--|------|------|------|------|------|
| PROGRAM ADMINISTRATION | | | | | |
| 1. <i>Ongoing Administrative Programs</i> | | | | | |
| <input type="checkbox"/> Continue all existing administrative programs, policies and procedures already in effect. (p.20, #1.a.i) | | | | | |
| TRAINING & PROFESSIONAL DEVELOPMENT | | | | | |
| 1. <i>Ongoing Training Programs</i> | | | | | |
| <input type="checkbox"/> Continue all existing training programs on a regular basis, maximize the number of individuals that increase their expertise, and attend programs that address Current Training Needs as appropriate program become available. (p.24, #1.a.i-ii) | | | | | |
| 2. <i>NJ Community Forestry Training Skills & Accreditation Program</i> | | | | | |
| <input type="checkbox"/> Review CORE and annual training needs and schedule training, as necessary, to maintain Approved Status. (p.24, #2.a.i-iii) | | | | | |
| 3. <i>Emerald Ash Borer Treatment Options</i> | | | | | |
| <input type="checkbox"/> Train Shade Tree Commission members and Department of Public Works personnel in the evaluating the application, efficacy and costs of various options for controlling emerald ash borer via a webinar or locally hosted training session. (p.24, #3.a.i) | | | | | |
| 4. <i>Electrical Hazard Awareness Training</i> | | | | | |
| <input type="checkbox"/> Train at least 2 Department of Public Works employees to recognize and avoid electrical hazards relating to tree care operations in accordance with industry standards via an appropriately sanctioned program. (p.25, #4.a.i) | | | | | |
| 5. <i>Young Tree Pruning Training</i> | | | | | |
| <input type="checkbox"/> Train at least 5 people representing the Shade Tree Commission, Branch Managers, and Department of Public Works in pruning young trees in accordance with ANSI A-300 Standards to promote development of a sound structure, minimize conflicts, and reduce the need for severe pruning as the trees mature. (p.25, #5.a.i-ii) | | | | | |
| 6. <i>Tree Hazard Evaluation Training</i> | | | | | |
| <input type="checkbox"/> Train at least 2 actively involved people to advance his or her ability to identify and evaluate potential tree hazards via an advanced level seminar. (p.25, #6.a.i) | | | | | |

| Objectives / Tasks | 2017 | 2018 | 2019 | 2020 | 2021 |
|---|------|------|------|------|------|
| PUBLIC EDUCATION, AWARENESS & OUTREACH | | | | | |
| 1. <i>Ongoing Public Education, Awareness & Outreach Programs</i> <input type="checkbox"/> Continue all existing Public Education, Awareness and Outreach programs on a regular basis. (p.27, #1.a.i) | | | | | |
| 2. <i>Annual Arbor Day Programs</i> <input type="checkbox"/> Continue to organize and conduct annual Arbor Day celebrations; Seek assistance from local civic groups, the Board of Education, local businesses and others to spread the work load and maximize exposure and attendance; Vary the location, activities and target audience to increase interest and support over a wide range of citizens. (p.27, #2.a.i-iii) | | | | | |
| 3. <i>Tree City USA</i> <input type="checkbox"/> Prepare and submit annual applications for continued designation as a Tree City USA; Submit applications for Tree City USA Growth Awards, when eligibility requirements have been met; Continually advertise the designation by displaying the program's promotional materials. (p.28, #3.a.i-iii) | | | | | |
| 4. <i>Community Forest Health Awareness Program</i> <input type="checkbox"/> In partnership with one or more local organizations, develop an outreach program to educate Borough residents about current and impending forest health issues, particularly bacterial leaf scorch and emerald ash borer. (p.28, #4.a.i) <input type="checkbox"/> Begin and continue implementing the program in accordance with the plans and schedules developed. (p.28, #4.b.i) | | | | | |
| 5. <i>Tree Planting Campaign</i> <input type="checkbox"/> To help discourage the indiscriminate removal and encourage the planting and care of trees on private properties, continually develop, produce and distribute educational materials that describe the purpose and procedures of Haddonfield's Shade Tree Program, and the benefits that trees and contiguous canopy cover provide to individual properties and the community overall; Partner with local organizations and businesses to consistently and effectively promote the campaign and distribute materials through a variety of channels. (p.28, #5.a.i-iv) | | | | | |
| TREE INVENTORY & ASSESSMENT | | | | | |
| 1. <i>Ongoing Tree Inventory Programs</i> <input type="checkbox"/> Continue utilizing the new tree inventory system in day-to-day operations, evaluating the state of the street tree resource and directing management efforts toward Shade Tree Program goals; Ensure that the inventory is continually updated as trees are planted and removed and maintenance tasks are completed to maintain currency; Routinely update individual tree data each time trees are inspected and maintenance tasks are completed. (p.30, #1.a.i-iii) | | | | | |

| Objectives / Tasks | 2017 | 2018 | 2019 | 2020 | 2021 |
|---|------|------|------|------|------|
| TREE INVENTORY & ASSESSMENT, cont'd | | | | | |
| 2. <i>Field Computer Purchase</i> | | | | | |
| <input type="checkbox"/> Research and price suitable ruggedized laptop or tablet computers that will permit the Department of Public Works Tree Crew to use the ArborPro tree inventory in the field and immediately enter updates as work is completed. (p.31, #2.a.i) | ■ | | | | |
| <input type="checkbox"/> Purchase and deploy the selected computer. (p.31, #2.b.i) | | ■ | | | |
| TREE HAZARD MANAGEMENT | | | | | |
| 1. <i>Ongoing Tree Hazard Management Programs</i> | | | | | |
| <input type="checkbox"/> Continue all existing tree hazard management programs; Continue to address hazard abatement needs as they are identified in priority order; Continue to review and analyze records of trees requiring hazard abatement work for trends in species, age, location, etc. and adjust future planting and maintenance efforts accordingly; Continually strive to improve the Borough's ability to identify and mitigate potentially hazardous conditions. (p.32, #1.a.i-iii) | ■ | ■ | ■ | ■ | ■ |
| TREE PLANTING | | | | | |
| 1. <i>Ongoing Tree Planting Programs</i> | | | | | |
| <input type="checkbox"/> Continue all existing tree planting programs with changes necessary to minimize vulnerability to current forest health issues. (p.35, #1.a.i-iv) | ■ | ■ | ■ | ■ | ■ |
| 2. <i>Street Tree Stocking & Age Structure Goals</i> | | | | | |
| <input type="checkbox"/> Using current Street Tree Inventory data, calculate maximum practical stocking for Borough street trees; Establish feasible goals for achieving maximum practical stocking with a suitable age structure within an appropriate time-frame. (p.35, #2.a.i-iv) | | | ■ | | |
| <input type="checkbox"/> Design and complete planting projects in accordance with the stocking goals and planting rates set. (p.36, #2.b.i) | | | ■ | ■ | ■ |
| 3. <i>Street Tree Species Composition Goals</i> | | | | | |
| <input type="checkbox"/> Using current Street Tree Inventory data, establish a long-term goal for optimum species composition in the street tree population; Establish intermediate progress goals for adjusting the existing species composition. (p.36, #3.a.i-ii) | | | ■ | | |
| <input type="checkbox"/> Design and complete plantings per the goals set; Vary the species planted from year to year to maintain species diversity over all age classes. (p.36, #3.b.i-ii) | | | ■ | ■ | ■ |
| 4. <i>Contract Growing</i> | | | | | |
| <input type="checkbox"/> Based on Street Tree Species Composition Goals set, develop a list of species desired for planting and poll nursery growers to determine current and future availability. (p.36, #4.a.i-ii) | | | | ■ | |
| <input type="checkbox"/> Develop relationships with suitable growers and negotiate informal agreements or formal contracts to ensure that desired species are available to suit the Borough's future planting plans; Cooperate with neighboring communities that have similar needs to make it more beneficial for growers to stock less-common varieties. (p.36, #4.b.i-ii) | | | | ■ | ■ |

| Objectives / Tasks | 2017 | 2018 | 2019 | 2020 | 2021 |
|---|------|------|------|------|------|
| TREE MAINTENANCE | | | | | |
| 1. <i>Ongoing Tree Maintenance Programs</i> | | | | | |
| <input type="checkbox"/> Continue all existing tree maintenance programs, policies and procedures on a regular basis; Continue implementing programs already in place for managing bacterial leaf scorch infected oaks. (p.39, #1.a.i-ii) | | | | | |
| 2. <i>Emerald Ash Borer Response Plan</i> | | | | | |
| <input type="checkbox"/> Develop a plan to cope with tree losses caused by emerald ash borer including identifying and evaluating existing ash trees, completing cost-benefit analyses regarding preventive treatment, programs for proactive removal of low-value trees, necessary funding, and public education. (p.39, #2.a.i) | | | | | |
| <input type="checkbox"/> Implement the Emerald Ash Borer Response Plan according to the plans and schedules set. (p.39, #2.b.i) | | | | | |
| TREE WASTE RECYCLING | | | | | |
| 1. <i>Ongoing Tree Waste Recycling Programs</i> | | | | | |
| <input type="checkbox"/> Continue all existing tree waste recycling programs, policies and procedures. (p.40, #1.a.i) | | | | | |
| TREE CARE DISASTER PLAN | | | | | |
| 1. <i>Ongoing Programs</i> | | | | | |
| <input type="checkbox"/> Continue all existing programs, policies and procedures; Strive to reduce risks via other elements of this Plan. (p.39, #1.a.i-ii) | | | | | |
| 2. <i>i-Tree Storm Assessment</i> | | | | | |
| <input type="checkbox"/> Develop plans to document Haddonfield's public tree resource in a manner that can be used to evaluate future storm losses via the <i>i-Tree Storm</i> software program. (p.42, #2.a.i-ii) | | | | | |
| <input type="checkbox"/> Complete any field data collection and data entry that may be necessary (p.42, #2.b.i) | | | | | |
| <input type="checkbox"/> Run the <i>i-Tree Storm</i> analysis on the collected data and store the results for future use (p.42, #2.c.i-ii) | | | | | |
| PLAN PREPARATION & EVALUATION | | | | | |
| 1. <i>Annual Program Evaluation</i> | | | | | |
| <input type="checkbox"/> Evaluate the prior year's accomplishments, identify objectives not yet completed, and adjust programs, as necessary; Prepare and submit an <i>Annual Accomplishment Report</i> to NJFS. (p.43, #1.a.i-iii) | | | | | |
| 2. <i>Five-Year Evaluation</i> | | | | | |
| <input type="checkbox"/> Evaluate the Shade Tree Program's accomplishments during the current 5-year management period; Evaluate progress toward the overall goals of the Shade Tree Program; Begin formulating new objectives and program adjustments. (p.43, #2.a.i-iii) | | | | | |

| Objectives / Tasks | 2017 | | | 2018 | | | 2019 | | | 2020 | | | 2021 | | |
|--|------|--|--|------|--|--|------|--|--|------|--|--|------|--|--|
| PLAN PREPARATION & EVALUATION, cont'd 3. <i>2022 – 2026 Plan Development</i> <input type="checkbox"/> Finalize new objectives and program adjustments and prepare and submit a Community Forestry Management Plan for the 2022-2026 management period. (p.43, #3.a.i-ii) <input type="checkbox"/> Obtain State approval for 2022-2026 Community Forestry Management Plan. (p.43, #3.b.i) | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | |



Related Ordinances

RELATED ORDINANCES

1. Chapter 56, *Shade Tree Commission*, which establishes and empowers a Shade Tree Commission in the Borough of Haddonfield, and which provides for the control, planting, protection and improvement of Borough trees.

Chapter 56. Shade Tree Commission

[HISTORY: Adopted by the Board of Commissioners of the Borough of Haddonfield 7-15-2014 by Ord. No. 2014-12.[1] Amendments noted where applicable.]

GENERAL REFERENCES

Land development — See Ch. **135**.

Parks and recreation areas — See Ch. **154**.

Property maintenance — See Ch. **173**.

[1] Editor's Note: This ordinance also repealed former Ch. 56, Shade Tree Commission, adopted 2-4-1930 by Ord. No. 655 and amended in its entirety 4-27-2004 by Ord. No. 12-2004 (as subsequently amended).

§ 56-1. Purpose.

The purpose of this chapter is:

- A. To repeal the existing Chapters 56 and 224 and adopt a new Chapter 56 establishing the Borough of Haddonfield Shade Tree Commission (the "Commission"), a regulatory body authorized by the Act,[1] and to delineate the powers and duties and other matters related to the operation of the Commission;
[1] Editor's Note: See N.J.S.A. 40:64-1 et seq.
- B. To preserve and protect trees and shrubbery located on property owned or under the control of the Borough of Haddonfield and which are within the Commission's jurisdiction;
- C. To take such action as is necessary and appropriate to protect the public from an imminent threat to the public health and safety due to the condition of trees and shrubbery on property which is not Borough property and which, by virtue of the Act and this chapter, are within the Commission's jurisdiction;
- D. To set forth, standardize and simplify procedures for reviewing applications to plant, maintain, remove or replace Borough trees; and
- E. To set forth prohibited actions, establish penalties and prescribe a uniform standard for assessing the replacement cost of Borough trees that are removed by private parties or which otherwise are damaged or destroyed.

§ 56-2. Definitions.

As used in this chapter, the following terms shall have the meanings indicated:

ACT

N.J.S.A. 40:64-1 et seq.

ANSI

American National Standards Institute.

BOROUGH

The Borough of Haddonfield.

BOROUGH PROPERTY

Such lands as are within the right-of-way of the Borough's streets or highways or in all such other places within the Borough on lands owned or under the control of the Borough and which are subject to the jurisdiction of the Commission, including but not limited to lands used for active or passive recreation, open space, ball fields or parks.

BOROUGH TREE ESCROW FUND OR FUND

A fund established by the Borough for administering, protecting, preserving, maintaining and replacing of Borough trees, and encouraging best preservation practices as may be consistent with the Act and the Community Stewardship Incentive Program as outlined in N.J.S.A 13:1L-17.1 et seq. (the "Fund").

BOROUGH TREE(S)

Any tree or shrubbery situated on Borough property.

COMMISSION

The Shade Tree Commission of the Borough of Haddonfield.

DIAMETER BREAST HEIGHT (DBH)

The diameter of a tree measured approximately 4 1/2 feet above the natural ground level commensurate with the trunk flare.

PERFORMANCE BOND

A sum paid by a person seeking to remove a Borough tree to guarantee that person will perform said work in accordance with the permit and related documents, thus protecting the Borough. In lieu of a performance bond, where appropriate and in the sole discretion of the Commission, a monetary fee may be placed in escrow in an amount, in each specific case, set by the Commission.

PRESERVATION AREA

The area directly around a Borough tree wherein its roots grow. It generally encompasses the area beneath its crown and such area whose regulation is necessary and appropriate to the health and maintenance of a Borough tree.

PRIVATE TREE

Any tree or shrubbery located on private property.

REPLACEMENT ASSESSMENT

The amount paid by a person who removes or otherwise damages or destroys a Borough tree.

TRUNK FLARE

The point of intersection between the tree roots and the tree trunk.

§ 56-3. Commission established.

- A. Pursuant to N.J.S.A. 40:64-1 et seq., the Borough has established the Commission which consists of five regular members and two alternate members, all of whom are residents of the Borough, and who shall be appointed by the Mayor of the Borough, which Commission shall be known as the "Shade Tree Commission of the Borough of Haddonfield." The terms of appointment of its regular members shall be staggered so that one appointment expires each year. All regular member appointments, except to fill vacancies, shall be for the full term of five years, to take effect on January 1. Alternate members shall be appointed for a term of five years, to take effect on January 1, wherein the initial term of Alternate No. 2 shall be for four years.
- B. Alternate members shall be designated at the time of their appointment as "Alternate No. 1" and "Alternate No. 2." Alternate members may participate in the discussion of the proceedings but may not vote except in the absence or disqualification of a regular member. A vote shall not be delayed in order that a regular member may vote instead of an alternate member. In the event that a choice must be made as to which alternate is to vote, alternate members shall vote in the order of their numerical designations.

§ 56-4. Organization, meetings and election of officers.

The Commission shall organize annually and conduct meetings and action consistent with the provisions of the Act and shall elect one of its members as Chairperson and appoint a Secretary, who need not be a member of the Commission.

§ 56-5. Powers.

The Commission shall have and exercise all of the powers as set forth in the Act, which shall include, but may not be limited to, the power to:

- A. Exercise full and exclusive control over the regulation, planting and care of Borough trees now located, or which may hereafter be planted, on Borough property, except such as are excluded pursuant to the Act and shall include, but not be limited to, the planting, trimming, spraying, care and protection thereof;
- B. Regulate and control the use of the preservation area, so far as may be necessary for their proper growth, care and protection;

- C. Remove or require the removal of any Borough tree;
- D. Care for and control such parks and parkways and encourage arboriculture;
- E. Make, alter, amend and repeal, in the manner prescribed for the passage, alteration, amendment and repeal of ordinances by the Borough, any and all ordinances necessary or proper for carrying out the provisions hereof;
- F. Remove or require the removal of any private tree, or part thereof, whose condition represents a danger to the public health and safety;
- G. Administer treatment to or remove any private tree which is reasonably believed to harbor a disease or insects readily communicable to neighboring Borough trees and to enter upon private property for the purpose, with the consent of the owner thereof, provided that the suspected condition is first confirmed by certificate issued by a certified tree expert; and
- H. Other powers as provided by the Act, as amended and supplemented.

§ 56-6. Hazardous trees on private property.

- A. Where the Chairperson or the Chairperson's designee reasonably believes, based on a certification from a certified tree expert, that a private tree presents a dangerous condition to a Borough tree or to other public property, the Commission is authorized to remove same. Formal notice shall be served on the owner of the private property, which notice shall specify the private tree, the condition, the basis for the opinion that the condition represents a dangerous condition and shall provide the owner of the private property with 10 days to consent to the removal or file a formal objection thereto. The property owner may remove the condition on his or her own initiative. If the property owner files an objection, the matter will be heard and decided by the Commission within 30 days. If no objection is filed, the owner of the private property shall be deemed to have consented to the removal of the private tree. Service of the notice shall be by certified mail to the owner of the private property. All costs relating to the removal, consistent with the schedule hereinafter set forth for the removal of Borough trees, shall be paid by the owner of the private property or shall be a lien on the private property.
- B. If the Chairperson or the Chairperson's designee reasonably believes, based on a certification from a certified tree expert, that a private tree exhibits an imminent threat to public health and safety, the Borough is authorized to remove same without prior notice. However, reasonable attempts shall be made to alert the owner of the private property. All costs related to the removal, consistent with the schedule hereinafter set forth, shall be paid by the owner of the private property or shall be a lien on the private property.

§ 56-7. Prohibited acts.

- A. No person, firm or corporation shall do, or cause to be done, any of the following acts with regard to Borough trees without authorization obtained pursuant to the provisions of this chapter:
 - (1) Cut, trim, girdle, climb with spikes, disturb the roots of or otherwise injure, or remove any living Borough tree; or injure, misuse or remove any structure or device placed to support or protect a Borough tree;
 - (2) Plant any tree or shrub on Borough property;
 - (3) Fasten any rope, wire, electrical attachment, sign or other device to a Borough tree, or to any guard about any Borough tree;
 - (4) Close or obstruct the preservation area around the base of any Borough tree, or place any guard about a Borough tree, including, but not limited to, excessive amounts of or improperly applied mulch;
 - (5) Close or obstruct Borough property so as to prevent the planting of a Borough tree if the Borough property otherwise would be appropriate for such planting;
 - (6) Hitch or fasten an animal to any Borough tree; or allow such animal to bite, scratch or otherwise injure any Borough tree; or
 - (7) Permit any brine, gas or any chemical or spray to come into contact with the leaves, stem or roots or preservation area around any Borough tree.
- B. If the Chairperson or the Chairperson's designee has reason to believe that anyone has committed or is about to commit a prohibited act, then the Borough may issue a stop-work order delivery of same in person or by certified mail on the person, company or any employee or official of any such company which is the subject of the order. The order shall remain in effect unless and until the Commission issues a formal permit.

- C. The provisions hereof relating to prohibited acts shall not apply to Borough Public Works employees and their agents acting within the scope of their employ, or to members of the Commission and their agents as designated by the Commission Chairperson.
- D. Any public utility or cable television company that clears, moves, cuts, or destroys any trees, shrubs, or plants for the purpose of erecting, installing, moving, removing, altering or maintaining any structures or fixtures necessary for the supply of electric light, heat or power, communication, or cable television services upon any land in which it has acquired an easement or right-of-way shall not be subject to any penalty imposed by a commission pursuant to Subsections A or B of this section. This subsection shall not exempt any public utility or cable television company from any penalty or replacement assessment imposed for negligent actions.

§ 56-8. Specifications.

- A. No person, board, body, official, separate entity and/or governmental entity may construct on Borough of Haddonfield lands or rights-of-way or easements a sidewalk, curb, or street or do similar acts which interfere with, injure or destroy a highway shade tree without consent of the Shade Tree Commission within whose jurisdiction such tree is located. In all such cases the Shade Tree Commission shall reasonably cooperate with such person, board, body, official, private entity and/or governmental entity for the general public good, as per N.J.S.A. 40:64-10.
- B. All residents, with Shade Tree Commission approval, Borough employees and retained consultants and professionals or their agents and anyone planting, transplanting, trimming or undertaking any action affecting a Borough tree shall contract, purchase, transplant and trim according to the following standards:
 - (1) All nursery stock used for planting on Borough property shall comply with ANSI Z-60.1 - 2004 American Standard for Nursery Stock, as amended;
 - (2) All Borough tree transplanting shall comply with ANSI A300 (Part 6) - 2012 Planting and Transplanting, as amended; and
 - (3) All Borough tree trimming shall conform to ANSI A300 (Part 1) - 2008 Pruning, as amended.

§ 56-9. Permits.

- A. Any person or entity wishing to remove, transplant, trim or otherwise treat a Borough tree shall file a written application with the Borough Public Works Department. No action shall be taken on any Borough tree until written authorization is received from the Public Works Department or the Commission, following an on-site evaluation. The property owner has the responsibility to pay the cost of removing such a tree and may be responsible for a tree replacement assessment in accordance with the standards and policies of the Commission. The assessment shall not exceed a maximum of \$27 per square inch as per N.J.S.A. 40:64-12. (See § 56-10 for calculation formula.)
- B. In reviewing any application for a building or construction permit, the Borough construction official shall make a preliminary determination as to whether the intended work has the potential to adversely impact any Borough tree. If the intended work has such potential the construction official shall refer the matter to the Commission. Permits may not be issued until the Chairperson of the Commission or his or her designee conducts an on-site evaluation and advises the property owner or contractor of the protective measures that must be taken during the course of construction. The property owner or contractor may appeal to the Commission, which shall promptly review the necessity or reasonableness of the protective measures. The construction official shall issue a stop-work order if the property owner or contractor is not implementing the protective measures.
- C. No application shall be reviewed until it is complete.
- D. Review and inspections for all submitted applications shall be carried out within 10 business days of a completed application.
- E. Permission shall be granted or denied within five business days after the completed review and inspection. Absence of a written approval is not considered an approval. In the case of a denial, the applicant will be given written notice with reasons for the denial and a right to appeal to the Commission.

§ 56-10. Fees; assessments; violations and penalties.

A. Penalties.

- (1) For a violation of any provision of this chapter, the maximum penalty upon conviction shall be a fine not exceeding \$1,500.
- (2) Separate violations. Except as otherwise provided, each and every day in which a violation of any provision of this chapter exists shall constitute a separate violation.

B. Tree replacement assessment. In addition to the penalties authorized by Subsection A of this section, any person who removes, damages or otherwise destroys a tree in violation of this chapter shall pay a replacement assessment to the Borough. The tree replacement assessment shall be calculated consistent with N.J.S.A. 40:64-12b, not to exceed \$27 per square inch. The cross section shall be calculated from the diameter at breast height and, if there is a multiple-stem tree, then each trunk shall be measured and an average shall be determined for the tree. The Commission may modify the value of the tree based upon its species variety, location and its condition at the time of removal or destruction. The range of tree replacement assessments are set forth in the Commission's standard operating procedures.

C. In cases where the Commission has given a property owner permission to remove a Borough tree, the Commission may further require the property owner to replace the tree or otherwise provide for its replacement, and to post a performance bond.

D. The tree replacement assessments shall be paid into the Fund, described below.

§ 56-11. Borough tree Escrow Fund.

There is hereby established the Borough tree Escrow Fund. The Fund shall include the tree replacement assessment and shall be maintained by the Borough in an account identified as such and which is separate from the General Fund. Such funds shall include but not be limited to any monies collected pursuant to §§ 56-10B and 56-11 of this chapter, donations and any other fund-raising program established by the Commission. The Borough Administrator shall maintain the Fund with disbursements reported to the Commission on an as-needed basis. The governing body with the advice of the Commission shall authorize appropriations from the Fund.

§ 56-12. Effect on other ordinances.

Nothing in this chapter shall prevent the appropriate municipal body from enforcing any other ordinance of the Borough dealing with property maintenance, which may include maintenance of trees on private property or abutting public sidewalks adjacent to private property.