

**Community Forestry Management Plan
Municipal Information Form**

**Borough of Metuchen
County of Middlesex**

Address: 500 Main Street, Metuchen, NJ 08840

Contact name and title: Ms. Maggie Manza Chair, Shade Tree Commission

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Fax #

E-mail: manzamaggie@gmail.com

Organization Name: Metuchen Shade Tree Commission

Mayor's Signature



I certify that this Community Forestry Management was developed specifically and exclusively for our municipality.

Date of Management Plan Submission: March 2015

Time period covered in Management Plan: 2015-2019

Check off the Community Stewardship Incentive Program (CSIP) practices identified in the management plan.

- | | |
|--|---|
| <input checked="" type="checkbox"/> # 1 Training | <input checked="" type="checkbox"/> # 2 Ordinance Establishment |
| <input checked="" type="checkbox"/> # 3 Public Education and Awareness | <input checked="" type="checkbox"/> # 4 Arbor Day Activities |
| <input checked="" type="checkbox"/> # 5 Tree Inventory | <input checked="" type="checkbox"/> # 6 Hazard Tree Assessment |
| <input checked="" type="checkbox"/> # 7 Storm Damage Assessment | <input checked="" type="checkbox"/> # 8 Tree Maintenance & Removals |
| <input checked="" type="checkbox"/> # 9 Insect and Disease Mgt. | <input checked="" type="checkbox"/> # 10 Wildfire Protection |
| <input checked="" type="checkbox"/> # 11 Tree Planting | <input checked="" type="checkbox"/> # 12 Tree Recycling |
| <input checked="" type="checkbox"/> # 13 Sidewalk Maintenance | <input checked="" type="checkbox"/> # 14 Storm Water Management |
| <input checked="" type="checkbox"/> # 15 Other | |

Official Use only

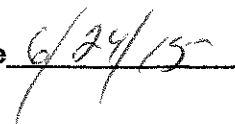
Certification

The above named community 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 standards set forth by the State and the NJ Community Forestry Council and is approved for the period covered.

State Forester



Approved Date



RESOLUTION 2015-35

*Borough of Metuchen
County of Middlesex
State of New Jersey*

RESOLUTION ADOPTING THE COMMUNITY FORESTRY PLAN 2013-2018

WHEREAS, The Borough of Metuchen authorized the submission of a 2013 Green Communities Grant Application, Resolution 2014-85, in the amount of \$3,000.00 for the development of a Community Forestry Management Plan which meets the criteria outlined by the New Jersey Forest Service; and

WHEREAS, The Borough of Metuchen has been awarded a Green Communities Grant from the State of New Jersey, Department of Environmental Protection, New Jersey State Forestry Services in the amount of \$3,000.00; and

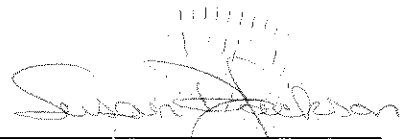
WHEREAS, The Borough of Metuchen Shade Tree Commission has, with the assistance of Zig Panek and Kevin L. Scibilia, completed and accepted the Community Forestry Plan (attached); and

WHEREAS, The Shade Tree Commission and Borough Administrator recommend that the Mayor and Council accept and endorse the Community Forestry Plan.

NOW, THEREFORE, BE IT RESOLVED by the Mayor and Council of the Borough of Metuchen adopt the recommended Community Forestry Plan and the Mayor Vahalla is authorized to sign the Community Forestry Plan 2013-2018 and submit same to the Department of Environmental Protection, New Jersey State Forestry Services.

COUNCIL MEMBER	YES	NO	NV	AB	COUNCIL MEMBER	YES	NO	NV	AB
LEIBFRIED	X				MULDOON	X			
GRAYZEL	X				RASMUSSEN	X			
INSERRO	X				WALLACE	X			
MOTION	GRAYZEL				SECOND		RASMUSSEN		
X - INDICATES VOTE		AB- ABSENT			NV- NOT VOTING				

I hereby certify the foregoing to be a true copy of a resolution adopted by the Borough Council of the Borough of Metuchen, Middlesex County, New Jersey at a regular meeting held on January 20, 2015



 Susan D. Jackson
 Borough Clerk

**The Borough of
Metuchen**

**Community Forestry
Management Plan**

March 2015

prepared by

Metuchen Shade Tree Commission,

**Zig Panek
New Jersey Certified Tree Expert # 364**

**and
Kevin L. Scibilia
New Jersey Certified Tree Expert # 279**

Metuchen Community Forestry Management Plan

Introduction

This is Metuchen's second Community Forestry Management Plan. Since the first plan was written, the goal of a tree inventory has been realized. A tree inventory was completed by Davey Tree in 2009. Over 5,000 street trees were catalogued and some 50 hazard trees detected. Analysis of the data is currently underway to determine the maturity of the street tree population, the likelihood of damage from trees planted inside the walk and to characterize the vacant planting locations as suitable for large or small-stature trees. Removal of street trees due to senescence or hazard has been averaging 75 per year and new tree planting about 30 per year. This trend is losing more trees than are being replaced on an annual basis. The inventory suggests that there are not many vacant planting spots in the Borough-about 240. If true, this would be an extremely low vacancy rate of 2%. Unlike many other municipalities in New Jersey, with vacancies as high as 50%, Metuchen should be able to maintain their tree canopy with only modest numbers of trees planted.

Some new plantings have been installed to the house side of the sidewalk with permission of the homeowner. Allowing tree roots more room to expand without the impediment of the curb and a nearby sidewalk is good for root development and seems to cause less sidewalk heaving. However this practice may complicate management of the street tree resource. (see Community Overview). If trees are planted on private property toward the house side of the walk, the Borough no longer controls the maintenance of the tree and may not be able to control removal of those trees in the future. These problems may be outweighed by the reduction of sidewalk heaving and increased growth and vigor of trees with root growth that is not restricted.

The goal of establishing a nursery has not been realized for practical reasons that are not insurmountable. The plan was to acquire a person or group who could spearhead the establishment of the nursery such as an Eagle Scout. That person has yet to be found. Planting stock is available but containers for a pot in pot system were not. The nursery is still a possibility but not a stated goal in this second year plan.

A tree fund has been established to help pay for new street tree plantings. Developments where trees are removed but not replaced, contribute to the tree fund to plant trees in other areas of the Borough.

The goal of reducing the vacancy rate to zero has been scaled back to planting as many trees as were removed the previous year. With a 2% vacancy rate, planting for replacement is a reasonable goal to achieve.

Overall, the tree resource in Metuchen is in good shape. Although there is a maturing tree resource, the age distribution of trees is fairly even. This means that one would expect the removals to be rather consistent barring any major storms or unforeseen pestilence. The Emerald Ash Borer should not have a major impact on Metuchen because there are relatively few ash trees (about 2%). With a little planning and consistent planting, Metuchen can maintain its majestic tree cover into the next century.

Metuchen Community Forestry Management Plan

A. Mission Statement

The Shade Tree Commission is charged with “the regulation, planting, care and control of shade and ornamental trees along Borough streets, and public places and parks.” Our mission is to protect the asset our shade trees represent, enhance the quality of life for Borough residents, and foster a better environment by planting and maintaining sustainable, healthy, and safe shade trees, preserving species diversity, and promoting proper tree care and stewardship in the Community. – *from MSTC 2007 Annual Report to Mayor and Borough Council.*

B. Goals and Objectives

Goal 1: To collect, store, update and utilize tree data for effective program administration and implementation.

Objectives

- Analyze data from recently completed street tree inventory, determine vacancies and species composition.
- Check 200 data locations randomly to determine if inventory is accurate.
- Update inventory to reflect removals and plantings, and maintenance.

Goal 2: To maintain public safety through proper tree maintenance.

Objectives

- Develop removal and maintenance plans for the next 5-years based on inventory.
- Use on-going updated inventory data to establish priorities and work schedules.
- Become more pro-active in tree maintenance.
- Conduct hazard tree surveys so each tree is observed once every two years.
- Prune newly planted and small trees for proper structure.

Goal 3: To sustain level of tree canopy coverage near 43% by regular replacement plantings.

Objectives

- Strive to plant as many trees on average as were removed the previous year.
- Attain parity between removals and new plantings by year five.
- Utilize inventory to prioritize planting locations.
- Verify that the low number of vacant locations in the inventory is correct.
- Increase diversity of trees planted, avoid overplanted trees listed in inventory.
- “Plant the right tree in the right place.”
- Consider establishing an Adopt-A-Tree program.
- Continue “tree fund” for planting to offset developed lands
- Encourage where practical, planting trees on house side of walk, not in lawn extension

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Goal 4: To train and educate MSTC members, volunteers and municipal employees in community forestry technical and administrative topics.

Objectives

- Continue to facilitate communication and supportive efforts between MSTC and Public Works personnel.
- Maintain membership in the NJ Shade Tree Federation and attend the annual meeting.
- Meet continuing education requirements of at least 8 CEU's per year.
- Obtain training in species selection, tree identification, growth characteristics, longevity, branch structure etc.

Goal 5: To increase Borough residents' awareness, knowledge, appreciation, support and participation in the Community Forestry program.

Objectives

- Maintain recognition as a Tree City, USA
- Continue Arbor Day observance.
- Participate in Metuchen Country Fair.
- Post Library Bulletin Board with tree topics in April and September.
- Publish annual MSTC reports and continue to transmit to Mayor and Council.
- Expand web page to post links or articles to topics of interest.

C. Liability Statement

Trees in the Borough of Metuchen 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 hazards to public safety. The Borough of Metuchen 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 Metuchen feels, by taking the 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 pro-active in the management and care of its trees. Through inventory and hazard assessment, the Borough will initiate corrective action by the public works department, contracted professionals, or the county prior to structural tree failure and other hazardous tree related conditions. It is

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acknowledged that not all hazardous 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 Metuchen trees.

Following this Community Forestry Management Plan will demonstrate that the Borough of Metuchen 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.

3. COMMUNITY OVERVIEW

The Borough of Metuchen comprises 2.74 square miles and is located in Central New Jersey in Middlesex County. It is bordered on the south by Interstate 287 and approximately to the east by US Route 1. State Route 27 bisects Metuchen from the southeast corner to the Northeast corner.

Metuchen has ten parks within its borders and a wide variety of planting spaces for trees along the streets. Some streets have no sidewalks such as in the Century 21 Development, other streets such as Norris Ave. have a two foot lawn extension unsuitable for tree planting. Maple and Oak streets have 6-foot wide planting strips between the sidewalk and curb. Still other neighborhoods have the majority of trees planted not between the sidewalk and curb, but on the house side of the sidewalk. Casual observation indicates that trees planted to the interior of the sidewalk have less severe heaving of the walk than those planted in the lawn extension.

Lessons From Previous Five Years

Since the last CFMP, there have been many accomplishments and lessons. A tree inventory was completed but its accuracy is suspect (<5% vacancies among other indicators) and will have to be checked before the information in the inventory can be relied upon. In the event that the data is unreliable, the inventory may have to be repeated. (See **Goal 1 Objective 2** and **Inventory** section below).

An aggressive tree removal program dealing with hazard trees has been continuing with scores of hazard trees being removed over the past several years.

Through casual observation one can notice that sidewalk problems throughout the town appear to be less problematic when trees are planted not between the sidewalk and curb but to the house side of the walk (see **Sidewalk** section below). Over the last five years, new plantings have been increasingly sited toward the house side of the walk with property owners' approval. Not only does this remove root constriction in narrow planting strips between the sidewalk and curb, but it has the added benefit of moving the central leader of the trunk away from overhead

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electrical conductors. This is hoped to reduce the need for drastic pruning that can disfigure the trees at maturity.

A tree planting fund has been established to which developers can contribute in lieu of planting too many trees in the development location. This is a welcome relief to the constrained budgets that have been experienced over the last five years where funds were unavailable to replace the number of trees removed due to hazard or storm damage.

The inventory indicates and observation confirms that several species of trees are overplanted within the community. (See **Diversity** section below). As a result, the Commission has instituted what is essentially a moratorium on planting oak, maple and London plane and instead, have a list of alternative street tree replacements.

This Community Forestry Management Plan will provide a link to the conservation and land use components of the Metuchen Master Plan by serving as a companion document. The Master Plan stresses the intent of the Borough to maintain the historic ambiance, but does not focus on the urban forest as a valued component of the infrastructure.

Over the last five years, we have increased ties to the Planning and Zoning Boards by having a Shade Tree Commissioners sit as a liaisons to both the Planning and Zoning Boards. In additions, The Shade Tree Commission has joined with the environmental Commission to form a new Green Team that implements sustainability projects such as sustainable Jersey, and demonstration projects such as rain gardens.

The Master Plan and Open Space Plan have not been changed over the last five years and still have tenuous links to the Shade Tree Commission and the urban tree resource (see previous CFMP). It is hoped that with this Community Forestry Management Plan, the Commission will be positioned to influence the content of the next Master Plan or Open space Plan to contain more information on both street trees and private trees within the Borough.

How have we done meeting the goals of the previous CFMP?

Goal 1- Inventory - An inventory has been completed but needs to be checked for accuracy.

Goal 2-Maintain Safety- is is an on-going process that has been and continues to be successful.

Goal 3- Sustain levels of tree canopy- Due to past storms, the recession and a general lack of affordable trees to plant, Metuchen has fallen behind on replacing trees removed. If the New Jersey State Tree Nursery could grow native bare root small diameter whips, this could go a long way in helping to replant ours and other municipalities.

Goal 4-Training- has been successful and like safety is and on-going process.

Goal 5-Resident Awareness- again this is an ongoing process but judging by the acceptance of residents to have trees planted on the houseward-side of the sidewalk, we are making measurable progress.

The objective of goal 3 of establishing a nursery has not been realized for practical reasons that are not insurmountable. The plan was to acquire a person or group who could

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spearhead the establishment of the nursery such as an Eagle Scout. That person has yet to be found. Planting stock is available but containers for a pot in pot system were not. The nursery is still a possibility but is not a focus in this second five-year plan.

Diversity

Most pests are specific to a particular type of tree or at least cause considerably more damage on one tree species versus another. Some examples are Emerald ash borer only affects species of ash trees. Bacterial leaf scorch, while affecting many different species, is most devastating on pin oak in New Jersey. Naturally, the more trees you have that are susceptible to that particular pest, the bigger your problem will be. History has shown us that monoculture or a lack of diversity is an invitation to disaster (Dutch Elm Disease, Chestnut blight are large scale disasters that rolled through populations where individuals of the same species formed effective monocultures).

A simple solution to the problem is to assure a diverse street tree population. This is not to say that one street cannot be planted to all the same tree. Just don't plant multiple streets with the same species so they become a large component (greater than 5%) of the total street tree population. Diversity will suppress major pest outbreaks and typically confine losses to a small proportion of the street tree population. No trees are immune from pest attacks. Currently in Metuchen the following species are overplanted: pin oak 12.4%, red maple 10.7%, Norway maple 9.9%, London plane 9.9%, callery pear 5.8%, red oak 5.5%, sugar maple 5.4%. It would be best not to plant any more of these species to help diversify the street tree population.

Diversity also limits damage due to other causes. Bradford pear tends to split when it becomes about 20 years old because of poor branch structure. Ginkgo is fairly resistant to pest attacks, but female trees develop fruit with a very offensive odor when they become about twenty years of age. Finally, not all trees live to be the same age. Smaller stature trees tend to be shorter lived than larger stature trees. A mixture of small stature and large stature trees will stagger the time when they mature and die. Many towns in New Jersey planted large numbers of Norway maples in the middle of the last century. In 50 years, a large proportion of the trees died off leaving huge gaps in the street tree population and taxing the ability of towns to remove the large number of dead trees. We need to learn from these past mistakes and not allow them to manifest themselves in the coming decades because of poor planning. We are dealing with a resource that is likely to outlive us. It deserves careful consideration.

Tree Inventory

Davey Resource Group completed an inventory in 2009 that tallies some 5,300 trees along the streets of Metuchen. The tree population is well distributed with approximately 1000 young trees less than 6 inches in diameter at breast height (DBH). Approximately 1600 are in the 6-18" DBH range and are maturing. The size when trees start to develop problems begins at 19-24" DBH. There are about 100 trees that should be beginning to have problems. Overmature trees (25-36"DBH) are those where you would expect many problems in the group. These trees number 1300. The inventory indicated some 415 trees requiring immediate attention. It is not

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clear from the compiled data how many of those trees were to be removed, and how many could be pruned to reduce the hazard. Another category of trees with an extremely high probability of failure listed 46 trees. The total number of ash trees noted is very low with only 109 ash noted in the Borough right-of-way. Only 220 vacancies were noted throughout the Borough. All but 4 of them were for medium sized trees.

The 46 trees with an extremely high probability of failure should be the highest priority in the tree maintenance program. Following that, there are an additional 415 trees that are designated requiring immediate attention. They should be attended to as soon as practical in the next 5 years. The good news is that there are very few ash trees that might succumb to the emerald ash borer that has recently arrived in New Jersey.

There are some concerns with the inventory. Reports from Metuchen DPW claim that a number of the trees on the inventory are not in the right-of-way. My experience with inventories of towns similar to Metuchen is that the number of total trees (5300) is about 25% higher than I would expect and the number of vacancies is extremely low for a municipality in New Jersey. In addition, all but 4 of the 220 vacant sites were for medium trees. This seems highly suspect that there are almost no vacancies for small stature trees (under utility lines) or large trees planted on the house side of the walk. A typical town in New Jersey would have vacancies in the range of 30-50% and the number from the inventory is 4%. I have run into this problem before where inventory data was suspicious and only field checks exposed errors so that corrections could be made.

It may be worth delving into the inventory to assure that systematic errors were not made. Perhaps entire streets where trees were planted on the house side of the walk were mistakenly considered to be in the right-of-way. This would be fairly easy to check by sampling trees planted inside the walk and checking the measurement from the middle of the street. It appears that entire streets are typically uniform in the distance from the walk the trees are planted. This would be an easy check and an easy correction if mistakes were made.

Checking for vacancies is going to be more difficult, requiring that one drive down sparsely populated streets to determine if vacant sites were missed. Unfortunately, Davey Resource could not tell me what criteria were used to determine a vacant planting site. The Shade Tree Commission should check the reliability of the data before relying on it exclusively to determine their tree management.

Street Tree Ordinance

Metuchen currently has a comprehensive street tree ordinance that is serving its needs. (See previous Community Forestry Management Plan, 2008 located online at <http://ecode360.com/13820903>.)

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Ash Trees and Emerald Ash Borer (EAB)

The Emerald Ash Borer is poised to create an insect disaster in New Jersey over the next few years. The insect population typically takes a few years to build to levels that will kill essentially all ash trees that are not treated on a regular basis with insecticides. Treating all the trees is neither financially practical nor desirable since the trees will be attacked and killed if treatment is discontinued.

Surprisingly, there are relatively few ash trees in Metuchen (109). This is good news. A relatively small number of trees will have to be treated or removed when the EAB takes hold in Metuchen. It is good that the percentage of ash trees is just over 2% and not like pin oak at 12.4%. Diversity is important!

Sidewalks

Heaved sidewalks that pose a tripping hazard are a problem in the Borough. This is a common problem in communities and has several methods to address it. The most common and least desirable method of dealing with roots lifting sidewalks is to grind or cut roots and pour a new concrete slab. This process can kill the tree outright, or cause the tree to topple by physical loss of support or the introduction of decay fungi into the root system which reduces physical support in the near future. Another method of addressing the problem is to curve the sidewalk around the base of the tree avoiding most of the major support roots. This method can be better than just cutting roots close to the trunk but still has some damage to the root system. Some municipalities object to the sidewalk not being straight, especially if it must go off the right-of-way to pass the tree. If the sidewalk width must be narrowed when curving around the tree, it should be noted that the minimum width to comply with the Americans with Disabilities Act is 36 inches. Other considerations are discussed in:

http://www.fhwa.dot.gov/environment/bicycle_pedestrian/publications/sidewalks/chap4a.cfm

In areas where the lifted edge of the concrete is less than 2 inches it is possible to use concrete grinding to eliminate the tripping hazard. Some municipalities have their own concrete grinding machine and it may be possible to barter services if the Borough is interested in trying this method.

Another method of dealing with heaved concrete slabs is to replace the slab with concrete pavers or bricks that can be laid to bridge over the top of roots. The appeal of pavers is that they can be sloped to go over surface roots much more easily than can concrete. The incline would be no more than that of a handicap ramp at a street corner. Maintenance of pavers could also entail picking out the offending pavers and either adjusting the stone dust base or cutting the paver to a thickness where it will be even.

One particular location in Metuchen with severe sidewalk heaving is Stonegate Drive, a cul-de-sac about 400 feet long. On this street, zelkovas have heaved the walk with flags of concrete mismatched in elevation by as much as 4 inches. The most practical solution here would be to remove the sidewalk without replacement. This would save the trees and reduce the trip hazard on the walk. Due to the short length of the street, and dead end, the lack of a

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sidewalk should not pose a considerable hazard to pedestrians. Consent of all the residents would be prudent before this option is chosen.

Percent of Canopy Cover

According to the data on <http://www.nrs.fs.fed.us/data/urban/state/?state=NJ>, Metuchen enjoys a tree canopy coverage of 43.5%, above the average cover goal of 40%. With 36% impervious surface, there is not much more area to cover in forest when waterways, playing fields and agricultural concerns are taken into account. It still will be challenging to maintain this level of coverage as the urban forest matures and trees continue to be removed. Last year, some 75 trees were removed and only 20 planted. This trend will have to be stopped to maintain the canopy coverage currently enjoyed. A good objective would be to plant on average, as many trees as were removed in the previous year. It may take two to three years to increase planting numbers to that level. By the end of the five-year management plan, this should be an attainable objective.

Special considerations

At this time, storm damage assessment is not a priority compared to the needs for maintenance and verifying the inventory. A plan for a biannual hazard tree inventory is also a high priority.

Insect and disease management are expected to be addressed through species diversity. EAB is not expected to have a major impact due to the relatively few number of ash trees in the community (see **EAB** section above) Metuchen can work to have no species comprise more than 5% of the street tree population. Most pests have a limited number of host species and a diverse population can limit the impact of pest outbreaks (see discussion under diversity).

Tree recycling in Metuchen consists of making wood chips and firewood available to residents for pick up at the recycling center.

Given the cover type and fragmentation of the tree resource in Metuchen, wildfire is not considered to be a significant concern for this community.

Stormwater management as it pertains to trees within Metuchen consists of the Department of Public Works collecting leaves in biodegradable bags and taking them to the Middlesex County Improvement Authority where they are composted.

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4. COMMUNITY FORESTRY PROGRAM ADMINISTRATION

The Metuchen Shade Tree Commission is responsible for overseeing the management of the shade tree resource and is responsible for carrying out this Community Forestry Management Plan.

Currently, requests for maintenance and “complaints” are referred to Public Works, either directly or by the Shade Tree Commission; while tree planting requests are handled solely by the Shade Tree Commission. Any maintenance requests beyond the capability of the DPW are contracted out to Certified Tree Experts or, if electrical wires are involved, PSE&G performs the tree work. The membership of the current Shade Tree Commission follows:

Dorothy Rasmussen, Council Liaison
Christine Von der Lin
Ushentha Govender
Maggie Manza
Linnae Bulun
Todd Pagel
Frank Ferrara
Lisa Galina

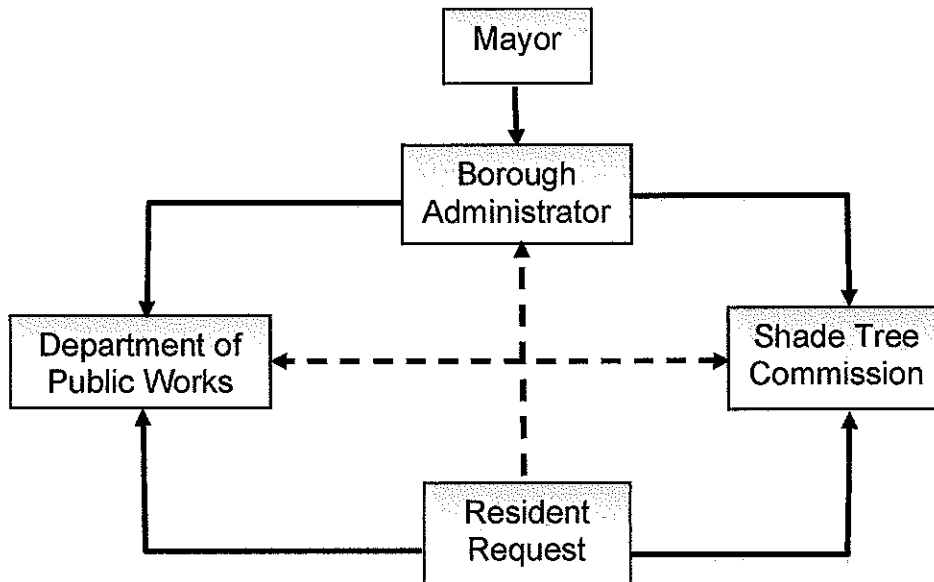
The administration of the shade tree program is being further facilitated by liaisons on the Zoning and Planning Boards as well as working closely with the Environmental Commission as discussed in the **Lessons From Previous Five Years** section in Community Overview. The new Commission liaisons have allowed for more direct communication among the three entities. New development projects are discussed with both boards and tree replacement numbers and species are recommended. The STC is working with other agencies to encourage curving sidewalks to accommodate existing trees rather than cutting roots or tree removal.

At every Borough Council Meeting, Council Liaison Dorothy Rasmussen updates the Council on the STC’s progress, problems and how the Council can help resolve some of these problems. For example, requests for more resources for the DPW have been made for the removal of hazard trees.

The STC works closely with Public Works on identifying new hazard trees, prioritizing tree removals and updating the tree inventory from completed work orders.

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BOROUGH OF METUCHEN ORGANIZATIONAL CHART



5. COMMUNITY MAP

See Attachment 1.

6. TRAINING PLAN

Training overview

Metuchen continues to maintain the Core requirements for a Community Forestry Management Plan with at least 2 people (one a municipal official) having received training. Typically, two members attend the Shade Tree Federation Conference each year in Cherry Hill. Additional training sessions such as the one presented by the NJ Tree Foundation/PSE&G on “planting the Right Tree in the Right Place in post-Superstorm Sandy World” additional courses are listed on this site:

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http://www.state.nj.us/dep/parksandforests/forest/community/pdf_files/recommended_ceu_courses.pdf

A number of municipalities in New Jersey have utilized onsite seminar presentations to enhance the skills of their Shade Tree members and DPW workers. Feedback from these towns has cited the advantages of personalized field instruction and small group interaction, as well as Q&A sessions. This type of instruction is particularly helpful with tree identification by walking the streets and having live trees to identify and compare to one another. Other field presentations that benefit from onsite delivery include the following topics:

There is interest among the members of the a Metuchen Shade Tree Commission in continuing education in selecting trees for planting. Topics pertinent to selecting trees are tree identification, growth characteristics, longevity of various trees and their branch structure and suitability in the urban environment. Additionally identification of hazard tree conditions is warranted to help in the biennial survey for hazard trees.

7. PUBLIC EDUCATION/AWARENESS/OUTREACH

There are many aspects of public outreach that Metuchen employs. Here are the ones currently employed and a few suggestions on expanding the reach of the outreach.

Arbor Day

Commission members marked Arbor Day by planting shade trees at an historic schoolhouse which houses the Metuchen Borough Improvement League, a community civic organization. The new trees will help cool and beautify the building. Members of the Metuchen Senior Citizen center, children and other residents participated in the event by helping prepare the planting sites and listening to the reading of the Mayor's Arbor Day Proclamation.

Tree Giveaway

On April 19th 2014 the Shade Tree Commission, together with the Metuchen Environmental Commission, held a tree giveaway, offering residents four species of young trees to take home to plant for free. Metuchen received the trees under the Department of Environmental Protection's/Arbor Day Foundation's program to replace a portion of the trees lost due to Superstorm Sandy. (Metuchen received 500 trees under the program.)

The tree giveaway was advertised in the local free newspaper. The trees were again offered to residents on June 21st at the Metuchen Farmers' Market. Between the two events, approximately 400 trees were taken home to be planted at Metuchen homes and businesses.

Metuchen Farmers' Market

As mentioned above, on June 21st the Commission participated in the Metuchen Farmers' Market, reserving a booth at the market which members manned for four hours. Through the Commission's participation, we accomplished the following:

- Provided a forum for residents to ask questions about the Commission's activities

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- Marketed the Commemorative Tree Program
- Gave away numerous free trees
- Received several resident requests for a shade tree to be planted at their home

Metuchen Country Fair

The Commission participated in the town's Annual Country Fair with its own booth and a children's activity. Through our participation, we achieved our goal of increasing awareness of the Commission and its activities and identifying homeowners interested in planting shade trees on their property.

The Shade Tree Commission webpage can be expanded to contain an article of interest or links to articles that can be catalogued and searched as more articles accumulate. The existing post on planting can be supplemented with a list of trees to plant in Metuchen that do not include those that are overrepresented in the inventory. One article may be on why diversity is important in the urban forest. This can be followed by a list of underutilized trees in urban settings. Two or three articles per year would keep people coming back to the page periodically to see what is new. The Commission will periodically post relevant information on the town's official Facebook page.

New plantings can also be an opportunity for public outreach and education. Asking the homeowner to "adopt" the newly planted tree and to water it for the first year could be supplemented with written instructions on proper care. Cautioning against string trimmers near the tree can be as beneficial as watering. A small sign/tag describing the tree and its characteristics placed on or in front of particularly prominent trees or dedicated trees attracts attention and interest. Signs can also encourage people to plant more of those trees if they like the tree that they see.

8. STATEMENT OF TREE BUDGET

All goals and objectives of the Community Forestry Management Plan are subject to constraints inherent in municipal government budgets and manpower.

Estimated 2014 Budget for tree care

Department of Public Works/ Shade Tree Commission

- | | |
|---|-----------------|
| • Removals and pruning | \$169,358 |
| • Planting | \$ 7,000 |
| • Training | \$ 850 |
| • Volunteer Time (240 hours X \$25.91/hour)
(6 volunteers average 40 hrs./yr.) | <u>\$ 6,218</u> |

Total Tree Budget **\$183,426**

Metuchen Community Forestry Management Plan

9. STATEMENT OF PLAN IMPLEMENTATION

2015

- Develop list of desired street trees for Metuchen avoiding overplanted species.
- Check data in inventory for accuracy randomly sampling 200 locations.
- Train volunteers to prune newly planted trees for structure.
- Plant as many trees as possible/practical to replace those lost last year.
- Maintain Tree City USA status.
- Plan Arbor Day Event.
- Write an article of interest and post on web page/newspaper.
- Train two Shade Tree Commission Members in Continuing Education Credits.
- File NJ Shade Tree and Community Forestry and Assistance Act Annual Accomplishment Report.

2016

- Maintain Tree City USA status.
- Plan Arbor Day Event.
- Place list of recommended street trees, on web page.
- Seek CSIP or other funding for tree planting.
- Address (prune or remove as necessary) all hazard trees located in Davey inventory.
- Write an article of interest and post on web page/newspaper.
- Plant as many trees as possible/practical to replace those lost last year.
- Try concrete grinding, and/or install pavers, and/or curve sidewalks to address sidewalk heaving.
- Prune newly planted trees for structure.
- Conduct hazard-tree inspection for half the Borough.
- Obtain training in identifying tree hazards for appropriate DPW staff or Shade Tree Commissioners.
- File NJ Shade Tree and Community Forestry and Assistance Act Annual Accomplishment Report.

2017

- Maintain Tree City USA status.
- Plan Arbor Day Event.
- Seek CSIP or other funding for tree planting.
- Continue addressing trees in hazard tree inventory/tree maintenance program.
- Continue to prune newly planted trees for structure.
- Write an article of interest and post on web page/newspaper.
- Conduct hazard-tree inspection for other half the Borough.
- Plant as many trees as possible/practical to replace those lost last year.
- Investigate concrete grinding as method of alleviating heaved sidewalks.
- File NJ Shade Tree and Community Forestry and Assistance Act Annual Accomplishment Report.

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2018

- Maintain Tree City USA status.
- Plan Arbor Day Event arrange volunteer speakers to present tree topics.
- Seek CSIP or other funding for tree planting.
- Continue addressing trees in hazard tree inventory/tree maintenance program.
- Continue to prune newly planted trees for structure.
- Write an article of interest and post on web page/newspaper.
- Conduct hazard-tree inspection for half the Borough.
- Plant as many trees as possible/practical to replace those lost last year.
- Apply for CSIP grant for next Community Forestry Management Plan.
- Continue the hazard-tree inspection and maintenance program.
- Continue training in, tree identification, or tree hazards for appropriate DPW staff or Shade Tree Commissioners.
- File NJ Shade Tree and Community Forestry and Assistance Act Annual Accomplishment Report.

2019

- Maintain Tree City USA status.
- Plan Arbor Day Event.
- Seek CSIP or other funding for tree planting.
- Continue addressing trees in hazard tree inventory/tree maintenance program.
- Continue to prune newly planted trees for structure.
- Write an article of interest and post on web page/newspaper.
- Draft and submit next five-year Community Forestry Management Plan.
- Conduct hazard-tree inspection for other half the Borough.
- Plant as many (or more) trees as were removed last year for no net loss.
- Obtain training in tree maintenance DPW staff or Shade Tree Commissioners.
- Evaluate treatments of heaved sidewalks done in 2015, continue if satisfactory.
- File NJ Shade Tree and Community Forestry and Assistance Act Annual Accomplishment Report.

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DISCUSSION OF PLAN IMPLEMENTATION

Beginning in 2015, plans will be made for a check of the data contained in the Shade Tree Inventory. The total number of trees and the number of vacancies are suspect. Random checks may show that systematic errors contributed to the inaccurate data and the fix may be quite simple (hopefully). As the inventory is checked, designated hazard trees should be addressed as they are confirmed. In addition, maintenance and tree planting issues should be managed throughout the 5-year plan. It is extremely important that the accuracy of the inventory be confirmed before relying on the data to make planning decisions. If there are flaws in the data, every attempt must be made to determine their extent and to correct them wherever possible. If the flaws are significant, and no systematic correction can be made, then the inventory is useless and should be repeated.

Throughout the 5-year plan, the Shade Tree Commission should continue to enhance their communications efforts and engage the community on various aspects of tree care. One tool that can be utilized more fully is the webpage, which should receive regular updates from the Commission. These updates can also be included in local print media, referencing the webpage for further information. Tree City USA status is another excellent way to attract interest and engage the local community. Of course, part of maintaining this status is an Arbor Day celebration, which further serves to enhance the local tree program.

Training in the early years of this plan is going to start with Commission members learning how to select appropriate street trees. Further training will involve developing skills in hazard tree identification and developing skills for pruning small trees for proper structure.

Tree planting will have to double from historic figures if Metuchen is to maintain the goal of 43% canopy coverage. It is not expected that this will occur in year one or two. The objective is to have the planting program expanded in the early years of the plan so by year 5 the number of plantings is equal to or exceeding the number of trees removed the previous year. If funding and suitable planting stock is available earlier, the Borough should take advantage of the opportunity to get more trees in the ground. There are relatively few vacancies now (if the inventory data is correct), but it is easy to fall behind quickly if planting new trees slows or stops.

There are many items that have to be done to lay the groundwork for a successful organization. The Shade Tree Commission is strengthening ties with the planning and zoning boards with the addition of liaisons. These bonds only strengthen as the accomplishments of the STC make them a more potent aspect of Borough government.

Metuchen Community Forestry Management Plan

10. COMMUNITY STEWARSHIP INCENTIVE PROGRAM

- 1) **Training** Page 10, Section 6; Pages 14-15, Section 9;
- 2) **Ordinance** attached to 2008 Community Forestry Management Plan and online at <http://ecode360.com/13820903>
- 3) **Public Education and Awareness** Pages 12-13 Section 7; Pages 14-15, Section 9
- 4) **Arbor Day Activities** Page 12, Section 7; Pages 14-15, Section 9
- 5) **Assessment/ Inventory** Page 6-7, Section 3; Page 14-15 Section 9
- 6) **Hazard Tree Assessment** Pages 4-5, Section 3; Pages 14-15 Section 9
- 7) **Storm Damage Assessment** Page 9, Section 3
- 8) **Tree Maintenance** Page 2, Goal 2; Page 13, Section 8; Pages 14-15 Section 9
- 9) **Insect and Disease Management** Pages 6,9, Section 3
- 10) **Wildfire** Page 9, Section 3
- 11) **Tree Planting** Page 8, Section 3; Page 12, Section 7; Pages 14-15 Section 9
- 12) **Tree Recycling** Page 9, Section 3
- 13) **Sidewalk Maintenance** Page 6-7 Section 3; Pages 11-15, Section 9
- 14) **Storm Water Management** Page 9, Section 3
- 15) **Percent of Canopy Cover** Page 8, Section 3

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ATTACHMENT 1. MAP OF METUCHEN BOROUGH, NJ

