

**TOWNSHIP OF VERONA  
SECOND COMMUNITY FORESTRY MANAGEMENT PLAN  
DECEMBER 2013**

**Local Government**

**Bob Manley, Mayor**

**Jay Shiatkowski, Deputy Mayor**

**Frank Sapienza, Councilman**

**Kevin Ryan, Councilman**

**Michael Nochamison, Councilman**

**Joseph Martin, Town Manager**

**James Helb, Township Engineer**

**Chuck Mokinaro, Public Works Superintendent**

**Shade Tree Commission**

**Bob Dickison (Chairman)**

**Bob Prout**

**Gloria Starita**

**Robert Boeck**

**Sandra Borland**

**Kevin Ryan (Council Liaison)**

**January 2014  
through  
December 2018**

This document was prepared with the aid of a  
Green Communities Grant from the  
New Jersey Department of Environmental Protection  
Written by

**John D. Linson, Urban Forestry Consultant  
NJ Certified Tree Expert #198**

**Questions, please contact John Linson @ 973-766-2143**

# Community Forestry Management Plan, Second 5 Year

## **Municipal/ County Information Form**

Municipality: Township of Verona  
County: Essex  
Address: 600 Bloomfield Avenue  
Verona, NJ 07044  
Contact Name and Title: James Helb, Township Engineer  
Phone #: 973-857-4807 Fax #: 973-239-7837 Email:  
Organization Name: Township of Verona

Mayor's Signature: \_\_\_\_\_

Bob Manley

I certify that this Community Forestry management Plan was developed specifically and exclusively for our Municipality/ County.

Date of Management Plan Submission: December 31, 2013

Time Period Covered in Management Plan: 5 years (2014 – 2018)

The following Community Stewardship Incentive Program (CSIP) practices identified in our Management Plan:

- CSIP # 1 Plan Preparation
- CSIP # 2 Training
- CSIP # 3 Public Education & Awareness
- CSIP # 4 Arbor Day Activities
- CSIP # 5 Assessment/Inventory
- CSIP # 6 Tree Hazard Identification Plan
- CSIP # 7 Tree Planting
- CSIP # 8 Tree Maintenance
- CSIP # 9 Tree Recycling
- CSIP # 10 Ordinance Establishment
- CSIP # 11 Tree-Care Disaster Plan
- CSIP # 12 Insect & Disease Management
- CSIP # 13 Other

### ***Official Use Only Certification:***

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

Signed \_\_\_\_\_

## Section 2

### Introduction

#### A. Mission Statement

Recognizing the enhancing value of street and park trees contributes to the quality of life in the Township of Verona, it is the Township's mission to promote a sustainable and productive community forest. The introduction of State sanctioned standards followed by local budgetary enablement will provide the necessary impetus to minimize Verona's future exposure to tree related liability while simultaneously enriching the quality of life enjoyed by its residents.

#### B. Goals and Objectives

The preparation and consistent implementation of a Community Forestry Management Plan helps insure that trees within the public right of way not only contribute to the environmental and economic vitality of the area, but also reduces potential hazards to public safety.

The Township of Verona recognizes the value of New Jersey's Shade Tree and Community Forestry Assistance Act in providing protection from liability to communities, which have properly planned and implemented a Community Forestry Management Plan. In recent years the Township of Verona has taken initiative in reducing hazardous tree and sidewalk conditions throughout the community. The introduction of State Sanctioned Standards followed by local budgetary enablement will provide the necessary focus to minimize Verona's future exposure in these sensitive areas and will simultaneously enrich the quality of life enjoyed by its residents.

The Township of Verona Community Forestry Management Plan will enable the Township Council, the Township Manager, the Township Engineer and the Shade Tree Commission to set attainable goals within the present budgetary constraints in meeting present and future tree maintenance needs. This management plan will term objectives as indicated as follows:

#### *Tree Inventory/Assessment*

A hazardous tree survey and windshield survey was conducted during August 2013. Valuable data was collected that was extremely helpful in preparing this management plan.

A comprehensive street tree inventory will be initiated sometime in the future, hopefully with Community Stewardship Incentive Program funding.

A short-term goal for the Township of Verona is to initiate an annual summary of shade tree accomplishments in relation to the mission, goals and objectives outlined in its Community Forestry Management Plan. The summary and evaluation assessment should take place in November or December to enable recommendations for improvement to be incorporated into the subsequent year budget

#### GOALS

- A. To maintain a current street tree database
- B. Conduct a new inventory in 2015

#### OBJECTIVES

- 1. Delete all trees that have been removed
- 2. Add all new trees
- 3. Update maintenance needs and priorities
- 1. Explore funding opportunities in 2014 for new inventory
- 2. Proceed with new inventory project in 2015 if funding permits.

***Tree Hazard Identification and Management***

The Township has taken a very pro-active position in identifying and promptly removing potentially hazardous trees in public right-of-way. A written Tree Removal Policy was developed to specifically define what the towns reasons are for removing a tree. As a point of courtesy, notification letters are sent to the immediate adjacent property owners who are encouraged to sign up for the planting of a replacement tree.

Verona customarily removed approximately 50 trees per year. Small tree removals are conducted in-house. Larger tree removals are contracted out.

Verona’s pro-active position in promptly removing dead, diseased and structurally weak trees has greatly reduced its potential for storm damage and necessity of emergency response. The Township of Verona is equipped to handle most tree related problems that could come its way and most public works employees have received cross training in chainsaw and brush chipper operation. Verona has enjoyed the cooperation of PSE&G for many years. Under emergency situations, Verona has a contact with a local tree service.

It is the policy of the Township to repair sidewalks in the areas where the roots from town trees have raised or interfered with the sidewalk. All other repairs are the responsibility of the adjacent property owner.

The sidewalk repair problem has been ongoing for over 30 years. It is an ambitious program, being both re-active and pro-active. The program is funded through Verona’s Capital Budget, \$25,000 per year is budgeted and all work is contracted out. Several complete repair circuits have been made around the Township. Some individual sidewalks have been replaced on multiple occasions.

GOALS

OBJECTIVES

- |   |   |
|---|---|
| A. To promptly remove dead and diseased trees                       | 1. Conduct an annual hazard tree inspection during late summer/early fall   |
|   | 2. Remove of all dead or diseased trees within nine months of identifying   |
|   | 3. Budget to contract-out large tree removals                               |
| B. To continue to monitor and address Hazardous sidewalk situations | 1. Maintain communications with the Engineering Department                  |
|   | 2. Adequately fund a sidewalk maintenance budget                            |
|   | 3. Maintain system as pro-active  |
|   | 4. Continue implementing a ten-year cycle inspection/correction program     |
|   | 5. Explore alternative grant and funding options                            |
|   | 6. Apply for CSIP funding to conduct a walking survey of township sidewalks |

***Tree Planting Goal***

Tree replacement is provided through the Operational Budget. Previous surveys and the 2013 windshield Survey found that the majority of Verona’s tree population was compose of Maples (Norway, Red, Silver and Sugar). Balancing species diversity is considered one of the arboriculture greatest management tools. Verona will endeavor minimize the planting of Maples in the future in co-operation with its above ground utility companies. Verona will attempt to utilize only compact growing replacement species under wires.

Verona is committed to a “no net tree loss” program. Tree planting is conducted by private contractors and typically goes out to bid every year. \$10,000 has been budgeted for this purpose. Approximately 30 – 40 trees are planted each year. The windshield survey identified only 46 conspicuous tree-planting vacancies.

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***Tree Planting Goal (cont)***

<u>GOALS</u>	<u>OBJECTIVES</u>
A. Continue “no net tree loss” planting program	<ol style="list-style-type: none"> <li>1. Identify potential planting sites</li> <li>2. Expand communication with residents regarding availability and benefits of street trees</li> <li>3. Maintain tree planting line-item</li> <li>4. Explore alternative grant and funding options</li> </ol>
B. Continue using appropriate species diversity in tree replacement program	<ol style="list-style-type: none"> <li>1. Explore availability, positive aspects and negative aspects of new plant material</li> <li>2. Attend a seminar applicable to selection of plant material based on soil conditions and planting the right tree in the right place.</li> <li>3. Network with other municipalities on species used, successes and disappointments</li> <li>4. Utilize root barriers in high-water-table neighborhoods</li> </ol>
C. Expand the Arbor Day and Public Awareness programs	<ol style="list-style-type: none"> <li>1. Focus on different programs and activities available.</li> <li>2. Increase public awareness of Arbor Day ceremony</li> <li>3. Maintain interest of the Board of Education in pursuing availability of professional education programs.</li> <li>4. Maintain contact with new residents regarding street trees via a “Welcome to Verona” letter</li> </ol>

***Tree Maintenance and Care Goal***

Requests for pruning services are prioritized by pruning category. The management goal of any municipal shade tree program would be to prune the entire tree population on at least a 10-year rotational cycle. Verona’s tree population is estimated at 4,896 and therefore approximately 150 trees per year in addition to their normal duties, Verona should be budgeting \$60,000 per year to prune approximately 335 trees. The preset tree-pruning budget is \$30,000, which allows for the contractual pruning of 70 – 90 trees per year.

The 2013 windshield tree survey identified the following trees in need of pruning:

- Class II Pruning – 165
- Class III Pruning – 42
- Class IV Pruning - 285

<u>GOALS</u>	<u>OBJECTIVES</u>
A. Identify locations of high maintenance trees and put them on routine maintenance schedule plan	<ol style="list-style-type: none"> <li>1. Maintain a tree pruning line item for outside contracted services</li> <li>2. Maintain a ten-year pruning cycle for high maintenance trees</li> <li>3. Prune all trees identified for pruning during the windshield survey within nine months</li> <li>4. Maintain a systematic tree elevation program with DPW</li> <li>5. Explore alternative grant and funding options</li> </ol>

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***Tree Maintenance and Care Goal (cont)***

- |                                       |  |
|---------------------------------------|--|
| B. Stay current with service requests | <ol style="list-style-type: none"><li>1. Contract out routine street tree pruning if necessary based on DPW workload</li><li>2. Explore alternative contractual options</li><li>3. Explore alternative grant and funding options</li><li>4. Explore additional interlocal service/mutual aid agreements.</li></ol> |
|---------------------------------------|--|

***Other Elements***

GOALS

OBJECTIVES

- |   |   |
|---|---|
| A. Encourage additional training and continuing education attendance for Public Works employees and volunteer's | <ol style="list-style-type: none"><li>1. Attend Core Training program to meet the requirements of NJ Community Forestry Council</li><li>2. Explore additional training possibilities for CEU credits</li></ol>              |
| B. Strengthen existing tree protection ordinances   | <ol style="list-style-type: none"><li>1. Review existing ordinances from other municipalities for relevance</li><li>2. Network with other municipalities</li><li>3. Revise the protection ordinances as necessary</li></ol> |

**D. Liability Statement**

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 that community trees not only contribute to the environmental and economic vitality of the area, but also reduce the potential hazards to public safety. Our community 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 to the greatest need and step by step work toward a healthy forest with commensurate reduced risks to public safety.

We feel, by taking logical steps outlined in the plan, we will garner public support for plan implementation and demonstrate the long-term benefits to the environment and public safety.

We also want to become more proactive in the management and care of our trees. Through inventory and hazard assessment, we will position our Shade Tree Commission to take corrective action prior to structural tree failure and other hazardous tree related conditions. It is acknowledged that not all hazardous conditions will be predicted, but it's much like trying to predict which tooth might break next. Good maintenance and care will reduce the probability, but unexpected events will still occur.

Following this plan will demonstrate that the Township of Verona is devoting reasonable levels of resources in a planned manner to reduce the number of tree related accidents and thereby reduce it's exposure to liabilities and increase public safety.

### Section 3

#### Community Overview – 10 years of progress.

The Township of Verona is located in the north central portion of Essex County and is 2.79 square miles in area. The Population of Verona Township from the 2010 Census is 13,533 people. The Township currently contains 3,622 single family lots. Parks and open space uses in the Township total 296.6 acres. According to the Verona Chamber of Commerce website, Verona was originally a part of Newark, then later a part of Caldwell Township. The Borough of Verona was incorporated in 1907.

There are approximately 35 miles of Township roads and 5 miles of State and County highway in Verona.

In 2008, Verona was ranked by NJ Monthly as the Essex County to live and #3 in the state.

Suburban municipalities surrounding Verona Township includes West Orange, Essex Fells, North Caldwell, Cedar Grove and Montclair.

Most of Verona is composed of single family neighborhoods with the exception of a few multi-family complexes. Commercial development follows major state and county highway. There is very little vacant land in Verona.

Verona has a long history in shade-tree management. The Shade Tree commission was created by ordinance on June 7, 1955.

A Town tree protection ordinance was passed on March 14, 1961.

The Township Council adopted a tree protection ordinance regulating tree removal on private lands on October 20, 1964. The ordinance was most recently revised April 2, 2012.

Several ordinances regarding sidewalk maintenance were adopted by the Council on August 20, 1963 and subsequently amended as necessary.

Verona’s first Shade Tree Master Plan was prepared on January 1, 1982 by John P. Stone, landscape architect. Mr. Stone’s comprehensive plan analyzed Verona’s tree population, reviewed the responsibilities and specific objectives of the Shade Tree Commission and created 8 tree management zones. The parameters set by Mr. Stone have largely been carried out to this day.

Verona has been a Tree City, USA for 34 years.

#### *Verona Shade Tree Commission*

The following is a Yearly Summary 2005 – 2013 of major tree accomplishments.

Year	Budget	Pruned	Removed	Planted
2005	\$90,000	80	54	0
2006	\$91,200	78	50	0
2007	\$91,200	93	49	38
2008	\$96,000	90	46	30
2009	\$96,000	189	45	95
2010	\$100,000	94	77	68

2011	\$120,000	130	47	52
2012	\$125,000	294	256	138
2013	\$125,000	71	71	80 up to date

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The Windshield Tree Survey has identified the following streets which contain a predominance of high maintenance trees, requiring pruning on 5 – 7 year rotation.

- a. Forest Avenue – 27 London Plane
- b. Hillside Avenue – 51 Pin Oak
- c. Howard Avenue – 23 London Plane
- d. Marion Road – 37 London Plane
- e. Pease Avenue – 10 London Plane
- f. Linden Avenue – 80 Pin Oak
- g. Newman Avenue – 64 Pin Oak
- h. Cliff Street – 30 Pin Oak
- i. Beach Road – 19 Pin Oak
- j. E & W Lincoln Street – 52 London Plane
- k. Derwent Avenue – 10 London Plane
- l. Crane Terrace – 6 Red Oak
- m. Overhill Road – 27 Pin Oak

**TOTAL 430**

An ongoing project of the Environmental Commission is to identify what they call “Treasured Trees of Verona”. Currently there are over 20 trees on the list representing over 16 species. An attractive plaque is affixed to each tree. A copy of the “Treasured Trees of Verona” list is included in the Appendix. It is periodically updated on the Environmental Commissions Website [www.Veronaec.org](http://www.Veronaec.org). Also featured on the website is a narrative about the Shade Tree Commission and information reading township trees.

The 2010 Township of Verona New Jersey Hilltop Redevelopment and Master Plan update was prepared by Kasler Associates, PA of Springfield, NJ. It was adopted March 25, 2010. Changes reflected in this plan primarily focus on the redevelopment of a 311 acre parcel known as the Hilltop Tract which formerly housed the Essex County Jail Annex. Of the 145 acres in Verona, 89 acres will be preserved.

Site contamination, wetlands, steep slopes and tree cover are all appropriately addressed.

Preservation of Open Space and Municipal Recreation Goals are consistent with the objectives of Verona’s Community Forestry Management Plan.

The June 12, 2009 Master Plan, also prepared by Kasler Associates, PA, lists the following goals and objectives consistent with Verona’s 2014 – 2017 Community Forestry Management Plan.

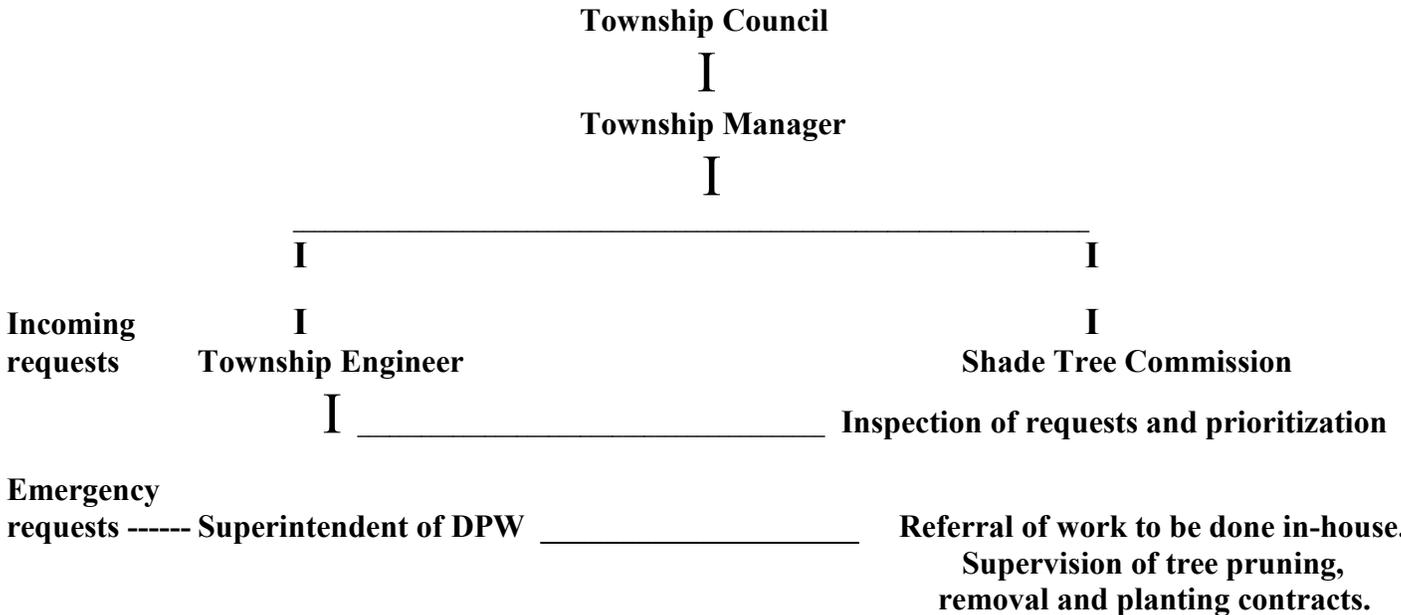
- Appropriate use and development of all lands in this Township in a manner that will promote the public health safety, morals and general welfare.
- Promote the conservation of environmental resources and the natural appearance of the Township
- Preserve the environmental resources of the Township by locating conservation parklands and easement when necessary; by limiting development in environmentally sensitive areas; by encouraging the preservation of specimen trees and general landscaping, and by preservation of the township’s natural character.
- Reduce the cutting of trees on private property through tree preservation regulations
- Support the plumbing and maintain tress along public right-of-way.
- Enhance and maintain attractive gateways to the Township
- To promote the maximum practicable recovery and recycling of recyclable materials from municipal

solid waste.....

Other than receiving Green Communities Grants, the Township of Verona has not applied for any Community Stewardship Incentive Program Grants. This will be an annual goal for the future.

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### Section 4 - Community Forestry Administration



As you can see from the accompanying chart, all requests for these related services flow through the Township Engineer. This is an on-going system that works very well. Emergency requests that cannot be completed in-house are handled by a contractual arrangement with a private caller.

The Public Works Department consists of 11 personnel. The superintendent has been core trained. Three DPW employees have been cross trained in chainsaw safety and brush clipper operation. All in-house maintenance is conducted from the ground (no climbing).

The Shade Tree Commission formally meets six times per year. An annual tree hazard survey is conducted in-house by commission members to help prioritize tree removal and maintenance. Contractual pruning and removal is usually deferred to the winter when prices are lower.

Requests for services are plotted on Excel Spread Sheets and monitored by both the Shade Tree Commission and Department of Public Works.

### Section 5 - Community Map

No significant changes since last submittal

## Section 6 - Training Plan

The Township's intention that as many people as possible who are involved with the community forest should receive training per the requirements of the New Jersey Community Forestry Council. The Township has supported the training needs identified by the Shade Tree Commission by budgeting funds specifically identified for training purposes.

Both the Superintendent of Public Works and the Chairman of the Shade Tree Commission have received Core Certification. Additional Shade Tree Commission Members and at least one more DPW employee should consider becoming Core Certified. Whenever possible, DPW employees are cross trained in tree pruning, chain saw safety and tree hazard awareness.

In 2014, 2015, 2016 and 2017 the Township intends to send at least one additional representative each year to the Core Training Program and at least one representative to the NJ Shade Tree Federation Annual Meeting for continuing education.

It is also the intention of the Township to send representatives, including personnel from our Department of Public Works, for training or have training conducted in-house to achieve continuing education credits in areas such as recognizing tree hazards, common insect and disease problems and response needs for tree emergencies.

The official tree contact person is Chuck Molinaro, Superintendent of Public Works. His phone number is 973-857->>>>>

As proactive as the Township has been, the substantial damage and power outages from the October 29, 2011 snow storm and Hurricane Sandy in 2012 have taught us that we need more training in Hazardous Tree Identification. New Jersey Agriculture Experiment Station Office of Continuing Professional Education offers a course entitled "Hazardous Tree Identification" at Rutgers University in New Brunswick. The course is based on "A Photographic Guide to the Evaluation of Hazard trees in Urban Environment" published by the International Society of Arboriculture which is the recognized standard text for tree hazard awareness. It is recommended that at least one person from Verona's Department of Public Works or one person from the Shade Tree Commission attend a full-day course each year. The course is offered twice per year.

The Chairman of the Shade Tree Commission maintains pesticide certification in Categories 3A and 3B.

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## **Section 7 – Public Education/Awareness/Outreach**

Arbor Day and shade tree related information is disseminated throughout several local media outlets, The Verona-Cedar Grove Times, The Verona Observer and the town's local television stations.

Comcast of New Jersey, Channel 35  
and  
Verizon FIOS Channel 24 (Verona's Television)

The Verizon Patch, [www.verona.patch.com](http://www.verona.patch.com)  
and  
the Township website [www.veronanj.org](http://www.veronanj.org)  
also used for distributing tree related news releases.

Verona has been a Tree City USA for 34 years.

Future goals include the preparation of written township policies and criteria for tree removals, tree replacement, resolving sidewalk/tree root conflict etc. and posting these on the Township Website. There is a very informative link on the Verona Environmental Commission Website Veronaec.org. That provided valuable information about the Shade Tree Commission, general information about shade trees and virtual arboretum called "Treasured Trees of Verona".

## Section 8 – Statement of the Tree Budget

The 2013 Shade Tree Commission Budget is broken down as follows:

Dues and Subscriptions	\$100.00
Beautification	\$2000.00
Pruning/Repair	\$50,000.00
Removal	\$50,000.00
Emergency	\$22,000.00

The 2010 and 2011 Storms necessitated emergency allocations to facilitate clean-up.

Shade Tree Commission members serve in that capacity as appointed volunteers. It is estimated that a total of 446 volunteer hours are put in each year.

At \$23/hr, this computes to approximately \$10,258 of annual in-kind service.

The Department of Public Works on the average puts in approximately 240 hours of tree related services per year.

At \$37/hr, this computes to approximately \$8,880 of annual in-kind services.

Tree planting is an annual capital budget item of \$35,000.

Sidewalk repair due to township tree roots is also an annual capital budget item totaling \$40,000.

The Grand Total for annually provided tree related services for the Township of Verona totals \$518,238.

Since the entire tree related work conducted by Public Works is from the ground (everything else is contracted out), the only capital budget item would be replacement of the town's brush clipper (a 2012 model) which is scheduled for replacement every twenty years. Chainsaws, pole saws, pruning loppers and other incidental expenses are combined into the Public Works Budget.

## **Section 9 – Statement of Plan Implementation**

The Township of Verona has been pro-active in the area of its community forest for many years. The Shade Tree Commission has been in existence for years. Township conducted a tree inventory and adopted a Community Forestry Management as far back as 1982 prior to the standards set forth by the standards set forth by the State and the NJ Community Forestry Council.

Although Verona is fully developed, the Township must re-examine the condition of its community forest, make strategic management changes where necessary while, at the same time, maintain the various activities that the community has come to rely on. .

Two notable storms occurred during the past management period which had a profound impact on Cranford's tree population:

- On October 29, 2011 a freak snow storm hit northern New Jersey causing severe damage to trees, especially those deciduous trees which had not lost their leaves. Oak trees were particularly hit hard. Damage was mostly in the form of broken and hanging tree branches.
- On October 28, 2012 Hurricane Sandy struck New Jersey. With its 80 – 100 mile per hour winds, Sandy left behind a wake of uprooted evergreen and deciduous trees throughout Cranford. Massive power outages lasted for over a week not only in Cranford, but in all municipalities in the county.

These two events are still fresh in our minds and no doubt will have an impact on future tree maintenance and replacement for decades to come.

It is our belief that by being pro-active over the past two management plan cycles the Township minimized the effect of these storms on the community by promptly removing dead, diseased and dying trees identified by annual hazard tree inspections, by removing trees of marginal value in capital budget road reconstruction projects, and by replacing trees under overhead wires with compact species.

### **A. 2014 – 2018 Implementation Strategy**

#### ***Tree Assessment and Inventory***

An appendix of the 1982 Management Plan included a Tree Population Field Data report which broke the Town into 8 management areas and provided basic tree inventory data for each street.

It is a current goal of the Shade Tree Commission to update the tree inventory. This would be accomplished with the tree inventory. This would be accomplished with the aid of CSIP Grant. In the interim, the Shade Tree Commission conducts annual Hazardous Tree Windshield Survey which provides a listing of trees to be removed, pruned and open places for investigation of new plantings.

#### ***Implementation Strategy Goals***

1. Continue to update the existing tree inventory with removals, new trees and changes in maintenance needs.
2. Prepare and submit the Management Plan Annual Accomplishment Report.
3. Conduct the annual Hazardous Tree Windshield Survey and follow-up on identified needs.
4. Apply for a CSIP Grant to fund a new inventory

### **B. Hazardous Tree Identification and Management**

The Verona Shade Tree Commission has adopted a Tree Removal Policy – a copy is provided in the appendix. Trees identified as requiring removal are removed within six months of identification. The majority of removals are conducted by outside contractors. There is a currently a slight back log of trees that require removal.

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The Township has had a pro-active sidewalk replacement program funded by a Public Works Capital Budget in selected years. Locations where tree roots have uplifted sidewalks by more ¾” are identified, prioritized and contracted out for replacement.

The goal for 2014 will be to have a hazardous sidewalk survey conducted. This will be accomplished with CSIP funding or, if not available, possibly as an Eagle Scout project or with summer interns.

The criteria to be used will be:

1. Identify sidewalks that have been uplifted more than three-quarters of an inch.
2. Determine whether a Township shade tree is believed to be responsible for the sidewalk lifting.
3. Determine the course of action to abate the situation. Typical solutions include:
  - a. Remove the offending slab or slabs – shave the offending roots – pour a new slab or slabs.
  - b. If the existing slab is in good condition, raise the offending slab – shave the offending roots – reset the existing slab in stone dust.
  - c. Plank the existing sidewalk over the offending roots (this method is frequently used with bluestone slabs).
  - d. Remove the offending slab or slabs – offset the replacement sidewalk to avoid the offending roots to minimize damage to the trees.
  - e. Remove the tree and replace the sidewalk per Township specifications.

Once a hazardous sidewalk survey has been completed, the results of the survey are to be turned over to the Shade Tree Commission which will prescribe how the problem will be abated and will supervise the root shaving for any trees to be preserved.

The October 29, 2011 freak snow storm and Hurricane Sandy had a devastating effect on North Jersey street trees. It is our belief that by being pro-active over the past two management plan cycles, the Township minimized the effect of these storms on the community by promptly removing dead, diseased and dying trees identified by annual hazard tree inspections, by removing trees of marginal value in capital budget road reconstruction projects, and by replacing trees under overhead wires with compact species.

Immediately following the October 29, 2012 storm a hazardous tree survey was conducted and an emergency allocation was made. Verona’s Department of Public Works responded quickly and was able to reopen Township roads, allowing transportation within the Township to resume quickly. We credit this minimal damage to our effective Hazardous Tree Identification Program.

### ***Implementation Strategy***

1. Conduct a walking survey of Township and Board of Education sidewalks.
2. Conduct an annual hazardous Tree Windshield Tree Survey of Township rights-of-way and follow up on identified needs.
3. Send at least on Shade Tree Commission member or a Department of Public Works employee to the Hazardous Tree Identification Course held at Rutgers.

### **C. Tree Planting**

Our number one priority for tree planting is to replace the trees lost during the 2011 snow storm and Hurricane Sandy. Verona lost trees during these storms. Verona has a no-net-loss planting goal, meaning that our goal is to plant the same or more trees than we remove. We are approaching a point where approximately 75% of the

residents living on property with identified space before a new tree planting will not accept a new tree. This has created an extensive list of potential planting sites, but sites of little value to the Commission. Up until the present, the Commission has not imposed its right on the property owners to plant new trees on the easement

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against their will. The Commission’s policy requires that permission be obtained from the affected property owner prior to planting.

Verona recognizes and supports the need for diversity in its urban forest. Through its history, the Shade Tree Commission has consistently planted various species appropriate for a given site. This does not however eliminate the problems created by prior tree planting.

Although Verona has made great strides in planting the right tree in the right place with particular emphasis on compact trees, it was apparent from the 2013 Windshield Tree Survey that there are far too many maples still being used.

Other compact tree species that have been used in surrounding municipalities include:

Thunder Cloud Plum	Canada Red Cherry	Japanese Tree Lilac
Merrill Magnolia	Pyramidal European Hornbeam	Shadblow
Koelreuteria	Ruby Red Horsechestnut	Chinese Fringe Tree
Columnar Sergeant Cherry	Jersey Bell Silverbell	

Suggested medium sized tree species would be:

Yellowwood	Maackia	Hardy Rubber Tree
Rotundiloba Sweet Gum	English Oak	Green Pillar Pin Oak

Larger tree species that might be used include:

Lacebark Elm and other disease resistant elms		Katsuaia
Swamp White Oak	Musashino Zelkova	American Sentry Linden

Verona’s long term diversity goal is that no species should exceed 10% of the entire street tree population. We will have to wait for the results of our next inventory project to see if we are making progress toward our goal.

#### **D. Tree Maintenance and Care**

The goal of this category is to provide scheduled maintenance of every township tree over a prescribed 10 year period. Ideally requests for street tree maintenance from the public would be at a minimum if the township were able to prune (either contractually or in-house) one tenth of the entire tree population every year. Budget constraints and scarcity of CSIP Grants prevent this from actually happening.

In an attempt to be as pro-active as possible, Verona has identified and targeted its large, over-mature and high maintenance trees for scheduled pruning which at the same time making the most of “windows of opportunity” for DPW labor to elevate the branch level and remove small, dead trees; all work that can be done safely from the ground without climbing.

Conducting an annual windshield tree survey further helps to identify and prioritize needed tree maintenance. To this end, additional training by both Shade Tree Commission members and full time DPW employees is needed in Hazardous Tree Identification.

Moving away from problematic tree species such as Pin Oak, London Plane, Ash, Flowering Pear, etc. will over the long term reduce needed maintenance. Planting compact species under overhead utilities will also reduce tree maintenance headaches overtime. Recent storms with accompanying power outages indelibly remind us of the ongoing conflict between trees and overhead wires. The replacement of large growing species with compact

growing species is often accelerated during Township road construction projects by proactively removing and replacement over mature trees.

(15)

A major contributing factor in the recent power outages actually came from privately owned trees - not from the Township trees. In the past, where required, the Township has put private tree owners on notice to remove potentially hazardous trees as we become aware of them. In the future, we may increase this noticing procedure.

To enable any tree to be deemed “hazardous” there must be both a tree defect and a potential “target”. Tree defects include crown dieback, excessive deadwood, lean, undermining, internal decay, decline due to insects, drought stress, lightening strikes, storm damage, grade changes or construction injury. Any structure vehicle, person or personal property within striking distance of a “target” however, we attempt to manage these risks by regular inspection and follow-up with remedial action.

Private tree owners should have their trees inspected regularly by a New Jersey Certified Tree Expert or International Society of Arboriculture Certified Arborist. Only full service tree companies employing NJ Certified Tree Experts or ISA Certified Arborist should be used when preserving and maintaining trees. Other companies specializing in tree removal services are usually more cost effective when it has been determined that a tree removal is necessary. Generally speaking, all trees require some form of maintenance at least once within a 7-10 year period. Tree removal and maintenance is usually 10% - 20% less expensive during the winter months (December through March) when tree companies are usually less busy.

The 2013 Windshield Tree Survey identified the present tree maintenance needs:

<u>need</u>	<u>targeted completion date</u>
51 stumps to be removed	1 year
46 tree planting locations	1 year
165 trees to be Class II Pruned	1 year
42 trees to be Class III Pruned	3 months
80 trees to be removed	9 months
28 raised sidewalks	1 year
12 situations on private property to be abated	90 days

### ***Implementation Strategy***

1. Continue to rely on the annual Hazardous Tree Windshield Survey to assist in the identification of High and Medium Maintenance Priority needs.
2. Continue to mitigate the identified High and Medium Maintenance Priorities as quickly as possible.
3. Continue the pro-active pruning program with pruning of the Pin Oaks and London Plane followed by Pear trees.
4. Continue to explore alternative grant and funding options.
5. Continue promoting the use of RootX and other trenchless options to sewer line maintenance
6. Address law surface toot issues on a case-by-case basis, either by property owners for private property or by the Township for Township properties.
7. Plan for the removal and replacement of ash trees lost to Ash Yellows or Emerald Ash Borer throughout the Township.

### **E. Other Elements – Training/Education/ Tree Protection Ordinance**

Verona has taken seriously the need for training and education for Township individuals involved with tree care. Presently only one of the Shade Tree Commission members and one member of the Verona Department of Public Works employees attended a one and one-quarter hour seminar entitled “Chain Saw Safety provided by Stihl”. In the future, the Commission will continue to encourage those individuals involved with street tree

care to attend Core certification training; presentations during the NJ Shade Tree Federation meeting; courses offered by Rutgers University (such as Hazardous Tree Identification); presentations from the NJ Tree Federation; and other training/education offerings.

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*Implementation Strategy*

1. Continue to encourage individuals in street tree care to become Core Certified.
2. Continue to encourage individuals involved in street tree care to attend other opportunities for training and education.
3. Continue to review the requirements specified in the Tree Protection and Removal Ordinance and revise the ordinance when it no longer meets all the Township's needs.
4. Continue to explore alternative grant and funding opportunities for Training and Education.

## **Section 10 – 2014–2018 Implementation Plan Objectives**

### **A. 2014**

- Budget to replace trees lost due to the 2011 snow storm and Hurricane Sandy.
- Budget for shade tree maintenance required due to 2011 snow storm and Hurricane Sandy.
- Investigate and apply for available grants.
- Conduct the annual Hazardous Tree Windshield Survey
- Sent at least one Shade Tree Commission member or DPW employee for Core Training and/or Hazardous tree identification training.
- Provide a copy of the 2014-2018 Management Plan to the Township Planner.
- Apply for a CSIP Grant to fund a Tree Inventory

### **B. 2015**

- Conduct a walking survey of Township and Board of Education sidewalks.
- Begin utilizing root barriers in high-water-table neighborhoods.
- Provide better use of the Township's website for both information and customer service.
- Resume pro-active contractual pruning of high-maintenance trees i.e. Pin Oaks, London Planes and Flowering Pears.
- Prepare a newsletter for residents on storm preparedness.
- Apply for available CSIP funding.
- Conduct the annual Hazardous Tree Windshield Survey or actual street tree inventory
- Apply for available CSIP funding.

### **C. 2016**

- Follow up on previously stated goals.
- Review effectiveness of existing ordinances and policies.
- Apply for available CSIP funding.

### **D. 2017**

- Follow up on previously stated goals.
- Review effectiveness of existing ordinances and policies.
- Apply for a Green Communities Grant to revise the Community Forestry Management Plan by the end of 2016.
- Apply for available CSIP funding

### **E. 2018**

- Follow up on previously stated goals.
- Apply for available CSIP funding.
- Re-write the Community Forestry Management Plan.

## **Section 10 - Community Stewardship Incentive Program (5 Years)**

### **CSIP #1 Training**

Any available CSIP grants for the training of volunteers, employees or public officials would be appreciated.

See Section 6 for more details on training needs, page 10

### **CSIP #2 Community Forestry Ordinance Establishment**

The Township of Verona adopted a comprehensive Tree Protection and Removal ordinance in 2012. CSIP funding for legal assistance for ordinance research and education would facilitate the development and relevance of new ordinances.

See Section 9.5 on page 16 for more information relating Verona's tree ordinance.

### **CSIP #3 Public Education and Awareness**

CSIP funding could enable the dissemination of educational programs through news releases, school systems, or over Verona's local cable television station. Handouts could be provided at Verona's Town Hall, Library and local events.

See Section 7 for more details on this subject, pages 11.

### **CSIP #4 Arbor Day Activities**

CSIP funding for the distribution of tube seedlings or literature would be helpful. CSIP funding that would provide the opportunity for professional education opportunities would be pursued.

See Section 7 for more information on Verona's current Arbor Day celebration, page 11.

### **CSIP #5 Tree Inventory**

Verona has never had a comprehensive tree inventory. CSIP Funds to conduct a tree inventory are requested in 2015.

### **CSIP #6 Tree Hazard Assessment Plan**

The goal of this plan is to have at least one member of Verona's Tree Advisory Board or Department of Public Works attend the Hazardous Tree Identification course offered at Rutgers University each year. Members of the Commission as well as members of Verona's Department of Public Works would benefit from the knowledge provided in that course.

Application of the knowledge gained would make Verona safer and less susceptible to storm damage. A CSIP grant would be appreciated in this area.

See Section 9.B for more details, pages 13 &14.

### **CSIP #7 Storm Damage Assessments**

Even during the 2011 snow storm and Hurricane Sandy, Verona has been fortunate to have avoided the extent of tree damage sustained by surrounding municipalities. The existing Emergency and Storm response is taken care of by Verona's in-house labor or assigned to an

outside contractor on an emergency (no bid) basis. A CSIP grant could provide the impetus to begin a study for regionalization of services with other communities in a disaster situation.

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#### CSIP #8 Tree Maintenance and Removals

Street tree maintenance continues to be the biggest challenge for Verona especially in light of the recent storms. A CSIP grant intended to provide alternate funding to supplement the annual tree maintenance funding to supplement the annual tree maintenance expenditure would be appreciated.

See Section 9.D on page 15 & 16 for more information relating to tree maintenance in Verona

#### CSIP #9 Insect and Disease Management

Integrated Pest Management education for Shade Tree Commission members and Department of Public Works employees funded by a CSIP grant to provide additional training would enhance the overall health of Verona's community forest. With Emerald Ash Borer and Bacterial Leaf Scorch at our door-step, what's next?

#### CSIP #10 Wildfire Protection

Sources of wildfire in Verona would be along Pompton Avenue (Route 23) or Essex County Parkland. Although Verona has an excellent fire department, there may be interest in CSIP funding for training in this category.

#### CSIP #11 Tree Planting

Although there are locations for new street tree planting in Verona, many property owners are opposed and will not give permission for a new tree to be planted. With the exception of replacement trees, planting on public properties and planting programs such as Street Scape, Verona is almost fully planted. Nevertheless, a CSIP grant would be welcome to assist in planting on Verona's public properties.

See Section 9.C on pages 14 & 15 for more information relating to planting in Verona.

#### CSIP #12 Tree Recycling

The Verona Department of Public Works recycles woodchips from its in-house pruning and removal programs. Vendors are encouraged to do the same in the contracted pruning and removals. CSIP funding could assist Verona in better utilization of its wood waste and further lower disposal costs.

#### CSIP #13 Sidewalk Maintenance Program

Verona is interested in obtaining CSIP funding to conduct a walking survey of Township and Board of Education sidewalks. This most likely would take place with a part-time, summer college student.

#### CSIP #14 Storm Water Management

CSIP funding could be used by Verona's Department of Public Works to improve the Township's leaf collection and catch basin cleaning equipment.

CSIP #15 Other

CSIP funding could be utilized to hire a grants person to explore regionalization of services or alternate maintenance funding sources.

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APPENDIX

