Community Forestry Management Plan

Borough of Oakland, Bergen County, New Jersey

2019-2023

Mayor and Borough Council

Linda H. Schwager, *Mayor*

John P. Biale, *Council President*

Robert Knapp, Eric Kulmala, Lewis Levy, Pat Pignatelli, Russell Talamini, *Council Members*

Shade Tree Commission

Ed Clark, *Chairman*

Kim Bouma, *Vice Chairman*

Anthony Smid, Ray Carroll, Nancy Krause, **Committee Members**

January 11, 2019

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I.   Municipal Information Form

Municipality	Borough of Oakland
County	Bergen County
Address	One Municipal Plaza
	Oakland, NJ 07436
Contact Name and Title	Ed Clark - Shade Tree Commission Chairman
Phone #	201-337-8111
Fax # and E-mail	
Organization Name	Shade Tree Commission
Mayor/County Freeholder's Signature	
Date of Management Plan Submission	January 11, 2019
Time Period Covered in Management Plan	2019-2023

Community Stewardship Incentive Program (CSIP) Practices Identified in Management Plan

- ☒ CSIP #1 Training
- ☒ CSIP #2 Community Forestry Ordinance Establishment
- ☒ CSIP #3 Public Education and Awareness
- ☒ CSIP #4 Arbor Day
- ☒ CSIP #5 Tree Inventory
- ☒ CSIP #6 Hazard Tree Assessment
- ☒ CSIP #7 Storm Damage Assessment
- ☒ CSIP #8 Tree Maintenance and Removals
- ☒ CSIP #9 Insect and Disease Management
- ☒ CSIP #10 Wildfire Protection
- ☒ CSIP #11 Tree Planting
- ☒ CSIP #12 Tree Recycling
- ☒ CSIP #13 Sidewalk Maintenance Program
- ☒ CSIP #14 Storm Water Management
- ☒ CSIP #15 Other

Official Use Only Certification

The above named municipality/county has made formal application to the New Jersey Forestry Service. I am pleased to advise you that after our review, the NJ Forestry 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_____

           State Forester   Approved date

II.   Introduction

This is the Borough of Oakland's 2nd Community Forestry Management Plan. The prior plan covered the years from 2010-2014 while this one spans the years 2019-2023. It was created in accordance with the "Guidelines for a Subsequent Community Forestry Plan" as required under the New Jersey Shade Tree and Community Forestry Assistance Act, P.L. 1996, Chapter 135, revised in 2010.

The Oakland Shade Tree Commission is charged with the regulation, planting, care, and control of shade and ornamental trees along the streets, public lands, and parks. The Borough of Oakland has been covered with trees ever since European settlers migrated to the area – tree lined streets are important to the rural character of the community.

This Community Forestry Management Plan is being developed to help the Oakland Shade Tree Commission manage the forest resources throughout the Borough. The emphasis of this plan is placed on the protection and safety of the community forest as well as public outreach and education on the proper management of trees.

Implementation of this plan will result in a healthier community forest through the planting of the right tree in the right place and promotion of proper arboricultural practices. It will result in greater public awareness and buy-in to the benefit of proper tree management.

Approval of this plan by the State Forester, upon favorable recommendation from the Community Forestry Council, will provide continued liability protection to the Borough under the New Jersey Shade Tree and Community Forestry Act and will render the Borough eligible to receive grant money form the New Jersey Forest Service to help implement this plan.

Mission Statement

To protect the asset that the shade trees represent, enhance the quality of life for the Borough of Oakland residents; foster a better environment by planting and maintaining safe, healthy, and sustainable shade trees; preserving species diversity; and promoting proper tree care and stewardship in the community.

Goals and Objectives

The goals and objectives of this five-year plan are:

Goal #1: Public Outreach

To promote awareness and stewardship for the benefit of trees throughout the community.

Objectives of Goal #1:

1. Create the guides related to proper tree care outlined above and make them available to the public.
2. Continue to celebrate Arbor Day.
3. Gain recognition as a Tree City USA.
4. STC to begin hosting booths at town events.
5. Reach out to like-minded groups to create synergistic relationships and cost-sharing opportunities.
6. Host at least one (1) free speaking events open to the general public per year. These should feature a different expert on tree-related topics. Continue to film these talks for use on the Borough cable access channel and/or posting to YouTube.
7. Perform iTree assessment of trees in high visibility areas to show residents of the environmental benefits of individual trees.

Goal #2: Tree Risk Assessment

To identify and reduce the risk associated with dead, dying, diseased, or structurally unsound community trees within the Borough of Oakland.

Objectives of Goal #2:

1. Have members of the Department of Public Works (DPW) staff and Shade Tree Commission (STC) attend tree risk assessment identification and mitigation training programs.
2. Create a tree removal and pruning schedule based on the results of the Borough tree inventory and risk assessment.
3. Develop guidelines for tree risk assessment that will be used to prioritize future mitigation activity.
4. Create a tree risk identification and mitigation educational packet for homeowners and make it available to the public. Or, provide links to existing packets on the STC and/or Department of Public Works websites.
5. Apply for Community Stewardship Incentive Program (CSIP) grant to hire professional contractors to remove trees that are beyond the capacity of the in-house Public Works crews.

Goal #3: Tree Planting

To promote the concept of "the right tree in the right place" and improve the species diversity within the Borough in order to help reduce the long-term tree maintenance costs.

Objectives of Goal #3:

1. Continue to plant trees with the proper mature height to avoid conflict with any overhead utility lines.
2. Review and update all Community Forestry Ordinances as needed. Revision of site plan ordinances to require planting of new trees following construction is a priority.
3. If available, utilize the Borough tree inventory to identify potential new tree planting sites.
4. If available, utilize the Borough tree inventory to increase the species diversity found within Oakland.
5. Create and promote an approved tree and shrub planting list that contains species that are known to thrive in the local environment and be free from major disease or insect issues. Consider adding the document to the STC and/or Department of Public Works website.
6. Create a list of tree and shrub species to avoid planting. This should include known invasive, non-native species and species that are prone to insect and disease issues in the local environment and be made available to the public.
7. Create a guide for proper tree planting methods that should be followed for all tree plantings on Borough property. It should be made available to the public.
8. Apply for CSIP grants to increase the number of trees planted in the Borough.

Goal #4: Tree Maintenance and Care

To promote awareness of proper tree care to the citizens of the Borough of Oakland, educate members of the STC and Public Works Department on proper tree care methods, and continue to maintain the safety of Borough trees.

Objectives of Goal #4:

1. Maintain pruning schedule for young trees to promote proper structure free of codominant stems and other defects.
2. Members of Public Works staff and STC should perform regular inspection of tree population to identify any issues that require action. Consider dividing the town in sections and "assigning" STC members to monitor trees in their section.
3. Consider treating significant ash trees for emerald ash borer. This pest has been found in surrounding Boroughs in the last five years and likely present in Oakland.
4. Begin program to remove all ash trees in the right of way that will not be treated.
5. Educate members of the Public Works staff and STC on the identification of new and emerging insect and disease problems.
6. Create a guide that promotes proper application of mulch around trees and shrubs and warns of the impacts of misapplication. Post guide on the municipal website.
7. Promote alternatives to root pruning and tree removal to alleviate root-sidewalk conflicts. Examples include the use of expansion joints, root barriers or pervious concrete.

8. Promote methods of preserving mature trees during a construction project as an alternative to removal. Provide links to informational websites, such as www.treesaregood.org, on the Borough website for interested citizens.
9. Consider providing links to various insect and disease fact sheets that will educate the public on their identification and various treatment options on the Borough website. Add new links as local insect and disease pressures change.
10. Continue to send members of the STC and Public Works Department to the annual NJ Shade Tree Federation meeting.

Goal #5: Tree Inventory & Assessment

Determine the current species diversity and condition of the tree population in the municipal right-of-way, as well as available planting spaces for new trees, within the Borough of Oakland in order to plan for future planting needs and budgetary requirements.

Objectives of Goal #5:

1. Contact universities and colleges in the vicinity with an urban forestry program, such as Rutgers, to determine viability of trained students performing inventory in exchange for course credits.
2. Apply for grant money through the Community Stewardship Incentive Program (CSIP) to hire a consultant to perform the inventory if the use of students is deemed unfeasible. If students perform the inventory, apply for CSIP grant to hire consultant to perform tree risk assessments on select that are identified.
3. Once the initial inventory is completed, continue to update dataset to account for removals and new plantings as they occur.
4. Create an interactive map of tree inventory and summary of collected data for municipal use and consider posting on the municipal website.

Goal #6: Implement Five-Year Community Forestry Plan (CFMP)

To monitor, review and update the five-year community forestry plan in order to provide a smooth transition to the next five-year plan.

Objectives of Goal #6:

1. Review this CFMP by the STC and Superintendent of Public Works on an annual basis; update objectives as needed based on previous successes, failures and/or budgetary changes.
2. Share this CFMP with other Borough entities to create synergy.
3. Continue to meet or exceed State required CORE training and Continuing Education Units (CEUs).
4. Continue to file Annual Accomplishment Reports with the State.
5. Prepare for next 5-year CFMP (2024-2028).

Liability Statement

Trees in the Borough of Oakland are dominant in the landscape and create a pleasing environment for living, work, and play. Although street trees are an asset to the community, it is inevitable that they mature and require care, maintenance and eventually replacement. Care and maintenance, in addition to planting "the right tree in the right place," can help ensure community trees not only contribute to the environmental and economic vitality of the area, but also reduce the potential risk to public safety. The Borough of Oakland must work within a reasonable budget that may not be able to meet each and every need of the community forest immediately. Therefore, it is the intent of this plan to focus available resources on the greatest need and outline a step-by-step action plan to achieve a healthy forest with commensurate reduced risks to public safety.

The Borough of Oakland feels, by taking logical steps outlined in the plan, it will garner public support for plan implementation and demonstrate long-term benefits to the environment and public safety. The Borough also wants to become more proactive in the management and care of its trees. Through inventory and condition assessment, the Borough will initiate corrective action by the public works department, contracted professionals, or the county prior to structural tree failure and other tree related conditions. It is acknowledged that not all elevated-risk conditions will be predicted, however, good maintenance and care will reduce the probability of tree failures. The Borough also wants to increase homeowner and school children's awareness, appreciation, and knowledge of trees to enable them to contribute well-informed and meaningful efforts towards the health and sustainability of the Borough of Oakland's trees.

Following the Community Forestry Management Plan will demonstrate that the Borough of Oakland is devoting reasonable levels of resources in a planned manner to reduce the number of tree related accidents, and thereby, reduce its exposure to liabilities and increase public safety.

III. Community Overview

History of the Borough of Oakland

Over three hundred years ago, Oakland was a rural valley inhabited by the Minsi Native Americans of the Lenni Lenape tribe. In the 17th century, Dutch settlers were stopped by the Ramapo River and became enamored with the area. On June 5, 1695, Arent Schuyler bought 5,500 acres of land that would become the Borough (at the time, the area was known as "The Ponds").

The region remained virtually uninhabited due to the 25-mile hike from Hackensack, a day and a half journey because of the winding Native American paths. In 1710, there were ten families recorded as living in the area. The Dutch settlers lived closely with their native neighbors, who were as tradition-based and family oriented as the Dutch were themselves.

The 18th century brought growth to "The Ponds" community as farms and lumberyards developed. Dirt roads led to Pompton Lakes, Paterson, Hackensack, and Suffern and allowed for stagecoaches to pass through the area. To fill the needs of the travelers, taverns, inns, and stables sprung up. However, in the midst of change, Oakland's settlers remained industrious, with lives centered on family and church.

During the Revolutionary War, George Washington spent the night at the Van Allen House on July 14, 1777. Oakland's families did not witness any battles, but they were in constant fear of British raids. With no tie to the English, the region became an important supply line for the Continental Army. George Washington, as a way to send false documents about planned campaigns, used the route to send messages to and from West Point.

Attempting to return to a life of solitude, the Oakland community refocused on their church after the war and set up a 9:00 PM curfew on the roads. However, in 1869 the New Jersey Midland Railroad arrived and soon became the center of town. The train connected Oakland to surrounding towns and opened markets for farm products, charcoal, and lumber outside of the immediate area. In 1870, the town's name was changed from "The Ponds" to Oakland.

1902 saw Oakland become incorporated and its first mayor and council elected. In 1909, the Volunteer Fire Department was founded, with electricity coming to the community shortly after in 1916. After World War II, Oakland developed quickly and became a non-farm community with people owning small stores and commuting to surrounding towns for a living. Route 208 was completed in 1962, followed by I-287, making Oakland more accessible to the world.

Five Years of Progress

The implementation of the prior 5-year Community Forestry Management Plan (2010-2014) has seen many challenges and rewards. All of the objectives were not achieved, but many

accomplishments were made. Annual accomplishment reports were filed with the State. Below are highlighted achievements made since the prior 5-year plan:

1. Effective and efficient administration of the STC.
2. Attendance at the New Jersey Shade Tree Federation annual meetings.
3. Continued membership in the NJ Shade Tree Federation.
4. Maintenance of required CORE training and CEUs.
5. Continued training of Public Works employees.
6. Continued to host annual Arbor Day celebration with tree planting event.
7. Continued emphasis has been placed on the philosophy of "plant the right tree in the right place". Trees of a mature height not to interfere with utility lines are now planted exclusively under wires in areas of past conflict.
8. A steady number of trees have been planted in the past five years. In 2017, 35 trees were planted in Oakland.

The benefits gained by the Borough of Oakland for following the prior CFMP include:

1. Increased liability protection under the Act.
2. Ability to apply for grants to better managed their tree resource.
3. Participation in training and informational opportunities at the New Jersey Shade Tree Federation annual meetings and other events.
4. Established a plan to guide and focus the work of the STC and Department of Public Works for managing the Borough's tree resource.
5. Increased public outreach and awareness for the methods and importance of the proper care of trees.

Unfortunately, Oakland did not accomplish all the objectives from the previous CFMP. A street tree inventory has never been performed. Although some ordinance changes have been made, the STC believes stronger ordinances are needed.

In order to combat some of these shortcomings, the Borough of Oakland will more tenaciously pursue grant opportunities that are offered through the CSIP, the Sustainable Jersey Small Grants Program, and other programs.

Changes to the Oakland Tree Resource

There has not been a significant change to the Oakland tree resource since adoption of the prior 5 year plan. Oakland has been and remained a rural community that is heavily wooded. In order to maintain this canopy, additional tree preservation and tree planting ordinances will be considered.

Relation to the Borough's Master Plan

All aspects of this Community Forestry Management Plan are consistent and compatible with the goals, objectives, and general intent of the Borough's Master Plan, particularly the Open Space and Recreation Plan that was adopted into it in November 2017. In general, comprehensive shade tree management efforts, as outlined in this CFMP, will help preserve the aesthetic appeal of existing streetscapes and the overall character of residential neighborhoods and the Borough overall. Management efforts will ensure that the shade tree resource is maintained so that the physical, economic, and social benefits of trees to the community will be maximized and continue over the long term.

IV.   Community Forestry Program Administration

The administration, implementation and oversight of Oakland's Community Forestry Programs are shared among several Borough agencies and the STC. The roles of each are well defined and understood. The Superintendent of Public Works is responsible for the maintenance of street and park trees. This includes hiring outside contractors for jobs that are beyond the capability of the in-house staff. On occasion, the Borough's inspectors and/or police get involved in enforcing the current tree code. The STC functions primarily as a municipal advisory group on tree-related issues. They are very involved in promoting the proper care of trees and educating the public on their importance.

Since 2015, a Tree Service Request form became available on the municipal website. The form allows the public to enter their contact information, the location of the tree in question and their specific reason for concern regarding this tree. Upon submittal, this form is forwarded directly to the Department of Public Works for review and potential action.

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Borough of Oakland Organizational Chart
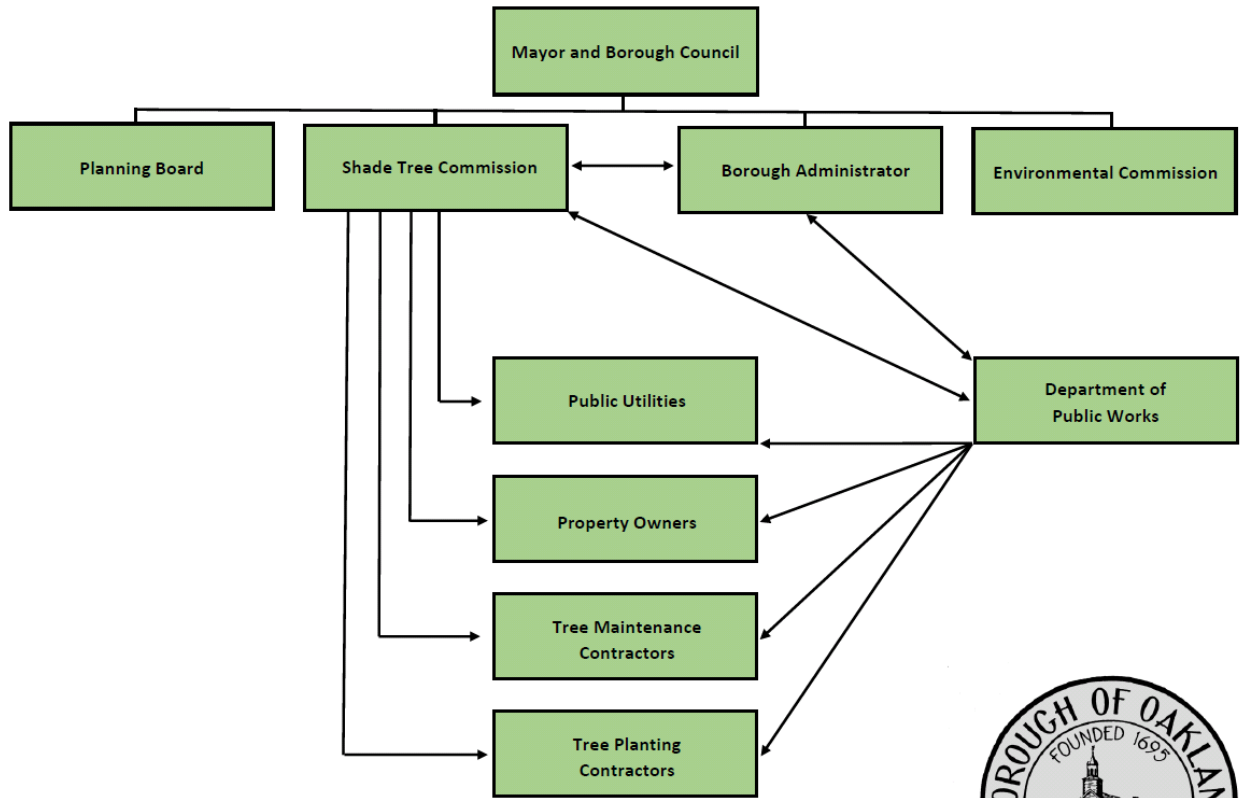
Community Forestry Program Organizational Chart

V.   Community Maps

Figure 7b: Land Cover 2007 Forest Land Uses

Figures 7b, 8a, and 9a come from the Borough of Oakland Natural Resource Inventory, completed 2014.

Legend

- ▭ Borough of Oakland
- ── Roads
- ▭ Parcels
- Lakes, Rivers and Streams

Land Use/Land Cover 2007 - Forest

- 4110 Deciduous, 10-50% Crown Closure
- 4120 Deciduous > 50% Crown Closure
- 4220 Coniferous, > 50% Crown Closure
- 4311 Mixed With Coniferous Prevalent (10%-50% Crown Closure)
- 4321 Mixed With Deciduous Prevalent (10%-50% Crown Closure)
- 4410 Old Field (<25% Brush Covered)
- 4420 Deciduous Brush/Shrubland (>25% Brush Covered)
- 4430 Coniferous Brush/Shrubland (>25% Brush Covered)
- 4440 Mixed Deciduous/Coniferous Brush/Shrubland (>25% Brush)

Figure 7b: Land Cover 2007 Forest Land Uses

Oakland Borough Natural Resource Inventory
Prepared by Kratzer Environmental Services

0   0.25   0.5   1 Miles

N

Data Sources: NJDEP
Note: Map accuracy is limited to the accuracy and scale of the original data sets.
Disclaimer: This map was developed using NJDEP digital data, but this secondary product has not been verified by NJDEP and is not NJDEP authorized.
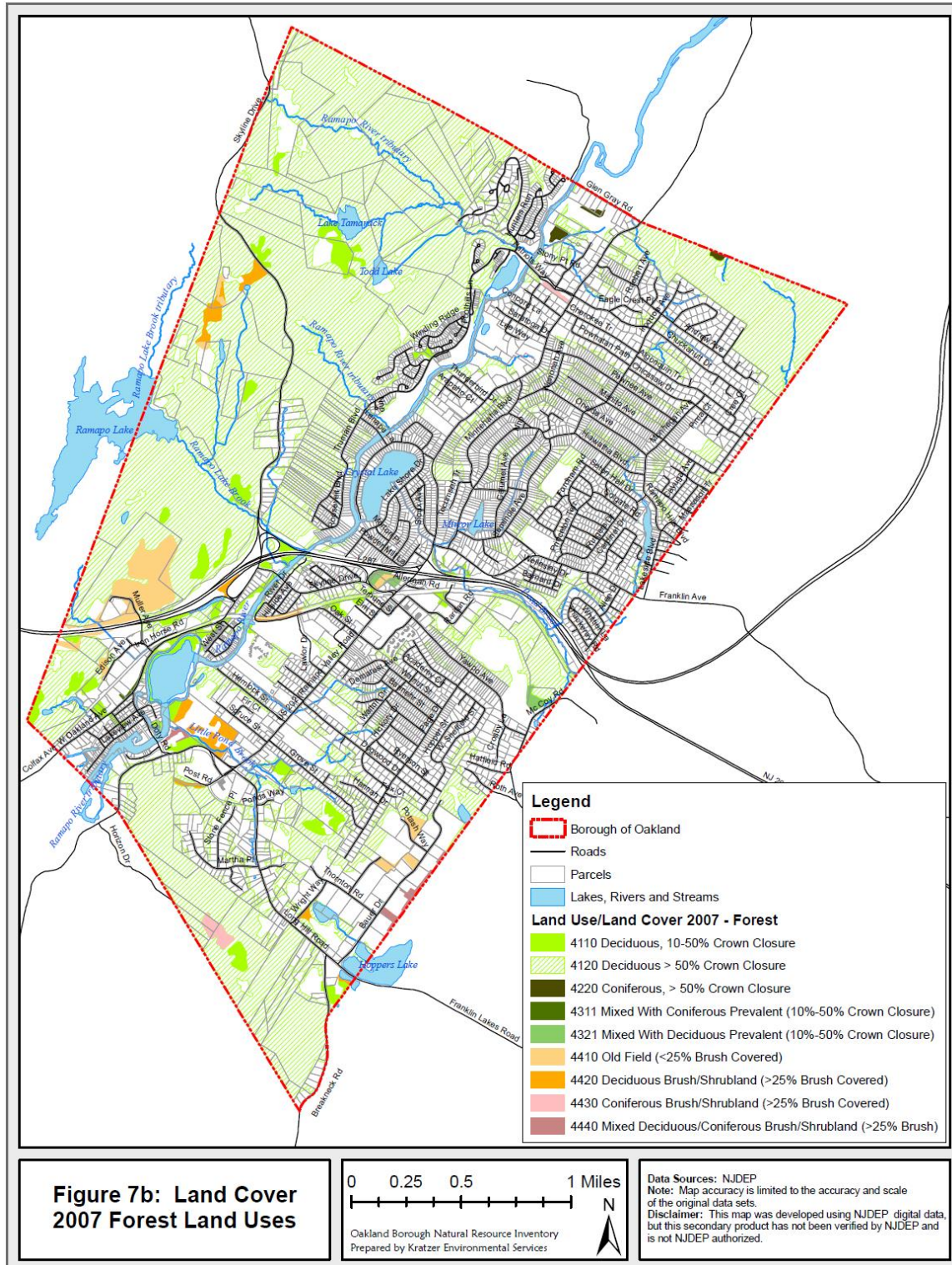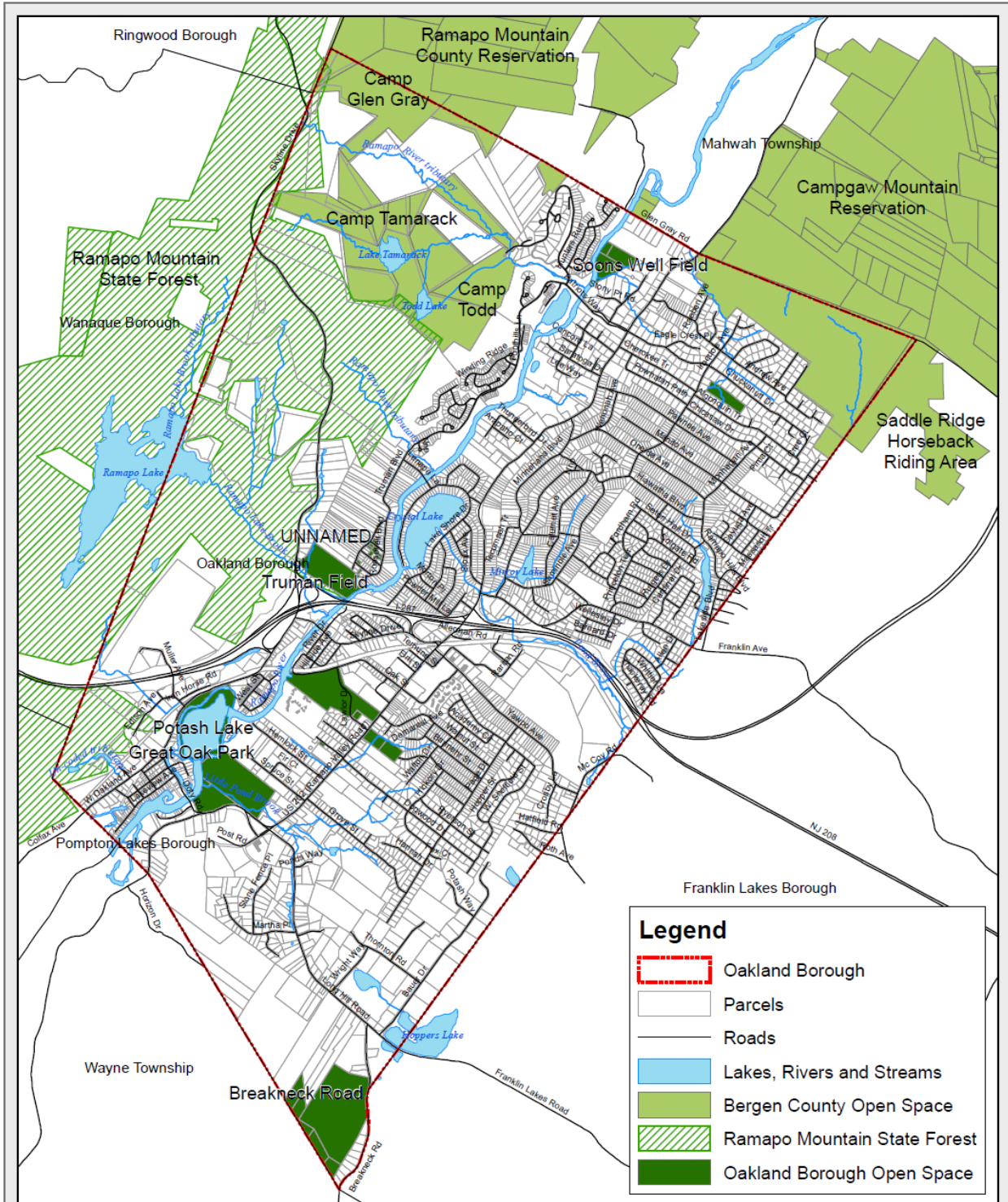
Figure 8a: Open Space and Recreation Areas

Figure 8a: Open Space & Recreation Areas

Oakland Borough Natural Resource Inventory
Prepared by Kratzer Environmental Services

Legend
- Oakland Borough
- Parcels
- Roads
- Lakes, Rivers and Streams
- Bergen County Open Space
- Ramapo Mountain State Forest
- Oakland Borough Open Space

0   0.25   0.5   1 Miles

N

Data Sources: NJDEP
Note: Map accuracy is limited to the accuracy and scale of the original data sets.
Disclaimer: This map was developed using NJDEP digital data, but this secondary product has not been verified by NJDEP and is not NJDEP authorized.

Figure 9a: Highlands Preservation and Planning Areas

Figure 9a: Highlands Preservation and Planning Areas

Oakland Borough Natural Resource Inventory
Prepared by Kratzer Environmental Services
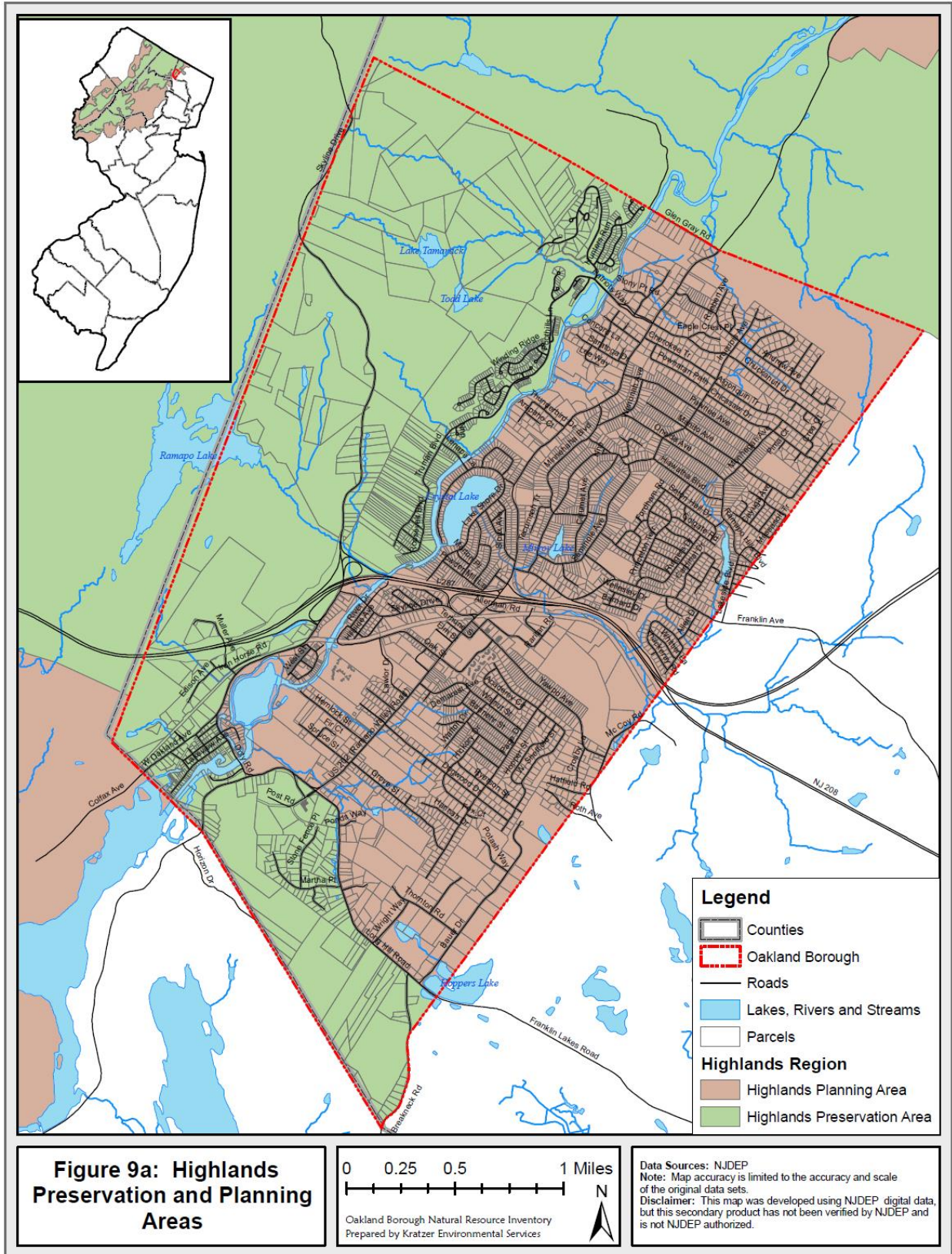
VI.   Training Plan

There are currently four people within the Borough of Oakland that have received CORE training under the Act. They are:

1.   Edward Clark, STC Chairman
2.   Nancy Krause, STC
3.   Anthony Smid, STC
4.   Jason Duncan, DPW

In order to obtain the required 8 Continuing Education Units (CEUs) per year, STC members and Public Works Department employees attend approved educational and training courses, such as those offered at Rutgers University. The science of arboriculture is constantly changing. Activities such as topping and lion-tailing were considered good practice 30 years ago but are no longer acceptable as they have been shown to do more harm than good. It is important that the Borough expose the Public Works crews to the most updated philosophies regarding proper tree care. To this end, two members of the Department of Public Works team attended a Tree Pruning course offered by Rutgers. Over the next five years, the Borough will continue to focus on training these people who work most closely with the Borough tree resource. Proper care of young and newly planted trees will reduce the need for action and associated costs for these trees are they mature. The staff of the Department of Public Works should receive additional training over the next five years on topics such as:

1.   Proper tree pruning, especially young tree pruning
2.   Safety & Personal Protection Equipment (PPE)
3.   Proper tree planting, including use of soil amendments
4.   Species selection and nursery standards
5.   Tree risk assessment

The STC focuses its energy on educating the public on the importance of trees and how to properly care for its tree resource. In order to maintain the STC as experts in the community, a diverse range of education topics need to be explored. Over the next five years, training in the following areas should be explored:

1.   Tree identification and risk assessment
2.   Sidewalk & tree root conflicts
3.   Proper tree planting and young tree care
4.   Insect & disease identification and the practice of Integrated Pest Management (IPM)
5.   Tree inventories

The Borough of Oakland is committed to training its employees and educating its residents on trees and their maintenance.

VII. Public Education/Awareness/Outreach

Oakland Borough supports and understands that public education, awareness and outreach is crucial to gain local support for their tree programs. Oakland Borough, through the STC, has engaged in efforts to transmit information to its residents and will extend its efforts in this category through the implementation of this plan. Below are specific outreach and educational events that can be implemented over the next five years in order to promote community awareness.

Tree City USA

The Borough of Oakland is not currently a Tree City USA member. They will work to achieve this status during each year of this plan.

Arbor Day

The Borough of Oakland continues to hold annual Arbor Day celebrations. The event is planned by STC, Department of Public Works and the local elementary schools. It is an excellent way to educate the younger generation on the benefits of trees. The Mayor gives a speech on the importance of continuous care and maintenance of the community's shade trees. Typically, a tree planting occurs during the event and the event is promoted through the local newpaper.

Guest Speaking Events

Beginning in 2019, the Borough will host one guest speaker per year from the NJDEP or a New Jersey Licensed Tree Expert at the municipal library (or similar location) on basic tree maintenance and choosing the proper tree. If successful, they will increase the number of seminars per year.

A goal of the Borough is to continue to host at least two (2) speaking events per year. Topics to consider for future presentations include, but are not limited to:

- o Alternatives to tree removal for resolving tree & sidewalk conflicts
- o Tree preservation and protection during construction
- o Tree identification
- o Proper small tree and shrub pruning techniques
- o Species selection

Oakland Cable Television

The Oakland Public Access Cable television station will be used in the next five years to promote tree stewardship. Arbor Day and Founder's Day festivities may be filmed and replayed on this channel. Speakers will be interviewed and allowed to share tips for proper tree care.

Borough of Oakland Website

In the next five years, the Borough will produce a tree species planting list and Tree Maintenance Guide that will be posted to the Borough website. Currently, the STC page contains minimal information. This should change over the next five years. Over the next five years, resources should be devoted to making the STC page on the Borough website the premier location for residents to get their tree-related information. In order to do this, additional information guides need to be developed and links to University fact sheets and independent arboricultural websites (such as www.treesaregood.org) need to be added. Also, a constantly updated schedule of all tree-related events in the community should be created.

Synergy With Like-Minded Groups

Over this 5-year CFMP, the STC will look for opportunities for synergy with like-minded groups in the community. Potential groups to contact include, but are not limited to:

- o Oakland Environmental Commission
- o Local Boy Scouts and Girl Scouts
- o Sustainable Oakland Green Team
- o Great Oak Park Committee
- o Other nearby Shade Tree Committees/Commissions

VIII. Statement of Tree Budget

The STC is made of up six volunteers who donate their time at the rate of $21.79/hour[1]. They hold twelve hour long meetings per year (one per month) and are active at the annual Arbor Day and Founder's Day celebrations. The STC volunteer perform the inspections of street trees and as part of the tree removal permit process. There are various additional events throughout the year that they host and attend. Members spend an average of 300 volunteer hours per year, for a total of $6537 of in-kind services.

There is currently no room in the budget to perform some of the specific, essential objectives of this plan, such as a complete tree inventory. Seeking out and obtaining grant money will be essential to the success of this plan.

Borough of Oakland 2017 Tree Budget Summary

The O&E Shade Tree Budget for 2017 was $38,300. Yard waste collection and recycling, leaf collection, brush chipping/collection, and Christmas tree collection/recycling are part of the DPW Solid Waste Collection. The total budget for the Oakland Solid Waste Collection was $1,291,100, but includes additional services such as garbage collection. An itemized line budget was not available. There is a $30,000 budget for the operation of the compost facility. Shade Tree Advisory Committee & other volunteer hours donate approximately 300 hours per year; the equivalent of $6537.

Borough of Oakland 2018 Tree Budget Summary

Shade Tree Budget	
Shade Tree Budget O&E	$38,300.00
Vegetative Wastes	
Leaf Collection	
Brush Clipping	
Christmas Evergreen Recycling	
DPW Solid Waste Collection	$1,291,100.00
Park and Street Tree Care (other than Shade Tree Above)	
Pruning, Planting, watering, removals, etc.	
Contracted services for tree fertilization	
Shade Tree Advisory Committee and Volunteer Hours	
	$6,537.00
TOTAL	**$1,335,937.00**

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[1] This rate is the 2010 figure developed by Independent Sector and published on their website: http://www.independentsector.org/volunteer_time

IX.   Statement of Plan Implementation

This is the second 5-year Community Forestry Management Plan for the Borough of Oakland. During the past 5-year period, the Borough made progress and achieved many goals highlighted earlier in this document. Going forward, the emphasis for the STC is to educate the public and promote proper tree care throughout the community. The DPW will continue to actively manage the Borough's tree resource by utilizing sound arboricultural practice and maintaining a high level of training.

Implementation of the Borough training plan over the next five years has been discussed in Section VI and Section VII covers the plan for public outreach, education and awareness. Below the tree inventory & assessment, tree risk assessment, tree planting, and tree maintenance and care plans are discussed.

Tree Inventory & Assessment

Performing a new, complete inventory of Oakland's street and park trees is a priority during this 5-year period. The STC and Superintendent of Public Works will explore many options in order to accomplish this goal. Initially, they will seek out and contact universities in the vicinity that offer urban forestry education to determine the feasibility of utilizing students to perform the inventory to gain course credits and real-world experience. If this proves fruitless, grant money will be sought to hire professional, NJ Licensed Tree Expert consultants to perform the inventory. Finally, if grant money is not available, the use of volunteers will be explored. In the event that either students or volunteers perform the inventory, the Borough will look to contract with a CTE to perform follow-up risk assessment of trees of concern.

The inventory will collect data on the existing trees and identify potential future planting sites. Data collected on existing trees should include, but is not limited to:

- Species
- Diameter at breast height (DBH)
- Condition
- Location (either by utilizing GPS technology or by recording street address)
- Height
- Sidewalk conflict (Y/N)
- Utility conflict (Y/N)
- Management recommendations (to be determined by CTE)
- Comments

The data collected for each potential planting site should include, but is not limited to:

- Location
- Utility conflict (Y/N); If yes, distance to utility
- Potential sidewalk conflict (Y/N); If yes, distance between street and sidewalk

Following completion of the initial inventory, the Borough must update the dataset regularly in order to account for removals and new plantings. Ideally, all management actions, such as pruning, fertilization, and treatment for insects and disease, performed on each tree will be recorded. This will allow for pruning cycles to be developed and easily executed.

Tree Risk Assessment

Currently, the tree resource of the Borough of Oakland is regularly assessed by the Superintendent of Public Works, DPW crews and members of the STC. In addition, residents are able to report any tree concerns to the Borough.

Over the next five years, the Borough will make improvements to its tree risk assessment procedure. Members of the DPW and STC will be exposed to new training and education opportunities. They will work to develop guidelines for risk assessment that will be used during their regular evaluation of trees.

Following completion of the tree resource inventory, the Borough will prune and remove trees utilizing its resources in the most effective and efficient means possible. The inventory data will be maintained in order to ensure that pruning cycles are maintained.

The Borough will apply for funding, as the need arises, to contract with professional companies for the removal of trees that are beyond the capacity of the in-house DPW crews.

Tree Planting

Annual tree planting is an ongoing activity in Oakland. Recently, 35 trees were planted in the Oakland. Unfortunately, tree removals are currently out-numbering tree plantings. Additional funding will be sought to bolster the numbers of trees planted in the Borough.

Continued effort will be placed on planting the right tree in the right place. Currently, only trees small enough to grow under utility lines are placed in these areas. Trees that are susceptible to known insect and disease issues, such as Dutch elm disease and the impending emerald ash borer, should be discouraged from future planting throughout the Borough. Due to these pests, the Borough will no longer plant ash trees on municipal property and only disease-resistant varieties of elm will be planted. Educational packets on these topics, as well as proper planting technique and application of mulch, will be created and posted on the Borough website for public use.

The undertaking of a complete tree inventory will highlight additional planting sites that are not currently utilized and provide the Borough with the current diversity of tree species that are present. Based on the results of this inventory, future species selection may shift in order to increase diversity. Areas with low species diversity are more susceptible to widespread damage from invasive pests.

Tree Maintenance and Care

Oakland Borough has an ongoing tree maintenance program that includes pruning and the application of organic fertilizer to select trees. Pruning and removal work along Borough roads and parks is performed by DPW crews or contracted to companies when the scope of the job is beyond the capability of the DPW. County crews are utilized to perform work on trees along county roads. This division of labor is expected to continue over the next five years.

Going forward, a greater emphasis will be placed on the care of young trees. Early developmental pruning results in improved structure and fewer defects in mature trees. This will result in lower maintenance costs for mature tree care and free up room in the budget for fertilization and planting of new trees. Training opportunities will be made available to DPW crews in this area.

Emerald ash borer was confirmed in Bergen county in 2014. As a result, Oakland has stopped planting ash trees and will consider treating specimen ash trees that in good health in 2019. They will begin removing ash trees that are in poor health or that will not be treated. Oakland is encouraging residents to assess their property for ash trees and begin planning for their treatment or removal.

The STC will develop a multitude of tree care tips and guides to be made available to the public and distributed at annual Arbor Day and Borough celebrations. Currently, the Borough is considering posting a variety of links to insect and disease fact sheets and tree care websites, such as www.treesaregood.com.

Five-Year Plan Implementation Timeline

Perform the following items in each year of the five-year plan:

- o Continue to celebrate Arbor Day (1.2).
- o Continue to gain recognition as a Tree City USA (1.3).
- o STC to begin/continue hosting booths at town events (1.4).
- o Reach out to like-minded groups to create synergistic relationships and cost-sharing opportunities (1.5).
- o Host at least one (1) free speaking events open to the general public per year. These should feature a different expert on tree-related topics. (1.6).
- o Have members of the Public Works Department staff and STC attend tree risk assessment and mitigation training programs (2.1).
- o Apply for CSIP grant to hire professional contractors to remove trees that are beyond the capacity of the in-house Public Works crews, if needed (2.5).
- o Continue to plant trees with the proper mature height to avoid conflict with any overhead utility lines (3.1).

- o Review and update all Community Forestry Ordinances as needed. Revision of site plan ordinances to require planting of new trees following construction is a priority (3.2).
- o Apply for CSIP grants to increase the number of trees planted in the Borough (3.8)
- o Maintain pruning schedule for young trees to promote proper structure free from codominant stems and other defects (4.1).
- o Members of the Public Works staff and STC should perform regular inspection of tree population to identify any issues that require action (4.2)
- o Begin/continue treating significant ash trees for emerald ash borer (4.3)
- o Begin and continue to remove select ash trees in the right of way (4.4).
- o Educate members of the Public Works staff and STC on the identification of new and emerging insect and disease problems (4.5).
- o Promote alternatives to root pruning and tree removal to alleviate root-sidewalk conflicts (4.7).
- o Promote methods of preserving mature trees during a construction project as an alternative to removal (4.8).
- o Consider providing links to various insect and disease fact sheets that will educate the public on their identification and various treatment options on the Borough website. Add new links as local insect and disease pressures change (4.9).
- o Continue to send members of the STC and Public Works Department to the annual NJ Shade Tree Federation meeting (4.10).
- o Continue to meet or exceed State required CORE training and CEUs (6.3).
- o Continue to file Annual Accomplishment Reports with the State (6.4).

Perform in Year 1, 2019:

- o Create and promote an approved tree and shrub planting list that contains species that are known to thrive in the local environment and be free from major disease or insect issues. Consider adding the document to the STC and/or Department of Public Works website (3.5).
- o Create list of tree and shrub species to avoid planting. This should include known invasive, non-native species and species that are prone to insect and disease issues in the local environment and be made available to the public (3.6).
- o Contact universities and colleges in the vicinity with an urban forestry program to determine viability of trained students performing tree inventory in exchange for course credits (5.1).
- o Share this CFMP with other Borough entities to create synergy (6.2).

Perform in Year 2, 2020:

- o Develop guidelines for tree risk assessment that will be used to prioritize future mitigation activity (2.3).

- Create a guide for proper tree planting methods that should be followed for all plantings on Borough property and be made available for public use (3.7).
- Apply for CSIP grant money to hire a consultant to perform the tree inventory if the use of students is deemed unfeasible. If students and/or volunteers perform the inventory, apply for CSIP grant to hire consultant to thoroughly assess potentially elevated-risk trees that are identified. Continue to apply for these grants each year until one is awarded (5.2).
- Review this CFMP by STC and Superintendent of Public Works on an annual basis; update objectives as needed based on previous successes, failures and/or budgetary changes (6.1).

Perform in Year 3, 2021:

- Continue utilizing a tree removal and pruning schedule based on the results of the Borough tree inventory (2.2).
- Create a tree risk assessment and mitigation educational packet for homeowners and make available to the public (2.4).
- Utilize the Borough tree inventory to identify potential new planting sites (3.3).
- Utilize the Borough tree inventory to increase the tree and shrub species diversity found within Oakland (3.4).
- Create a guide that promotes proper application of mulch around trees and shrubs and warns of the impacts of misapplication. Post guide on the municipal website (4.6).
- Once the initial inventory is completed, continue to update dataset to account for removals and new plantings as they occur (5.3).
- Create an interactive map of tree inventory and summary of collected data for municipal use (5.4).
- Review this CFMP by the STC and Superintendent of Public Works on an annual basis; update objectives as needed based on previous successes, failures and/or budgetary changes (6.1).

Perform in Year 4, 2022:

- Revise site plan ordinances to require planting of new trees following construction (3.2).
- Utilize the Borough tree inventory to identify potential new planting sites (3.3).
- Utilize the Borough tree inventory to increase the tree and shrub species diversity found within Oakland (3.4).
- Once the initial inventory is completed, continue to update dataset to account for removals and new plantings as they occur (5.3).
- Review this CFMP by the STC and Superintendent of Public Works on an annual basis; update objectives as needed based on previous successes, failures and/or budgetary changes (6.1).
- Prepare for next 5-year CFMP (2024-2028) (6.5).

Perform in Year 5, 2023:

- o Perform iTree assessment of trees in high visibility areas to show residents of the environmental benefits of individual trees (1.7).
- o Utilize the Borough tree inventory to identify potential new planting sites (3.3).
- o Utilize the Borough tree inventory to increase the tree and shrub species diversity found within Oakland (3.4).
- o Once the initial inventory is completed, continue to update dataset to account for removals and new plantings as they occur (5.3).
- o Review this CFMP by the STC and Superintendent of Public Works on an annual basis; update objectives as needed based on previous successes, failures and/or budgetary changes (6.1).
- o Prepare for next 5-year CFMP (2024-2028) (6.5).

X. Community Stewardship Incentive Program (CSIP)

Upon approval of this plan, meeting the CORE training requirements, and accumulating the required CEUs, the Borough of Oakland will be qualified to apply for Community Stewardship Incentive Program (CSIP) grants to assist with the costs of implementing this plan. The maximum grant request for this program is $6,000, but smaller requests are acceptable. The requested amount cannot be over 75% of the total project's cost and the applicant must contribute at least 25% to the project's total cost. An applicant may apply only once (per fiscal year) for community stewardship incentive funds; however, multiple CSIP practices may be addressed in the grant application. The following is a list of possible CSIP grant requests for the Borough of Oakland. Additional or revised grants may become apparent as this 5-year is implemented.

CSIP #1: Training

Training needs are outlined in Section XI. The STC and Public Works Department employees will continue to participate in a variety of tree-related training. This is accounted for in the current budget and there is no plan to apply for CSIP grant money to supplement this training at this time.

CSIP #2: Community Forestry Ordinance Establishment

The Borough of Oakland has made no changes to its Community Forestry Ordinances in the past five years. They plan to perform a thorough review and make updates in the next 5 years, however, no grant money will be applied for this endeavor.

CSIP #3: Public Education and Awareness

A key focus of the STC over the next five years will be increasing public awareness on the proper management of their tree resource. This is outlined in Section VII. The Borough may submit for grant funding to pay for experts to come to the Borough and give tree-related educational presentations.

CSIP #4: Arbor Day

The Borough puts on an annual Arbor Day celebration as discussed in Section VII. The cost of this celebration is allocated in the yearly budget and will not require additional grant funding.

CSIP #5: Tree Inventory

The need for a comprehensive inventory of the Borough's tree resource is outlined in Section IX. There is no room in the current budget to hire consultants to perform the inventory or to purchase any of the accessories and provide the training required to have volunteers perform the

inventory. Applying for and obtaining CSIP grant money is essential for the Borough to obtain this goal within this 5-year period.

CSIP #6: Hazard Tree Assessment

The current tree risk assessment protocol is discussed in Section IX. A thorough risk assessment will be performed as part of any comprehensive tree inventory that is performed. If the tree inventory is performed by volunteers and/or students, additional CSIP funding may be sought out to hire a New Jersey Certified Tree Expert to perform assessments on select trees that are identified during the inventory.

CSIP #7: Storm Damage Assessment

Application for funding of storm damage assessment is not expected at this time. Drive-by surveys following major storms are performed by the Superintendent of Public Works, his crews and members of the STC. Residents are also able to call the DPW with specific issues they observe. Storm damage clean-up is primarily performed by DPW crews, but there is always the possibility of hiring contractors for assistance with the removal of large scale damage.

CSIP #8: Tree Maintenance and Removal

Tree Maintenance and Removal is discussed in Section IX. The current DPW budget is sufficient is for most of the Borough needs, however, there a couple of areas in which CSIP funding will be sought.

Emerald ash borer has been confirmed in neighboring municipalities and likely already in Oakland. Over the next five years, additional funding may be needed to preventatively treat ash trees or to remove infested trees..

CSIP #9: Insect and Disease Management

Currently, application for additional funding for insect and disease management is not expected. However, the emerald ash borer (EAB) has been positively identified in neighboring municipalities. The Borough plans to treat selected ash trees and outside funding may be required. The USDA recommends that preventative treatment begins when an EAB infestation is found within 15 miles of ash trees and Oakland plans to begin in 2018.

CSIP #10: Wildfire Protection

No program currently exists in the Borough of Oakland for wildfire protection and there is no anticipated need for funding for this topic.

CSIP #11: Tree Planting

Tree planting is addressed in Section IX. There is a need for funding for tree replacement in the right of way. Currently 60 to 100 trees are coming down a year and that number is sure to grow with the removal of ash trees. We need to double our effort in tree replacement. The completion of the comprehensive tree inventory will identify potential planting sites that may be beyond the current allocated budget and require additional funding as well.

CSIP #12: Tree Recycling

The Borough of Oakland currently has an effective leaf recycling and curbside chipping program in place. No additional requests for funding are anticipated at this time.

CSIP #13: Sidewalk Maintenance Program

In the next five years, a focus of the STC and Superintendent of Public Works will be on educating the public on the alternatives to tree removal when dealing with tree/sidewalk conflicts. This will include promoting the use of expandable joins, pervious concrete and root barriers. The need for CSIP funding for this task is not anticipated.

CSIP #14: Storm Water Management

The Borough of Oakland Department of Public Works has active leaf pick-up and street sweeping programs that help to reduce the amount debris that enters the sewer system. No funding is anticipated at this time.

CSIP #15: Other

There are no other needs of the Borough of Oakland at this time.