2016 – 2020
COMMUNITY FORESTRY MANAGEMENT PLAN

City of Clifton
Passaic County
New Jersey

Mayor & Council
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Peter C. Eagler
Joseph Cupoli
Steven Hatala, Jr.
Joseph C. Kolodziej
William Gibson
Lauren E. Murphy
Ray Grabowski

City Manager
Dominick Villano

City Engineer
Michael J. Lardner, P.E., Acting City Engineer

Department of Public Works
Sergio Panunzio, C.P.W.M., Director
Guiseppe Mannina, Acting Shade Tree Supervisor

Recycling Coordinator
Alfred J. Du Bois, Jr.

 Beautification Committee
Emilia Rykowski, Chair
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<td>Passaic</td>
</tr>
<tr>
<td>ADDRESS</td>
<td>307 East 7th Street</td>
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<tr>
<td></td>
<td>Clifton, NJ 07011</td>
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<tr>
<td>CONTACT</td>
<td>Alfred Du Bois, Jr., Recycling Coordinator</td>
</tr>
<tr>
<td>PHONE</td>
<td>973-470-2239</td>
</tr>
<tr>
<td>FAX &amp; EMAIL</td>
<td>973-340-7049  <a href="mailto:adubois@cliftonnj.org">adubois@cliftonnj.org</a></td>
</tr>
<tr>
<td>ORGANIZATION</td>
<td>Department of Public Works</td>
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Original Copy Signed

* I certify that this Community Forestry Management Plan was developed specifically and exclusively for the City of Clifton, NJ.

February, 2016

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**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 & Dated
Introduction

SCOPE

The following sections outline programs and procedures for managing public shade tree resources within the City of Clifton during the period January 2016 – December 2020.

Recognizing that trees help improve the quality of urban life, the City has developed this Community Forestry Management Plan in accordance with statewide efforts to preserve and promote sustainable community forest resources and the goals and objectives of its Master Plan.

This fourth five-year Plan continues to focus on managing City-owned street trees and trees on City properties. In addition, it is expected that elements of this Plan will help stimulate the planting and proper care of trees on private property.

MISSION STATEMENT

To improve the quality of life in the City of Clifton by maximizing the environmental, social and economic benefits of trees to the community while minimizing the associated costs and liabilities.

OVERALL PROGRAM GOALS

The New Jersey Community Forestry Council has identified fifteen Community Stewardship Incentive Program (CSIP) practices that together comprise a complete and comprehensive shade tree program.

Within each of the plan elements that follow, existing City programs, policies and procedures are described, intermediate and element-specific goals are established, and CSIP-based objectives for the 2016 – 2020 management period are set.

Systematic fulfillment of these CSIP-specific goals and objectives will gradually move Clifton’s Shade Tree Program toward its overall program goals, which are established as follows:

1. Develop and perpetuate a beneficial public shade tree resource.
2. Maximize the benefits of trees to the community.
4. Optimize the balance between tree maintenance costs and budgetary constraints.
5. Minimize the risk of trees to public safety.
6. Minimize conflicts between trees, sidewalks and other infrastructure.
7. Maintain public interest, appreciation and support for city shade tree programs.
8. Encourage the planting, protection and proper care of trees on private property and environmental stewardship.
9. Preserve and protect woodlands, wetlands, waterways, and other environmentally sensitive areas.
10. Meet all eligibility requirements of the NJ Shade Tree & Community Forestry Assistance Act.
As is the case with all municipal assets, trees require maintenance and it is inevitable that potentially hazardous conditions will emerge.

It is recognized, however, that comprehensive and proactive community forestry programs designed to prevent, anticipate and correct such problems can significantly reduce the threat to public safety and exposure to liability while maximizing the benefits of trees to the community. Accordingly, this Plan is designed to optimize the balance between tree benefits and tree risks.

The City of Clifton acknowledges that not all hazardous conditions can or will be predicted. It must work within a limited budget and may not be able to meet every need immediately. The intent of this Plan is to direct available resources toward the greatest needs and systematically develop and maintain a healthy shade tree resource with a commensurate reduction in any threats to public safety.

Public safety will continue to be a primary consideration in the development and implementation of all shade tree plans and programs. This Plan provides a means of identifying and abating existing tree hazards on a prioritized basis. Further, it provides a means of reducing the potential for future hazards and liability through responsible planting and preventive maintenance.
Community Overview

Through its implementation of its 2011 Community Forestry Management Plan, the City of Clifton improved several aspects of its Shade Tree Program and continued to implement and maintain the effectiveness of all others.

The City did not complete every objective included in its 2011 Plan primarily due to insufficient budget and manpower as well as unforeseen circumstances such as the damage wrought by Superstorm Sandy. It did, however, complete several key objectives, maintain its previously existing programs, and effectively address higher priority issues as they arose.

The City of Clifton is currently experiencing a lull in tree planting budget and tree program activity as well as public desire for and appreciation of trees. Between numerous hazard- or problem-tree removals, tree losses during road reconstruction, tree losses from NJ Department of Transportation roadside clearing, and losses from storms, canopy cover in Clifton has decreased significantly over the past 5 years. It is a primary goal of this plan to improve tree affinity, awareness, planting, and, ultimately, population and canopy cover.

Despite the challenges the City has faced in recent years, it has still been so successful in achieving Tree City USA Growth Awards that Clifton is now considered a Sterling Community by the National Arbor Day Foundation. This means Clifton is considered a leader and innovator in urban forestry.

The following is a summary of the Shade Tree Program’s activities and accomplishments during the 2011 – 2015 management period.

1. Program Administration
   - The City continued to implement all of its previously existing administrative programs, policies and procedures during the 2011 – 2015 management period. (Program Administration, Objective #1)

2. Training & Professional Development
   - The City continued to make training available to individuals actively involved in the City’s Shade Tree Program. (Training & Professional Development, Objective #1)
   - During the 2011 – 2015 period, the City maintained its New Jersey Community Forestry CORE training requirements, with a total number of six CORE trained individuals as of the date of this plan. (Training & Professional Development, Objective #2)
   - Several individuals attended New Jersey Shade Tree Federation Annual Meetings to meet the City’s annual continuing education requirements under the New Jersey Shade Tree & Forestry Assistance Act. (Training & Professional Development, Objective #2)
   - Two Shade Tree Division employees attended Tree Pruning Training through the Rutgers NJAES Office of Continuing Professional Education. (Training & Professional Development, Objective #3)
   - Two Shade Tree Division employees attended Advanced Tree Pruning Techniques Training through the Rutgers NJAES Office of Continuing Professional Education.
f) One Shade Tree Division employee attended a workshop on Inventory of Trees at the NJ Shade Tree Federation meeting.

3. **Public Education, Awareness & Outreach**
   
a) The City continued to implement all of its previously existing public education, awareness and outreach programs during the 2011 – 2015 period. *(Public Education, Awareness & Outreach, Objective #1)*

b) Each year, the City organized and conducted City-wide Arbor Day programs with its 23 public and parochial schools and other groups. Frequently working with the New Jersey Tree Foundation, the Arbor Day programs typically included tree seedling give-aways, tree plantings, and other educational and awareness activities. *(Public Education, Awareness & Outreach, Objective #2)*

c) The City maintained its status as a Tree City USA each year during the 2011 – 2015 period. *(Public Education, Awareness & Outreach, Objective #3)*

4. **Tree Inventory & Assessment**
   
a) While the City was unable to complete a full or sample-based inventory due to lack of funds and manpower as well as both clean-up work associated with Superstorm Sandy and ongoing road reconstruction projects.

5. **Tree Hazard Management**
   
a) The City continued and improved upon all of its existing tree hazard management programs and procedures with regard to identifying, prioritizing and correcting potentially hazardous conditions. *(Tree Hazard Management, Objective #1)*

b) The City finished all priority tree pruning and removal work identified by the 2006 – 2010 Priority Maintenance Needs Survey. *(Tree Hazard Management, Objective #2)*

6. **Tree Planting**
   
a) The City continued its existing tree planting programs, policies, and procedures. *(Tree Planting, Objective #1)*

b) The City reassessed its road reconstruction specifications and retained a NJ Certified Tree Expert to inspect and approve tree stock for planting during the recent road reconstructions throughout Clifton *(Tree Planting, Objective #2)*

7. **Tree Maintenance**
   
a) The City continued to implement all of its previously existing tree maintenance programs, policies and procedures during the 2011 – 2015 period. *(Tree Maintenance, Objective #1)*

b) The City completed a project for developmental pruning of young trees planted in recent years. *(Tree Maintenance, Objective #2)*

c) The City purchased a second stump grinder to allow it to perform all stump grinding in-house instead of outsourcing it. *(Tree Maintenance, Objective #3)*

8. **Tree Waste Recycling**
   
a) The City continued to implement its previously existing tree waste recycling programs, policies and procedures. *(Waste Recycling, Objective #1)*

9. **Tree Care Disaster Plan**
   
a) When Superstorm Sandy hit in 2012, the City showed that it was ready to implement its previously existing tree care disaster plan programs, policies and procedures. Clifton also worked to reduce the tree population’s vulnerabilities by improving species diversity. *(Tree Care Disaster Plan, Objective #1)*
10. Plan Preparation & Evaluation

a) During the 2011 – 2015 management period, the City continually reviewed its Community Forestry Management Plan, monitored progress toward its goals and objectives, and made the necessary adjustments in the Shade Tree Program’s activities to address current needs. *(Plan Preparation & Evaluation, Objective #1)*

b) The City has prepared this third five-year Community Forestry Management Plan, with the assistance of a NJ Green Communities Challenge Grant, based on a thorough review of its goals, objectives and current needs. *(Plan Preparation & Evaluation, Objective #2 and #3)*

Implementation of the City’s community Forestry Management Plan continues to provide the City with numerous tangible and intangible benefits.

1. By continually maintaining its “Approved Status” under the New Jersey Shade Tree & Community Forestry Assistance Act, Clifton has been eligible for, and received, several grants with which it addressed several needs, including the planting of a large number of trees throughout the City, various public education and outreach projects, and funds to aid in the preparation of this Plan. In addition, the City benefited from the legal protection provided by the Act.

2. Through this Community Forestry Management Plan, the policies and procedures of the Shade Tree Program are clearly defined and consistently implemented toward unified goals.

3. The roles, responsibilities and expectations of the various groups and individuals within the Shade Tree Program are clearly defined. The result has been more focused and efficient delegation and implementation of various tasks.

4. Ongoing training continues to improve the Shade Tree Program participants’ technical knowledge and effectiveness in making shade tree management decisions.

In 1996, a stratified random sample inventory and assessment conducted by Paul Cowie & Associates, consulting arborists and urban foresters, revealed the following information about Clifton’s street tree resource:

1. The street tree resource was approximately 50% stocked with approximately 14,500 trees and approximately 14,400 vacant planting sites and stumps.

2. It was comprised of 49 different species representing 29 different genera. 59% of the trees, however, were maples.

3. It was relatively young, with over 93% of the street trees 24-inches in diameter or less.

4. The majority of the street trees were in “fair” condition and frequently deteriorating in health and/or structural condition (36% in good condition, 43% in fair condition, 20% in poor condition, and 1% dead).

5. The vast majority of the trees in fair and poor condition were maples, which were exhibiting general decline symptoms.

6. 6% of the maples were exhibiting apparent symptoms of *Verticillium* infection. Many others were exhibiting characteristic symptoms, but infection was not confirmed.

7. 11% of the trees had moderate to severe girdling roots and 91% of the trees with girdling roots were maples.

8. 20% of the tree population required high or medium priority pruning or removal to reduce potential hazard risks and 52% required clearance pruning.

9. 33% of the street side planting sites provide less than four feet between the sidewalk
and curb, an area too small for the species commonly planted in them.

10. 19% of the existing trees had caused damage to the adjacent sidewalk and 6% had damaged adjacent curbs to the extent that they required repair.

Based on records of planting and maintenance since 1996, maintenance needs surveys completed in 2004 and 2009, and the impressions of the City Engineer and Department of Public Works personnel, changes in the City’s street tree population during the past five years have generally mirrored those previously noted in the 2011 – 2015 Community Forestry Management Plan, other than trends in total population size. These trends of change include:

1. A decrease in the stocking level of the street tree population. This decrease is primarily the result of numerous hazard- or problem-tree removals, tree losses during road reconstruction, tree losses from NJ Department of Transportation roadside clearing, losses from storms and a generally unbalanced planting to removal ratio (far more removals than plantings).

2. Continued efforts to introduce new species into the street tree population have resulted in a significant increase in genus and species diversity. Maples and oaks, however, still comprise large segments of the population.

3. The continued decline and removal of older trees and increased replanting efforts have maintained a relatively young tree population.

4. Efforts directed at treating or removing deteriorating trees and replanting with younger, more vigorous trees has increased the number of trees in good and fair condition versus poor and dead.

5. The 2004 and 2009 Priority Maintenance Needs Surveys identified a relatively high percentage of trees that required high priority pruning or removal. However, this was to be expected because the Neighborhoods selected for the surveys were known to have the greatest needs. City-wide, it is believed that the total number of trees requiring high priority maintenance has been reduced as a result of efforts to address these needs.

The City currently lacks a comprehensive inventory and assessment of trees in City parks and on public properties.

This Community Forestry Management Plan is consistent and compatible with the goals, objectives and general intent of the City of Clifton Master Plan (last Re-examination report adopted March 27, 2008). Open space issues are addressed in the Recreation Plan Element of the Master Plan.

Efforts to improve, perpetuate and maintain the City’s public street and park tree resources, as outlined in this Community Forestry Management Plan, will directly or indirectly help satisfy several of the Master Plan’s goals including:

- To encourage City actions to guide the appropriate use or development of all lands in Clifton, which will promote the public health, safety, morals and general welfare.
- To secure safety from fire, flood, panic and other natural and man-made disasters.
- To provide adequate light, air and open space.
- To provide sufficient space in appropriate locations for a variety of uses and open space, both public and private, in a manner compatible with the character of the City and the environment.
- To promote a desirable visual environment through creative development techniques and good civic design and arrangements.
• To promote the conservation of historic sites and districts, open space, energy resources and valuable natural resources, and to prevent urban sprawl and degradation of the environment through the improper use of land.

• To promote the maximum practicable recovery and recycling of recyclable materials from municipal solid waste through the use of planning practices designed to incorporate the State Recycling Plan goals and to compliment municipal recycling programs.

Presently, there is no formal link between the Master Plan and this Community Forestry Management Plan. However, the parallel goals and objectives outlined above provide a strong informal link and common purpose. The Plans are further linked through existing zoning, subdivision, land use, and site plan review code, which contain specific requirements regarding trees, landscaping and buffers.
The City of Clifton is located within Passaic County, in the State of New Jersey.

Clifton’s Location within Passaic County:
Passaic County’s Location within the State of New Jersey:
Street Map of the City of Clifton:
Satellite Imagery of the City of Clifton:
Land Use / Land Cover within the City of Clifton:
Canopy Cover within the City of Clifton:
Administration of Clifton’s Shade Tree Program is a cooperative effort of the Mayor and Council, the City Manager, the Department of Engineering, the Department of Public Works, the Recycling Coordinator, and various other internal and external groups, as follows:

1. **Mayor & Council**  
   a) The Mayor is responsible for appointing members to the City’s various Boards and Committees.  
   b) The Mayor and Council have ultimate authority over the policies, procedures, and programs of the Shade Tree Program and are responsible for approving its budget and authorizing debt.

2. **City Manager**  
   a) The City Manager supervises the daily operations of the City’s various Departments and serves as its Chief Administrative Officer.
3. **Beautification Committee**
   a) The Beautification Committee is a group of resident volunteers that advises the Mayor and Council on a variety of issues relating to the maintenance and enhancement of the City, including shade tree management.
   b) To facilitate communications between the Beautification Committee and the Mayor and Council, a Council Liaison sits on the Committee.
   c) To facilitate communications between the various bodies responsible for implementing shade tree and related programs, the following maintain permanent seats on the Beautification Committee:
      i) Garden Club
      ii) Environmental Commission
      iii) Director of Public Works

4. **Planning Board & Zoning Boards**
   a) The Planning and Zoning Boards are responsible for implementing and enforcing various elements of the City Code and Master Plan that relate to the planting and preservation of public and private trees and landscaping.

5. **City Engineer**
   a) The City Engineer’s responsibilities within the Shade Tree Program include:
      i) Overseeing the development and implementation of the City’s Community Forestry Plan in cooperation with the Recycling Coordinator and the Director of Public Works.
      ii) Managing the protection, removal and replanting of trees by construction and planting contractors on street reconstruction and other infrastructure improvement projects.
      iii) Administration of the City’s Tree Removal and Protection Ordinance (Chapter 433, Article V).

6. **Director of Public Works**
   a) The Director of Public Works manages the daily operations of the Shade Tree Program with the advice of the Beautification Committee and the consent of the Mayor and Council.
   b) Specifically, the Director of Public Works’ responsibilities include:
      i) Overseeing the planting, maintenance and removal of public trees.
      ii) Enforcing elements of the City Code that regulate and control the planting and protection of public trees.
      iii) Inspecting trees and determining maintenance requirements.
      iv) Managing the Department of Public Works Shade Tree Division.
      v) Coordinating and supervising outside contractors hired to complete tree maintenance tasks for the City.
      vi) Sitting as a permanent member on the Beautification Committee.

7. **Recycling Coordinator**
   a) The Recycling Coordinator is responsible for assisting the City Engineer and the Director of Public Works in completing many of the tasks associated with the day-to-day operation of the Shade Tree Program, including:
      i) Preparing related grant applications.
      ii) Preparing Tree City USA applications.
      iii) Organizing Arbor Day events.
      iv) Preparing and disseminating press releases and public education materials.
v) Preparing and submitting Annual Accomplishment Reports to the New Jersey Forest Service as required under the New Jersey Shade Tree & Community Forestry Assistance Act.

vi) Obtaining donated trees from various sources, such as the New Jersey Tree Foundation.

8. **Department of Public Works Shade Tree Division**
   a) The Shade Tree Division is a division of the Department of Public Works that is responsible for:
      i) Completing public tree maintenance and planting work under the direction and to the specifications of the Shade Tree Division Supervisor in a safe and efficient manner.
      ii) Providing emergency response service, when appropriate.
      iii) Following all current and accepted arboricultural standards and practices.
      iv) Abiding by all current safety standards relating to tree care operations.
      v) Reporting any tree-related hazards or other problems immediately to the Director of Public Works.

9. **Consulting Arborist**
   a) The City periodically uses the services of an independent consulting arborist (New Jersey Certified Tree Expert) for technical advice.
   b) Over the past several years, a consulting arborist has been hired to:
      i) Evaluate trees on street improvement projects to determine their condition and make recommendations for either their protection or their removal and replacement.
      ii) Inspect trees on private property for hazardous conditions when requested by the Housing Department.
      iii) Complete a stratified random sample inventory of the City’s street trees.
      iv) Prepare a comprehensive study of the Shade Tree Program and provide management recommendations.
      v) Complete street tree maintenance needs surveys in various areas of the City.
      vi) Assist in preparing this Community Forestry Management Plan.

10. **Tree Planting & Maintenance Contractors**
    a) Private tree planting and maintenance contractors are periodically hired to complete, or assist in completing, tree maintenance, planting and removal work and provide emergency services.
    b) These contractors are, within the terms of their agreement, responsible for:
        i) Completing tree maintenance, planting and removal work under the direction and to the specifications of the Director of Public Works or the City Engineer in an efficient and safe manner.
        ii) Following all current and accepted arboricultural standards and practices.
        iii) Abiding by all current and applicable safety standards relating to tree care operations.
        iv) Reporting any tree-related hazards or other problems immediately to the City.

11. **Other City Departments & Boards**
    a) Other departments, boards and committees assist the Shade Tree Program to the extent that they implement City policies, procedures and ordinances that directly or indirectly relate to shade trees. For example:
i) The Code Enforcement Officer is responsible for ensuring that property owners respect the rights of others and that they maintain their property in accordance with City codes and community standards.

ii) Various other departments and boards notify the Beautification Committee, the Department of Public Works, and others of plans and projects as they relate to shade trees and seek their input.

iii) All departments notify the Department of Public Works of tree related hazards for emergency response (e.g. Police Department notifies the Director of a downed tree for emergency service, etc.)

12. Public Utilities
   a) Public utilities are responsible for minimizing conflicts between trees and their facilities.
   b) While working on or around City trees, public utilities report to the Director of Public Works and are responsible for:
      i) Abiding by all applicable ordinances.
      ii) Keeping the City 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 City or its owner.
      v) Following all current and accepted arboricultural standards and practices.
      vi) Assisting the Shade Tree Division and City contractors in completing tree removal and maintenance work around their facilities, where necessary.

13. Property Owners
   a) Private property owners assist the Shade Tree Program to the extent that they:
      i) Notify the City of tree service requests.
      ii) Are asked to irrigate new public tree plantings adjacent to their properties.
      iii) Are encouraged to plant and properly maintain trees and landscaping on their properties.
      iv) Are required to abide by City ordinances relating to the preservation and protection of trees.

14. Community Volunteers
   a) Volunteers periodically assist in completing projects and tasks relating to the Shade Tree Program.
   b) Volunteer groups currently involved in the Shade Tree Program on a regular basis include the following:
      i) Beautification Committee, which advises the Mayor and Council on a variety of issues, including shade tree management.
      ii) Garden Club, which includes certified Master Gardeners.
      iii) Environmental Commission.

The following portions of the Code of the City of Clifton, New Jersey authorize, govern or relate to the City of Clifton’s Shade Tree Program:

1. Chapter 6, Advisory Beautification Committee, which establishes, authorizes and defines the role of the Beautification Committee.

2. Chapter 175, Brush, Weeds, Uncut Grass and Debris, and Chapter 273 Housing Standards, which contain requirements for maintaining private property and
3. Chapter 196, Compost, Mulch and Topsoil, which establishes rules and regulations relating to the distribution of compost, mulch and topsoil by the City to residents at the Clifton City Hall complex.

4. Chapter 261, Garbage, Rubbish and Refuse, which contains requirements for the separation and recycling of tree and other vegetation wastes from the municipal waste stream.

5. Chapter 296, Landscapers, which requires landscaping services to obtain a license to operate within the City of Clifton.

6. Chapter 351, Parks and Playgrounds, which prohibits damage to trees and other plants in City parks, playgrounds or recreation areas.

7. Chapter 395, Streets and Sidewalks, which contains provisions requiring adjacent property owners to:
   a) Install and maintain sidewalks in the public right-of-way to City specifications.
   b) Install and maintain landscaping.

8. Chapter 433, Trees and Shrubbery, which:
   a) Requires the control of certain insect pests (Article I) and the spraying of trees on private property (Article IV).
   b) Authorizes the City to prevent vegetation on private property from interfering with public rights-of-way (Article II).
   c) Regulates the planting, care and protection of shade and ornamental trees and shrubs within public rights-of-way and on City lands (Article III).
   d) Regulates the removal and protection of trees on private lands in conjunction with major and minor subdivisions (Article V).

9. Chapter 461, Zoning, and various other sections of the City Code, which contain requirements for landscaping, buffers and the protection of natural resources on private property.

A copy of Chapter 433, Trees and Shrubbery, is provided in the Appendix at the end of this Plan.

Requests for the pruning, removal, planting, or other treatment of public trees are typically initiated by adjoining property owners, but may also be generated internally by City personnel and other sources. All service requests are addressed in the following manner:

1. All service requests are received by or forwarded to the Department of Public Works (DPW).

2. For pruning requests:
   a) A DPW work order is generated.
   b) The appropriate work is completed by the Shade Tree Division on a prioritized basis.

3. For tree removal requests:
   a) All trees are inspected by both the Shade Tree Division Supervisor and the Director of Public Works to determine the validity of the request.
   b) If removal is justified, a DPW work order for removal is generated and completed on a prioritized basis.
   c) If removal is not justified, the requester is notified and, if necessary, a DPW work order for other corrective work is generated.

4. Emergency service requests are responded to immediately by the Shade Tree Division.
or an outside contractor, as appropriate. All others are completed in order of priority and/or as time and resources permit.

5. Records of completed work are maintained via standard Department of Public Works work order records.

1. **Ongoing Administrative Programs**

   a) 2016 – 2020

   i) Continue implementing the administrative programs, policies and procedures already in effect.
OVERVIEW

The following is a summary of the annual resources available to the City of Clifton’s Shade Tree Program, on average, in recent years.

Certain objectives contained within this Community Forestry Management Plan may require resources beyond those currently available. The City’s ability to fully satisfy these objectives may be dependent upon its ability to secure additional funding through internal or external sources.

2011 – 2015 GRANTS

During the 2011 – 2015 management period, the City of Clifton received the following grants to assist its Shade Tree Program:

1. In 2015, a $3,000 Green Communities grant for hiring a consulting arborist to assist the City in preparing this Community Forestry Management Plan.
2. In 2015, a $60,300 New Jersey No Net Loss grant for planting 201 trees as replacements for those lost during Hurricane Sandy.

The City has also hired an outside grant writer and spent a significant amount of time and effort applying for grants in recent years. This drastic increase in grant-writing has been done in the hopes of both increasing the overall tree budget and accomplishing more goals from the City’s 2011-2015 CFMP. It is the City’s hope that these efforts at aggressive grant-writing, through both private and government agencies, will pay off into the future as more grants are successfully awarded and their benefits are seen in the City’s shade tree program.

Through this aggressive grant-writing program, the City applied unsuccessfully for the following grants during the 2011-2015 management period:

1. In 2014 and again in 2015, a $20,000 TD Green Streets grant, which supports innovative practices in community forestry. Through the program, municipalities are eligible to receive one of ten $20,000 grants in support of local forestry projects in low-to moderate-income (LMI) neighborhoods.
2. In 2015, an American Forests Community Releaf Program grant dedicated to the assessment, restoration and monitoring of urban forests.

EMPLOYEE SALARY & WAGES

City Manager  
Director of Public Works  
City Engineer  
Recycling Coordinator  
Shade Tree Division personnel  
Engineering Department personnel  
Administrative personnel

Subtotal (total salary and benefits prorated by percent of time dedicated to the Shade Tree Program) $135,200.00
## OPERATIONS

<table>
<thead>
<tr>
<th>Category</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Materials and supplies</td>
<td></td>
</tr>
<tr>
<td>Contracted services</td>
<td></td>
</tr>
<tr>
<td>Training &amp; professional development</td>
<td></td>
</tr>
<tr>
<td>Memberships &amp; subscriptions</td>
<td></td>
</tr>
<tr>
<td>Consulting services</td>
<td></td>
</tr>
<tr>
<td>Other miscellaneous expenses</td>
<td></td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td>$75,000.00</td>
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## CITY EQUIPMENT

<table>
<thead>
<tr>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>(3) Bucket trucks</td>
</tr>
<tr>
<td>(2) Chip trucks</td>
</tr>
<tr>
<td>(3) Chippers</td>
</tr>
<tr>
<td>(2) Stump grinders (1 large, 1 walk-behind)</td>
</tr>
<tr>
<td>(2) Front-end loaders</td>
</tr>
<tr>
<td>(1) Container truck and 40-yard roll-off container</td>
</tr>
<tr>
<td>(4) Packer trucks</td>
</tr>
<tr>
<td>(1) 36” Tree spade (loader mount)</td>
</tr>
<tr>
<td>Various chainsaws</td>
</tr>
<tr>
<td>Miscellaneous small tools</td>
</tr>
<tr>
<td><strong>Subtotal (estimated annual value based on value amortized over 5 – 10 year service life, plus annual maintenance, repairs, etc. and prorated by percent of time used by the Shade Tree Program)</strong></td>
</tr>
</tbody>
</table>

## TREE PLANTING

<table>
<thead>
<tr>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contracted tree planting</td>
</tr>
<tr>
<td>Trees purchased for planting by the Shade Tree Division</td>
</tr>
<tr>
<td>Value of residual trees harvested from the Tree Farm (no longer in operation)</td>
</tr>
<tr>
<td><strong>Subtotal (value of City funded planting; Cool Cities and NJ Tree Foundation trees not included)</strong></td>
</tr>
</tbody>
</table>

## TREE WASTE RECYCLING

<table>
<thead>
<tr>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Curbside pickup of leaves by contractor</td>
</tr>
<tr>
<td>Cost of leaf and tree waste disposal at outside facilities</td>
</tr>
<tr>
<td>Other costs of in-house recycling of tree waste</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
</tr>
</tbody>
</table>

## VOLUNTEER SERVICES

<table>
<thead>
<tr>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beautification Committee</td>
</tr>
<tr>
<td>Garden Club</td>
</tr>
<tr>
<td>Local Boy Scouts and Girl Scouts</td>
</tr>
<tr>
<td>Interact Club</td>
</tr>
<tr>
<td>Clifton High School Conservation Club</td>
</tr>
<tr>
<td>Passaic River Coalition</td>
</tr>
<tr>
<td>Other volunteers</td>
</tr>
<tr>
<td><strong>Subtotal (150 hrs per year @ $20.25)</strong></td>
</tr>
</tbody>
</table>

## TOTALS

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>City Resources</td>
<td>$1,154,700.00</td>
</tr>
<tr>
<td>Value of Volunteer Contributions</td>
<td>$3,037.50</td>
</tr>
</tbody>
</table>
1. Provide individuals serving the Shade Tree Program with sufficient knowledge to make technically sound and effective management decisions.

2. Ensure that all tree planting and maintenance tasks are planned and completed in accordance with the latest scientific knowledge and current industry standards.

3. Ensure that tree inspections and evaluations follow accepted standard procedures and that the results are objective, technically accurate, and consistent.

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.

1. Training Provisions & Funding
   a) Training and professional development opportunities in arboriculture and urban forestry continue to be made available to employees and volunteers serving Clifton City’s 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, board or committee.

2. NJ Community Forestry’s Training Skills & Accreditation Program
   a) At the time this Plan was prepared, five individuals active in the Shade Tree Program had satisfied the CORE Training requirements of the New Jersey Shade Tree & Community Forestry Assistance Act Training Skills & Accreditation Program including:
      i) (5) City employees
      ii) (0) elected officials
      iii) (1) program volunteer

3. Recent Training & Memberships
   a) Employees of the Department of Public Works Shade Tree Division periodically attend training sessions, seminars and professional meetings relating to urban forestry and arboriculture. Recent training included:
      i) Tree Pruning training by two Department of Public Works employees through the Rutgers NJAES Office of Continuing Professional Education.
      ii) Advanced Pruning Techniques training by two Department of Public Works employees through the Rutgers NJAES Office of Continuing Professional Education.
      iii) Tree Inventory workshop by four Department of Public Works employees at the New Jersey Shade Tree Federation Meeting.
   b) The City and/or key Shade Tree Program participants currently hold memberships in the following organizations:
i) New Jersey Shade Tree Federation.

Shade Tree Program participants utilize the resources of various industry organizations and attend formal seminars and training programs relating to tree maintenance operations including:

i) New Jersey Shade Tree Federation resources and meetings.
ii) Rutgers NJAES Office of Continuing Professional Education programs.
iii) Rutgers Cooperative Extension.

d) Department of Public Works employees are provided with regular training in equipment use and safety, CPR, and first aid.

4. **Current Expertise, Licenses & Certifications**

a) The Director of Public Works is a Certified Public Works Manager (C.P.W.M.).

b) One employee of the Public Works Shade Tree Division holds a New Jersey Certified Pesticide Applicator license.

c) Clifton’s Shade Tree Program benefits from a wide range of arboriculture and urban forestry related experience, knowledge and skill among its employees and volunteers.

The City has evaluated its existing programs and personnel and identified the following areas in which training is currently needed or desired.

1. New Jersey Community Forestry CORE Training for additional City employees, elected officials and Program volunteers, as necessary.

2. Ongoing, advanced level tree hazard identification and evaluation training for Shade Tree Division personnel.

3. Planting site analysis and tree species selection for the City Engineer, the Director of Public Works, the Recycling Coordinator, and Shade Tree Division personnel.

4. Planting procedures and issues critical to ensuring the survival and proper development of new trees (especially during road reconstruction), including pre-planting inspection and approval, proper handling, planting hole preparation, root collar depth, etc. for Shade Tree Division personnel and City inspectors responsible for approving contracted plantings.

5. Awareness, detection and reporting of major forest health issues such as Asian longhorned beetle, bacterial leaf scorch, emerald ash borer, and others for Shade Tree Division personnel, Beautification Committee members, local green industry contractors, and interested residents.

6. Young tree pruning techniques, in accordance with A300 Pruning Standards, for encouraging the development of a structurally sound branch structure in young trees for Shade Tree Division personnel, preferably through hands-on training.

7. Maintenance pruning for mature trees in accordance with ANSI A300 Pruning Standards for Shade Tree Division personnel.

8. Ongoing electrical hazard awareness and tree worker safety for Shade Tree Division personnel.
1. **Ongoing Training Programs**
   a) 2016 – 2020
   i) Continue to attend training programs, in addition to the following objectives, that address the Current Training Needs listed above as appropriate programs become available.
   ii) Maximize the number of different individuals who increase their level of expertise.

2. **NJ Community Forestry’s Training Skills & Accreditation Program**
   a) January – March, Annually
   i) Review training needs and upcoming training opportunities.
   ii) Ensure that the City will accumulate the necessary continuing education credits required under the New Jersey Shade Tree & Community Forestry Assistance Act by the end of each year.
   iii) Schedule CORE training for additional individuals, as necessary, to maintain three or more CORE trained individuals including at least two City employees or elected official and at least one Shade Tree Program volunteer.

3. **Tree & Sidewalk Conflict Mitigation Training**
   a) January – June 2016
   i) Train the City Engineer, the Director of Public Works, the Recycling Coordinator, and appropriate Shade Tree Division personnel in methods for correcting sidewalk damage caused by tree roots while preserving the health and structural condition of the trees. Subject matter covered should include:
      - Guidelines for root pruning and shaving and the potential consequences when done excessively.
      - Sidewalk modifications, such as radius cutting, ramping, beveling, and others.
      - Use of root barriers and other methods for redirecting roots at planting time.

4. **Mature Tree Pruning Training**
   a) January – December 2017
   i) Train at least two Tree Division employees in the proper pruning of mature trees in accordance with ANSI A300 standards, including the development of pruning objectives, hands-on techniques, and tree worker safety.

5. **Insect and Disease Identification and Reporting Training**
   a) January – December 2018
   i) Train all Shade Tree Program volunteers and appropriate Department of Public Works and Engineering personnel to recognize serious insects and diseases of trees, such as Asian longhorned beetle, emerald ash borer, bacterial leaf scorch, Gypsy moth, and others that could threaten the Town’s tree population, with special emphasis on emerald ash borer and its current threat to the City’s ash tree population. Training should also include reporting procedures to the appropriate authorities and actions to be taken to protect the tree resource.
6. **Tree Hazard Evaluation Training**  
   a) January – December 2019  
      i) Train at least one additional Department of Public Works employee to recognize and evaluate potential tree hazards using the latest information and techniques.

7. **Electrical Hazard Awareness Training**  
   a) January – December 2020  
      i) Provide formal training to all Department of Public Works tree workers in recognizing and avoiding electrical hazards associated with tree work in accordance with OSHA 1910.269 requirements and the ANSI Z133.1 tree worker safety standard.
1. **Public Education, Awareness & Outreach Goals**
   1. Refresh, revitalize, and revamp new life into public interest and support for Clifton’s Shade Tree Program.
   2. Encourage public assistance in implementing various programs, protecting public trees, and beautifying the City.
   3. Encourage the planting, protection and proper care of trees on private property for the benefit of the entire community.
   4. Educate all citizens in the importance of environmental stewardship.

2. **Existing Programs, Policies & Procedures**
   1. **Arbor Day**
      a) Formal Arbor Day celebrations have been held annually by the City since 1996.
      b) Recent Arbor Day programs have included:
         i) Celebrations at City schools.
         ii) The distribution of tree seedlings to students.
         iii) Tree plantings.
         iv) Memorial tree plantings.
      c) Recent Arbor Day programs have been cooperative efforts involving:
         i) The City Administration.
         ii) The Beautification Committee.
         iii) The Department of Public Works.
         iv) The Clifton Board of Education.
         v) Local Boy Scouts and Girl Scouts.
   2. **Tree City USA**
      a) The City of Clifton has been designated as a Tree City USA by the National Arbor Day Foundation every year since 1997.
      b) The City received the Tree City USA Growth Award each year from 2000 through 2014.
      c) Because the City has received over 10 Growth Awards, it has received the special commendation of **Sterling Tree City USA**. Sterling communities are regarded as leaders in community forestry and are often looked upon as innovators.
   3. **Press Releases**
      a) The Clifton Shade Tree Program routinely issues press releases and contributes to articles in *The Record*, *Herald News* and *Clifton Journal* newspapers and the City Newsletter covering a variety of Program announcements, accomplishments, and projects.
   4. **Public Relations, Awareness & Outreach Materials**
      a) The City has developed and continues to utilize several methods of promoting the
Shade Tree Program and maintaining contact with property owners including:

i)  *City of Clifton, Tree City U.S.A.*, a 14-page, professionally produced booklet designed to educate and inform residents about Clifton’s Shade Tree Program. The booklet describes the purpose, administration and role of the Shade Tree Program and includes a variety of facts, a description of current programs, and contact information.

ii) Certificates commemorating residents’ participation in the City’s Adopt-A-Tree program.

iii) A variety of flyers and other handout materials that promote proper recycling, Arbor Day, Clean Communities programs, and other related subjects.

5. **Other Outreach Programs**

a) Tree Care Advice: The Engineering Department, Recycling Coordinator and Shade Tree Division Supervisor periodically provide tree planting and maintenance tips to property owners via telephone calls or onsite meetings and written documents.

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

   a) 2016 – 2020

   i) Continue all existing public education, awareness and outreach programs on a regular basis.

   ii) Continue to add and update content on the ‘Trees’ page of the official City website with upcoming events, Shade Tree Program accomplishments, and timely information regarding tree planting and maintenance.

2. **Annual Arbor Day Programs**

   a) January – April, Annually

   i) Continue to organize and conduct annual Arbor Day celebrations.

   - Continue to seek assistance from local civic groups, the Board of Education, local businesses, and others to help spread the workload and maximize visibility and attendance at the programs.

   - Vary the location, activities, target audience, etc. each year to help increase interest and support for the City’s Shade Tree Program.

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) Prepare and submit the application for Tree City USA Growth Awards when eligibility requirements have been met.

   iii) Continue to advertise the designation throughout the City and in other public relations materials (road signs, plaques, truck decals, stationary logo, etc.).

4. **Benefits of Trees Educational Materials**

   a) January – December, 2016

   i) Using information on the economic, environmental, and aesthetic benefits of trees, create educational materials such as:

   - Flyers for distribution at local Arbor Day events and at local schools, libraries, and other public areas.

   - A “Benefits of Trees” webpage in the Shade Tree section of the City
5. **Emerald Ash Borer Technical Information Page on City Website**
   a) January – December, 2017
      i) Create a technical information page about emerald ash borer (EAB) on the shade tree section of the Clifton City website.
      ii) Create an alert on the Clifton City homepage about EAB that links to the EAB technical information page.

6. **Tree Myths and Conflicts Page on City Website**
   a) January – December, 2018
      i) Create an educational section in the Shade Tree section of the City website with common misconceptions about trees as well as information about common conflicts between trees and hardscape features, describing how to properly correct them, and dispelling common myths about them.
      ii) Some topics should include:
          - Tree-friendly methods for fixing lifted sidewalks.
          - Tree roots in conflict with underground utilities: dispelling the myth that tree roots can sniff out water in sewer and water lines and break in to create leaks, describing that trees are only attracted to already-leaky lines, and explaining how to fix and prevent these problems.
          - Developmental pruning: what it is, what it looks like, and why you shouldn’t be afraid of it.
1. **Tree Inventory & Assessment Goals**

   1. Provide accurate baseline information upon which sound shade tree management plans and decisions may be based.
   2. Provide a basis for monitoring and evaluating the impact of management activities on the tree populations and progress toward the overall goals of the Shade Tree Program.
   3. Improve the efficiency of day-to-day tree management activities by using the data to identify, prioritize and scheduling planting, maintenance, and hazard abatement needs.
   4. Provide data upon which proactive tree planting, maintenance and other implementation programs can be established or improved.

2. **Existing Programs, Policies & Procedures**

   1. **Existing Tree Inventory**

      a) In 1996, the Clifton Department of Engineering retained Paul Cowie & Associates to conduct a stratified random sample inventory of the City’s street tree resource as part of a comprehensive study of Clifton’s Shade Tree Program.

         i) The information produced was based on a stratified random sample of blocks and street segments. As a result, it represents a static “snapshot” of the state of the street tree population at the time it was completed and is not updatable.

         ii) Estimated summary totals were provided for the City overall and each of its twenty-four Neighborhoods, including total numbers of trees and vacant planting sites, planting site conditions, genus and species composition, diameter distribution, tree condition, and prioritized hazard reduction and maintenance needs.

         iii) The resulting summary data and accompanying recommendations have been used since 1996, and continue to be used, to guide the Shade Tree Program in a variety of ways, including selecting species to improve species composition, matching species to site conditions, and focusing maintenance efforts in areas of greatest need.

      b) The City recognizes that, at 20 years old, the 1996 inventory data is outdated and that a new inventory is necessary to accurately document the current state of the tree population and to ensure that future management efforts are appropriately directed.

         i) A new street tree inventory has been an objective of both the City’s 2001 – 2005 and 2011 – 2015 Community Forestry Management Plans, but the cost was determined to be prohibitive in the absence of grant funding to help subsidize the cost in both cases.

         ii) The City further determined that a complete, computerized inventory would be ideal, but that it did not have the resources to maintain and continually update such an inventory.

         iii) Before considering what type of inventory or whether or not an inventory may be appropriate for this management period, the City will hire an outside consultant to perform a canopy assessment on the City’s street tree population, describing:
The socioeconomic, energy, environmental, and other benefits of Clifton’s urban forest.

The percent composition of groundcover across Clifton City.

Realistic goals for increasing tree canopy cover in the city of Clifton.

During this current management period, the City will revisit the objective of completing an updated inventory and determine whether a complete, computerized inventory, or another sample-based inventory is most appropriate given current needs and budgets.

c) The City currently lacks a comprehensive inventory of trees in public parks and on public properties.

2. Current Tree Assessment

a) A current assessment of the City’s street tree population and how it has changed over the past five years is provided on page 6.

b) The City currently lacks a comprehensive assessment of tree in City parks, on public properties, and on private lands.

1. Tree Canopy and Land Cover Analysis

a) April – September 2016

i) Hire an outside consultant to characterize and perform an assessment of the benefits of Clifton’s urban forest.

- Characterize and evaluate urban forest canopy cover across the entire City, including both public and private lands, and estimate its atmospheric benefits.
- Assess the total size and relative percentage of land in Clifton with various cover types.

2. Tree Inventory & Assessment

b) April – September 2017

i) Develop plans to conduct an inventory and assessment of Clifton’s public tree resources. In developing these plans, consideration must be given to:

- The type and extent of inventory that is necessary and appropriate – a complete, self-updating computerized inventory of every individual tree and available planting site, a less expensive, but non-updateable sample-based inventory, an aerial photo survey and interpretation, or a simple, one time survey designed to identify general trends and needs and potentially hazardous trees that require immediate attention.
- Whether to include all trees in City parks and on City properties in addition to street trees.
- If trees other than street trees are to be inventoried, when, to what extent and by what means.
- Whether to collect inventory data with in-house employees and volunteers, a contracted consultant or a combination of the two.
- The data parameters to be collected and criteria to be used.
- If an updatable computerized inventory is selected, who will maintain and update the data and how it will be used.
- Sources of funding for completing the inventory including existing budgets, grants, and other sources.

c) October – December 2017

i) If a complete, computerized inventory is selected, investigate computer systems for storing and using the inventory data. Primary considerations in selecting a system will be its ability to:
• Store and handle records for 50,000+ trees and their maintenance histories.
• Integrate the tree inventory with a system for recording, prioritizing and scheduling service requests and maintaining records of the work completed.
• Produce a variety of data summaries at any time in the future so that effective management decisions can be based on current and sound information.
• Assist in monitoring and evaluating progress toward the Overall Program Goals of this Plan.
• Track, analyze, and report on miscellaneous items such as sidewalk damage, the success of sidewalk damage prevention techniques, the difference in long-term maintenance needs and costs between various species and cultivars, etc.
• Improve the overall efficiency and effectiveness of the City’s Shade Tree Program.

ii) If a sample or survey based inventory system is selected, investigate and evaluate various systems for acquiring the necessary information as accurately and cost-efficiently as possible. Specifically, the selected system should be capable of providing accurate information regarding:
• The total number of trees and available planting sites.
• Current genus and species composition within the tree population.
• The size and age composition of the tree population.
• An assessment of the current condition of various classes of trees by area, species, and age.
• Existing maintenance needs by maintenance type, priority level and tree size for development of future budgets.
• Information regarding planting needs in various areas of the City based on existing tree canopy cover, remaining life-expectancy of the existing trees, etc.

d) January – March 2018
i) Develop procedures and criteria for collecting data in a manner that is appropriate for the type of inventory selected. In addition to the standard parameters (tree location, species, diameter, condition, etc.), the inventory should also include:
• Identification of existing tree hazards and prioritized pruning and removal needs.
• An inventory of vacant planting sites.
• An inventory of damaged sidewalks and curbs.

ii) Mobilize a force of in-house employees and volunteers or hire a consultant (depending upon plans developed in #1a above) to complete data collection. This will require preparing procedures, data collection forms, training, etc. if in-house employees and volunteers are used.

e) April – June 2018
i) If a computerized inventory is selected, purchase, install, and setup the selected computer system and software and train the appropriate people to use it.

f) July – December 2018
i) Complete field data collection, as appropriate. Adjust timing if employees and volunteers are used versus a hired consultant.

ii) Complete data entry concurrently, if appropriate.
3. **Tree Inventory & Assessment Report & Integration**
   a) **January – March 2019**
      i) If a sample-based inventory is selected, complete the necessary calculations to derive City-wide totals from the collected data.
      ii) Produce appropriate charts and reports that summarize and document the current state of the tree population. Use this report as a baseline to which future reports can be compared and upon which the impact of management activities can be evaluated.
      iii) Begin integrating the inventory into ongoing planning decisions and daily management activities.

4. **Street Tree Stocking & Age Structure Guidelines**
   a) **January – March 2019**
      i) Using the new street tree inventory data (if the inventory is done), calculate “maximum practical stocking” – the maximum number of public street trees that the City 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 within 10, 20, 30, and 40 years with realistic allowances for existing tree mortality, transplant mortality, etc.
      iii) Establish an appropriate planting rate and feasible target date for achieving maximum practical stocking based on these calculations. 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.
      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 – 2020**
      i) Design and complete planting programs in accordance with the stocking goals and planting rates established.
      ii) Organize planting programs to concentrate on one ward or sub-section of a ward at a time, in order to focus planting and post-planting care to a small section of the City each year.
      iii) Incorporate inventory findings and planting goals into justification for annual budget requests.
      iv) Continually seek internal and external sources of additional funding to help ensure that the appropriate planting rate is maintained annually.

5. **Street Tree Species Composition Guidelines**
   a) **April - June 2019**
      i) Using the new street tree inventory data (if the inventory is done), 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%-15% of the street tree population.
         - No single species should comprise more than 5%-10% of the street tree population.
         - No single cultivar should comprise more than 1%-2% of the street tree population.
         - 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 Norway maples by 5% by 2020, keeping the number of Callery pears below 5%, etc.) to help maintain consistent progress toward the long-term goal.

b) July 2019 – 2020

i) Design and complete planting programs in accordance with the species composition goals set.

ii) Continually seek and experiment with new species and cultivars.

iii) Vary the species planted from year to year to provide species diversity over all age classes.
1. Minimize the risk of trees to public safety.

**Tree Hazard Management**

**Goals**

1. **Tree Hazard Identification**
   a) The City strives to identify potentially hazardous trees on a continual basis via:
      i) Service requests from property owners.
      ii) Ongoing observations by the Shade Tree Division personnel and other City personnel during the course of their daily activities.
      iii) Periodic inspections of individual trees and maintenance needs surveys conducted by a private consulting arborist retained by the City.
         • In 2004, the City retained Paul Cowie & Associates to conduct a survey of street trees in five of the City’s twenty-four Neighborhoods to identify high priority maintenance needs. The City utilized the findings to address tree pruning and removal needs in priority order, as well as identify locations for new tree planting.
         • In 2009, the City again retained Paul Cowie & Associates to conduct another survey of street trees in additional Neighborhoods to identify high priority maintenance needs. The City utilized the findings to continue addressing tree pruning and removal needs in priority order, as well as identify locations for new tree planting.

2. **Tree Hazard Abatement Procedures**
   a) All emergency situations brought to the City’s attention are investigated and addressed immediately by the Department of Public Works.
   b) All other potentially hazardous tree conditions brought to the City’s attention are addressed on a prioritized basis according to the degree of hazard potential and the availability of the necessary resources.

3. **Record Keeping**
   a) Records of completed work are maintained via standard Department of Public Works work order records.

**2016 – 2020 Objectives**

1. **Ongoing Tree Hazard Management Programs**
   a) 2016 – 2020
      i) Continue to implement the existing programs for identifying potentially hazardous conditions.
      ii) Continue to address hazard abatement needs as they are identified in order of priority.
iii) Continually strive to improve the City’s ability to identify and mitigate potentially hazardous conditions as new programs and procedures outlined in this Plan are implemented.

2. Tree Hazard Evaluation Training
    see Training & Professional Development, Objective #6
1. **Tree Planting**

   1. Achieve and perpetuate the public tree populations at maximum practical stocking (the maximum number of trees the City can effectively manage).
   2. Optimize and maintain tree species and age diversity to maintain long-term stability in the public tree populations.
   3. Minimize future maintenance needs and costs.
   4. Minimize conflicts between trees and sidewalks, buildings, utilities and other public and private fixtures.
   5. Improve aesthetic appeal, seasonal variation and physical benefits to adjacent properties and the City overall.

2. **Existing Programs, Policies & Procedures**

   1. **Planting Jurisdiction**
      
      a) The City plants and maintains trees:
         
         i) In City rights-of-way.
         
         ii) In County rights-of-way.
         
         iii) In City parks.
         
         iv) On City-owned properties.

   2. **Planting vs. Removal Ratio**
      
      a) The ratio of street and public trees planted versus removed over the past five years has resulted in a net decrease in the public tree population.
         
         i) During this period, an average of 450 public trees were removed per year.
         
         ii) During this period, an average of 200 public trees were planted per year.

   3. **Planting Location & Tree Placement**
      
      a) The location, placement and spacing of trees planted by the City is determined by:
         
         i) The Director of Public Works and/or Recycling Coordinator for general tree planting projects.
         
         ii) The City Engineer for tree planting on street improvement projects.

      b) Tree planting needs are typically identified via:
         
         i) Requests from property owners.
         
         ii) The requirements of street improvement projects. Any trees that must be removed during street reconstruction projects are replaced immediately after the project is completed. In addition, all vacant planting sites within the project area are planted. It is the City’s policy to plant at least one tree, depending upon road frontage, adjacent to each property. In almost every case, this has resulted in a two to three fold increase in the number of trees prior to the reconstruction.
c) Street trees are placed:
   i) Within the public right-of-way, usually between the sidewalk and curb, but occasionally behind the sidewalk when space permits.
   ii) Trees placement and spacing is determined:
       • In accordance with standard guidelines to minimize future conflicts with buildings, sight lines, underground utilities, signs, etc. and to permit proper tree development.
       • In a manner, and in conjunction with alternative construction techniques, to minimize future conflicts with sidewalks and curbs.

4. Species Selection
   a) Species are selected by:
      i) The Director of Public Works, with the advice of the Recycling Coordinator and Beautification Committee, for general tree planting projects.
      ii) The City Engineer, with the advice of the Beautification Committee, for tree planting on street improvement projects.
   b) Species are selected with consideration to:
      i) Recommendations for improving species diversity contained within the 1996 Shade Tree Management Study.
      ii) Past performance in Clifton and neighboring communities, insect and disease resistance, and maintenance requirements.
      iii) Existing or desired planting patterns.
      iv) Their suitability to the existing growing conditions at each site.
      v) Availability.

5. Tree Supply & Installation
   a) Of the trees planted in public rights-of-way and on City properties each year:
      i) Approximately 10% are purchased by the City from growers and planted by Shade Tree Division personnel.
      ii) Approximately 90% are supplied and installed by private contractors selected via public bid.
   b) Property owners may purchase approved species, which the City will plant in approved locations within the right-of-way. If the plants are procured from local sources, the City will also deliver them.

6. Post-Planting Care
   a) Post-planting maintenance includes:
      i) Irrigation by adjacent property owners. Instructions are provided to each property owner at the time of planting.
      ii) Removal of stakes and guy wires by the planting contractor or Shade Tree Division personnel, as appropriate.

7. Special Tree Planting Programs
   a) In the past, the City operated an Adopt-A-Tree Program in which property owners agreed to assist in protecting and caring for trees planted within the public right-of-way. The Adopt-A-Tree program is not currently active because it relied on trees supplied the City’s Tree Farm, which is no longer in operation.

8. Funding
   a) Contracted tree planting is typically funded through the City capital budget.
b) The installation of trees by Shade Tree Division personnel is funded by the Department of Public Works operating budgets.

c) Special planting projects are typically funded through grants from the New Jersey Forest Service or New Jersey Tree Foundation.

d) Additional funds are periodically obtained from developers for the planting of mitigation trees elsewhere in the City in the event that they cannot be planted on the affected site.

9. Stormwater Management

a) Elements of the City Code require the preservation, planting and/or maintenance of buffers and filter strips along waterways and drainage courses, minimization of impervious groundcover, and the design and construction of stormwater collection and retention systems in conjunction with new development to ensure efficient, natural drainage and minimize the runoff of silt, nutrients, and pollutant laden stormwater into local water networks.

b) In 2007, to further safeguard water quality, the City adopted an ordinance to regulate, and hopefully eliminate, the use of pesticides on public properties.

c) Owners of previously developed lands are urged to plant and maintain trees, shrubs and other plants to help protect waterways from runoff and stream bank erosion, and to minimize the use of fertilizers and pesticides on their properties.

1. Ongoing Tree Planting Programs

a) 2016 – 2020
   i) Continue implementing all existing tree planting programs.

2. No Net Loss Urban Reforestation Project

a) July 2016 – December 2018
   i) Perform routine maintenance and replacement of lost trees per the requirements of the 2015 No Net Loss grant agreement.

3. Sidewalk Conflict Mitigating Root Control Barriers

a) January – March 2017
   i) Review existing specifications for the supply, planting and post-planting care of trees planted as part of road reconstruction and other planting projects and revise the specifications, as necessary, to include the requirement of root control barriers to mitigate tree root-sidewalk conflicts in all new plantings.

4. Annual Tree Planting Program Funding

a) 2016 – 2020
   i) Continue to stress to the Mayor and Council the critical importance of consistent annual replanting to perpetuate the City public tree resource and canopy cover.
   
   ii) Support annual budget requests with the results of the Tree Canopy and Land Cover Analysis, lists of tree planting requests from City residents, lists of vacant planting sites identified, and documentation of the benefits of trees in reducing energy consumption and improving air quality.

b) October – December, annually
   i) Investigate the availability of New Jersey Community Forestry Community Stewardship Incentive Program (CSIP) grants, as well as other community development, transportation, and similar grant programs, for funding City tree planting projects.
ii) When available, apply for grant funding to supplement the City’s tree planting budget.

c) January – June 2017

   i) Evaluate the feasibility of establishing an Adopt-A-Tree program and/or Memorial Tree Planting program through which residents may contribute money toward the planting of trees adjacent to their property, or elsewhere in the City.

d) July – December 2017, and continuously thereafter

   i) If deemed feasible and desirable, establish the Adopt-A-Tree and/or Memorial Tree program(s) with consideration to:
      • How contributions will be accepted by the City and how the money will be held and spent.
      • What percentage of the donations will be used for maintenance of the trees planted.
      • Advertising the program(s) to ensure sufficient participation to keep the program(s) self-sufficient.
      • Publically recognizing those that contribute.

   ii) Once established, advertise and implement the Adopt-A-Tree and/or Memorial Tree programs on a continuous basis.
1. Improve and maintain the long-term health and condition of Clifton’s public tree populations.
2. Maximize the service life of existing trees.
3. Maximize the cost-efficiency of tree maintenance activities.
4. Minimize the occurrence of tree hazards to maintain public safety.
5. Maximize the benefits that trees provide to the community relative to the cost of maintaining them.

**EXISTING PROGRAMS, POLICIES & PROCEDURES**

1. **In-House Crews**
   a) The maintenance of the City’s public trees is primarily completed by the Shade Tree Division, a division of the Department of Public Works.
   b) The Shade Tree Division currently employs 9 – 13 persons, depending upon the season, which are led by the Shade Tree Division Supervisor. These personnel are typically deployed as follows, but may also be assigned to other, non-tree maintenance crews to fill other needs of the Department of Public Works.
      i) One Supervisor.
      ii) A primary crew comprised of one tree climber plus one loader operator and two truck drivers whom assist the tree climber and complete ground-based work. This crew completes a variety of tree pruning and removal tasks.
      iii) A secondary crew comprised of one tree trimmer and two ground people. This crew is typically dedicated to crown-raising pruning.
      iv) A two-person grounds maintenance crew that maintains landscapes and completes various plantings on public properties throughout the City.
      v) A two-person seasonal stump grinding crew.
      vi) A two-person seasonal branch pickup crew.
   c) The Shade Tree Division is currently equipped with:
      i) (3) Bucket trucks
      ii) (2) Chip trucks
      iii) (3) Chippers
      iv) (2) Stump grinders (1 large, 1 walk-behind)
      v) (1) Container truck and 40-yard roll-off container
      vi) (1) 36” Tree spade (loader mount)
      vii) Various chainsaws
      viii) Miscellaneous small tools
   d) The Shade Tree Division currently completes approximately:
      i) 90% of all tree removal work.
      ii) 98% of all tree pruning work.
      iii) 50% of all stump grinding work.
iv) 100% of all specialty maintenance work, including the maintenance of the City’s display gardens.

v) 100% of all emergency response work.

2. **Private Contractors**
   
a) Private tree maintenance firms are occasionally hired by the City to complete tree pruning and removal work.

b) Private contractors currently complete approximately:
   
i) 10% of all tree removal work.

ii) 2% of all tree pruning work.

iii) 50% of all stump grinding work.

iv) 0% of all specialty maintenance work.

v) 0% of all emergency response work.

c) The maintenance of trees located outside the public right-of-way on private property is completed by the respective property owners and their contractors.

d) Contractors working on behalf of public utility companies complete all line clearance pruning along City, County and State rights-of-way within Clifton.

3. **Inter-Local & Mutual Assistance Agreements**
   
a) The City is currently working toward an agreement with Passaic County for the sharing of equipment and personnel for tree maintenance.

b) Passaic County will remove trees within the County rights-of-way in the City. However, responsibility for pruning County trees was recently assumed by the City.

c) The City has developed a working relationship with Public Service Electric & Gas Company (PSE&G), which assists with work on City trees near their electric lines.

4. **Public Tree Maintenance Programs**
   
a) Currently, most tree maintenance needs are identified via:

   i) Service requests from property owners.

   ii) Ongoing observations by Shade Tree Division and other City personnel during the course of their daily activities.

   iii) Individual tree inspections and maintenance needs surveys conducted by a private consulting arborist retained by the City.

b) Tree maintenance needs are prioritized and scheduled for completion based on the degree of hazard potential, subject to available personnel, equipment and budget.

c) Records of completed work are maintained via standard Department of Public Works work order records.

5. **Tree Removal**
   
a) It is the City’s policy to not remove live public trees unless they pose a threat to public safety or if there is some other valid reason, subject to the approval of the Director of Public Works or the City Engineer, as appropriate.

b) Since 2011, the City has removed an average of 450 public trees per year.

6. **Plant Health Care & Specialty Treatments**
   
a) Currently, specialty treatments, such as insect and disease controls, fertilization, and cabling and bracing are generally not completed on public trees by the City.
b) In 2007, in response to stormwater management requirements and to further safeguard water quality, the City adopted an ordinance to regulate, and hopefully eliminate, the use of pesticides on public properties.

7. Sidewalk Maintenance
   a) By ordinance, adjacent private property owners are responsible for maintaining and repairing sidewalks in the public right-of-way.
      i) All root pruning necessary to permit sidewalk repair is completed by Shade Tree Division personnel to minimize unnecessary tree damage and uprooting hazards.
      ii) All species selection and tree placement is designed to help minimize future conflicts between trees and sidewalks.
   b) In recent years, the City has replaced sidewalks as part of its ongoing street improvement program.
      i) In cases where the removal and replacement of sidewalks and curbs may jeopardize the health and structural stability of the street trees, the anticipated impact of the construction on each tree’s condition and expected longevity is evaluated by a private consulting arborist prior to construction.
      ii) Based upon the consulting arborist’s evaluation and the desires of the area residents either:
          • The tree is removed prior to construction.
          • The tree is retained and great care is taken in removing and replacing the sidewalk. If necessary to preserve the tree, curb sections immediately adjacent to its stump are not replaced.
      iii) Any trees that are removed are replaced immediately after the project is completed. In addition, all vacant planting sites within the project area are planted. It is the City’s policy to plant at least one tree, depending upon road frontage, adjacent to each property. In almost every case, this has resulted in a two to three fold increase in the number of trees prior to the reconstruction.

8. Funding
   a) The cost of tree maintenance work completed by Shade Tree Division personnel and private tree contractors is covered by the Department of Public Works operating budget.
   b) The cost of work completed in conjunction with street improvement projects is covered by the City capital budget.

1. Ongoing Tree Maintenance Programs
   a) 2016–2020
      i) Continue implementing all existing tree maintenance programs, policies and procedures on a regular basis.
      ii) Conduct systematic, area-wide pruning programs as time and resources permit.
2. **Developmental Pruning for Young Trees**
   a) **July – December 2018**
      i) Develop a project to provide developmental pruning for trees planted in recent years. Such pruning is a cost effective way to ensure the development of good form and sound structure as trees mature, minimize future pruning needs, and minimize the development of potentially hazardous structural defects.
      ii) Development of this project will require:
          - Scouting, identifying, and prioritizing the trees to be pruned. Generally, trees 3” – 6” in diameter will be targeted with priority given to trees in higher use areas and/or which exhibit the greatest need.
          - Developing technically sound pruning objectives and specifications in accordance with the ANSI A300 Pruning Standard for “Young Tree Pruning.”
          - If appropriate, developing specifications for correcting root collar disorders such as girdling roots, deep planting, etc.
          - Ensuring that the appropriate Shade Tree Division employees have received the necessary training to successfully complete this specialized objective.
   b) **January – December 2019**
      i) Complete the Developmental Pruning project for recently planted trees.

3. **Stump Grinding Program Analysis**
   a) **January – June 2016**
      i) Analyze the costs and benefits of purchasing a new stump grinder for use by the Shade Tree Division. Central to this analysis will be an evaluation of the success of the recently completed stump grinding contracts and whether it is more cost-efficient to continue contracting stump work versus completing all or a portion of it in-house.
   b) **July – December 2016**
      i) If deemed cost-effective, identify and secure the necessary funding.
      ii) Prepare specifications for the equipment to be purchased.
   c) **January – June 2017**
      i) If deemed feasible and available funding permits, purchase the stump grinder.
Tree Waste Recycling

1. Minimize the cost of tree waste disposal to the City.
2. Produce beneficial recycled products for use on public properties and by City residents.
3. Generate income that can be used to subsidize various shade tree programs and project.

1. Recycling Facilities
   a) The City’s Department of Public Works yard is currently used for receiving, temporarily storing and distributing recycled tree waste products to City residents.

2. Material Processing, Use & Distribution
   a) Leaves
      i) Leaves are picked-up at the curb by the City and picked-up by local landscaping companies.
      ii) 1,000 cubic yards of compost are returned to the City each year for use by local residents and landscapers.
      iii) The remainder of composted leaves are made available to various markets for use as a soil conditioner and a component of manufactured topsoil.
   b) Brush & Wood Chips
      i) Temporary personnel employed by the City currently provide curbside pick-up of branches and other vegetative yard waste generated by private property owners.
      ii) Small limbs, branches, wood chips, and stump grindings generated by the City or received from residents are processed by the City’s vegetation recycling contractor to produce mulch.
      iii) The resulting mulch is:
          • Used on public properties and in City parks as mulch.
          • Made available to City residents at no cost.
          • Sold to various vendors for mulch and other recycled wood products.
   iv) Brush and wood chips generated by contractors are removed by the contractor for proper recycling.
   c) Bulk Wood
      i) Bulk wood generated by the Shade Tree Division is temporarily stored at the Department of Public Works yard and made available to residents for firewood.
      ii) Small logs have been sold to various vendors for firewood and other recycled products. Branches and small logs are converted to mulch with the City’s tub grinder.
      iii) Large bulk wood generated by City crews is chipped by a contractor hired by the City and/or delivered to a commercial recycling facility for recycling into mulch and other waste-wood products.
iv) Bulk wood generated by contractors is removed by the contractor for proper recycling.

3. Recycling Income
   a) In 2009 and 2010, the City received some revenue for logs and in 2010, began receiving revenue for woodchips.

1. Ongoing Tree Waste Recycling Programs
   a) 2016–2020
      i) Continue implementing all existing tree waste recycling programs, policies and procedures.
# Tree Care Disaster Plan

## Tree Care Disaster Plan Goals

1. Enable the City to respond to tree-related emergencies promptly and efficiently.
2. Minimize the extent of tree-related damage and losses caused by weather, disease, and other forces.
3. Provide the City 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 is currently considered the most serious threat to the City’s tree population.
   
   b) In addition to the threat to the trees themselves, widespread tree failures during severe weather also pose a serious threat to electrical service, communications, and the City’s ability to provide critical emergency services.
   
   c) The risk of widespread tree losses to biotic threats is currently considered moderately high. Though it is believed that such threats can be reduced over the long term through increased species diversity, there currently is particular concern regarding:
      
      i) The threat of Asian longhorned beetle infestation due to Clifton’s proximity to existing infestation centers and shipping ports and hubs in the New York and New Jersey metropolitan area.
      
      ii) Bacterial leaf scorch and its apparent northward spread from southern and central New Jersey.
      
      iii) Emerald Ash Borer, which has been found in New Jersey and is expected to spread to Passaic County in the coming years.

### 2. Wildfire Protection
   
   a) Wildfire is not considered to be a significant threat to the public tree resource in the City of Clifton at this time.

### 3. Stormwater Management
   
   a) Elements of the City Code require the preservation, planting and/or maintenance of buffers and filter strips along waterways and drainage courses, minimization of impervious groundcover, and the design and construction of stormwater collection systems in conjunction with new development to ensure efficient, natural drainage, minimize the risk of serious flooding, and minimize the runoff of silt, nutrients, and pollutant laden stormwater into local water networks.
   
   b) Owners of previously developed lands are urged to plant and maintain trees, shrubs and other plants to help protect waterways from runoff and stream bank erosion, and to minimize the use of fertilizers and pesticides on their properties.

### 4. Existing Emergency & Disaster Plans
   
   a) The City of Clifton Emergency Operation Plan outlines procedures for vital services and cooperative efforts between all City departments during an emergency or disaster.
b) The City currently lacks a formal plan specific to the repair and replacement of widespread tree damage and losses beyond initial emergency response efforts. However, it is believed that technically sound and responsible planting, preventive maintenance and hazard identification and abatement efforts described elsewhere in this Plan will, over the long term, help insulate the City against certain catastrophic losses.

5. Emergency Response

a) The Department of Public Works, in cooperation with local utilities and contractors, when warranted, is responsible for immediately clearing trees and debris to open roadways and permit restoration of electrical service and communications.

b) The Shade Tree Division is on 24-hour call to respond to tree-related emergencies.

1. Ongoing Programs

a) 2016 – 2020

i) Continue implementing 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.
### 2016 – 2020 Objectives

#### Annual Program Evaluation

1. **December, Annually**
   - Evaluate the success of the year’s activities and accomplishments relative to the goals and objectives contained within this Plan.
   - Adjust programs, as necessary, based upon the evaluation.
   - 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.

#### Five-Year Evaluation

1. **April – June 2020**
   - Evaluate the success of all objectives completed to date.
   - Evaluate progress toward the overall goals of the Shade Tree Program.
   - Begin formulating new objectives and/or adjustments to existing policies, programs and procedures, if necessary to address changing needs, for the 2021 – 2025 management period.

#### 2021 – 2025 Management Plan Development

1. **July – September 2020**
   - Finalize new objectives and/or adjustments to existing policies, programs and procedures for the 2021 – 2025 management period.

2. **October – December 2020**
   - Obtain Plan approval from the New Jersey Community Forestry Council.
### Summary of 2016 – 2020 Objectives

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<td>- Continue all existing administrative programs, already in effect</td>
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<td>3. Tree &amp; Sidewalk Conflict Mitigation Training</td>
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<td>5. Insect and Disease Identification and Reporting Training</td>
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<td>- Train at least one additional Department of Public Works employee in advanced level methods for identifying and evaluating the severity of potential hazardous tree defects (p.25, #6.a.i)</td>
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<td>7. Electrical Hazard Awareness Training</td>
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<td>- Provide all Shade Tree Division tree workers with formal training in recognizing and avoiding electrical hazards associated with tree work in accordance with OSHA 1910.269 and ANSI Z133.1 (p.26, #7.a.i)</td>
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<td><strong>PUBLIC EDUCATION,</strong> <strong>AWARENESS &amp; OUTREACH</strong></td>
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<td>1. Ongoing Public Education, Awareness &amp; Outreach Programs</td>
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<td>- Continue all existing public education, awareness and outreach programs on a regular basis; Continually review, update and supplement materials on the 'Trees' page of the City website (p.28, #1.a.i-ii)</td>
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<td>2. Arbor Day Programs</td>
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<td>- Continue to plan, organize and conduct annual Arbor Day celebrations (p.28, #2.a.i)</td>
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<td>3. Tree City USA</td>
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<td>- Prepare and submit the annual application for designation as a Tree City USA; Apply 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)</td>
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<td>4. Benefits of Trees Educational Materials</td>
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<td>- Using information on the economic, environmental, and aesthetic benefits of trees, create educational materials to increase public affinity for trees (p.28, #4.a.i)</td>
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<td>5. Emerald Ash Borer Technical Information Page on City Website</td>
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<td>- Create a technical information page about emerald ash borer (EAB) on the shade tree section of the Clifton City website (p.29, #5.a.i)</td>
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### Objectives / Tasks

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<tr>
<th>PUBLIC EDUCATION, AWARENESS &amp; OUTREACH, cont’d</th>
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<tr>
<td><strong>6. Tree Myths and Conflicts Page on City Website</strong></td>
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<td>✗ Create an educational section in the Shade Tree section of the City website with common misconceptions about trees as well as information about common conflicts between trees and hardscape features, describing how to properly correct them, and dispelling common myths about them (p. 29, #6.a.i-ii)</td>
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<tr>
<th>TREE INVENTORY &amp; ASSESSMENT</th>
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<td><strong>1. Tree Canopy and Land Cover Analysis</strong></td>
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<td>✗ Hire an outside consultant to characterize and perform an assessment of the benefits of Clifton’s urban forest (p. 31, #1.a.i)</td>
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| **2. Tree Inventory & Assessment** |
| ✗ Develop plans to conduct an inventory and assessment of Clifton’s public tree resources; Evaluate the costs and benefits of various inventory strategies and systems (p.31, #2.a.i) |
| ✗ If a complete, computerized inventory system is selected, investigate computer systems for storing and using the inventory data; If a sample or survey based assessment is selected, develop the appropriate sampling scheme or observation methods; (p.31, #2.b.i-ii) |
| ✗ Develop procedures and criteria for collecting data in a manner that is appropriate for the type of inventory selected; Mobilize a force of in-house employees and volunteers, or hire a consultant to complete data collection, depending upon the plans set (p.31, #2.c.i-ii) |
| ✗ If a computerized inventory is selected, purchase, install and setup the appropriate hardware and software and provide training to users (p.32, #2.d.i) |
| ✗ Complete field data collection and data entry, as appropriate, based on the plans developed (p.32, #2.e.i-ii) |

<p>| <strong>3. Tree Inventory &amp; Assessment Report &amp; Integration</strong> |
| ✗ If a sample or survey based assessment is selected, complete the necessary calculations to derive City-wide totals from the collected data; Produce appropriate charts and reports that summarize and document the current state of the tree population and retain them for future reference; Begin integrating the inventory information into ongoing planning and daily management activities (p.32, #3.a.i-iii) |
|--------------------|------|------|------|------|------|------|
| TREE INVENTORY &amp; ASSESSMENT, cont’d | | | | | | |
| 4. <strong>Street Tree Stocking &amp; Age Structure Guidelines</strong>&lt;br&gt;☑ Using the new street tree inventory data (if the inventory is done), calculate &quot;maximum practical stocking.&quot; Calculate number of street trees that must be planted each year to achieve maximum practical stocking within 10, 20, 30, and 40 years, and establish an appropriate planting rate and feasible target date for achieving maximum practical stocking with intermediate progress goals (p.33, #4.a.i-iv) | | | | | | |
| ☐ Design and complete planting programs in accordance with the stocking goals and planting rates established. Focus planting and post-planting care to a small section of the City each year. Incorporate inventory findings and planting goals into justification for annual budget requests (p.33, #4.a.i-iv) | | | | | | |
| 5. <strong>Street Tree Species Composition Guidelines</strong>&lt;br&gt;☑ Using the new street tree inventory data (if the inventory is done), 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 (p. 33, #5.a.i) | | | | | | |
| ☐ Design and complete planting programs in accordance with the species composition goals set. Continually seek and experiment with new species and cultivars. Vary the species planted from year to year to provide species diversity over all age classes (p. 33, #5.b.i-iii) | | | | | | |
| TREE HAZARD MANAGEMENT | | | | | | |
| 1. <strong>Ongoing Tree Hazard Management Programs</strong>&lt;br&gt;☑ Continue all existing tree hazard management programs; Continue to address hazard abatement needs as they are identified in priority order; Continually strive to improve the City’s ability to identify and mitigate tree risks (p.35, #1.a.i-iii) | | | | | | |
| 2. <strong>Tree Hazard Evaluation Training</strong>&lt;br&gt;☑ See Training &amp; Professional Development, Objective #6 (p.36, #2.a.i) | | | | | | |
| TREE PLANTING | | | | | | |</p>
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<thead>
<tr>
<th>1. <strong>Ongoing Tree Planting Programs</strong>&lt;br&gt;☑ Continue all existing tree planting programs (p.39, #1.a.i)</th>
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<td>2. No Net Loss Urban Reforestation Project</td>
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<td>3. Sidewalk Conflict Mitigating Root Control Barriers</td>
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<td>4. Annual Tree Planting Program Funding</td>
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<td>1. Ongoing Tree Maintenance Programs</td>
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<td>2. Developmental Pruning Project for Young Trees</td>
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### TREE MAINTENANCE, cont’d

3. **Stump Grinding Program Analysis**
   - Analyze the costs and benefits of purchasing a new stump grinder for use by the Shade Tree Division relative to the costs and benefits of outsourcing all or a portion of stump grinding work (p. 44, #3.a.i)
   - If purchase of a new stump grinder is deemed cost-effective, identify and secure the necessary funding; Prepare specifications for the equipment to be purchased (p. 44, #3.b.i-ii)
   - If deemed feasible and available funding permits, purchase the stump grinder (p. 44, #3.c.i)

### TREE WASTE RECYCLING

1. **Ongoing Tree Waste Recycling Programs**
   - Continue all existing tree waste recycling programs (p.46, #1.a.i)

### TREE CARE DISASTER PLAN

1. **Ongoing Programs**
   - Continue all existing programs, policies and procedures; Reduce risks via other elements of this Plan (p.48, #1.a.i-ii)

### PLAN PREPARATION & EVALUATION

1. **Annual Program Evaluation**
   - Evaluate the prior year’s accomplishments, identify objectives not yet completed, and adjust programs, as necessary; Prepare and submit an Annual Accomplishment Report to NJFS (p.49, #1.a.i-iii)

2. **Five-Year Evaluation**
   - 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 for the 2016 – 2020 management period (p.49, #2.a.i-iii)

3. **2016 – 2020 Plan Development**
   - Finalize new objectives and program adjustments and prepare and submit a Community Forestry Management Plan for the 2016 – 2020 management period (p.49, #3.a.i-ii)
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<td>PLAN PREPARATION &amp; EVALUATION, cont’d</td>
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<td>Obtain State approval for 2016 – 2020</td>
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1. Chapter 433, Trees and Shrubbery
CHAPTER 433, TREES AND SHRUBBERY

[HISTORY: Adopted by the Municipal Council of the City of Clifton as indicated in article histories. Amendments noted where applicable.]

GENERAL REFERENCES
Brush, weeds and debris — See Ch. 175.

ARTICLE I. Tent Caterpillars
[Adopted 12-20-60 by Ord. No. 3319 as Article II of Chapter 18 of the Revised Ordinances of the City of Clifton, New Jersey, 1960]

Chapter 433, Article I: Tent Caterpillars

§ 433-1. Existence unlawful.
It shall be unlawful for the owner or occupant of any lands within the limits of the City to permit tent caterpillars or tent caterpillar nests to exist in the trees, undergrowth or shrubbery of such premises.

§ 433-2. Enforcement; notice of violation.
A. It shall be the duty of the City Engineer to enforce the provisions of this article.
B. If a violation of § 433-1 is deemed to exist, the City Engineer shall give or cause to be given written notice to the owner and occupant of said premises to remove and destroy the tent caterpillars or tent caterpillar nests within three days after service of the notice. Such notice may be served in person or by registered or certified mail, and, if by registered or certified mail, service shall be deemed completed three days after being mailed to the last known address of the owner and occupant. If said owner does not reside in the City and when service is by mailing, then, on the same day as mailed, a copy of said notice shall be posted at the premises where the alleged violation is deemed to exist.

§ 433-3. Failure to comply.
If the owner or occupant shall fail to remove the tent caterpillars or tent caterpillar nests within the time required by the notice referred to in § 433-2, then the same shall be removed and destroyed by or under the direction of the City Engineer. The City Engineer shall certify the costs and expenses of such removal and destruction, as nearly as can be ascertained, to the City Council. The Council shall examine the certificate and, if found correct, shall cause the cost as shown thereon to be charged against said lands. The amount so charged shall forthwith become a lien upon such lands and shall be added to and become and form part of the taxes next to be assessed and levied upon such lands. Such lien shall bear interest at the same rate as taxes and shall be collected and enforced by the same officers and in the same manner as taxes.

The imposition and collection of the penalty imposed by this article shall not bar the right of the City to collect the cost of removal of such tent caterpillars or nests of tent caterpillars in the manner authorized in § 433-43, but the remedy shall be cumulative.

§ 433-5. Violations and penalties.
Any person who violates any provision of this article shall, upon conviction thereof, be punished by a fine not exceeding $25 for each offense.
ARTICLE II. Plant Life Near Roadways

[Adopted 12-20-60 by Ord. No. 3319 as Article 1 of Chapter 28 of the Revised Ordinances of the City of Clifton, New Jersey, 1960]

Chapter 433, Article II: Plant Life Near Roadways

[Amended 11-21-67 by Ord. No. 3803]

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

PLANT LIFE
Includes any plant, hedge, brush or other plant life on lands within the City.

RAILROAD GRADE CROSSING
The meaning respectively ascribed to it in Chapter 12 of Title 48 of the Revised Statutes of New Jersey.
[Added 6-15-82 by Ord. No. 4718-82]

STREET or HIGHWAY
The meanings respectively ascribed to them in Subtitle 1 of Title 39 of the Revised Statutes of New Jersey.

§ 433-7. Legislative declaration.
[Amended 11-21-67 by Ord. No. 3803; 6-15-82 by Ord. No. 4718-82]

The Council hereby finds and declares that plant life growing within 10 feet of any street or highway or within 50 feet of the intersection of two or more streets, highways or a railroad grade crossing may cause traffic and safety hazards and may be detrimental to the public welfare unless the same are trimmed as provided in this article.

§ 433-8. Trimming required after notice.
[Amended 11-21-67 by Ord. No. 3803; 6-15-82 by Ord. No. 4718-82]

Any plant life growing within 10 feet of any street or highway or growing within 50 feet of the intersection of any two or more streets or highways or of a railroad grade crossing on lands within the City shall be trimmed or cut to a height of not more than two feet within 10 days after notice from the City Engineer, as hereafter provided in this article.

§ 433-9. Engineer to have authority to compel trimming.

The City Engineer shall have the power and authority to compel the trimming and cutting of any plant life growing within the limits stated in § 433-8 to a height of not more than 2 1/2 feet whenever, in his judgment, he shall deem it necessary for the elimination of a traffic or safety hazard or he determines such growth of more than 2 1/2 feet in height is detrimental to the public safety.

§ 433-10. Notice to owners and tenants.

The City Engineer shall give or cause to be given 10 days' written notice to the owners of any lands upon which said plant life is growing and to the tenants in possession, if any, of such lands to cut, before the expiration of such ten-day period, the plant life growing within the limits stated in § 433-8 to a height of not more than 2 1/2 feet. Such notice may be given by registered or certified mail, addressed to the last known address of said owners and tenants.

§ 433-11. Failure to comply.

If, by the end of the ten-day period referred to in § 433-10, the owner or tenant shall have neglected or refused to cut the plant life in accordance with the notice, it shall be lawful, at the expiration of such period, for City employees, under the direction of the City Engineer, to cut the same. The City Engineer shall certify the cost thereof to the Council. Upon receipt of the certificate, the Council shall examine the same and, if found correct, shall cause the cost as shown thereon to be charged against said lands. If such cost is found to be excessive, the Council shall cause the reasonable cost thereof to be charged against said lands. The amount so charged shall forthwith become a lien upon said lands and shall be added to and become and form part of the taxes next to be assessed and levied upon such lands. Such amount shall bear interest at the same rate as other taxes and shall be collected and enforced by the same officer and in the same manner as taxes.


Nothing contained in this article shall be construed as repealing or in any wise affecting the provisions of Chapter 175, Brush, Weeds and Debris.

[Amended 5-9-1969 by Ord. No. 3912; 3-17-1970 by Ord. No. 3969]

Every owner or tenant who shall refuse or neglect to cut or trim any plant life in the manner and within the time provided in the notice given by the City Engineer or who violates any provision of this article shall, upon conviction thereof, be punished by a fine not exceeding $500 or by imprisonment for a term not exceeding 90 days, or both.
ARTICLE III. Shade Trees, Ornamental Trees and Shrubs

[Adopted 12-20-60 by Ord. No. 3319 as Article 2 of Chapter 28 of the Revised Ordinances of the City of Clifton, New Jersey, 1960]

Chapter 433, Article III: Shade Trees, Ornamental Trees and Shrubs


No person shall do or cause to be done any of the following acts within or along any public street or park without the written permission of the Director of the Division of Public Works:

A. Cut, prune, break, injure or remove any healthy tree, shrub or plant.
B. Cut or unduly disturb or interfere with, in any way, any root of any healthy tree, shrub or plant.
C. Spray with chemical any tree, shrub or plant.
D. Fasten any rope, wire, sign or other device to any tree or shrub or to any guard around or protecting any tree or shrub.
E. Remove or damage any guard or device protecting any tree or shrub.
F. Close or obstruct any open space provided about the base of trees or shrubs, which open space permits the access of air, water or fertilizer to the roots thereof.


[Amended 1-15-2008 by Ord. No. 6713-08]

No shade or ornamental tree or shrub shall be planted in or along any public street or park until such tree or shrub shall have been first approved for planting and the place where it is to be planted designated by the Director of the Division of Public Works and a permit granted therefor. Application shall be made to the Director of Public Works, together with an application fee of $10 payable to the City of Clifton.

§ 433-16. Compliance with regulations and specifications required.

[Amended 11-4-70 by Ord. No. 4015-70]

Any work performed under such written permit shall be in accordance with the terms and conditions set forth in such permit and in accordance with the following regulations and specifications:

A. The following shade or ornamental trees are approved for planting in or along any public street or park, namely: pin oak, red oak, scarlet oak, London plane, sweet gum, moraine sugar maple, Norway maple, moline elm, sycamore, green spire linden, kwanson cherry and Pyrus calleryana (Bradford pear).
[Amended 9-4-2012 by Ord. No. 7049-12].
B. No shade or ornamental tree shall be planted unless nursery-grown and at least two inches in diameter at a height of 12 inches from the ground.
C. No shade or ornamental tree so planted shall have a crooked or bent trunk or more than one leader or main trunk.
D. All trees planted shall have at least two stakes for support.
E. No shade or ornamental tree whose lowest limbs or branches extend onto or over a public street shall have its lowest limbs or branches less than 12 feet above such street.
F. Any person engaged in the pruning of shade or ornamental trees in or along any public street or park shall apply the correct and required pruning techniques and methods in cutting, painting of wounds and sterilization of pruning tools and equipment.

§ 433-17. Permission required to impede access to roots; open area to be maintained.

A. It shall be unlawful for any person, except with the written permission of the Director of Public Works, to place or maintain, or cause to be placed or maintained, upon the ground in or along any public street or park any stone, concrete, cement or other substance which impedes the free access of air and water to any roots of a tree or shrub located in any such public street or park.
B. Unless otherwise provided for in said written permit, an open area shall always be maintained around any tree planted along a public street, which area shall consist of at least eight linear feet parallel to the curb, by at least three linear feet between the curb and sidewalks.


A. No person shall place or cause to be placed any salt, brine, oil or other substance injurious to plant growth in or upon any public street or park in such a manner as to injure any tree or shrub growing thereon.
B. No person shall build any fire or station any tar kettle, road roller or other engine or machine in or upon any public street or park in such a manner as to permit the heat, vapors or fumes emanating therefrom to injure any tree or shrub growing in or along such street or park.
C. Steam shovels and all other implements, machines and tools shall be used or operated in such a manner as not to damage or destroy any tree, shrub or plant in or along any public street or park.


In the erection, moving, alteration or repairing of any building or structure, the owner or contractor performing the work shall place guards around all trees in the vicinity of such work so as to effectively prevent damage or injury to the trees.

§ 433-20. Permission required to excavate.

No person shall do any excavating within two feet of any tree or shrub standing or growing along or in any public street or park without the written permission of the Director of the Division of Public Works.


Every person having or maintaining any electric telephone, telegraph or other wires running over, along or through a public street or park shall:
A. Securely fasten and maintain the wires in such a manner as to safeguard the trees and shrubs against any damage therefrom.
B. Make periodic adjustments, when necessary, to prevent damage to trees and shrubbery growing in or along any public street or park.

§ 433-22. Permission required to attach wires.

No person shall attach or fasten any wire, insulator or other device for holding any wire to any tree or shrub in or along any public street or park without the written permission of the Director of the Division of Public Works.


A. When it shall become necessary to prune or remove any tree in or along any public street or park, any person having wires running through said public street shall temporarily remove the wires within 48 hours after service of a written notice from the Director of the Division of Public Works upon the owner of the wire or his agent.
B. Any utility company, instead of temporarily removing such wires, shall have the option of pruning or removing the tree to below the level of the wires. Such tree pruning or removal shall be done under the direction of the Director of the Division of Public Works or any competent agent or employee of the City assigned by the Director.

§ 433-24. Cutting down of trees or shrubs restricted.

A. No tree or shrub in or along any public street or park shall be cut down unless it shall be diseased, dead or dangerous to public health or safety.
B. When any tree or shrub, other than one diseased, dead or dangerous to the public health or safety, imposes a hardship upon the adjoining property owner, but not the public, the Director of the Division of Public Works may approve the removal thereof, and the property owner shall be responsible for the replacement of the tree or shrub.
[C] A tree or shrub shall constitute a hardship to the adjoining property owner if:
[Added 12-1-1998 by Ord. No. 6015-98]
(1) It requires the adjoining property owner to have the sidewalk lifted or replaced more than once in a five-year period;
(2) It interferes with the sewer line for a second time within a five-year period; and
(3) The cost of the same to the property owner exceeds $500.

[C] A. Any property owner with reason to believe that a tree or shrub growing in or along any public street is diseased, dead or dangerous to the public health or safety, or constitutes a hardship to the adjacent property owner, shall request the Department of Public Works to remove the tree, setting forth the reasons therefor. Upon receipt of such request from the property owner, the Department of Public Works shall conduct an inspection in order to confirm that such tree or shrub is in fact diseased, dead or dangerous to the public health or safety or constitutes a hardship to the adjacent property owner. Upon confirmation that such tree or shrub is diseased, dead or dangerous to the public health or safety, or constitutes a hardship to the adjacent property owner, the Director of Public Works shall cause such tree or shrub to be removed, and the property owner shall be responsible for the replacement of the tree or shrub.
B. Tree removal permit:
[Amended 1-2-2008 by Ord. No. 6711-08; 4-16-2008 by Ord. No. 6733-08]
(1) Any property owner cutting down any tree in excess of six inches in diameter on the property but not within the right-of-way shall request a permit from the Director of Public Works for the removal of said tree.
(2) The fee for a tree removal permit shall be $30.
[Amended 1-5-2009 by Ord. No. 6788-09]
(3) The Director of Public Works shall have the discretion to waive the fee for a tree removal permit where such permit is requested within five days of a storm for a downed tree relating to the storm.

C. The City of Clifton shall remove any tree in excess of six inches in diameter from curbside if the work is performed by the property owner. If the tree is cut down by a contractor, the contractor shall be responsible for the removal of the same. In order for the City of Clifton to be responsible for the removal, the City of Clifton shall be notified by the property owner on the day the work is being performed in order for the City of Clifton to verify the party doing the work.


Any person who violates any provision of this article shall, upon conviction thereof, be punished by a fine not exceeding $1,250. A separate offense shall be deemed committed on each day during or on which a violation occurs or continues.
ARTICLE IV. Spraying

Chapter 433, Article IV: Spraying

§ 433-27. Application for spraying; release required.
Upon application of any owner or occupant of any property within the City to spray trees on such property and upon the applicant's execution and delivery of the release hereinafter described in § 433-29, the City Engineer may cause such trees to be sprayed.

The application shall be accompanied by a fee of $0.50 for each tree to be sprayed.

§ 433-29. Form of release.
The release described in § 433-27 shall run in favor of the City and all its officers or employees, and shall release them and each of them of and from any and all liability for injuries or damages arising out of the spraying of such trees.
ARTICLE V. Tree Removal and Protection

[Adopted 12-3-2002 by Ord. No. 6320-02]

Chapter 433, Article V: Tree Removal and Protection

§ 433-30. Title.

This article shall be known as the “Tree Removal and Protection Ordinance of the City of Clifton.”

§ 433-31. Findings and purpose.

The Mayor and Municipal Council of the City of Clifton finds that the preservation, protection and planting of trees aids in the stabilization of soil by the prevention of erosion and sedimentation; reduces stormwater runoff and the potential damage it may create; aids in the removal of pollutants from the air and assists in the generation of oxygen; provides a buffer and screen against noise and pollution; provides protection against severe weather; aids in the control of drainage and restoration of denuded soil subsequent to construction or grading; provides a haven for birds and other wildlife and otherwise enhances the environment; protects and increases property values; conserves and enhances the City’s physical and aesthetic appearance; and generally protects the public health and safety as well as the general welfare.

§ 433-32. Definitions.

The following definitions shall apply to this article:

**MAJOR TREE**
A deciduous tree with a mature height of at least 20 feet which shall be of a caliper of at least 2 1/2 inches measured 4 1/2 feet above the ground when planted (e.g., red, Norway, silver or sugar maple; sweetgum; London plane; American sycamore; white, red or pin oak; American elm; yellow or white poplar; or copper beech, and such other species as requested by applicant, all of the aforesaid species to be approved by the administration official in charge of enforcement of this article).

**MINOR TREE**
An evergreen tree, ornamental tree or other small tree at least six feet in height at time of planting (e.g., birch, dogwood, Japanese maple, cherry, crab apple, magnolia, Bradford pear, willow, cedar, spruce, pine, fir or hemlock, and such other species as requested by applicant, all of the aforesaid species to be approved by the administration official in charge of enforcement of this article).

**PERSON**
The owner of a parcel of real estate or any other individual, group, company, firm, corporation, partnership, association, society or other legal entity.

**SPECIES**
For purposes of this article, the common name of the tree.

**STRUCTURE**
A combination of materials to form a construction for occupancy, use or ornamentation, whether installed on, above or below the surface of a parcel of land.

§ 433-33. Applicability.

[Amended 5-3-2005 by Ord. No. 6481-05]

The provisions of this article shall apply to all new subdivisions, site plans and new construction within the City of Clifton. The provisions of this article shall not apply to additions or alterations to existing one- and two-family residences on lots with areas of 9,375 square feet or less.

§ 433-34. Permit required.

No person shall cut down or remove any tree of a caliper of four inches or greater measured at a height of 4 1/2 feet above the ground or engage in any site clearing without a tree removal permit.

§ 433-35. Application procedure.

A. Application for a tree removal permit shall be made by submission of the following (commercial, multifamily, and one- and two-family):

1. An original and two copies of an application on forms provided by the City containing the following information: the name and address of the applicant; the street address and tax lot and block of the property in question; the number of trees to be removed; and reason for tree removal.

2. An original and two copies of a tree removal plan consisting of a map drawn to scale showing the location of all trees to be removed, the species of such trees and their caliper. In the event that the application is for the removal of more than five trees, the tree removal plan must be prepared, signed and sealed by a licensed land surveyor, and must show the location of all existing and proposed structures on the property, together with the distance, up to 15 feet that the trees proposed to be removed are located from such structures and from the property line. This section applies to commercial and multifamily only.
(3) An original and two copies of a tree mitigation plan (if mitigation is required pursuant to § 433-37, Subsection D, Mitigation), consisting of a map drawn to scale showing the location of all trees to be planted, the species of such trees and their caliper or size as required. Said plan shall be prepared, signed and sealed by a professional engineer, land surveyor, architect or landscape architect. This section applies to commercial and multifamily only.

B. The applicant shall place a one-inch-wide red, yellow, or blue ribbon around the trunk of each tree to be removed at a height of 4 1/2 feet above the ground so that the proposed tree removal may be inspected in the field.

§ 433-36. Fees.
The fee for a tree removal permit shall be the following:

<table>
<thead>
<tr>
<th>Number of Trees</th>
<th>Fee</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 to 5</td>
<td>$50.00</td>
</tr>
<tr>
<td>6 to 10</td>
<td>$100.00</td>
</tr>
<tr>
<td>11 to 20</td>
<td>$200.00</td>
</tr>
<tr>
<td>21 to 50</td>
<td>$300.00</td>
</tr>
<tr>
<td>51 and over</td>
<td>$400.00, plus an additional $100.00 for each additional 50 trees or part thereof</td>
</tr>
</tbody>
</table>

§ 433-37. Standards for application review.
The following standards for review of applications shall apply:

A. Permitted removal. No tree shall be permitted to be removed unless the tree is:
   (1) Located within the building footprint of a proposed principal building and/or located within 15 feet of any building (size of tree may require additional clearance).
   (2) Located between the right-of-way line of a proposed roadway approved pursuant to the Subdivision Ordinance. Editor's Note: See Ch. 399, Subdivision of Land.
   (3) Dead or poses a safety hazard (i.e., damage to walks, curbs, or utilities).
   (4) Required by site grading for building access, parking, etc.
   (5) Located within the area of a proposed driveway, walkway, utility line, accessory building, or any other structure.
   (6) Specifically permitted to be removed in a site plan approved pursuant to the Municipal Land Use Law. Editor's Note: See N.J.S.A. 40:55D-1 et seq., considered by evidence and testimony.
   (7) Obstructs line of site for site ingress and egress.

B. Conflict with other laws. Notwithstanding anything in this article to the contrary, no tree removal shall be permitted where prohibited by the Zoning Ordinance. Editor's Note: See Ch. 461, Zoning. (e.g., buffer zones and crest line provisions) or any other municipal, state federal statute, ordinance or regulation.

C. Hardship appeal. In the event that an applicant desires to appeal the standards as set forth above, the applicant may seek relief from the Planning Board or the Zoning Board of Adjustment, if applicable, or the Mayor and Municipal Council.

D. Mitigation. Mitigation for tree removal shall be required as follows:
   (1) No mitigation shall be required in connection with tree removal conducted pursuant to a permit issued under Subsections A(1), (2) and (7) of this section.
   (2) Mitigation shall be required pursuant to Subsections A(4), (5), (6) and (7).
   (3) For each tree for which mitigation is required, the following shall apply:
      (a) For each tree removed pursuant to the standards of this article of a caliper of four inches to no more than six inches, the applicant shall plant a major tree as defined in this article on the property in question, unless the applicant asserts the planting would be inappropriate and the official in charge of enforcement and administration of the chapter agrees.
      (b) For each tree removed pursuant to the standards of this article of a caliper of more than six inches, the applicant shall plant a major tree as defined in this article on the property in question, unless the applicant asserts the planting would be inappropriate and the official in charge of enforcement and administration of this article agrees.
   (4) In the event that the tree removal occurs in an area otherwise than as permitted in Subsection A of this section, mitigation shall be required at the rate of two replacements for each one removed.
(5) In the event that it is unknown or in question in any given instance as to whether mitigation should be determined on the basis of a minor tree or major tree, mitigation shall be required on the basis of a major tree.

(6) In the event that it is unknown how many trees were removed from any given site, and removal took place without a tree permit issued pursuant to this or the predecessor chapter, the number of trees requiring mitigation shall be computed by assuming trees over six inches in caliper existed 30 feet on center and plotting the maximum number of those trees as circles on a fifteen-foot radius without having the circles overlap or extend beyond the property lines or driplines of existing trees.

(7) In connection with tree removal pursuant to Subsection A(3) of this section, it shall be required that the applicant plant major trees, on center a distance of 30 feet, as street trees between the curbline and the edge of the right-of-way in a location determined by the City Engineer and the official administering this article.

(8) Mitigation in any instance is not to be considered a penalty, but rather an implementation of the purposes of this article. Mitigation shall not be a substitute for, but shall be in addition to, any penalty imposed for violation of the provisions of this article.

§ 433-38. Performance bond (commercial applications only).

Except in the event of tree removal pursuant to an approved subdivision or site plan where a performance bond to assure tree planting was posted, as a precondition to the issuance of a permit where mitigation is required, the applicant shall post a cash bond to assure mitigation in an amount equal to the amount set forth in the resolution adopted by the Municipal Council for each minor and major tree to be planted. The bond shall be returned to the applicant upon completion of the required mitigation.


A. In connection with any construction, subsequent to tree clearing but prior to the issuance of a building permit or start of construction, snow fencing or other protective barrier acceptable to the official charged with the administration and enforcement of this article shall be placed at least 10 feet from the trunk of any tree and shall remain in place until all construction activity is terminated. No equipment, chemicals, soil deposits or construction materials shall be placed within any area so protected by barriers. Any landscaping activities subsequent to removal of barriers shall be accomplished with light machinery or hand labor.

B. No person shall:

(1) Cut down or remove any tree except as permitted by this article or allow or cause such cutting or removal.

(2) Cause or allow any willful damage, injury or disfigurement of any tree growing within the City. For purposes of this subsection, the actions of any person shall be deemed willful if the damage, injury or disfigurement of any tree is caused as a result of but not limited to the following: cutting, gashing or slitting of any tree; the pouring of any liquid or other material on any tree or on the nearby ground; the construction or placement of any nonporous material on the ground around any tree so as to cut off air, light or water from the roots; or placement or removal of any soil from within 15 feet of any tree.

(3) Store or pile building material or debris or place construction equipment within 10 feet of any tree.

C. In the event that any tree to be saved in connection with construction as set forth above or any tree planted in mitigation shall die within two years after planting, it shall be replaced by the applicant or property owner within six months.

§ 433-40. Administration and enforcement.

This article shall be administered and enforced by the City Manager, or his designee, except that the Municipal Council shall approve the issuance of a tree removal permit in conjunction with any tree removal sought in conjunction with an application for a major soil-moving permit.

§ 433-41. Appeals.

Any person aggrieved by the decision of the official charged with the administration and enforcement of this article shall have the right, within 10 days of the issuance of any decision by such official to appeal to the Municipal Council, which shall take action as it deems necessary in this matter. In the event of such an appeal, the procedures set forth with reference to applications based on hardship contained in this article shall apply.

§ 433-42. Violations and penalties.

Any person who violates any provision of this article shall, upon conviction thereof, be punished by a fine not exceeding $1,000, and each tree removed or damaged in violation of this article shall be deemed a separate offense.