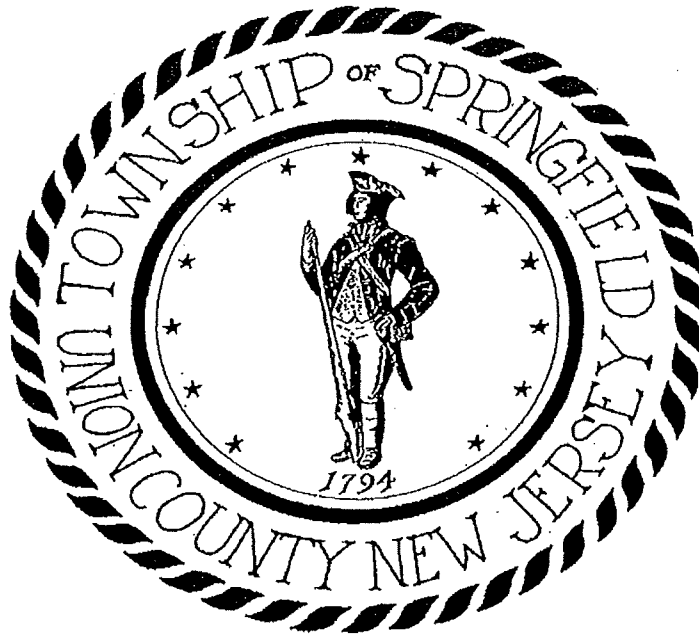


Community Forestry Management Plan

2020-2024

Township of Springfield

Union County



**Prepared by Robert Brennan
NJ Licensed Tree Expert # 395**

Township of Springfield
Community Forestry Management Plan 2020-2024

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Municipal/County Information Form

Municipality Twp of Springfield

County Union

Address 100 Mountain Ave

Springfield NJ 07081

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Organization Name Twp of Springfield

Mayor/County Freeholder's Signature Erica DuBois

Date of Management Plan Submission 6/12/19

Time Period Covered in Management Plan 2020-2024

- Community Stewardship Incentive Program (CSIP) Practices Identified in Management Plan
- CSIP #1 Training
 - CSIP #2 Community Forestry Ordinance Establishment
 - CSIP #3 Public Education and Awareness
 - CSIP #4 Arbor Day
 - CSIP #5 Tree Inventory
 - CSIP #6 Hazard Tree Assessment
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 - CSIP #12 Tree Recycling
 - CSIP #13 Sidewalk Maintenance Program
 - CSIP #14 Storm Water Management
 - CSIP #15 Other

Official Use Only
Certification

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

Signed


State Forester

27 NOV 19
Approved date

1. Municipal Information Form
2. Introduction

This five year management plan for the Township of Springfield ("Springfield" or "the Township") is prepared in accordance with the New Jersey Shade Tree and Community Forestry Act, P.L. 1996, Chapter 135 ("the Community Forestry Act"), to guide Springfield in its efforts to replenish, protect and maintain a healthy, safe, and sustainable tree canopy for the environmental, aesthetic, and economic benefit of residents, businesses, and visitors.

The Conservation element of Springfield's Master Plan succinctly summarizes the role of trees as service providers to our community:

" The established urban forest in Springfield is important to the Township's identity and environmental health, in addition to providing habitat for local species. Trees protect water and air quality, control flooding' and reduce stormwater runoff and erosion. They absorb carbon dioxide and release oxygen in the atmosphere. They reduce greenhouse gas emissions, especially carbon dioxide and they help control global warming.

Trees are an important part of urban and suburban areas. The planting, maintenance, and protection of trees benefit the urban and suburban environment. Planting or preserving trees in strategic locations can reduce energy demand in buildings and heating and cooling costs. Trees are beneficial for stormwater management, for controlling erosion, and for masking urban noise. Trees can mitigate the adverse impacts of urban heat island effect. When planted in parking lots and streets, trees are effective in cooling and beautifying the urban and suburban environment. "

The overall goal of this Management Plan is to preserve the natural beauty of Springfield's tree canopy at a time when it has been significantly reduced by natural disasters, such as Winter Storm Quinn, Halloween Snowstorm of

2011, and Hurricane Sandy in 2012. The plan seeks to minimize taxpayer burdens by using species selection. Planting the right tree in the right place will promote a more sustainable urban forest.

The plan must first be approved by the Springfield Township Committee. Subsequent approval by the State Forester, following the favorable recommendation from the Community Forestry Council, will provide additional liability protection to Springfield under the Act. Approval will also make Springfield eligible to receive grant funds from the New Jersey Forest Service and other organizations to help implement this plan.

Mission Statement

To replenish, protect, and maintain a healthy, safe, and sustainable tree canopy for the environmental, aesthetic, and economic benefit of Springfield's residents, businesses, and visitors.

Goals and Objectives

The goals of the the Springfield Forestry Management Program are as follows:

Goal #1 Replenish historical tree canopy- plant at least one tree for every tree that has been lost or removed- while increasing diversity species, sizes, ages, with an emphasis on urban tolerant species, and prohibiting the planting of invasive species.

Objectives of Goal # 1

- Expand the yearly planting program to give priority to trees lost by storms or disease

- Plant the right tree in the right place- planting the largest possible species given environmental restrictions, i.e., overhead wires and narrow planting strips between curb and sidewalks

- Coordinate tree planting and removal with Union County Shade Tree, NJ Transit, and utility companies.

- Replace ash trees with a suitable site specific species

Goal # 2 Promote public safety and preserve existing canopy through proper tree maintenance

Objectives of Goal # 2

- Identify hazardous trees and implement a remediation plan

- Continue to improve our tree maintenance program

- Use inventory data to develop removal, maintenance and work priorities

Concentrate on regular pruning young trees to promote proper canopy structure

Goal # 3 Inventory and assess all municipal owned trees on roadways, rights of way, and parks in Springfield

Objectives of Goal # 3

- Continue to improve our inventory system
- Complete a total tree inventory, including tree species, diameter, height, structural condition, potential utility conflicts, planting width, and notable or historic trees
- Identify more potential planting locations

Goal # 4 Educate the public about trees and their importance to the entire community

Objectives of Goal # 4

- Continue to collect list of notable trees in Springfield
- Continue to expand the tree collection at Veterans Park and include species list for public viewing
- Continue expanding our Arbor Day celebration
- Maintain recognition as a Tree City USA- 13 Years
- Promote general tree awareness and stewardship among residents by making education materials available at Arbor Day celebrations, the Farmers Market, Street Fairs and other Environmental Commission events

Goal # 5 Educate and train municipal employees, elected officials, and volunteers in community forestry

Objectives of Goal # 5

- Maintain at least one municipal employee and volunteer Core trained

Meet continuing education requirements of at least eight CEU's per year

Progressively increase the training budget to ensure the continuing education of the Department of Public Works employees to provide the best care for Springfield's trees

Liability Statement

The Township of Springfield recognizes the benefits provided to the community by its tree resource. As trees are living entities, it is inevitable that as they mature they require care, maintenance, removal and replacement. The first step in tree care is planting. Proper placement of the right tree in the right place will help to avoid future conflicts and expenses.

Springfield 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 work step by step towards a healthy urban forest with commensurate reduced risks to public safety.

We want to become more proactive in the management and care of our trees. Through inventory and hazard assessment, we will position ourselves to take corrective action prior to structural tree failure and other tree-related conditions. It is acknowledged that not all hazardous conditions will be predicted but proactive management should reduce the occurrence of unexpected events.

Following this Community Forestry Management Plan will demonstrate that Springfield 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.

Community Overview

A. The History of Springfield

Springfield was formed on April 14, 1794, and incorporated in 1798. The Township is the celebrated site of the Battle of Springfield between the American Continental Army and British forces, June 23, 1780. In that historic Battle of Springfield American General Nathanael Green was forced to retreat due to superior enemy forces. The British then burned Springfield to the ground. The infamous Rev. James Caldwell, chaplain of the New Jersey Brigade, distributed Watts hymn books, encouraging soldiers to use the pages for musket wadding and said to have exclaimed, "Give 'em Watts boys!". This battle prevented further advance of the British.

Today the Township of Springfield is located on the northern edge of Union County, New Jersey. Its land mass is approximately 5.2 square miles at an elevation of 138 feet above sea level. The population is estimated today at about 17,000, for a population density of just over 3000 per square mile. There are approximately 52 miles of roadway, 42 miles of municipal roads, the remainder being distributed between Union County (Mountain Ave., Shunpike Rd., Springfield Ave., and Meisel Ave.) and NJ State roads (Morris Ave. and State Route 22).

Springfield is governed under the township form of government, with a five person Township Committee serving three year terms on a staggered basis.

Springfield Township is typical of small communities surrounded by extensive development. The northern portion of Union County is adjacent to Essex County, the state's most heavily developed area being adjacent to and part of the greater New York-New Jersey metropolitan area. The intense pressure of development will continue to strongly weigh in the success of our Community Forestry Management Plans.

Springfield's Current Shade Tree Management Program

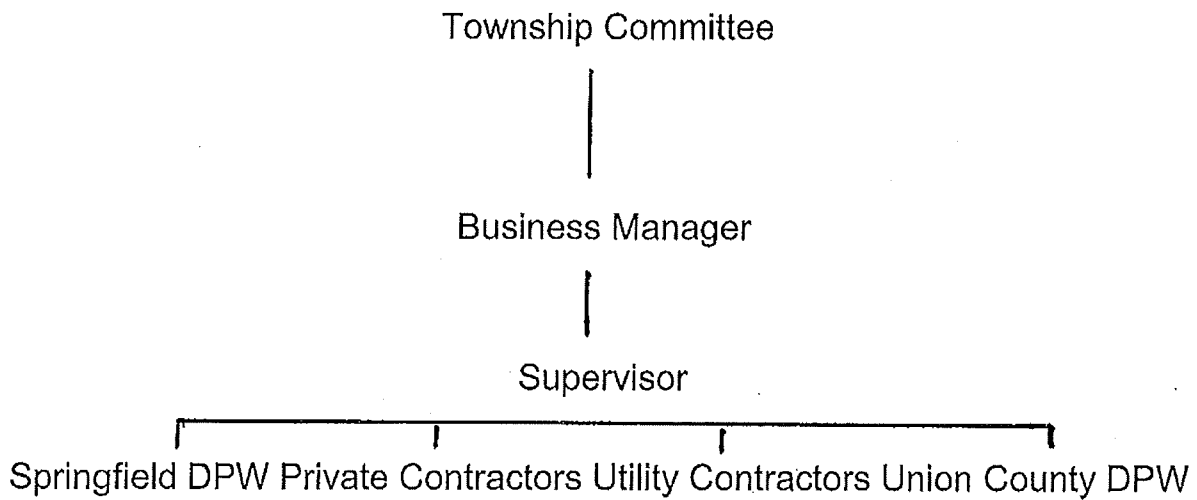
As is typical of older well developed communities in Northern New Jersey, Springfield's shade tree resource is limited in species diversity and age class. A windshield survey indicated typical species components of London Plane, Pin Oak, Norway Maple, Red Oak, and Ash species. We have begun planting small ornamental trees such as Cherries and Redbuds under wires where older trees have been removed. Some of the aging population of trees are confined by narrow planting strips, and suffer typical urban stresses of drought, minimal soil volumes, and de-icing salts. A complete inventory has not yet been completed. We have however identified all the ash trees that are on Township properties.

Approximately 90% of the tree work is done in house. Pruning, removals, stump grinding, and emergency response are all done by a daily crew of two or three personnel. Some large removals are contracted as the department does not have the equipment necessary to complete the work in the most time effective way. New tree planting is generally contracted out as well. Springfield has been able to finance the planting with the aid of the Greening Union Counties Grant program.

Springfield does not have a Tree Preservation or Tree Removal permit process for trees on private property.

Community Forestry Program Administration

The Township's Department of Public Works Shade Tree Division is responsible for the care of Springfield's tree resources. The DPW advises the Township Business Administrator, Township Committee, Planning Board, and Zoning Board on tree related concerns on public property and public rights of way. The following chart depicts the relationship of those involved in the shade tree management process.



A. The Township Committee

The Township committee is responsible for introducing and passing ordinances that affect tree care operations
 The Township Committee approves the annual budget
 The Township Committee directs the Business Manager

B. Business Manager

Reviews plans, policies, and proposed budgets of of municipal departments
 Recommends the annual budget to the Township Committee

C. Supervisor of Public Works or designee

Reviews requests for planting, removal or maintenance and makes the necessary inspections
 Oversees day to day tree maintenance and removal operations along township roadways and other township properties.
 Develops annual plans and budget requests for tree maintenance
 Maintains all trees on public property through public employees and contractors

May assist Springfield Board of Education crews with tree
Concerns

Provides Christmas tree collection recycling program

D. Private Tree Contractors

All planting, large tree removal, and large tree pruning
that is performed by outside contractors represent less
than 10% of annual work completed

Provide proof of appropriate insurance, certifications,
licences as necessary to department heads

Report prior to and following all work performed to the
appropriate department supervisor

Complete all work in a safe and timely manner according
to all applicable safety standards set by OSHA and ANSI,
as they pertain to tree care operations

Follow all current arboricultural practices and
Recommendation

Report problems or hazards to appropriate department
Head immediately

E. Utility Contractors

Must notify the Township prior to the start of any non
emergency work in the Township

Must follow current arboricultural practices and
recommendations

May assist DPW crews with clearing trees from their
facilities, when necessary

Report any hazardous tree conditions found during the
performance of their work

F. Union County DPW Shade Tree

At the request of Springfield DPW, Union County will take the appropriate action when appraised of a tree concern on their rights of way

G. General Public

Continue to report all tree related concerns on Township properties to the DPW for remedial action

Assist in the follow up care of newly planted trees on Township rights of way, i.e., watering when dry conditions exist

Tree Service Request Process

Planting, pruning or removal requests can be made by any department, business, or individual residing in the Township so long as the property in question is owned and maintained by the Township. All request follow this general procedure

Requests are made to the DPW by phone, email, or in person

A representative of the DPW will assess the concern and enter the pertinent information in the DPW Tree Maintenance log in Google Sheets

Routine maintenance and removal requests can generally be handled by several members of qualified staff. If there is a special concern, DPW does have a Licensed Tree Expert on staff to lend additional guidance

Work requests are added to the maintenance list, giving priority to hazardous conditions and priority jobs, such as whole street paving. Every attempt is made to then schedule work in the order received while maximizing daily efficiency.

Trees that are determined to not be Township responsibility are reported to the appropriate entity

Training Plan

Arboriculture is constantly changing with fast paced technological and scientific innovations, the Township recognizes the need for a broad based and ongoing training program for individuals at all levels of the Community Forestry Management Program. Department of Public Public Works employees need continued technical and managerial training to continue to provide high quality tree services to the Township.

Current training

The Township uses a portion of its budget for ongoing training of its staff
The Township currently employs a New Jersey Licensed Tree Expert
In house training in chainsaw and wood chipper safety has been provided to the DPW crews
Currently there are 4 Core trained individuals

Goals and Objectives

To maintain or increase Township funding for Core and CEU training
To have all individuals involved in the management of tree resources Core trained
To increase the quality of care given to the Township's trees by providing the DPW crews with the most current technical arboricultural information available
To ensure the safety of the tree maintenance crews and residents by providing current and advanced training in tree identification, equipment safety, and electrical hazard awareness training

Public Education, Awareness, and Outreach

As part of this CFMP the Township of Springfield intends to engage the public in understanding the importance of our tree resource. Public support for our continuing effort to enhance our tree resource is crucial. Here are some ways the Township will encourage public participation and support.

- Provide tree advice to residents at no charge
- Provide information and free seedlings at our Arbor Day celebrations
- Notify local newspapers of tree related events, when appropriate
- Publish Environmental Commission meeting dates in compliance with
- 'Sunshine Law'
- Continue to engage the schools for our Arbor Day celebration
- Assist interested groups, such as Boy Scouts, in tree related projects
- Work with the Garden Club to help maintain and beautify public spaces and parks
- Advise Planning and Zoning Boards regarding trees proposed in development projects
- Maintain a current copy of our CFMP on the Township website, and at the library
- Publish two tree related articles annually in the local paper
- Maintain Tree City USA status
- Use community websites and bulletin boards to post tree care, disease, and insect information
- Publicize Memorial plantings at parks
- Continue to expand our tree collection at Veteran's Memorial Park

Statement of Tree Budget

The yearly budget for the Township of Springfield's Shade Tree Management is listed below, based upon previous year's allocations.

Shade Tree Management Program Budget

Annual Budget allocated for the following

Contractual tree planting	12,000.00
DPW salaries	75,000.00
Shade Tree Federation dues	100.00
Equipment and supplies	30,000.00
Crane service	3,500.00
Private tree service	6,000.00
Ash tree expenses	<u>50,000.00</u>
Total Annual Budget	176,600.00

Statement of Plan Implementation

1. Tree Assessment and Inventory

The Township of Springfield has a large tree resource. Currently there is not a complete inventory. Resources from previous years only allowed for an inventory of ash trees. A complete inventory and assessment would benefit the Township, in order to:

- a. Determine the overall health of the Township's tree resource
- b. Catalogue all planted trees along roadways
- c. Catalogue all trees in parks
- d. Identify open planting locations
- e. Identify tree/sidewalk conflicts
- f. Develop maintenance cycles for systematic pruning
- g. Include inventory on GIS when available

- h. Springfield has been offered a \$10,000 NJUCF Stewardship Resiliency Planning Grant-funds from the grant will be used towards an Inventory

2. Tree Hazard Identification and Management

Springfield is dedicated to providing a healthy and productive tree resource in the safest and most cost effective manner possible. Public safety is one of the highest concerns throughout every aspect of the tree management program from planting to removal. Our continuing efforts to constantly identify potential tree hazards has reduced the number of incidents we experience. Our tree crews are diligent in this regard. We conduct windshield surveys after all major storm events.

3. Tree Planting

The tree planting program, as it exists now, is designed to replace dead trees, fill open spaces determined by DPW staff, meet requests by residents, and add diversity to our existing tree canopy. Arbor Day and memorial plantings are also an important part of our tree planting program. Springfield recognizes the need for diversity and stability in its tree population. Replacement of trees removed from either disease or decline have begun to integrate different age classes within our tree population. A new planting program will be necessary for ash replacement. Implementation and expansion of this program will not only beautify the town, but will also serve to increase diversity and benefit the tree population as a whole.

Specific goals include:

- a. Improve diversity
- b. Emphasize use of native trees suited to planting locations
- c. Seek better ways for citizens and the community to maintain and help establish newly planted trees, e.g., water and mulch
- d. Create a plan for replacing ash trees
- e. Increase planting in the "Industrial" section

4. Tree Maintenance and Care

Springfield recognizes that trees need general wellness care and not just emergency care. A proactive plan of routine maintenance will ensure a healthy, aesthetically pleasing and cost effective urban forest with a reduced hazard potential.

This management plan aims to provide a framework that will benefit and raise the level of care for all township owned trees. Structural pruning are now established to train young trees to reduce future potential liabilities and maintenance costs. Continued maintenance on established and mature trees should reduce the risk of hazardous situations and increase tree lifespans, generating long term benefits to our community.

Springfield's tree resource has again suffered damage from major storms, especially winter storm Quinn. The Township's ability to respond effectively to the damage incurred lends credence to the effectiveness having a Community Forestry Management Plan. Additionally, the introduction of the emerald ash borer will likely demand a large portion of our tree budget. Increased investment will be needed to sustain Springfield's tree resource in response to both the environmental and biological threats we are facing. To maintain the maximum benefit of trees in the most cost effective manner, our goals are:

1. Submit an Annual Accomplishment Report to NJ Forest Service
2. Seek additional funds and grants to supplement the tree budget
3. Continue to maintain a high level of professionalism in our tree department
4. Finalize a plan for our ash trees
5. Continue to provide a high level of service to our residents
6. Continue the structural pruning of our trees in younger age classes

Timeline for the Years 2020-2024

Year	Description of Activity
2020	Work on Annual Task List Educate the public about EAB Begin removal of small ash trees along streets Remove stand of ash trees in Ruby Park Continue tree inventory with NJUCF Resiliency Planning Grant
2021	Work on Annual Task List Continue removal of large ash trees in parks Work with Utility Companies in ash tree removal Apply for CSIP grant # 8
2022	Work on Annual Task List Work with Utility Companies in ash tree removal Apply for CSIP Grant #11 Tree Planting
2023	Work on Annual Task List Work with Utility Companies in ash tree removal Continue removal of ash trees
2024	Work on Annual Task List Work with Utility Companies in ash tree removal Continue removal of large ash trees in parks

Annual Task List

1. Plant as many trees as budget allows, until new goals are established as a result of the Inventory and Assessment
2. Continue using the "Trees for New Jersey Streets" from the NJ Shade Tree Federation with the goal of planting the right tree in the right place
3. Keep inventory updated
4. Maintain a minimum of 8 CEU's
5. Maintain at least 2 Core trained individuals
6. Continue improving the Arbor Day Celebration
7. Submit Tree City USA, recertification in January
8. Submit Annual Report to the Township Committee and NJ State Forestry Program

Community Stewardship Incentive Program

The fifteen items listed below as a part of the Community Stewardship Incentive Program CSIP have been identified throughout this plan with current procedures or a recommended course of action.

The following is a synopsis of the suggested practices.

CSIP # 1 Training

Currently two members of the Public Works and two volunteers are Core trained. Funds are needed to increase the number of individuals trained.

CSIP # 2 Community Forestry Ordinance Establishment

No funds are needed in this category.

CSIP # 3 Public Education and Awareness

The Township would like to expand public outreach and take a more proactive role in the community. The Township recognizes that public education and support is vital to the success of this plan and could use funding for developing educational materials and creating tree identification tags for our specimen tree collection at Veterans Park.

CSIP # 4 Arbor Day

Arbor Day has been celebrated by the local schools and Township. The Township is hopeful that with additional funding, Arbor Day programs could be expanded.

CSIP # 5 Tree Inventory

This is a top priority need for funding. Springfield could use funds for computer hardware, mapping, data collection, etc.

CSIP # 6 Hazard Tree Assessment

This is no longer a high priority for funding, as the Township has completed an ash tree/ hazard tree windshield survey.

CSIP # 7 Storm Damage Assessment

No funding is needed in this category at this time

CSIP # 8 Tree Maintenance and Removal

Funds are needed for large ash tree removal

CSIP # 9 Insect and Disease Management

Funding will most likely not be needed in this category, as Springfield has decided on a remove and replace solution to EAB

CSIP # 10 Wildfire Protection

No funds are needed in this category

CSIP # 11 Tree Planting

Funds are needed in this category to replace trees lost from general decline and removal, storm damage, and EAB

CSIP # 12 Tree Recycling

Any available funds would be used to offset recycling costs

CSIP # 13 Sidewalk Maintenance Program

Funds are needed to replace Township owned sidewalks where damage has occurred

CSIP # 14 Storm Water Management

No funds are needed in this category at this time

CSIP # 15 Other

Funds in this category would be used for educational materials for distribution on Arbor Day and to the schools