



2017 – 2021

**Community Forestry
Management Plan**

**Borough of Florham Park
Morris County, NJ**

2017 – 2021 COMMUNITY FORESTRY MANAGEMENT PLAN

Borough of Florham Park Morris County New Jersey

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MUNICIPAL INFORMATION	1
<i>Municipal Information Form</i>	1
INTRODUCTION	2
<i>Scope</i>	2
<i>Mission Statement</i>	2
<i>Overall Program Goals</i>	2
<i>Tree Hazards & Liability</i>	3
COMMUNITY OVERVIEW	4
<i>2011 – 2016 Shade Tree Program Review</i>	4
<i>Current Public Tree Assessment</i>	6
<i>Relation to the Borough’s Master Plan</i>	7
BOROUGH MAPS	9
<i>Borough Location</i>	9
<i>Borough Streets</i>	10
<i>Aerial Imagery</i>	10
<i>Canopy Cover</i>	11
<i>Land Use / Land Cover</i>	11
PROGRAM ADMINISTRATION	12
<i>Shade Tree Program Structure</i>	12
<i>Shade Tree Program Responsibilities</i>	12
<i>Related Ordinances</i>	14
<i>Tree Service Request Procedures</i>	15
<i>2017 – 2021 Objectives</i>	15
BUDGET & RESOURCES	16
<i>Overview</i>	16
<i>2011 – 2016 Grants Received</i>	16
<i>Employee Salary & Wages</i>	16
<i>Operations</i>	16
<i>Borough Equipment</i>	16
<i>Tree Planting</i>	17
<i>Tree Waste Recycling</i>	17
<i>Volunteer Services</i>	17
<i>Totals</i>	17
TRAINING & PROFESSIONAL DEVELOPMENT	18
<i>Training & Professional Development Goals</i>	18
<i>Existing Programs, Policies & Procedures</i>	18
<i>Current Training Needs</i>	19
<i>2017 – 2021 Objectives</i>	19
PUBLIC EDUCATION, AWARENESS & OUTREACH	21
<i>Public Education, Awareness & Outreach Goals</i>	21
<i>Existing Programs, Policies & Procedures</i>	21
<i>2017 – 2021 Objectives</i>	21
TREE INVENTORY & ASSESSMENT	23
<i>Tree Inventory & Assessment Goals</i>	23
<i>Existing Programs, Policies & Procedures</i>	23

2017 – 2021 Objectives	23
TREE HAZARD MANAGEMENT	25
<i>Tree Hazard Management Goals</i>	25
<i>Existing Programs, Policies & Procedures</i>	25
2017 – 2021 Objectives	25
TREE PLANTING	26
<i>Tree Planting Goals</i>	26
<i>Existing Programs, Policies & Procedures</i>	26
2017 – 2021 Objectives	27
TREE MAINTENANCE	29
<i>Tree Maintenance Goals</i>	29
<i>Existing Programs, Policies & Procedures</i>	29
2017 – 2021 Objectives	30
TREE WASTE RECYCLING	31
<i>Tree Waste Recycling Goals</i>	31
<i>Existing Programs, Policies & Procedures</i>	31
2017 – 2021 Objectives	32
TREE CARE DISASTER PLAN	33
<i>Tree Care Disaster Plan Goals</i>	33
<i>Existing Programs, Policies & Procedures</i>	33
2017 – 2021 Objectives	34
PLAN PREPARATION & EVALUATION	35
<i>Plan Preparation & Evaluation Goals</i>	35
<i>Existing Programs, Policies & Procedures</i>	35
2017 – 2021 Objectives	35
SUMMARY OF 2017 – 2021 OBJECTIVES	36
<i>Timeline</i>	36
RELATED ORDINANCES	41



Municipal / County Information Form

MUNICIPALITY	Borough of Florham Park	
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MAYOR'S SIGNATURE	Original Copy Signed	
DATE SUBMITTED	April, 2017	
TIME PERIOD	January, 2017 – December, 2021	
CSIP PRACTICES IDENTIFIED IN PLAN	<input checked="" type="checkbox"/> CSIP #1 Trainingp. 18 <input checked="" type="checkbox"/> CSIP #2 Community Forestry Ordinance Establishment p. 14, 41 <input checked="" type="checkbox"/> CSIP #3 Public Education & Awareness p. 21 <input checked="" type="checkbox"/> CSIP #4 Arbor Day p. 21, 22 <input checked="" type="checkbox"/> CSIP #5 Tree Inventoryp. 23 <input checked="" type="checkbox"/> CSIP #6 Hazard Tree Assessmentp. 25 <input checked="" type="checkbox"/> CSIP #7 Storm Damage Assessment p. 25, 33 <input checked="" type="checkbox"/> CSIP #8 Tree Maintenance & Removals p. 29 <input checked="" type="checkbox"/> CSIP #9 Insect and Disease Management p. 22, 23, 33 <input checked="" type="checkbox"/> CSIP #10 Wildfire Protectionp. 33 <input checked="" type="checkbox"/> CSIP #11 Tree Plantingp. 26 <input checked="" type="checkbox"/> CSIP #12 Tree Recyclingp. 31 <input checked="" type="checkbox"/> CSIP #13 Sidewalk Maintenance Program p. 19, 22, 26, 30 <input checked="" type="checkbox"/> CSIP #14 Stormwater Management p. 27, 31, 33 <input checked="" type="checkbox"/> CSIP #15 Other various sections	

* I Certify that this Community Forestry Management Plan was developed specifically and exclusively for the Borough of Florham Park, NJ.

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

State Forester

Approved Date

SCOPE

The following sections outline programs and procedures for managing public shade tree resources within the Borough of Florham Park during the period January 2017 through December 2021.

Recognizing that trees help improve the quality of urban and suburban life, the Borough 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 third five-year Plan continues to focus on developing and improving programs for managing Borough-owned street trees. It is the Borough's intent to expand these programs to more comprehensively address trees in Borough parks and on Borough properties into the future.

In addition, it is expected that elements of this Plan will help stimulate the planting and proper care of trees on private property and the preservation and protection of natural areas.

MISSION STATEMENT

To cost-effectively develop, perpetuate, protect, and promote shade tree and woodland resources that benefit the physical, economic, environmental, and social well-being of Florham Park and its residents 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 Borough programs, policies and procedures are described, intermediate and element-specific goals are established, and CSIP-based objectives for the 2017 – 2021 management period are set.

Systematic fulfillment of these CSIP-specific goals and objectives will gradually move Florham Park's Shade Tree Program toward its overall program goals, which were previously established and remain as follows:

1. Develop and perpetuate beneficial community forest resources.
2. Maximize the benefits of trees to the community.
3. Maximize long-term stability and sustainability in the community forest.
4. Optimize the balance between tree health, maintenance costs and budgetary constraints.
5. Minimize the risk of trees to public safety.
6. Minimize conflicts between trees and infrastructure.
7. Improve and maintain public interest, appreciation and support for public shade tree programs and encourage volunteer participation.
8. Encourage environmental stewardship and the planting and proper care of trees on private property.
9. Preserve and protect existing woodlands and other natural areas in a manner that maintains the character of the Borough, protects sensitive lands, maintains water quality, protects habitat, and provides scenic and recreational opportunities.
10. Meet all eligibility requirements of the NJ Shade Tree & Community Forestry Assistance Act.

**TREE HAZARDS &
LIABILITY**

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 Borough of Florham Park 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.



2011 – 2016 SHADE TREE PROGRAM REVIEW

In implementing its 2011 – 2015 Community Forestry Management Plan – the goals and objectives of which were carried through 2016 – the Borough of Florham Park was successful in improving aspects of its Shade Tree Program and maintaining the effectiveness of all others.

The 2011 – 2015 Community Forestry Management Plan identified four key issues facing Florham Park’s Shade Tree Program:

1. **Rejuvenating & Perpetuating the Shade Tree Resource:** The Borough remains in a phase where a significant number of trees are lost each year to age-related attrition due to the even-aged structure of much of its public tree stock. The continued loss of aging trees is inevitable and continues to increase as more trees reach over-maturity. While Chapter 229 of the Borough Code, *Trees*, which regulates the removal of trees on private lands, has been effective in reducing the loss of canopy cover, it has not resulted in the expected number of trees replanted through the Tree Bank. Therefore, the Borough must seek additional ways to fund tree replacements to ensure that the public tree population is perpetuated. At the same time, replanting programs should be scheduled in a manner that improves age diversity so that, in the future, the loss of aging trees is less cyclical and more consistent from year to year.
2. **Species Diversity:** The Borough has made efforts to increase the variety of tree species planted which, in time, will reduce the tree population’s vulnerability to certain potentially catastrophic insect and disease infestations. The GIS Tree Inventory completed in 2008 identified all existing street trees and provided recommendations for a wide variety of species for new plantings. Objectives have been established in this Plan to analyze the 2008 data to accurately characterize the existing species composition. With that information in hand, the Borough will then establish and plant toward specific short, intermediate and long term goals for improving diversity.
3. **Tree Conflicts:** With portions of its public tree population continuing to age, conflicts between trees, sidewalks, utilities and other built elements of the streetscape continue to be an issue. The Borough has, and will continue to work to minimize the frequency and severity of these conflicts by planting species that fit the available space and encouraging adjacent homeowners to use alternative tree-friendly sidewalk repair methods.
4. **Tree Inventory & Assessment:** Effective urban forest management is highly dependent upon accurate and current tree population information as well as the ability to monitor changes and evaluate the effectiveness of maintenance and planting programs. This was the driving force behind the completion of the GIS-based street tree inventory in 2008. This effort produced a geographic information system (GIS) containing the location of each Borough-controlled street tree, tree species, size, condition and maintenance needs, locations requiring planting, and a variety of recommendations. To date, however, the data has not been summarized and not put into day-to-day use. Objectives have been established in this Plan to characterize the overall status of the tree population as well as use the 2008 inventory data to help prepare for emerald ash borer as it moves through the State of New Jersey.

Although the Borough was unable to complete all of the objectives contained in the 2011 – 2015 Community Forestry Management Plan due to insufficient time, budget, and/or manpower—or shifting priorities—it maintained steady forward progress by addressing and satisfying emerging new needs while continuing to successfully implement all of its existing programs.

The following is a summary of the Shade Tree Program’s activities and accomplishments during the 2011 – 2016 management period.

1. Program Administration

- a) The Borough continued to implement all of its previously existing administrative programs, policies and procedures during the 2011 – 2016 management period. *(Program Administration, Objective #1)*
- b) The Borough developed, drafted, submitted, and (in 2014) approved a revised tree protection ordinance which completely replaced the “Trees” section (Section #229) in the Borough Code. This new ordinance establishes a Tree Fund, which enables land developers, homeowners, and other private citizens to contribute to a Tree Fund in lieu of directly replanting trees to remediate tree removals. This has allowed for more larger and more orchestrated tree planting efforts within the Borough. *(Program Administration, Objective #2)*

2. Training & Professional Development

- a) The Borough continued to implement all of its previously existing training and professional development programs during the 2011 – 2016 period. *(Training & Professional Development, Objective #1)*
- b) The Borough increased the number of CORE Trained individuals participating in the Shade Tree Program from two to three, including two Borough employees and one program volunteer. *(Training & Professional Development, Objective #2)*
- c) One Borough employee completed tree hazard evaluation training and tree rigging training through the Rutgers NJAES Office of Continuing Professional Education. *(Training & Professional Development, Objective #3)*
- d) Members of the shade tree program completed young tree developmental pruning training in 2016, including best practices for training proper final tree branch architecture and optimal regularity for pruning. *(Training & Professional Development, Objective #4)*
- e) The Borough Engineer as well as several Department of Public Works employees completed electrical hazard evaluation training in 2014 for avoiding electrical hazards in accordance with OSHA 1910.269 and ANSI Z133.1. *(Training & Professional Development, Objective #5)*
- f) The Borough provided ongoing, in-house training in related equipment use and safety for its Department of Public Works employees, including chain saw safety.
- g) Two Borough employees attended a half-day seminar on Emerald Ash Borer in 2015.

3. Public Education, Awareness & Outreach

- a) The Borough posted various shade tree related information and programs on the Borough website and via Florham Park Community Television every year during the 2011 – 2016 management period.

4. Tree Inventory & Assessment

- a) In 2008, a NJ Certified Landscape Architect and local Boy Scouts completed a GIS-based inventory of Florham Park’s street trees. Funding for this project was provided as restitution by a commercial property developer in lieu of the requirements of Chapter 229 of the Borough Code. The Borough has not had sufficient funds or manpower to do a revised inventory or complete inventory update during the 2011 – 2016 management period, but it has been able to perform a limited amount of updating using maintenance, planting, and removal records.

5. Tree Hazard Management

- a) The Borough continued and improved upon all of its existing tree hazard management programs and procedures and continued to address hazard abatement needs as they were identified during the 2011 – 2016 period. *(Tree Hazard Management, Objective #1)*

6. Tree Planting

- a) The Borough continued to implement its existing tree planting programs, policies and procedures during the 2011 – 2016 period. *(Tree Planting, Objective #1)*

7. Tree Maintenance

- a) The Borough continued to implement all of its previously existing tree maintenance programs, policies and procedures during the 2011 – 2016 period. *(Tree Maintenance, Objective #1)*
- b) The Borough continued its developmental pruning program for young trees to ensure proper growth form and to reduce conflicts between trees and aboveground structures and utilities. *(Tree Maintenance, Objective #2)*

8. Tree Waste Recycling

- a) The Borough continued to implement all of its previously existing tree waste recycling programs, policies and procedures. As a result of various changes, costs for tree waste disposal have been significantly reduced. *(Tree Waste Recycling, Objective #1)*

9. Tree Care Disaster Plan

- a) The Borough stood ready to implement its previously existing tree care disaster plan programs, policies and procedures during the 2011 – 2016 management period. In addition, it continued to implement preventive maintenance and hazard identification and abatement programs to continually reduce tree failures and losses. *(Tree Care Disaster Plan, Objective #1)*
- b) When both the freak 2011 Halloween snow storm and Superstorm Sandy struck the State of New Jersey, hundreds of trees were lost or damaged. The Borough demonstrated its ability to effectively address and manage Borough-wide tree disasters.

10. Plan Preparation & Evaluation

- a) During the 2011 – 2016 management period, the Borough 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 Borough 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)*

**CURRENT PUBLIC
TREE
ASSESSMENT**

In 2008, a NJ Certified Landscape Architect and volunteer Boy Scout completed a GIS-based inventory of Florham Park’s street trees. Based on the 2008 data, Florham Park’s street tree population contains approximately 4700 trees. With removal numbers having been consistently higher than plantings, the Borough expects that this number has probably decreased somewhat since the inventory was performed.

To date, the inventory data has not been summarized to provide population-wide information such as overall species composition, age distribution, canopy cover, etc. At the time of this plan’s writing, the data was nearly 10 years old. This notwithstanding, the inventory data, reviewed to extract basic summary information for the previous Community Forestry Management Plan, is included here as the most recent snapshot of the Borough’s street tree population.

Genus composition within the street tree population is as follows. It is assumed, however, that those that completed the inventory were limited in their ability to identify many species and, therefore, that the data contains errors in tree identification.

Ash species:	6%
Beech species:	16%
Elm species:	0.5%
Evergreen species:	12%
Maple species:	49%
Oak species:	7%
Pear species:	1%
Walnut species:	0.5%
Unknown species:	8%

The age structure of the street tree population is irregular uneven aged, meaning that there are significant numbers of trees in at least three age classes, but they are not evenly distributed from young to old.

0" – 6"	6%
7" – 12"	15%
13" – 18"	34%
19" – 24"	21%
25" – 30"	16%
31" – 36"	4%
37" – 42"	2%
43"+	1%

A majority of the trees (71%) are in the young-mature and mature age classes (13" – 18", 19" – 24", and 25" – 30"). While trees in these age classes are generally at their peak in terms of the benefits they provide, the Borough will likely begin to see an increase in pruning and removal needs as these trees enter the over-mature class, and their health and structural conditions begin to deteriorate due to age.

The condition of each tree was rated as Excellent, Good or Poor. Overall, the vast majority of the trees were found to be in Excellent or Good condition. It is assumed, however, that those that completed the inventory were limited in their ability to identify and evaluate problematic insects, diseases and structural defects and that the results, therefore, are optimistic.

Excellent:	41%
Good:	57%
Poor:	2%

Problems noted in a significant number of trees include the presence of decay in the trunk, broken branches and split crotches, as well as the need for pruning.

Using statistics derived from the National Land Cover Database's (NLCD's) 2011 Multi-Resolution Land Characteristics Consortium (MRLC), Florham Park's average canopy cover in 2011 was 39.3%. While this data is derived from a national study and is therefore imprecise for areas as small as an individual municipality, it does give us a reasonable "ballpark" estimate of the Borough's average canopy cover.

RELATION TO THE BOROUGH'S MASTER PLAN

Though there is no formal link at this time, all aspects of this Community Forestry Management Plan are consistent and compatible with the goals, objectives and general intent of the Borough's *Master Plan* and *Open Space and Recreation Plan*.

Generally, shade tree management efforts outlined in this Plan will help preserve the character and aesthetic appeal of the existing streetscapes and residential neighborhoods, as well as the Borough's environment overall.

These management efforts will contribute both tangibly and intangibly to maintaining a healthier environment, protecting water quality, enhancing property values, and creating an attractive central business district. Further, these efforts will ensure that tree resources are maintained and perpetuated so that the benefits they provide will be maximized and will continue, uninterrupted over the long term.

Specifically, goals and objectives of the *Master Plan* and *Open Space and Recreation Plan* to which this Community Forestry Management Plan directly or indirectly relate include:

1. *To conserve and protect soil, water, air quality, open space, and environmentally sensitive lands, including wetlands and flood hazard areas within the Borough.*
2. *Review the Borough ordinances concerning stream corridor protection, tree removal, conservation easements, and others that protect environmental resources to ensure they provide the maximum benefit.*
3. *Protect the water quality and quantity in the Borough.*
4. *Create a greenway system connecting residents of the Borough to natural areas.*

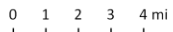
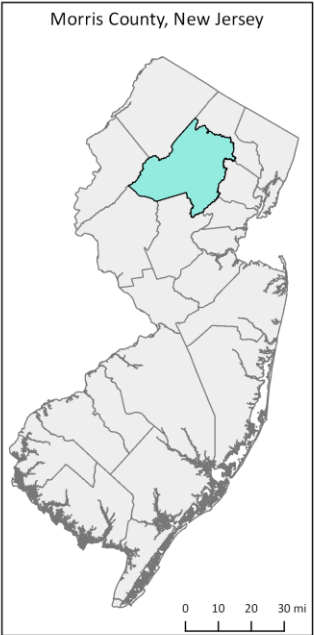
The parallel goals and objectives outlined above provide a strong informal link between the Master Plan and this Community Forestry Management Plan. The Plans are further linked through existing zoning, subdivision, land use, and site plan review code, which contain specific requirements regarding trees, landscaping and buffers.

All programs outlined in this Plan will be developed and implemented in a manner that directly or indirectly satisfies or supports these goals and the general intent of the Master Plan.



**BOROUGH
LOCATION**

The Borough of Florham Park is located within Morris County, in the State of New Jersey.



County and municipality maps generated from the NJ Office of Information Technology (NJ OIT), Office of Geographic Information Systems (OGIS) "Municipalities of New Jersey (Clipped to Coast) Edition 20121228" data (2012).

**BOROUGH
STREETS**



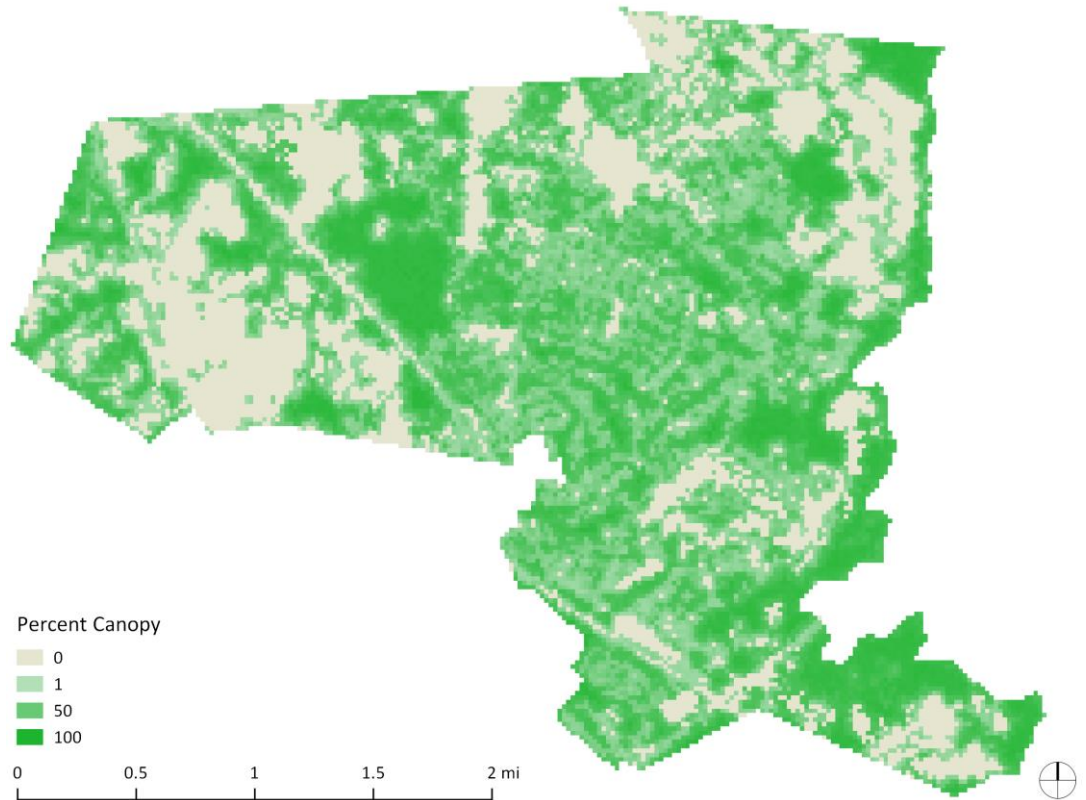
Streets map generated from the US Census Bureau "TIGER/Line Shapefile, 2014, state, New Jersey, Primary and Secondary Roads State-based Shapefile". Municipal boundary from the NJOIT, OGIS "Municipalities of New Jersey (Clipped to Coast) Edition 20121228" data (2012).

AERIAL IMAGERY



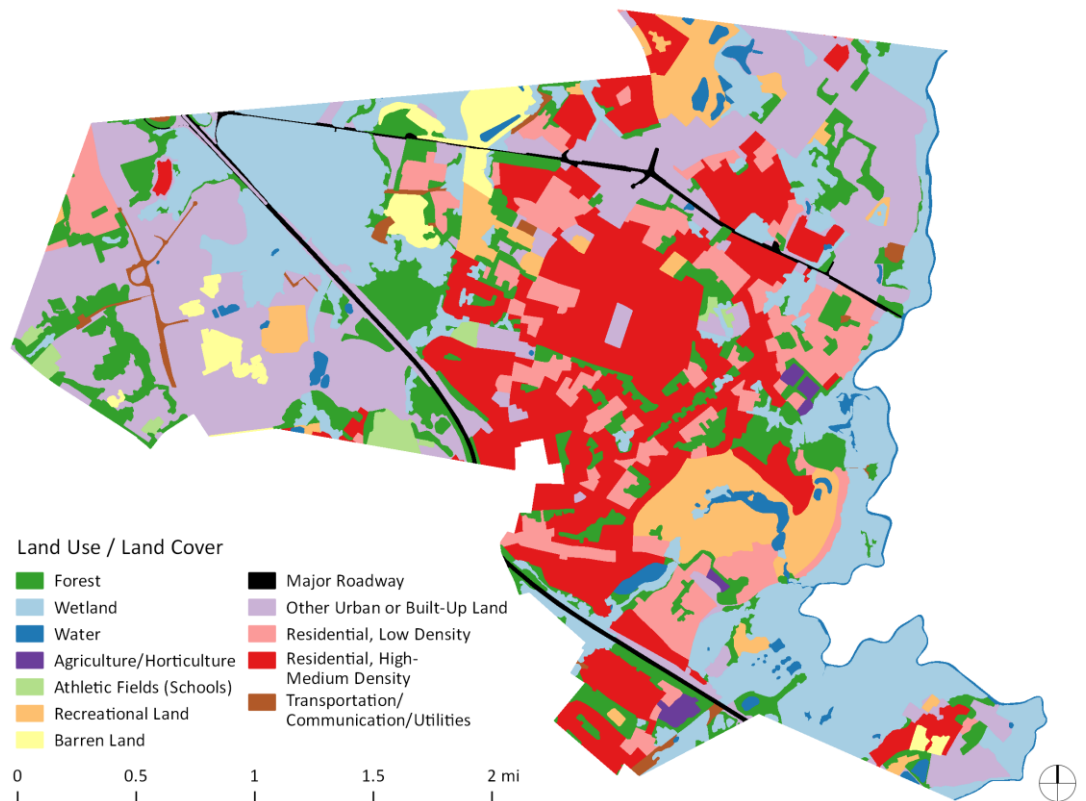
Aerial imagery courtesy of the USDA National Agricultural Imagery Program (2015).

CANOPY COVER



Average Borough-wide canopy cover: 39.3%. All percentages from 0-100 included in map. 0, 1, 50, and 100 shown for reference. Percent canopy cover map and average percentage generated from the National Land Cover Database (NLCD) Multi-Resolution Land Characteristics (MRLC) Consortium data (2011).

LAND USE / LAND COVER

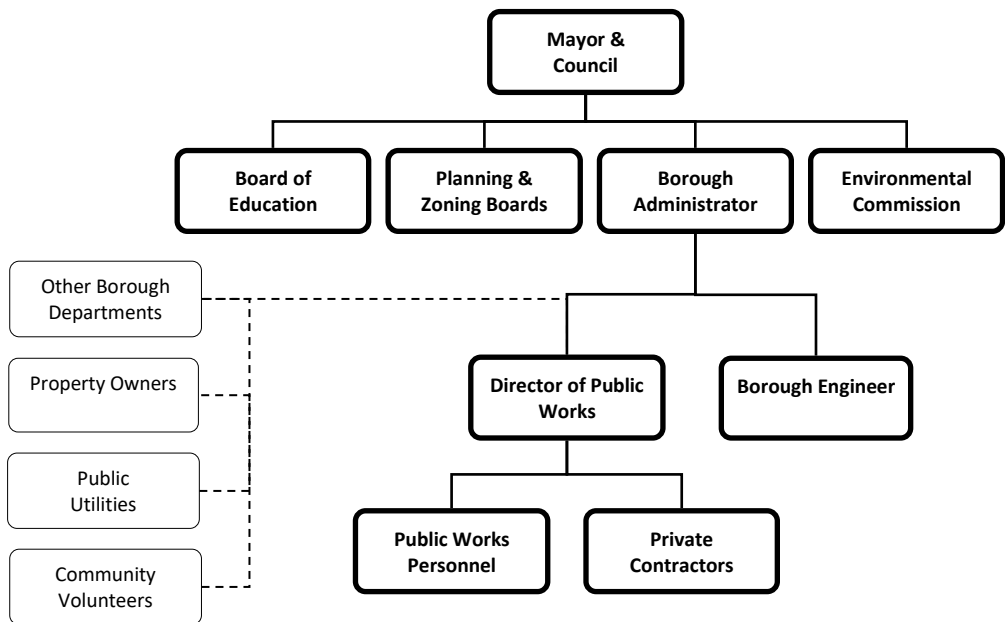


Land use/land cover map generated from the NJOIT, OGIS "Land Use/Land Cover 2012 Update" data.

SHADE TREE PROGRAM STRUCTURE

In practice, the Department of Public Works is primarily responsible for the management of public tree resources in the Borough of Florham Park.

The Department of Public Works cooperates with the Mayor and Council, the Department of Engineering, other Borough departments, commissions and boards, and certain external groups to comprise Florham Park’s Shade Tree Program, as follows:



SHADE TREE PROGRAM RESPONSIBILITIES

1. **Mayor & Council**
 - a) The Mayor is responsible for appointing members to the various boards and commissions in the Borough.
 - 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.
2. **Borough Administrator**
 - a) The Borough Administrator serves as the chief administrative official of the Borough.
 - b) The Borough Administrator ensures that the Borough follows all applicable laws, policies and procedures in the procurement of personnel, resources and contractors.
3. **Department of Engineering**
 - a) The Department of Engineering:
 - i) Provides technical guidance and reviews to the Mayor and Council, Planning Board, Board of Adjustment, and other units of government regarding municipal land use, capital construction projects, civil and site engineering design, local public construction contracts,

and engineering permits.

- ii) Coordinates with other agencies and utilities, and protects Borough interests in local projects administered by a third party
- iii) Inspects and oversees the Borough's road inventory and traffic control systems for the purpose of planning future Capital Improvement projects
- iv) Maintains and updates the Borough's GIS (Geographical Information System) mapping.
- v) Reviews, approves, and administers Road Opening Permits, Tree Removal Permits, and Surface Grading Permits.

4. Environmental Commission

- a) The Environmental Commission was established for the protection, development or use of natural resources, including water resources, located within the Borough of Florham Park pursuant to the provisions of Chapter 245 of the Laws of 1968 of the State of New Jersey.

5. Planning Board & Board of Adjustment

- a) The Planning Board and Board of Adjustment are responsible for implementing various elements of the *Borough Code* and *Borough Master Plan* that relate to site development and the protection of natural resources.

6. Board of Education

- a) The Board of Education is primarily responsible for the management of trees on public school properties within the Borough.
- b) The planting and maintenance of these trees is completed in cooperation with the Department of Public Works.

7. Department of Public Works

- a) The Department of Public Works is primarily responsible for the management of public tree resources in the Borough of Florham Park.
- b) Specifically, the Department of Public Works is responsible for:
 - i) Managing day-to-day aspects of the Borough's Shade Tree Program and assisting in setting long-term goals and plans in cooperation with the Mayor and Council, the Borough Administrator, the Borough Engineer, and the Environmental Commission.
 - ii) Receiving requests for public tree maintenance and planting from property owners and scheduling and completing the necessary inspections and work.
 - iii) Completing or supervising contractors hired by the Borough to complete public tree pruning, removal and other maintenance tasks.
 - iv) Planting new public trees, or supervising planting contractors hired by the Borough.
 - v) Providing emergency response service, when appropriate.

8. Tree Maintenance & Planting Contractors

- a) Private contractors are routinely hired to complete public tree planting, maintenance, and removal work.
- b) Contractors are, within the terms of their agreement, responsible for:
 - i) Completing all work to the specifications of the Borough in an efficient and safe manner.
 - ii) Following all current and accepted arboricultural standards and practices and abiding by all current and applicable safety standards relating to tree care operations.
 - iii) Reporting any tree-related hazards or other problems immediately to the Borough.

9. Community Volunteers

- a) Members of the Environmental Commission and other boards and committees are residents of the Borough and serve on a volunteer basis.

- b) Various community organizations are encouraged to participate in shade tree program activities, such as Arbor Day and Earth Day celebrations and projects, and to promote tree planting, tree care, and environmental stewardship.

10. Other Borough Departments, Boards & Commissions

- a) Other Borough departments and boards assist the Shade Tree Program to the extent that they administer and implement Borough ordinances, policies and procedures that directly or indirectly relate to the protection and management of public and private trees.

11. Property Owners

- a) Private property owners assist the Shade Tree Program to the extent that they:
 - i) Notify the Borough of problems and service requests for public trees (*see Service Request Procedures below*).
 - ii) Are asked to irrigate and protect new trees planted adjacent to their properties.
 - iii) Are encouraged to plant and properly care for trees on private property.
 - iv) Are required to comply with the Borough's *Trees* ordinance (Chapter 229).

12. Public Utilities

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

**RELATED
ORDINANCES**

The following ordinances govern, authorize or relate to Florham Park's Shade Tree Program:

1. Chapter 229, *Trees*, which regulates the removal and protection of trees on private lands within the Borough (adopted as Ordinance #14-14, July 17, 2014, repealing and replacing Chapter 229, *Trees*, of the Code of the Borough of Florham Park).
2. Chapter 32, *Environmental Commission*, which establishes and empowers the Borough of Florham Park Environmental Commission (adopted as Ordinance #8-99, May 18, 1999).
3. Various other portions of the Borough Code which regulate the planting and require the proper maintenance of trees and landscaping on private land, require the protection of natural resources during land development, and require the planting and/or preservation of buffers and landscaping. Chapters of note include:
 - a) Chapter 188, *Property Maintenance*
 - b) Chapter 208, *Streets and Sidewalks*
 - c) Chapter 212, *Subdivision and Site Plan Review*
 - d) Chapter 250, *Zoning*

The Borough currently lacks ordinances relating to the planting, care and protection of public trees.

**TREE SERVICE
REQUEST
PROCEDURES**

Requests for the pruning, removal, planting or other treatment of public trees are initiated by adjoining property owners, Borough personnel, and others, and are processed in the following manner:

1. Service Requests and complaints relating to public trees are received by or forwarded to the Director of Public Works.
2. Service Requests are assigned a tracking number and prioritized and scheduled for inspection according to the nature of the request or complaint and the information provided by the requester.
3. Every tree for which a service request or complaint is submitted are inspected by the Director of Public Works, Department of Public Works Foreman, or Borough Engineer to:
 - a) Clarify ownership of the tree in question, where necessary.
 - b) Determine the validity of the request or complaint.
 - c) Determine the nature of the work necessary to correct the issue.
 - d) Determine the degree of hazard, if any, and the urgency with which corrective work must be completed.
 - e) Determine whether the work can be completed by in-house crews or requires an outside contractor.
4. To assist in documenting tree evaluations and findings, photos are taken and, where appropriate, Resistograph tests to evaluate the extent of decay are completed and retained on file.
5. The requester is informed of the inspection findings, the action to be taken, and the anticipated response time via a notification form left at the time of inspection.
6. Any pruning, removal or other work necessary is scheduled for completion by the Department of Public Works, a Borough contractor, or County crews, as appropriate, according to the priority level set
7. Upon satisfactory completion, the Service Request is closed out and records of all actions taken are maintained by the Department of Public Works.

**2017 – 2021
OBJECTIVES**

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



Budget & Resources

OVERVIEW

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

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

2011 – 2016 GRANTS RECEIVED

During the 2011 – 2016 management period, the Borough of Florham Park received the following grants to assist its Shade Tree Program.

1. A \$3000.00 Green Communities grant, awarded in 2016, which was used to retain a consulting arborist to assist in preparing this third five-year Community Forestry Management Plan (CSIP #1).

EMPLOYEE SALARY & WAGES

Borough Administrator
 Borough Engineer
 Director of Public Works
 Department of Public Works Personnel
 Administrative personnel

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

\$240,000.00

OPERATIONS

Contracted tree maintenance
 Training and professional development
 Memberships and subscriptions
 Other expenses

Subtotal

\$44,491.00

BOROUGH EQUIPMENT

- (1) 32-foot aerial bucket truck
- (1) Front-end loader
- (1) 16-yard chip truck
- (2) Chippers
- (3) 31-yard leaf vacs
- (1) Skid loader and stump grinder
- (1) Loader and wildcat
- (2) Backhoes
- (15) Chainsaws and related hand tools
- (1) Resistograph for testing trees
- (1) Camera for documenting tree inspections

	<i>Subtotal (estimated annual value based on value amortized over 5 – 15 year service life, plus annual maintenance, repairs, etc. and prorated by percent of time used by the Shade Tree Program)</i>	<i>\$42,000.00</i>
TREE PLANTING	Cost of trees installed by contractors Value of trees received through the Borough Tree Bank Ancillary materials	
	<i>Subtotal</i>	<i>\$12,000.00</i>
TREE WASTE RECYCLING	Bulk wood disposal	
	<i>Subtotal</i>	<i>\$0.00</i>
VOLUNTEER SERVICES	Environmental Commission members	
	<i>Subtotal (100 hrs per year @ \$23.07)</i>	<i>\$2,307.00</i>
<hr/>		
TOTALS	<i>Borough Resources</i>	<i>\$338,491.00</i>
	<i>Value of Volunteer Contributions</i>	<i>\$2,307.00</i>



Training & Professional Development

TRAINING & PROFESSIONAL DEVELOPMENT GOALS

1. Provide individuals working within the Shade Tree Program with sufficient knowledge to make effective management decisions.
2. Ensure that tree inspections and hazard evaluations follow accepted standard procedures and that the results are objective, technically correct and consistent.
3. Ensure that all tree maintenance and planting projects and tasks are planned and completed properly, in accordance with the latest scientific knowledge and current industry standards.
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.

EXISTING PROGRAMS, POLICIES & PROCEDURES

1. **Training Provisions**
 - a) Training and professional development opportunities in arboriculture and urban forestry continue to be made available to employees and volunteers serving Florham Park's Shade Tree Program.
 - b) These opportunities include continuing education as required under the New Jersey Shade Tree & Community Forestry Assistance Act.
 - c) The cost of training is funded by 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, (3) individuals had satisfied the CORE Training requirements of the New Jersey Shade Tree & Community Forestry Assistance Act Training Skills & Accreditation Program including:
 - i) (2) Borough employees
 - ii) (1) Environmental Commission volunteer
3. **Current Expertise, Licenses & Certifications**
 - a) The Borough's current CORE trained volunteer is a New Jersey Certified Tree Expert.
 - b) The Director of Public Works is a Certified Public Works Manager and Certified Recycling Professional.
 - c) The Borough Engineer is a Professional Engineer and Certified Municipal Engineer.
 - d) One Department of Public Works employee is a New Jersey Certified Pesticide Applicator (Category 3a, Ornamentals).
4. **Recent Training**
 - a) The Borough Engineer, Engineering Assistant, Director of Public Works, and Department of Public Works personnel have attended a variety of related training programs including:
 - i) Tree rigging programs through the Rutgers NJAES Office of Continuing Professional Education.
 - ii) Tree Hazard Identification through the Rutgers NJAES Office of Continuing Professional Education.
 - iii) Worker safety, chainsaw safety, leaf-vac safety, traffic control, defensive driving, and other

related subjects through the Morris County Municipal Joint Insurance Fund.

- iv) Emerald Ash Borer training through the Rutgers NJAES Office of Continuing Professional Education.

**CURRENT
TRAINING NEEDS**

The Borough has reviewed its existing programs and personnel and identified the following areas in which training is currently needed or should be considered:

1. Ongoing tree hazard identification and assessment as well as tree rigging for all program participants. A focus on advanced level hazard evaluation training is desired for those who have already attended the available programs.
2. Tree species identification for Department of Public Works and Engineering personnel.
3. Mitigating tree and sidewalk conflicts as well as how to avoid them.
4. How to select tree species that are appropriate for the place they're being planted.
5. How to use Engineering's new Leica GPS unit and laser rangefinder, which will aid in tree location and future inventory efforts.

**2017 – 2021
OBJECTIVES**

1. **Ongoing Training Programs**
 - a) *2017 – 2021*
 - 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 Borough 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 one Borough employee or elected official and at least one Shade Tree Program volunteer.
3. **Tree and Sidewalk Conflicts Training**
 - a) *January – December 2017*
 - i) Train the Borough Engineer, the Director of Public Works, and appropriate shade tree program 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. **Species Identification Training**
 - a) *January – December 2018*
 - i) Train at least two members of the Department of Public Works' Tree Crew and/or two members of the Engineering Department to identify the species of trees found in Florham Park's public tree population via an in-house field training session conducted by a qualified arborist.

5. *Right Tree, Right Place Training*

a) *January – December 2019*

- i)** Train the Borough Engineer, the Director of Public Works, and appropriate shade tree program personnel on how to determine the right tree species to plant in the right place. Training should include recognizing potential above- and below-ground conflicts, utility conflicts, matching growth requirements to site characteristics, maintaining species diversity, proper mulching of trees, and, if time allows, advising for private tree plantings and how they differ from public plantings.

6. *Tree Hazard Evaluation Training*

a) *January – December 2020*

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

7. *Leica GPS Unit Training*

a) *January – December 2021*

- i)** Hire a qualified outside consultant to train Borough Engineering personnel on how to use the new Leica GPS unit and accompanying laser rangefinder to map Borough infrastructure assets, including trees and hardscape features.



Public Education, Awareness & Outreach

PUBLIC EDUCATION, AWARENESS & OUTREACH GOALS

1. Increase and maintain public interest and support for Florham Park’s Shade Tree Program.
2. Encourage citizens to volunteer and assist in promoting and completing various programs and projects, protecting public trees, and beautifying the Borough.
3. Promote the planting, protection and proper care of trees on private property for the benefit of the entire community.
4. Educate the public in the value of environmental stewardship.

EXISTING PROGRAMS, POLICIES & PROCEDURES

1. **Arbor Day**
 - a) Formal Arbor Day programs have not been held consistently in Florham Park over the past five years.
2. **Tree City USA & Other Awards**
 - a) The Borough has not been designated as a Tree City USA by the National Arbor Day Foundation to date.
3. **One Day, One School Program**
 - a) The Borough of Florham Park has assisted in organizing and has actively participated in *One Day, One School* tree maintenance projects since the program’s inception. The Borough is proud of the influence that the program has had elsewhere.
 - b) *One Day, One School* projects have been held in Florham Park during each of the past three years and the Borough routinely shares its equipment for projects held in neighboring towns.
4. **Media**
 - a) Shade Tree Program announcements and information are periodically posted on the Borough’s official internet website, www.florhamparkboro.net, or covered on *Florham Park Community Television*.
 - b) Program announcements and updates are periodically posted on the Borough’s official internet website, www.florhamparkboro.net.
5. **Awareness & Outreach Programs**
 - a) The Director of Public Works provides talks to various community groups regarding Department of Public Works activities, including a segment on the Borough’s Shade Tree Program.
 - b) The Department of Public Works Information Board provides a variety of timely announcements and educational material such as leaf collection schedules, maintaining turf during drought, etc.

2017 – 2021 OBJECTIVES

1. **Ongoing Public Education, Awareness & Outreach Programs**
 - a) *2017 – 2021*
 - i) Continue all existing public education, awareness and outreach programs on a regular basis and improve and expand these programs in accordance with the following objectives.

2. Annual Arbor Day / Earth Day Programs

a) January – December, 2017

- i) Identify a new group to take command of organizing annual Arbor Day celebrations.
- Seek an ambitious local community group to take charge of organizing annual Arbor Day celebrations. This could be a high school environmental group, the Environmental Commission, a local 4-H club, a local scouting group, or other group.

b) January – April 2018, and Annually Thereafter

- i) Organize and conduct an official Arbor Day program.
- Seek assistance from local civic groups, the Board of Education, local businesses, scouts, Garden Club, and others to help spread the workload and maximize visibility and attendance at the programs.
 - Vary the location, activities and target audience each year to help ensure a broad range of exposure and interest.

3. Emerald Ash Borer Technical Information Page on Borough Website

a) January – December, 2018

- ii) Create a technical information page about emerald ash borer (EAB) on the Shade Tree section of the Borough website.

4. Trees and Infrastructure Conflicts Page on Borough Website

a) January – December, 2019

- i) Create an educational section on the Borough website with 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.
 - The use of root control barriers to prevent lifted sidewalks.
 - A page which dispels the myth that tree roots can find water in undamaged lines to create leaks.
 - How developmental pruning can mitigate or prevent conflicts with overhead utilities.



TREE INVENTORY & ASSESSMENT GOALS

1. Provide accurate information upon which sound management decisions can be based.
2. Provide data for establishing maintenance, hazard identification and abatement, planting, and other community forestry programs.
3. Provide a system for accessing and utilizing inventory data to improve the efficiency and effectiveness of day-to-day tree management activities.
4. Provide a basis for monitoring and evaluating changes in the Borough tree population and the impact of management efforts over time.
5. Maintain treatment histories for individual trees, where appropriate.

EXISTING PROGRAMS, POLICIES & PROCEDURES

1. **Existing Tree Inventory**
 - a) In 2008, a NJ Certified Landscape Architect and volunteer Boy Scout completed a GIS-based inventory of Florham Park’s street trees.
 - b) The resulting management report provided the Borough with a variety of individual tree based recommendations for maintenance and planting, phased maintenance and planting schedules, and related cost-estimates.
 - c) To date, the inventory data has not been summarized to provide population-wide information, such as overall species composition, age distribution, canopy cover, etc. However, the inventory was reviewed to extract basic summary information for this Community Forestry Management Plan.
 - d) To date, the inventory has not been fully integrated into the Borough’s day-to-day tree management activities.
2. **Current Tree Assessment**
 - a) A summary of Florham Park’s public shade tree populations, and how they are believed to have changed over the past five years, is provided on page 6.

2017 – 2021 OBJECTIVES

1. **Ash Tree Data Summary**
 - a) *July – December 2017*
 - i) Using the 2008 GIS Tree Inventory data, generate a specific data summary and set of charts to characterize the distribution and quantity of ash trees within the Borough in preparation for senescence and removals due to emerald ash borer. Exported data should include:
 - Ash tree diameter distribution by 6-inch diameter classes.
 - Number of ash trees by condition class.
 - Number of ash trees already requiring removal, pruning and other maintenance, by size and priority level for the Borough overall and by neighborhood.
 - b) *January – June 2018*
 - i) Develop an action plan for addressing ash tree removals before the expected mass removals that will occur when emerald ash borer shows itself within the Borough. This will decrease the number of trees that will need to be removed at once when the borer strikes, mitigating the financial strain and safety liability of losing many large trees all at once:

- Where feasible and reasonable, remove trees that are already in poor or failing condition, trees that are dead, or trees with limited remaining life expectancy to mitigate total ash removal numbers later on.
- Keep detailed record of the locations and quantities of remaining ash trees by size and health class. When the borer appears, it will likely cause mass mortality of most Borough ash trees in a short time (fewer than five years).
- Knowing where the largest and oldest ash trees are will help Borough employees to focus on addressing the highest risk / most hazardous trees before moving on to smaller, less hazardous trees.
- The Borough cannot rely on homeowners to report ash tree senescence in time; plans and an accounting of trees must be prepared in advance of borer-related ash tree mortality, as ash trees tend to become brittle and hazardous soon after senescence.

2. *Tree Inventory Summary*

a) *January – June 2020*

- i) Using the 2008 GIS Tree Inventory data, create a variety of data summaries and charts to characterize the current status of the Borough’s street tree population. Specific summaries of use in effectively managing the tree population include:
 - Tree stocking expressed as the percentage of trees versus stumps versus vacant planting sites.
 - Genus and species composition expressed as a percent of the total number of trees.
 - Diameter distribution by 6-inch diameter classes.
 - Number of trees by condition class.
 - Number of trees by species and condition class to evaluate the relative performance of various species.
 - Number of trees requiring removal, pruning and other maintenance by tree size and priority level for the Borough overall and by neighborhood.
- ii) Retain these summaries and charts and use them as a baseline to which future reports can be compared and upon which the impact of management activities can be evaluated.
- iii) Develop means and methods for ensuring that the GIS Tree Inventory and related data are routinely updated to reflect trees removed and planted.

3. *Tree Inventory Utilization*

a) *June – December 2020*

- i) As necessary, organize maintenance recommendations contained in the 2008 GIS Tree Inventory report into work lists that can be systematically implemented by Department of Public Works personnel and/or hired contractors, as appropriate.
- ii) As necessary, organize tree planting recommendations contained in the 2008 GIS Tree Inventory report into planting lists that can be systematically and cost-efficiently completed in future planting projects:

b) *January – March 2021*

- i) Integrate the resulting maintenance and planting lists into the Department of Public Works’ work schedules

c) *April 2021, and continually thereafter*

- i) Systematically complete tree maintenance and planting work identified by these lists as time and resources permit.
- ii) Pursue both internal funding and external grants for hiring contractors to complete some or all of the work identified in a reasonable amount of time.
- iii) Integrate the inventory findings into ongoing planning decisions with regard to improving species diversity, etc.

**TREE HAZARD
MANAGEMENT
GOALS**

1. Minimize the risk of trees to public safety.

**EXISTING
PROGRAMS,
POLICIES &
PROCEDURES**

1. ***Tree Hazard Identification***
 - a) Hazardous tree conditions are currently identified via:
 - i) Service requests from adjacent property owners.
 - ii) Ongoing observations by Department of Public Works and other Borough employees during the course of their daily activities.
 - iii) Post-storm and other periodic inspections.
2. ***Tree Hazard Abatement Procedures***
 - a) Every tree for which a service request or complaint is submitted are inspected by the Director of Public Works, Department of Public Works Foreman, or Borough Engineer to determine the corrective work needed to abate the problem.
 - b) Work orders and contractor work lists are created, prioritized, scheduled, and completed according to the degree of hazard potential.
3. ***Record-Keeping***
 - a) Records of all actions taken and determinations made, from initial inspection through work completion, are maintained by the Department of Public Works.

**2017 – 2021
OBJECTIVES**

1. ***Ongoing Tree Hazard Management Programs***
 - a) *2017 – 2021*
 - i) Continue implementing all existing tree hazard management programs.
 - ii) Continue to address hazard abatement needs as they are identified in order of priority.
2. ***Tree Hazard Evaluation Training***
(see Training & Professional Development, Objective #6)

TREE PLANTING GOALS

1. Increase the Borough's public tree population to, and perpetuate it at, maximum practical stocking.
2. Optimize and maintain tree species and age diversity.
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.
6. Minimize the introduction and spread of invasive exotic species into natural areas.

EXISTING PROGRAMS, POLICIES & PROCEDURES

1. ***Planting Jurisdiction***
 - a) The Borough currently plants trees:
 - i) In Borough rights-of-way
 - ii) On Borough-owned properties
 - iii) In Borough parks
 - b) The Borough does not plant trees on private property, though options are being explored to allow Tree Fund dollars to be used to plant on private property, essentially allowing homeowners to receive a free tree if they are willing to take on the costs of maintenance.
2. ***Planting vs. Removal Ratio***
 - a) The ratio of public trees planted versus removed over the past five years has resulted in a net decrease in the public tree population.
 - i) In recent years, the Borough has planted an average of 10 public trees per year.
 - ii) Over the same period, the Borough has removed an average of approximately 36 public trees per year.
3. ***Planting Location & Tree Placement***
 - a) Planting locations are identified via:
 - i) Planting plans for special projects.
 - ii) A list of trees removed over the past ten years.
 - iii) Requests for street trees by adjacent property owners.
 - b) Trees are placed:
 - i) In a manner that will minimize future conflicts with above and belowground utilities, structures, hardscape fixtures, and traffic.
 - ii) Within the right-of-way limits, in the case of street trees. The Borough attempts to avoid placing street trees between the sidewalk and curb to help minimize future tree and sidewalk conflicts. However, insufficient space between the sidewalk and the right-of-way boundary has prevented this practice in most cases.
 - iii) In a manner that is appropriate for the design and intended use of the area.
4. ***Species Selection***
 - a) Species are currently selected:

- i) By the Director of Public Works and/or Borough Engineer.
 - ii) From a relatively short list of preferred species and cultivars.
- b) Species are selected with consideration to:
- i) Available growing space and above and belowground restrictions at each site.
 - ii) Past performance in Florham Park and neighboring communities.
- c) The 2008 GIS Tree Inventory report contains a wide variety of species recommended for new plantings.

5. *Tree Supply & Installation*

- a) Currently, new trees are:
- i) Supplied and planted by contractors hired by the Borough.
 - ii) Supplied by property owners contributing to the Borough's Tree Bank to meet their replanting obligation under Chapter 229 of the Borough Code and planted by Department of Public Works personnel.

6. *Post-Planting Care*

- a) The post-planting maintenance of new street trees is typically provided by adjacent property owners in accordance with instructions provided by the Department of Public Works.
- b) The post-planting maintenance of new trees on Borough properties is provided by Department of Public Works personnel.

7. *Funding & Sources*

- a) The cost of public tree planting is funded by:
- i) Property owners, in the case of trees furnished to meet their replanting obligations, or funds submitted to the Tree Fund for planting projects, under Chapter 229 of the Borough Code.

8. *Stormwater Management*

- a) Elements of the Borough 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 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.
- c) The Borough uses mainly eco-friendly fertilizers in maintaining Borough properties.

**2017 – 2021
OBJECTIVES**

1. *Ongoing Tree Planting Programs*

- a) *2017 – 2021*
- i) Continue implementing all existing tree planting programs where appropriate and with changes dictated by the following objectives.
 - ii) Continually seek grants and other external funding opportunities to help increase the number of trees planted each year.

2. *Planting and Removal Funding*

- a) *October – December, Annually*
- i) Seek funding every year through annual CSIP and other grants to fund planting and removal projects to both mitigate current tree hazards and to replenish trees lost from recent storms.

3. Street Tree Stocking Guidelines

a) January – March 2020

- i) Using the 2008 GIS Tree Inventory data, calculate “maximum practical stocking” – the maximum number of public trees that the Borough can effectively manage in accordance with all elements of this Plan, given available resources.
- ii) Calculate the number of 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 a 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 2020 – 2021

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

4. Species Composition Guidelines

a) January – March 2020

- i) Using the 2008 GIS Tree Inventory data, establish a long-term goal for an optimum species mix that provides sufficient genus and species diversity, provides insect and disease resistance, etc.
 - No single genus should comprise more than 10%-20% of the street tree population.
 - No single species should comprise more than 5%-10% 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 species composition by the end of each five-year management period (e.g. reducing maples by 5% by 2018, keeping the number of Callery pears below 5%, etc.) to help maintain consistent progress toward the long-term goal.

b) April 2020 – 2021

- i) Continually revise and expand the list of preferred species for planting by including a greater number species and improved cultivars that may be expected to grow well under various site conditions.
- ii) Design and complete planting programs in accordance with the species composition goals set.
- iii) Vary the species planted from year to year to provide species diversity over all age classes.

TREE MAINTENANCE GOALS

1. Improve and maintain the long-term health and physical condition of the Borough's public tree population.
2. Maximize the service life of existing trees.
3. Minimize tree hazards and maintain public safety.
4. Maximize the cost-efficiency of tree maintenance activities.
5. Respond promptly and effectively to citizen complaints and service requests.
6. Optimize the balance between the benefits that trees provide to the community and the cost of maintaining them.

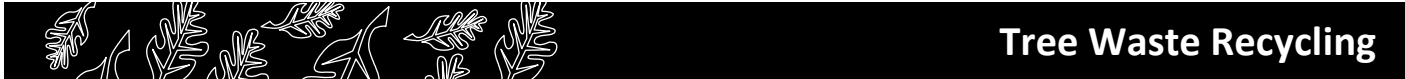
EXISTING PROGRAMS, POLICIES & PROCEDURES

1. ***In-House Crews***
 - a) Currently, three Department of Public Works employees dedicate approximately 25% of their time to Borough tree maintenance.
 - b) Department of Public Works personnel currently complete approximately:
 - i) 70% of all tree removal work
 - ii) 80% of all tree pruning work
 - iii) 0% of all stump removal work
 - iv) 90% of all emergency tree work
 - c) The Department of Public Works is currently equipped with:
 - i) (1) 32-foot aerial bucket truck
 - ii) (1) 16-yard chip truck
 - iii) (1) Front-end loader
 - iv) (2) Chippers
 - v) (3) 31-yard leaf vacs
 - vi) (1) Skid loader and stump grinder
 - vii) (1) Loader and wildcat
 - viii) (1) Backhoe
 - ix) (10) Chainsaws and related hand tools
2. ***Private Contractors***
 - a) Private tree maintenance firms are routinely hired to complete tree pruning and removal work.
 - b) Contractors currently complete approximately:
 - i) 30% of all tree removal work
 - ii) 20% of all tree pruning work
 - iii) 100% of all stump removal work
 - iv) 10% of all emergency tree work

3. **Mutual Assistance Agreements**
 - a) Department of Public Works crews and Borough contractors cooperate with Jersey Central Power & Light crews when pruning and removing trees near their electrical lines.
4. **Systematic Maintenance Programs**
 - a) The Borough systematically prunes all public street trees on a 10-15 year rotation.
5. **Work Identification, Prioritization, Scheduling & Record-Keeping**
 - a) Currently, tree maintenance needs are identified via:
 - i) Service Requests from adjacent property owners.
 - ii) Observations by Department of Public Works and other Borough employees during the course of their daily routines.
 - iii) Post-storm and other periodic inspections.
 - iv) Systematic pruning and elevation schedules.
 - b) All work needs identified are scheduled and completed in order of priority.
 - c) Records of the tree maintenance are maintained by the Department of Public Works.
6. **Tree Removal**
 - a) It is the Borough's policy to not remove live public trees unless they pose a threat to public safety.
 - b) In recent years, the Borough has removed an average of approximately 36 public trees per year.
 - c) As a standard procedure, the Department of Public Works' photographs all trees prior to removal and, where appropriate, retains Resistograph test results to document the conditions that necessitated the removal.
7. **Plant Health Care & Specialty Treatments**
 - a) Specialty treatments such as insect and disease controls and fertilization are generally not completed on public trees.
8. **Sidewalk Maintenance**
 - a) Adjacent property owners are responsible for replacing uplifted or damaged sidewalks.
 - b) Occasionally, where widespread problems exist, the Borough will conduct and cover the cost of street-wide sidewalk replacements programs.
 - c) To the extent possible, the Borough selects species and places street trees in a manner that will minimize future conflicts between trees and sidewalks.
9. **Funding**
 - a) The Department of Public Works operating budget typically covers the cost of tree maintenance work completed by its crews and private contractors.

**2017 – 2021
OBJECTIVES**

1. **Ongoing Tree Maintenance Programs**
 - a) *2017 – 2021*
 - i) Continue implementing all existing tree maintenance programs, policies and procedures on a regular basis.
 - ii) Continue to conduct systematic, area-wide pruning programs as time and resources permit.
2. **Structural Pruning for Young Trees**
 - a) *April – September, Annually*
 - i) Continue annual scouting for young trees in need of structural pruning.
 - ii) Continue annual structural pruning of young trees on a systematic basis so that all young trees are pruned on a roughly 5-year rotation.



Tree Waste Recycling

TREE WASTE RECYCLING GOALS

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

EXISTING PROGRAMS, POLICIES & PROCEDURES

- 1. **Recycling Facilities**
 - a) The Borough’s Environmental Center, a permitted recycling facility, is currently used to store, process and distribute wastes and recycled materials generated by the Borough’s Shade Tree Program.
- 2. **Material Processing, Use & Distribution**
 - a) *Leaves*
 - i) Collected leaves are delivered to the Environmental Center for composting.
 - ii) Leaves are typically composted within sixteen weeks. The resulting compost is:
 - Used as a soil conditioner on Borough properties.
 - Available for pickup by Borough residents at no cost.
 - iii) Excess leaves are picked-up and recycled by a contractor at no cost to the Borough.
 - b) *Wood Chips*
 - i) Wood chips generated by Department of Public Works crews are delivered to and stockpiled at the Environmental Center.
 - ii) These wood chips are:
 - Used as mulch on Borough properties.
 - Made available for pickup by Borough residents at no cost.
 - iii) Excess wood chips are picked up and recycled by a contractor in exchange for processed mulch.
 - c) *Bulk Wood*
 - i) Bulk wood generated by Department of Public Works crews is:
 - Cut and left at job sites for use as firewood by area residents.
 - Stockpiled at the Environmental Center for pick up by Borough residents at no cost.
 - ii) Excess wood is disposed at a commercial recycling facility where it is processed into various waste wood products.
- 3. **Recycling Income**
 - a) The Borough does not currently receive any income through tree waste recycling.
- 4. **Stormwater Management**
 - a) Leaves from developed publicly and privately owned properties are collected and recycled in a manner that minimizes their entry into stormwater drainage systems, streams and rivers. Specifically:
 - i) The Borough has installed type ‘N-Eco’ curb pieces on its stormwater inlets to minimize the entry of leaves.

- ii) The Borough enforces regulations for keeping leaf piles at least 10-feet from storm drains and provides curbside leaf pick up within 7 days.
- b) Stormwater management is addressed in detail in the Borough's *Stormwater Management Plan*.

**2017 – 2021
OBJECTIVES**

1. *Ongoing Tree Waste Recycling Programs*

- a) *2017 – 2021*
 - i) Continue implementing all existing tree waste recycling programs, policies and procedures.



**TREE CARE
DISASTER PLAN
GOALS**

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

**EXISTING
PROGRAMS,
POLICIES &
PROCEDURES**

- 1. ***Tree Emergency & Disaster Threats***
 - a) Severe weather is still considered the most serious threat to the Borough’s tree populations.
 - b) Widespread structural failures during severe weather also pose a serious threat to electrical service, communications, and the Borough’s ability to provide critical emergency services.
 - c) The risk of widespread damage and losses to biotic threats is currently low to moderate and manageable through responsible cultivar selection. However, Asian longhorn beetle, emerald ash borer, and bacterial leaf scorch are significant concerns in northern New Jersey.
- 2. ***Wildfire Protection***
 - a) Wildfire is not considered to be a significant threat to the public tree resource in the Borough of Florham Park at this time.
- 3. ***Storm Water Management***
 - a) Elements of the Borough 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 encouraged 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.
 - c) Stormwater management is addressed in detail in the Borough’s *Stormwater Management Plan*.
- 4. ***Existing Emergency & Disaster Plans***
 - a) The Office of Emergency Management’s *Emergency Operations Plan* outlines procedures for vital services and cooperative efforts between all Borough departments during an emergency or disaster.
 - b) The Borough currently lacks a formal plan specific to the repair and replacement of widespread tree damage and losses beyond initial emergency response efforts. 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 Borough against catastrophic losses.
- 5. ***Emergency Response***
 - a) The Department of Public Works, in cooperation with local utilities and a Borough contractor, is responsible for clearing trees and debris to open roadways and permit restoration of electrical service and communications.
 - b) The Department of Public Works and a Borough contractor remain on 24-hour call to respond to tree-related emergencies.

**2017 – 2021
OBJECTIVES**

1. *Ongoing Programs*

a) *2017 – 2021*

- 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.



Plan Preparation & Evaluation

PLAN PREPARATION & EVALUATION GOALS

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

EXISTING PROGRAMS, POLICIES & PROCEDURES

1. Preparation of this third five-year Community Forestry Management Plan was the cooperative effort of the Florham Park Department of Engineering and Department of Public Works, and their consulting arborist.
2. Preparation of this Plan was funded, in part, by a 2016 Green Communities Grant from the New Jersey Forest Service, Community Forestry Program.

2017 – 2021 OBJECTIVES

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



Summary of 2017 – 2021 Objectives

Objectives / Tasks	2017	2018	2019	2020	2021
PROGRAM ADMINISTRATION					
1. <i>Ongoing Administrative Programs</i> <input type="checkbox"/> Continue all existing administrative programs, policies and procedures already in effect (p.15, #1.a.i)					
TRAINING & PROFESSIONAL DEVELOPMENT					
1. <i>Ongoing Training Programs</i> <input type="checkbox"/> Continue all existing training programs on a regular basis (p.19, #1.a.i-ii)					
2. <i>NJ Community Forestry Training Skills & Accreditation Program</i> <input type="checkbox"/> Review training needs and schedule training, as necessary, to maintain Approved Status (p.19, #2.a.i-iii)					
3. <i>Tree and Sidewalk Conflicts Training</i> <input type="checkbox"/> Train appropriate shade tree program personnel in methods for correcting sidewalk damage caused by tree roots while preserving the health and structural condition of the trees (p.19, #3.a.i)					
4. <i>Species Identification Training</i> <input type="checkbox"/> Train at least two shade tree program members to identify the species of trees found in Florham Park’s public tree population via an in-house field training session conducted by a qualified arborist (p.19, #4.a.i)					
5. <i>Right Tree, Right Place Training</i> <input type="checkbox"/> Train at least two shade tree program members to determine the right tree species to plant in the right place, including recognizing potential conflicts, matching growth requirements to site characteristics, maintaining species diversity, and proper mulching (p.20, #5.a.i)					
6. <i>Tree Hazard Evaluation Training</i> <input type="checkbox"/> Train at least two individuals actively involved in the Borough’s Shade Tree Program to advance their abilities to recognize and evaluate potential tree hazards using the latest information and techniques (p.20, #6.a.i)					

Objectives / Tasks	2017	2018	2019	2020	2021
TRAINING & PROFESSIONAL DEVELOPMENT, cont'd					
7. <i>Leica GPS Unit Training</i> <input type="checkbox"/> Hire a qualified outside consultant to train Borough Engineering personnel on how to use the new Leica GPS unit and accompanying laser rangefinder to map Borough assets (p.20, #7.a.i)					
PUBLIC EDUCATION, AWARENESS & OUTREACH					
1. <i>Ongoing Public Education, Awareness & Outreach Programs</i> <input type="checkbox"/> Continue all existing public education, awareness and outreach programs on a regular basis (p.21, #1.a.i-ii)					
2. <i>Annual Arbor Day / Earth Day Programs</i> <input type="checkbox"/> Identify a new group to take command of organizing annual Arbor Day celebrations (p.22, #2.a.i) <input type="checkbox"/> Plan, organize and conduct annual Arbor Day celebrations (p.22, #2.b.i)					
3. <i>Emerald Ash Borer Technical Information Page on Borough Website</i> <input type="checkbox"/> Create a technical information page about emerald ash borer on the Shade Tree section of the Borough website (p.22, #3.a.i)					
4. <i>Trees and Infrastructure Conflicts Page on Borough Website</i> <input type="checkbox"/> Create educational section on the Borough website with information about common conflicts between trees and hardscape features (p.22, #4.a.i-ii)					
TREE INVENTORY & ASSESSMENT					
1. <i>Ash Tree Data Summary</i> <input type="checkbox"/> Using the 2008 GIS Tree Inventory data, generate a data summary and set of charts to characterize the distribution and quantity of ash trees within the Borough in preparation for emerald ash borer (p.23, #1.a.i) <input type="checkbox"/> Develop an action plan for addressing ash tree removals before the expected mass removals that will occur when emerald ash borer shows itself within the Borough (p.23, #1.b.i)					
2. <i>Tree Inventory Summary</i> <input type="checkbox"/> Using the 2008 Inventory data, create summaries to characterize the Borough's street tree population; Retain for future comparison; Develop means and methods for ensuring the GIS Tree Inventory and related data are routinely updated (p.24, #2.a.i-iii)					

Objectives / Tasks	2017	2018	2019	2020	2021
<p>TREE INVENTORY & ASSESSMENT, cont'd</p> <p>3. <i>Tree Inventory Utilization</i></p> <ul style="list-style-type: none"> <input type="checkbox"/> As necessary, organize tree maintenance and planting recommendations contained in the 2008 GIS Tree Inventory report into work lists that can be systematically implemented by DPW personnel or contractors (p.24, #3.a.i-ii) <input type="checkbox"/> Integrate the resulting maintenance and planting lists into DPW work schedules (p.24, #3.b.i) <input type="checkbox"/> Complete tree maintenance and planting work identified by these lists and time and resources permit; Pursue both internal and external funding and grant opportunities; Integrate the inventory findings into ongoing planning decisions regarding species diversity, etc. (p.24, #3.c.i-iii) 				■	■
<p>TREE HAZARD MANAGEMENT</p> <p>1. <i>Ongoing Tree Hazard Management Programs</i></p> <ul style="list-style-type: none"> <input type="checkbox"/> Continue all existing tree hazard management programs; Continue to address hazard abatement needs as they are identified in priority order (p.25, #1.a.i-ii) 	■				
<p>TREE PLANTING</p> <p>1. <i>Ongoing Tree Planting Programs</i></p> <ul style="list-style-type: none"> <input type="checkbox"/> Continue all existing tree planting programs; continually seek grants and other external funding opportunities (p.27, #1.a.i-ii) <p>2. <i>Planting and Removal Funding</i></p> <ul style="list-style-type: none"> <input type="checkbox"/> Seek funding every year through annual CSIP and other grants to fund planting and removal projects (p.27, #2.a.i) <p>3. <i>Street Tree Stocking Guidelines</i></p> <ul style="list-style-type: none"> <input type="checkbox"/> Using the 2008 GIS Tree Inventory data, calculate maximum practical stocking for Borough street trees; Establish feasible goals for achieving maximum practical stocking with a suitable age structure within an appropriate time-frame (p.28, #3.a.i-iv) <input type="checkbox"/> Design and complete planting projects in accordance with the stocking goals and planting rates set (p.28, #3.b.i) 	■				
	■	■	■	■	■
				■	
				■	

Objectives / Tasks	2017	2018	2019	2020	2021
<p>TREE PLANTING, cont'd</p> <p>4. <i>Street Tree Species Composition Guidelines</i></p> <ul style="list-style-type: none"> <input type="checkbox"/> Establish a long-term goal for optimum species composition in the street tree population; Establish intermediate progress goals for adjusting the existing species composition (p.28, #4.a.i-ii) <input type="checkbox"/> Continually revise and expand the list of preferred species to include a wider variety of species and cultivars; Design and complete planting projects in accordance with the goals set; Vary the species planted from year to year to maintain species diversity over all age classes (p.28, #4.b.i-iii) 				■	■
<p>TREE MAINTENANCE</p> <p>1. <i>Ongoing Tree Maintenance Programs</i></p> <ul style="list-style-type: none"> <input type="checkbox"/> Continue all existing tree maintenance programs, policies and procedures on a regular basis; Continue conducting the annual tree pruning rotation (p.30, #1.a.i-ii) <p>2. <i>Structural Pruning for Young Trees</i></p> <ul style="list-style-type: none"> <input type="checkbox"/> Continue annual scouting for young trees in need of structural pruning; continue annual structural pruning on a systematic basis (p.30, #2.a.i-ii) 	■	■	■	■	■
<p>TREE WASTE RECYCLING</p> <p>1. <i>Ongoing Tree Waste Recycling Programs</i></p> <ul style="list-style-type: none"> <input type="checkbox"/> Continue all existing tree waste recycling programs (p.32, #1.a.i) 	■	■	■	■	■
<p>TREE CARE DISASTER PLAN</p> <p>1. <i>Ongoing Programs</i></p> <ul style="list-style-type: none"> <input type="checkbox"/> Continue all existing programs, policies and procedures; Reduce risks via other elements of this Plan (p.34, #1.a.i-ii) 	■	■	■	■	■
<p>PLAN PREPARATION & EVALUATION</p> <p>1. <i>Annual Program Evaluation</i></p> <ul style="list-style-type: none"> <input type="checkbox"/> Evaluate the prior year's accomplishments, identify objectives not yet completed, and adjust programs, as necessary; Prepare and submit an <i>Annual Accomplishment Report</i> to NJFS (p.35, #1.a.i-iii) 	■	■	■	■	■

Objectives / Tasks	2017	2018	2019	2020	2021
<p>PLAN PREPARATION & EVALUATION, cont'd</p> <p>2. <i>Five-Year Evaluation</i></p> <ul style="list-style-type: none"> <input type="checkbox"/> Evaluate the Shade Tree Program’s accomplishments during the current 5-year management period; Evaluate progress toward the overall goals of the Shade Tree Program; Begin formulating new objectives and program adjustments (p.35, #2.a.i-iii) <p>3. <i>2022 – 2026 Plan Development</i></p> <ul style="list-style-type: none"> <input type="checkbox"/> Finalize new objectives and program adjustments and prepare and submit a Community Forestry Management Plan for the 2022 – 2026 management period (p.35, #3.a.i-ii) <input type="checkbox"/> Obtain State approval for 2022 – 2026 Community Forestry Management Plan (p.35, #3.b.i) 					

**RELATED
ORDINANCES**

1. Chapter 229, *Trees*, which regulates the removal and protection of trees on private lands within the Borough (adopted as Ordinance #14-14, July 17, 2014, repealing and replacing Chapter 229, *Trees*, of the Code of the Borough of Florham Park).

Borough of Florham Park, NJ
Borough Code

Chapter 229: TREES

[HISTORY: Adopted by the Borough Council of the Borough of Florham Park 7-17-2014 by Ord. No. 14-14.^[1] Amendments noted where applicable.]

[1] Editor's Note: This ordinance also repealed former Ch. 229, Trees, adopted 2-20-2007 by Ord. No. 07-1.

§ 229-1. Purpose.

- A. The Borough of Florham Park has concern that indiscriminate, uncontrolled and excessive destruction, removal and clear-cutting of trees upon lots and tracts of land results in increased drainage control costs, increased soil erosion and sedimentation, decreased fertility of the soil, degradation of water resources, decreased groundwater recharge, increased buildup of atmospheric carbon, increased dust and decreased property values, all of which negatively affect the character of the Borough of Florham Park and the aesthetic beauty.
- B. The Borough of Florham Park realizes that excessive removal of trees adversely affects the health, safety and general welfare of our residents and desires to regulate and control indiscriminate and excessive cutting of trees by preserving the maximum possible number of trees in the course of development of a site and in the Borough as a whole, ensuring that the health of trees preserved on a site is maintained throughout the development process, protecting larger, older specimens of trees and encouraging innovative design and grading to promote the preservation of existing trees.
- C. It is recognized that there is a strong relationship between the integrity of the Borough of Florham Park and the region's water resources, the development on steep slopes, tree removal, soil disturbance, stormwater management and the general use of land resources. Therefore, the appropriate management of these resources is an important health, safety and general welfare concern. Managing the Borough's tree resources is consistent with the Borough's state-approved Community Forestry Management Plan, as in P.L. 1996, c. 135.^[1]
[1] Editor's Note: See N.J.S.A. 13:1L-17.1 et seq.
- D. Trees are declared to be an important cultural, ecological, scenic and economic resource. Proper management of this resource will ensure its maintenance and result in economic returns. The Borough's Community Forestry Management Plan is intended to meet the objectives of preserving, protecting, enhancing and maintaining trees and providing opportunities for the continued use of forest resources which are compatible with the maintenance of the environment. This will be accomplished by ensuring proper management of forest and trees through the application of sound management practices. To that end, it shall be unlawful to cut down, damage, poison, or in any other manner destroy or cause to be destroyed any trees covered by this chapter, except in accordance with the provisions of this chapter.

§ 229-2. Applicability.

All applications to the Planning Board or Zoning Board of Adjustment for approval of a major subdivision, minor subdivision or site plan requiring tree removal shall include an application for a tree removal permit. All applications for demolition permits for the purpose of tearing down a house for reconstruction in the Borough shall also require a tree removal permit. Any residential, commercial, business or industrial lot owner wishing to remove trees upon said lot must comply with the § 229-8 of this chapter. The application shall be submitted to the Engineering Department for review and approval by the Borough Engineer or his/her designee. No tree that was planted or preserved as part of any landscape plan or in accordance with any subdivision or site plan approval shall be removed, except for such trees directed to be removed pursuant to § 229-5F through I.

§ 229-3. Definitions.

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

BOARD

The Florham Park Planning Board or Zoning Board of Adjustment.

CALIPER

The standard measure of tree size for trees to be newly planted. The measurement is taken six inches above the ground for trees four inches in diameter or less and 12 inches above the ground for trees over four inches in diameter.

CLEAR-CUTTING

The removal of all standing trees on a lot or a portion of a lot.

COMMUNITY FORESTRY MANAGEMENT PLAN

A plan developed by the Borough outlining the goals and objectives for managing trees on municipal property with the intent of minimizing liability to the municipality and maximizing the useful life of the tree resource. The plan is approved by the New Jersey Department of Environmental Protection, Division of Parks and Forestry, New Jersey Forest Service.

DIAMETER AT BREAST HEIGHT

The diameter of a tree measured 4 1/2 feet (forestry method) above the ground level on the downhill side for existing trees. "Diameter at breast height" may appear as the abbreviation "DBH" (diameter breast height).

DRIPLINE

A limiting line established by a series of perpendicular drop points marking the maximum radius of the crown of an existing tree, but not less than six feet from the trunk, whichever is greater; and within which no construction or disturbance shall occur.

REPLACEMENT TREE

A nursery-grown certified tree, properly balled, marked with a durable label indicating genus, species and variety, and satisfying the standards established for nursery stock and installation thereof, as set forth by the American Association of Nurserymen.

SELECTIVE CUTTING

The removal of larger trees on an individual basis while leaving trees of lesser size.

SILVICULTURE

The management of any wooded tract of land to ensure its continued survival and welfare, whether for commercial or noncommercial purposes, pursuant to a plan approved by the New Jersey Bureau of Forestry.

THINNING

The removal of undesirable, competitive, diseased or damaged trees so as to cultivate and improve the development of remaining trees on the lot.

TREE

Any self-supporting woody plant, deciduous or coniferous, which reaches a typical mature height of 12 feet or more at maturity and has a typical DBH of four inches or greater.

TREE CANOPY

The top layer or crown of mature trees.

TREE FUND

A fund established by the governing body for the administration and promotion of tree resource sustainability projects and practices which may be consistent with the Community Stewardship Incentive Program as outlined within the New Jersey Shade Tree and Community Forestry Assistance Act, P.L. 1996, c. 135. ^[1]

TREE PLANTING PLAN

A specific plan adopted by the governing body for the location and placement of trees on public property.

TREE REMOVAL PERMIT

A permit issued by the Borough Engineer, or his/her designee, to remove or destroy a tree or trees.

TREE REPLACEMENT AND REFORESTATION PLAN

A specific plan for replacement of removed trees in accordance with the provisions of this chapter.

WOODED ACRES PERMITTED FOR DEVELOPMENT

The wooded lands within a lot or tract which are not specifically excluded from development by any federal, state, county or municipal law or ordinance, deed restriction or covenant running with the lands. For purposes of this chapter, those lands specifically eliminated from consideration as wooded acres permitted for development include, but are not limited to, wetlands as defined by N.J.S.A. 13:9B-1 et seq.

[1] Editor's Note: See N.J.S.A. 13:1L-17.1 et seq.

§ 229-4. Tree cutting or removal restricted.

With the exception of the exemptions set forth in § 229-5, no person shall cut or remove, or cause to be cut or removed, any existing tree with a diameter at breast height (DBH) of 10 inches or greater upon any lands within the Borough of Florham Park unless the cutting or removal can be accomplished in accordance with the provisions of this chapter.

§ 229-5. Exemptions.

The following shall be exempt from this chapter:

- A. Commercial nurseries and fruit orchards.
- B. Christmas tree farms.
- C. Residential lots that are located in the R-15 Zone where removal is no more than three trees with a ten-inch DBH or less in any two-year period.
- D. Residential lots that are located in all other zones and are removing no more than six trees with a ten-inch DBH or less in any two-year period.
- E. Any tree which is part of a cemetery.
- F. Trees directed to be removed by municipal, county, state or federal authority pursuant to law.
- G. Removal of trees which are dead, dying or diseased, or trees which have suffered damage, or any trees whose angle of growth makes them a hazard to structures, roads, or human life. Dead or diseased trees shall not be turned into mulch and applied to the site, but shall be disposed of in a manner so as not to disease other trees on the site.
- H. Removal of trees which appear to cause structural damage to buildings or foundations.
- I. Any tree growing on or over a public right-of-way or public land.
- J. Pruning or removal of trees within the right-of-way by utility companies for maintenance of utility wires or pipelines and the pruning of trees within sight easements.
- K. Trees removed in conjunction with farmland greater than five acres in size that will be actively devoted primarily to agricultural uses and that yield a minimum annual income of \$500 from said farming activities, except that where the owner desires to remove any trees for the purpose of expanding farmlands, an inventory of trees to be removed, identified by size, species, and common name shall be prepared and filed with the Engineering Department prior to any tree removal. In the event the expanded farmlands are not actively devoted primarily to farming activities for a period of seven years following tree removal, the tree replacement provisions contained in § 229-7 shall apply.
- L. Those projects which have received major subdivision or site plan approval prior to the effective date of this chapter and amended major subdivision and site plans shall be exempt from the provisions of § 229-6, but must still apply for a tree removal permit prior to cutting pursuant to § 229-8.

§ 229-6. Tree removal requirements for major and minor subdivisions and site plans.

Each application to the Planning Board for approval of a major or minor subdivision or a site plan that requires the removal of trees shall include an application for a tree removal permit. The application and development proposal shall conform to the following provisions:

- A. Application form. The application form may be obtained from the Construction Office and shall include the following information:

- (1) The name and address (street, lot and block) of the owner of the premises and status of legal entity (individual, partnership, corporation of this or any other state, etc.);
 - (2) A description of the premises where removal is to take place, including lot and block numbers, and street address as assigned;
 - (3) A list of all trees to be removed with a DBH equal to or greater than six inches identified by size and species, including total number of each species to be removed;
 - (4) The purpose for tree removal (new construction, street or roadway, driveway, utility easement, recreation areas, parking lot, etc);
 - (5) Proof that there are no delinquent property taxes or assessments due on the property for which the application is submitted; and
 - (6) Such other information as may be deemed necessary in order to effectively process and decide such application.
- B. Landscape plan or tree replacement and reforestation plan. The following information shall be provided on a landscape plan prepared by a registered landscape architect or registered professional engineer and submitted with the application for tree removal. Where replacement of trees is required, the plan must depict that tree replacement shall occur as provided in § 229-7. The landscape plan must be submitted prior to tree removal permit approval.
- (1) Base information.
 - (a) Location of existing tree canopy within the property boundaries.
 - (b) Location of individual trees with a DBH equal to or greater than six inches identified by size, species and common name within the area of development/limit of disturbance.
 - (c) Location of individual existing trees and their driplines noted for preservation within the area of development/limit of disturbance identified by size and species. Where clusters of trees exist on the site or are contiguous with adjacent sites, fragmentation of the cluster shall be avoided where possible.
 - (d) Location of all required replacement trees.
 - (e) Clear labeling of the area(s) intended for tree/vegetation removal.
 - (f) Tree protection material details and limit of disturbance line.
 - (g) Location of existing and proposed buildings/structures.
 - (h) All bodies of water and wetlands, including water retention and detention areas.
 - (i) Location of all existing driveways and parking areas.
 - (2) Design requirements.
 - (a) Only those trees necessary to permit the construction of buildings, structures, streets, driveways, infrastructure and other authorized improvements shall be removed.
 - (b) No more than 60% of the existing tree canopy within the property boundaries shall be removed. The location of the remaining 40% of the tree canopy to be preserved shall be noted on the landscape plan. Steep slope limits of disturbance shall supersede this section when appropriate.
 - (c) No more than 10% of existing trees with a DBH equal to or greater than 10 inches within the area of development/limit of disturbance shall be removed unless the applicant shall replant trees removed in accordance with § 229-7.
 - (d) Input from a designated subcommittee of the Board and/or the Environmental Commission shall be requested for recommended areas of tree preservation.
 - (e) Landscape standards may be waived by the Board when trees and/or shrub masses are preserved and/or relocated on site that duplicate or essentially duplicate the landscape requirements contained in this section.
 - (f) The appropriate reviewing authority shall have the option of requiring a conservation easement to protect any or all trees or tree canopy areas to remain on site.
- C. Site protection.

- (1) Tree protection measures and the limit of disturbance line shown on the landscape plan shall be provided in the field with snow fencing or other durable material and verified by the Borough Engineer or other designated official prior to soil disturbance.
- (2) Protective barriers shall not be supported by the plants they are protecting, but shall be self-supporting. Barriers shall be a minimum of four feet high and shall last until construction is complete.
- (3) Chain-link fencing may be required for tree protection if warranted by site conditions and relative rarity of the plant.
- (4) Snow fencing used for tree protection shall be firmly secured along the dripline, but shall be no less than six feet from the trunk.
- (5) The grade of the land located within the dripline shall not be raised or lowered more than six inches unless compensated by welling or retaining wall methods; and in no event shall welling or retaining wall methods be less than six feet from the trunk of a tree.
- (6) No soil stockpiling, storage of building materials, construction equipment or vehicles shall be permitted within the dripline or within six feet of any remaining trees, whichever is greater.
- (7) Any clearing within the dripline, or within six feet of the trunk of a remaining tree, whichever is greater, shall be done by hand-operated equipment.
- (8) Where a tree that has been noted for preservation is severely damaged and unable to survive, tree replacement shall occur as provided in § 229-7.

§ 229-7. Tree replacement and reforestation.

- A. All replacement trees shall be planted on site in accordance with the following tree replacement schedule. However, if the site in question cannot physically accommodate the total replacement amount of trees, then the applicant may plant tree replacements off site on private property owned by the applicant; or may plant tree replacements off site on Borough-owned property or rights-of-way pursuant to the Borough's Tree Planting Plan and upon direction and supervision of the Department of Public Works and/or Borough Engineer; or shall make payment to the Tree Fund in accordance with the tree replacement schedule below; or any approved combination thereof. The applicant's tree replacement plan shall be submitted in writing to the Borough Engineer for his or her approval.
- B. A Tree Fund shall be established by the governing body of the Borough of Florham Park to receive and disburse replacement tree contributions. Appropriations from the Tree Fund shall be authorized by the governing body with consideration of the Environmental Commission's and/or Borough Engineer's recommendation in accordance with the Borough's Tree Planting Plan. The primary purpose of said fund is to provide for the planting of replacement trees on public land. The Tree Fund will also cover administrative costs to implement plans, specifications, and bid documents for planting contracts on public lands only, in accordance with the Public Contracts Law.^[1] The Tree Fund may also be used to disperse tree vouchers from a tree nursery to residents who desire to obtain a tree for planting within the front yard only of private property where planting in the Borough's right-of-way is not possible due to the presence of utility lines.

[1] Editor's Note: See N.J.S.A. 40A:11-1 et seq.

- C. The replacement of trees shall occur as prescribed in the following table:

Tree Replacement Schedule

DBH Caliper of Existing Tree Removed (inches)	Number of Replacement Trees (3-inch DBH Caliper)
Between 10 and 12	3
Between 12 and 18	4
Between 18 and 24	5
Between 24 and 30	7
Between 30 and 36	10
36 or greater	The equivalent of 3-inch caliper trees or greater needed to equal the DBH of the removed tree

- D. The dollar amount paid to the Tree Fund per replacement tree shall be \$325 per required replacement tree.
- E. Replacement trees shall be of nursery-grade quality, balled and burlapped, and shall be in accordance with standards set forth in ANSI Z60.1, American Standard for Nursery Stock.
- F. The type of replacement tree(s) shall be the same as the species removed from the site or other trees indigenous to the area as approved by the Engineering Department in accordance with standards developed by the Environmental Commission.
- G. The planting of all replacement trees shall be done by or supervised by a person with horticultural training in tree care and planting methods.
- H. Newly planted replacement trees shall be monitored for a period of one year to ensure the health of the trees. If the replacement trees die within the one-year period, the developer/applicant shall replace the dead tree.

§ 229-8. Tree removal and protection on lots zoned residential, commercial, industrial and business, excluding major and minor subdivisions and site plans.

- A. Applicability. For any residential lot that is located in the R-15 Zone with a tree removal rate of more than three trees with a ten-inch DBH or greater in a two-year period, or any residential lot that is located in all other residential zones with a tree removal rate of more than six trees with a ten-inch DBH or greater in a two-year period, an application for a tree removal permit shall be submitted to the Engineering Department. The application and development proposal shall conform to the provisions contained herein.
- B. The provisions of this section shall also apply to all lots zoned commercial, industrial and business.
- C. Application form. The application form shall be available from the Engineering Department and shall include the following information:
 - (1) The name and address (street and lot and block) of the owner of the premises and status of legal entity (individual, partnership, corporation of this or any other state, etc.);
 - (2) A description of the premises where removal is to take place, including lot and block numbers, and street address as assigned;
 - (3) A list of all trees to be removed with a DBH equal to or greater than 10 inches identified by size and species, including total number of each species to be removed. No more than 10% of existing trees with a DBH equal to or greater than 10 inches within the area of development/limit of disturbance shall be removed unless the applicant shall replant trees removed in accordance with § 229-7;
 - (4) The purpose for tree removal (construction, building addition, street or roadway, driveway, utility easement, recreation area, patio, parking lot, etc.);
 - (5) Such other information as may be deemed necessary in order to effectively process the application.
- D. Sketch data.
 - (1) Base information. A sketch shall be provided showing the location of the tree(s) to be removed with a DBH of 10 inches or greater.
 - (2) Design requirements. Trees to be removed shall be only those trees necessary to permit the construction of buildings or building additions, structures, driveways, septic fields, decks and lawn areas. The trees removed shall not constitute more than 1/2 acre or shall be no more than 50% of the lot size, whichever is less.
- E. Site protection. Site protection measures shall be provided in accordance with § 229-6C.
- F. Tree removal criteria. In addition to the design requirements stated above, the Engineering Department may grant a tree removal permit based upon one or more of the following circumstances:
 - (1) Where the location of an existing tree provides no other alternative but to place a structure outside the permitted building setbacks.
 - (2) Where the location of an existing tree negatively impacts on an existing septic field.

- (3) Where no other alternative exists for the placement of a building, building addition, structure, septic field, driveway, deck, patio or lawn area, for the recreational use by the inhabitants of the building or dwelling, or any other authorized improvements, but in the vicinity of an existing tree.
 - (4) Where the location or growth of a tree inhibits the enjoyment of any outdoor pool, patio or deck.
 - (5) Where the location, angle or growth of an existing tree makes it a hazard to structures or human life.
- G. Review by Planning Board. If the request for tree removal is rejected by the Borough Engineer because, in his/her opinion, it does not satisfy the above criteria or if, in his/her opinion, the proposed tree removal would cause erosion, silting, soil instability, or drainage problems, then the application may be forwarded to the Planning Board for action.
- H. Tree replacement. Tree replacement shall be accordance with the provisions in § 229-7 of this chapter.

§ 229-9. Review standards.

In accordance with the design requirements provided in this chapter, unless otherwise indicated herein, a tree removal permit may only be granted for the following reasons and under the following terms and conditions:

- A. Where the area proposed for tree removal is to be occupied by a building or other structure; a street or roadway; a driveway; a parking area; a patio; a swimming pool; a recreation area; a power, drainage, sewerage or any other utility line, easement, or right-of-way; or where the area of tree removal is 20 feet or less from either side of or around the perimeter of any of the foregoing, whichever is applicable.
- B. In areas proposed for tree removal which are not to be occupied by any of the uses or facilities set forth in Subsection A of this section, the Borough Engineer or his/her designee shall assess the following:
 - (1) That the continued presence of such tree or trees is likely to cause danger to persons or property upon the property for which removal is sought, or upon adjoining or nearby property.
 - (2) That the area where such tree or trees are located has a cut, depression or fill of land, or the topography of the land is of such a character as to be injurious or dangerous to such tree or trees, or to a tree or trees located nearby.
 - (3) That the removal of trees is for the purpose of conducting forestry activities, which activities include, but are not limited to, the harvesting of trees in accordance with a forest management plan and the thinning out of a heavily wooded area, with some trees to be removed and other trees to remain.
- C. Upon an express finding by the Borough Engineer or his/her designee that the proposed tree removal will not result in or cause, increase or aggravate any or all of the following conditions: impaired growth or development of remaining trees or shrubs on the property of the applicant or upon adjacent property, soil erosion, sedimentation and dust, drainage or sewerage problems, dangerous or hazardous conditions, and depression in the land value of the subject property and properties in the neighboring area.
- D. The Borough Engineer or his/her designee shall have the power to affix reasonable conditions to the granting of the permit for the removal of trees. If the applicant does not agree with the existing tree assessment or any conditions of the permit by the Borough Engineer or his/her designee, the applicant may obtain the services of a certified tree expert or arborist, at the applicant's cost, to prepare a report for the Borough Engineer or his/her designee for reconsideration.

§ 229-10. Protection of trees.

Whenever an application for tree removal is granted under the terms and conditions of this chapter, the following protective measures shall be observed:

- A. No material or temporary soil deposits shall be placed within the dripline of any existing tree to be preserved.
- B. Except while engaged in tree removal, no equipment shall be operated within six feet of any tree protected by this chapter, nor shall such equipment be operated at any time in such a manner as to break, tear, bruise, decorticate or otherwise injure any living or dormant tree.

§ 229-11. Permit approval.

- A. Time limits for approval.

- (1) Where the permit application is submitted as a part of an application for major subdivision, minor subdivision or site plan approval, the time for approval shall be governed by the timing requirements applicable to major subdivision, minor subdivision or site plans.
 - (2) Where the application is made in connection with a residential, commercial, business or industrial lot that is not part of a major or minor subdivision or site plan, the Borough Engineer shall act on the application within 30 days of its receipt or within such additional time as is consented to by the applicant. Failure to act within 30 days, or any extension thereof, shall be deemed to be an approval of the application and thereafter, a tree removal permit shall be issued.
- B. Approval by default with regard to major subdivision, minor subdivision and site plan applications shall not be deemed to be a waiver of a tree removal permit.

§ 229-12. Duration of permits.

Permits granted for the removal of trees under the terms and conditions of this chapter shall run with the land and shall remain in force and effect for the following periods of time, and not thereafter. Once the permit has expired, a new application must be submitted for review and a new permit issued.

- A. If granted for a lot or parcel of land for which no building permit is required: one year from the date of issuance.
- B. If granted for a lot or parcel of land for which a building permit is required, but for which no site plan approval is required by the Planning Board: until expiration of the building permit granted with such tree removal permit.
- C. If granted for a lot or parcel of land for which site plan approval from the Planning Board is required as a condition precedent to obtaining a building permit: until expiration of the site plan approval, or expiration of the building permit issued after such site plan approval.
- D. If granted for a lot or parcel of land for which minor subdivision is sought: one year from the date of granting such minor subdivision.
- E. If granted for a lot or parcel of land for which preliminary approval of a major subdivision is sought: until expiration of such approval.

§ 229-13. Inspection.

- A. Prior to taking final action upon any application for tree removal, an inspection of the site shall be made by the Borough Engineer or his or her designee.
- B. Prior to any tree removal, all trees planned for removal must be marked and areas to be cleared identified for inspection by a municipal representative.
- C. The Borough Engineer or his or her designee shall periodically inspect the site throughout the duration of construction in order to ensure compliance with this chapter. Such inspection shall be made of the site referred to in the application, and of contiguous and adjoining lands, as well as of lands in the vicinity of the application, for the purpose of determining drainage conditions and physical conditions existing thereon.

§ 229-14. Notice of commencement of tree removal.

- A. The holder of a tree removal permit shall notify the Engineering Department, in writing, by telephone or by a personal visit, of the intent to remove trees before cutting them down. This shall be done at least four business days in advance of when the tree removal activity will commence.
- B. The notice shall also include information as to the manner of disposal of the removed trees.

§ 229-15. Fees.

- A. A review fee of \$25 shall accompany the application for a tree removal permit, if one is required. This fee is per event, not a fee for each tree. This fee will be deposited into the Tree Fund.
- B. The tree replacement fee will be in accordance with § 229-7.

- C. Tree Fund. A Tree Fund shall be established by the governing body of the Borough of Florham Park to receive and disburse replacement tree contributions. Appropriations from the Tree Fund shall be authorized by the governing body with consideration of the Environmental Commission's and/or Borough Engineer's recommendation in accordance with the Borough's Tree Planting Plan. The primary purpose of said fund is to provide for the planting of replacement trees on public land. The Tree Fund will also cover administrative costs to implement plans, specifications, and bid documents for planting contracts on public lands only, in accordance with the Public Contracts Law.^[1] The Tree Fund may also be used to disperse tree vouchers from a tree nursery to residents who desire to obtain a tree for planting within the front yard only of private property where planting in the Borough's right-of-way is not possible due to the presence of utility lines.

[1] Editor's Note: See N.J.S.A. 40A:11-1 et seq.

§ 229-16. Violations and penalties.

When regulated trees are removed without a tree removal permit, the affected areas shall be replanted to the satisfaction of the Borough Engineer. A fine of \$250 will be imposed for failure to notify the Borough Engineer of tree cutting within exception limits. Further, a fine per tree for exceeding the limits of cutting within the exception limits for up to and including the allowed number of trees in any and all zones in the Borough will be subject to the following fines: \$1,500 per tree for anything beyond that number or for any tree cutting without a permit when a permit is required. The removal of trees without a permit would also require replanting trees in accordance with § 229-7 of this chapter.