

2019 - 2023

**THE FOURTH
FIVE-YEAR
COMMUNITY FORESTRY
MANAGEMENT PLAN**

**Jackson Township
Ocean County
New Jersey**

State of New Jersey
Shade Tree and Community Forestry Assistance Act
Public Law 1996, Chapter 135

Prepared by Our Trees, LLC

January 2019

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Community Forestry Management Plan

1. MUNICIPAL/COUNTY INFORMATION FORM

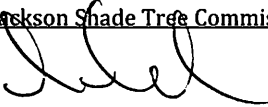
Municipality Jackson Township
 County Ocean County
 Address Jackson Township Municipal Office
195 West Veterans Highway
Jackson, New Jersey 08527

Contact Name and Title Ron Dollman, Township Tree Specialist

Phone # (732) 462-7400

Fax # & E-mail (732) 928-2613 rdollman@cmeusa1.com

Organization Name Jackson Shade Tree Commission

Mayor's/County Freeholder's
 Signature 

Date of Management
 Plan Submission _____

Time Period Covered in
 Management Plan 2019 - 2023

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

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

**Official Use Only
Certification**

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

2. INTRODUCTION

Jackson Township (the Township) is the third largest municipality in New Jersey and is known as the Gateway to the Jersey Shore. The Township has developed this Fourth Five-Year Community Forestry Management Plan (the Plan) in accordance with statewide efforts to address the protection, enhancement and safety of the local community forest, as well as the potential to reduce property loss with a well-managed tree resource as per the Shade Tree and Community Forestry Assistance Act, Public Law 1996, Chapter 135 (the Act) and the November 2017 edition of the Community Forestry Management Plan Subsequent CFMP Guidelines (the Guidelines).

2.1. Mission Statement

This Plan will guide tree activities to result in the maintenance, promotion and improvement of the quality of life for the residents of the Township and to continue the development of a safe, resilient, and sustainable shade tree inventory and forest resource for the community while maximizing community reforestation and minimizing indiscriminate tree removals. We shall continue to improve environmental and socioeconomic benefits that are some of the products of our trees for the community while minimizing costs and liability. The management of this tree resource is worthy of continued investment because it is a critical component of the Township's infrastructure.

2.2. Goals and Objectives

The following numbered Goals are broad, general descriptions of what the Jackson Township Shade Tree Commission desires to accomplish across the next five years. The Objectives are the steps taken to achieve the Goal. Each Goal is further discussed in *Section 9. Statement of Plan Implementation*, including specific scheduling. These activities are dependent on funding and so the Mayor, Council, and Shade Tree Commission will continue to work to improve funding for community forestry.

2.2.1. Goal – Locate Arboretum Property and Start the Arboretum

The first Goal is to locate Township owned property that would be appropriate for a Jackson Arboretum. The Commission has been searching for such a property and will continue these efforts until an appropriate property is secured for this arboretum. Then the Commission will start to develop the arboretum.

Objectives-

- a. Visit several other arboretums and contact their directors for advice.
- b. Decide on a general size range for the arboretum land considering parking, rest rooms, trails, the number of trees to be included, and any other activities that would need space.
- c. Engage representatives of the Township and County agencies for their location ideas.
- d. Reach-out to land owners in the Township to determine if any wish to donate land in exchange for other Township land or maybe for naming rights or dedication rights for the arboretum.
- e. Start the arboretum site plan and begin planting trees according to the plan.

2.2.2. Goal – Update the Website

Jackson Township's website has been expanding through the Commission's effort to educate and engage the public in their tree resource.

Objectives-

- a. Announce education opportunities and events on the website and keep them up-to-date.
- b. Announce agenda items as well as the time and place of upcoming Shade Tree Commission Meetings on the website.
- c. Post tree-related information such as the Tree Owner's Manual that has been posted. Ideas include but are not limited to Pest Alerts from USDA on Gypsy Moths, Emerald Ash Borer, Spotted Lanternfly, and Southern Pine Beetle (see appendix).
- d. Tree resource related links will be added to the website including for the USDA Forest Service, APHIS, New Jersey Forest Service, and others.

2.2.3. Goal – Tree Inventory Updates and Responses

The County did a Hazard Tree Survey on County Roads that run through Jackson Township. A **Township Assessment of Hazard Trees** inventory was completed in 2005, 2008, 2010, and with Sandy recovery it was re-started. The Township inventory of ash trees was completed in the previous Community Forestry Management Plan and identified trees were removed. A Township Assessment of Hazard Trees inventory is ongoing and will be continuously updated while efforts will continue on the **Comprehensive Inventory of Street Trees** that was started in 2017 (as reported in the Annual Accomplishment Report).

Objectives-

- a. A Township Assessment of Hazard Trees inventory is ongoing and will be continuously updated with information from school bus drivers, DPW staff, residents, community members, shade tree members, police officers and fire fighters, and Code Enforcement staff.
- b. Trees added to the Assessment will be prioritized for pruning or removal and possible replacement wherever deemed appropriate. Wherever the tree cannot be made immediately safe, the targets will be kept from the area of the tree.
- c. Qualified private tree care firms will handle hazard tree work beyond the scope of the DPW (electrical wire involvement or the need for a crane, for example).
- d. Throughout these efforts, the **Comprehensive Inventory of Street Trees** that was started in 2017 will be added to as human resources and financial resources allow.

2.2.4. Goal – Remain in Compliance with the Shade Tree Act by Providing Training and Education and Filing the Annual Accomplishment Reports

The fourth goal is to remain in compliance with the Act which means that this Plan will be implemented, we will continue supporting Township staff and Shade Tree Commission volunteers who wish to pursue tree-related training and educational opportunities as they arise to meet the required CORE and CEU training, and the Shade Tree Commission will continue to file an Annual Accomplishment Report on-line by February 15th of each calendar year.

Objectives-

- a. Stay in contact with the following organizations to remain informed of upcoming training opportunities:
 - Municipal Excess Liability Joint Insurance Fund Safety Institute offers free training on numerous topics including chainsaws and chippers.
 - The New Jersey Chapter of the ISA has their Annual Garden State Tree Conference every March for two days in Atlantic City.
 - NJ Shade Tree Federation located on Cook Campus at Rutgers University holds their annual two-day Conference near the end of October every year for over the last ninety years and offers training on both Thursday and Friday.
 - Rutgers University Office of Continuing Professional Education offers classes on community forestry management, tree pruning, and on hazard trees, as just three examples. RU's urban forestry program also has an outreach coordinator.
 - NJ DEP Community Forestry Program and the NJ DEP Pesticide Control Program are both headquartered in Trenton and have a presence on the web. The Township is host to the NJ DEP Forest Resource Education Center (FREC) that offers training and education such as the *Backyard Forestry in 90 Minutes* series.
 - Committee for the Advancement of Arboriculture offers two weeks of classes every April-May for those involved in tree work. Gary Lovallo is the current Director of Training and can be engaged to teach two-day workshops for new staff as well as one-day refresher classes for experienced tree workers and for municipal DPW staff using chainsaws and chippers.
 - The Fire Department conducts a two-day chainsaw class twice annually and we will remain in contact with them.
- b. Use these and other sources to
 - Maintain CEU's required to remain in compliance with the NJ Shade Tree and Community Forestry Assistance Act.
 - Refresh and improve skills and safety of DPW tree care workers.
 - Provide training for interested Shade Tree Commission volunteers.
- c. Track all Shade Tree Commission expenditures and any other Township expenditures related to the community forest.
- d. Track achievement of objectives and completion of goals in this Plan.
- e. Track difficulties encountered as well as benefits related to the implementation of this Community Forestry Management Plan.
- f. Complete the Report online by the deadline of February 15th in each of the five years.

2.2.5. Goal – Complete the next CFM Plan

The Township will apply for a Green Community Grant and use it to offset the cost of the next five-year Community Forestry Management Plan.

Objectives-

- a. Apply for a Green Community Grant.
- b. Gather all relevant documents and required data while listing goals for the next Plan.
- c. Hire a community forestry consultant who will then work with the representatives of the Shade Tree Commission in writing the next Plan.
- d. Submit the Plan for reviews and approvals.

2.2.6. Goal – Annual Arbor Day Celebrations: Planting, Pruning, and Community Awareness

Jackson Township has been a Tree City USA for many years and will continue as one. The Township has established a history of celebrating Arbor Day by planting trees on Township properties and Board of Education properties for screening, as specimen focal components of the landscape design and as perimeter and entranceway delineators. In addition to the tree plantings, Arbor Day Celebrations have been used as an opportunity for important pruning projects to be completed and to raise community awareness of their forest resources.

Objectives-

- a. Annually identify a location for a tree-planting event to celebrate Arbor Day.
- b. Have the Township issue a proclamation celebrating Arbor Day.
- c. Decide on the species of tree(s) to plant and locate it/them at a local nursery.
- d. Engage professionals, volunteers, dignitaries, and the media as necessary for the Arbor Day celebration program.
- e. Celebrate Arbor Day annually.
- f. The special trees will be pruned as needed and mulch will be applied.
- g. In times of drought stress, the Township's tree watering (GatorBags®) bags will be used.

2.2.7. Goal – Develop Wildfire Protection Plan

The Township is in an area of New Jersey that had wildland forest fires in the past and may have them in the future. New Jersey Forest Fire Service initiated a FireWise Community program statewide that the Township would like to be a part of. (map in Appendix & FireWise brochure)

Objectives-

- a. Contact the New Jersey Forest Fire Service and inquire how to get in the program.
- b. Invite a speaker from the New Jersey Forest Fire Service to speak on becoming a FireWise Community at first the Commission meeting and second at the Township Council meeting if deemed appropriate. Joe Battersby is the New Jersey FireWise coordinator and can be reached through the NJ DEP Forest Fire Secretary Mary Dill (as of 1/16/2019) on the fourth floor of 501 East State Street, Trenton, NJ 08625.
- c. Make recommendations to the Mayor and Council and proceed accordingly.

2.2.8. Goal – Further the Coordination of This Plan with the Township Master Plan

The Township Master Plan needs to be reviewed by the Shade Tree Commission to further identify components related to shade trees so that the implementation of this Plan can remain integrated across the nearly 100 square miles that it covers. The Township is overdue for a revision of its Master Plan.

Objectives-

- a. The Shade Tree Commission will read through the Master Plan with special attention to all tree and forest related matters in the Master Plan.
- b. Design Shade Tree Commission programs to follow the expected Revised Master Plan.
- c. Continue regular communications with members of the Planning Board and the Township Engineer, both of whom are involved in the Master Plan and its development.

- d. If necessary, the Commission will make recommendations to the Planning Board to amend the Master Plan during the next review cycle.

2.2.9. Goal – Plant More Trees

The Township will use available resources and seek any grant funding to plant more trees on Arbor Days and throughout the five years of this Plan. (see List of Trees under 35' in Appendix)

Objectives-

- a. The Shade Tree Commission will encourage developers to plant more trees as new housing, commerce, and industry is added to the Township whenever appropriate.
- b. The Shade Tree Commission will replace trees removed for pest reasons with new trees that are not target species.
- c. New trees to be planted will be chosen so as to increase the diversity of trees in the Township while choosing the right tree for the right place based on characteristics such as mature size for that species/cultivar and disease/pest resistance, *et cetera*.
- d. All newly planted trees will be added to the Township's Comprehensive Inventory of Street Trees.
- e. Only quality planting stock will be used and co-dominant leaders will be eliminated.
- f. Wire baskets will be removed and proper mulch will be applied correctly.

2.2.10. Goal – Forest Health Attention

The Township is acutely aware that several pests and diseases pose a threat to the tree resource and possibly to public safety as they can cause a tree to drop big limbs or fall over; for example the Emerald Ash Borer, Gypsy Moth, Spotted Lanternfly, Southern Pine Beetle, and Bacterial Leaf Scorch. (see Appendix for the Pest Alerts for: EAB, GM, SLF, SPB, & BLS)

Objectives-

- a. Contact The New Jersey Forest Service's State Forest Health Specialist, Rosa Yoo, to address the Shade Tree Commission at a meeting to discuss the forest pests and diseases that pose a threat to Jackson's tree resources or are already present.
- b. Surveillance and monitoring for some of these forest health problems may be considered.
- c. Species selection of trees to plant will be considered in light of forest health.
- d. Develop further objectives as part of an overall forest health initiative after the discussion.

2.2.11. Goal – Investigate i-Tree Storm for Possible Prestorm Basic Tree Inventory

There was a presentation several years ago that mentioned having pre-storm stem counts on a sample of neighborhoods throughout a community as part of responsible preparation for the next big storm event because it would help the Township and FEMA to determine financial help for the community's forest. Jackson Township has 8 designated DPW Management Zones for things like recycling and snow removal. The Township will learn about and possibly use i-Tree Storm.

Objectives-

- a. Investigate **i-Tree Storm** free software and learn about it. (see summary in Appendix)
- b. Determine if having a randomized sample of DPW Zones for stem count ready for after a hurricane would be of any help in securing FEMA assistance with paying for woody debris and damaged tree management.

- c. If suitable, use i-Tree Storm software to gather data in each DPW Zone or a random sample of Zones and have it accessible should a disaster strike the community's trees (flood, hurricane, or wildland fire, for example).

2.3. Liability Statement

Jackson Township has an interest in protecting its resources as well as recognizing the benefits they provide as evidenced by the revision and passing of a new ordinance. Our trees are an immeasurable asset to our community that requires care, maintenance and eventually replacement. While a well-managed community forest is a vital asset that contributes to the overall well being of our residents, we realize that trees require a conscious effort to reduce the potential hazards to public safety. Our Shade Tree Commission must work within a budget that cannot meet all the needs of the community forest as a whole, and as such, an incremental approach is necessary. It is the intent of this Plan to address that very issue with a focus on available resources inside and outside Jackson Township to our capabilities. Our goal of obtaining a healthy and safe community forest will be proportionate to reducing risks.

Our community and Township have voiced their support of such a program and have asked for ways to assist. The Township feels that with the implementation of this Plan, and the effectiveness of our current ordinance, we will demonstrate to the residents that a long-term Plan is important. The benefits to the environment and to public safety do not come without costs and liabilities.

Jackson Township acknowledges that not all hazards can be predicted and that situations may occur not only without warning but also without our knowledge. Therefore, we will become more proactive in our approach to systematically obtaining a healthier shade tree inventory. By implementing the Plan and following proper planting, pruning, and other maintenance activities, Jackson Township is devoting reasonable levels of resources in a planned manner and will prove its commitment to reduce identified tree related accidents or disruptions and thereby increase public safety and reduce the Township's exposure to tree related liability.

3. COMMUNITY OVERVIEW

3.1. Township's Achievements

The 2014-2018 Community Forestry Management Plan for Jackson Township was approved in June 2014 and, while the prior plan had expired in 2012, it is a testimony to the Township's commitment to its community forest that complete Annual Accomplishment Reports continued every year to show progress and planning uninterrupted. The strength of this pattern continues throughout the five years of the Plan. The Annual Accomplishment Reports for 2013 through 2017 do an excellent job of capturing the essential elements achieved in each year as the planning was being implemented. Components of those Annual Accomplishment Reports are incorporated here as a description of the Township's achievements up to and including the most recently completed 2014-2018 Plan:

3.1.1 Year One: 2013 achievements

Jackson Township Shade Tree Commission meetings on the 2nd Monday of each month included six members, Chairman, Vice Chairman, Recording Secretary, and Township Tree Specialist.

- Meeting agenda topics included but were not limited to: tree planting planning, Super Storm Sandy clean-up from the October 2012 damage, requesting and awarding bids, hazard tree removals, Southern Pine Beetle, training opportunities, and website upgrades.
- The Chairman held tailgate-training sessions with DPW employees involved with Township tree and brush removals.
- Several members participated in the ISA Garden State Tree Conference held at Rutgers University in March.
- Several members provided educational information and materials at the Annual NJ Fall Forestry Festival held in Jackson at the FREC in early October.
- Chairman, 4 members, and the Township Tree Specialist attended the Annual Shade Tree Federation Conference at the end of October and earned CEU's.
- The Commission held its Arbor Day Ceremony at the Soccer Complex in early November during which 53 ornamental and shade trees were planted.
- Maintained Tree City USA status along with the signs at Township entrances.
- Bidding was conducted and contracts were awarded for various tree planting, pruning, and removal projects in 2013.
- The Commission developed 12 Objectives to be achieved in 2014.

The Total Tree Budget for **2013 was \$200,624** including labor, materials, and equipment; more than half of this investment was for Super Storm Sandy related costs. While a CSIP Grant was applied for in 2013, it was not awarded to the Township.

Labor: \$183,669

• Emergency response to Sandy fallen trees	\$108,719
• Township-wide roadside tree removals	\$5,000
• Tree pruning on Township properties	\$5,000
• Annual Township-wide utility line trimming	\$20,000
• Township Tree Specialist	\$10,000
• Shade Tree Commission meetings' Recording Secretary	\$1,250
• DPW leaf collection	\$16,500
• Township-wide hazard tree removals	\$17,200

Materials: \$10,955

- Trees purchased and planted \$10,995

DPW Equipment Depreciation: \$6,000

- Trucks, chipper, leaf vac, sprayers, hand tools, saws, etc. \$6,000

3.1.2. Year Two: 2014 achievements

Jackson Township Shade Tree Commission maintained the involvement of all participants from 2013 and continued to hold regular monthly meetings throughout the year. Topics on the agenda included but were not limited to: tree planting planning, hazard tree removals and pruning, Emerald Ash Borer, and web site upgrades.

- Several members participated in the ISA Garden State Tree Conference held in Atlantic City in March.
- The Arbor Day celebration was held at the end of May and involved the planting of sixteen shade trees at the Softball Field Complex.
- The Commission mailed more than 100 letters to Tree Service Companies explaining the Township's requirement that any company doing tree removal/pruning within the Township must register (free of charge) with the Township proving adequate liability and worker's compensation insurance coverage.
- The preparation, submittal and approval on June 25th of a 3rd Five Year Community Forestry Management Plan was of prime importance this year.
- The Commission was awarded a Green Communities Grant.
- Several members provided educational information and materials at the Annual NJ Fall Forestry Festival held in Jackson at the FREC in early October.
- Chairman, 4 members and the Township Tree Specialist attended the Annual Shade Tree Federation Conference at the end of October and earned CEU's.
- The Chairman held tailgate-training sessions with DPW employees involved with Township tree and brush removals.
- Maintained Tree City USA status along with the signs at Township entrances.
- Bidding was conducted and contracts were awarded for various tree planting, pruning, and removal projects in 2014.
- The Commission made plans to achieve eleven Objectives in 2015 as part of their CFM Plan implementation.

The Total Tree Budget for **2014 was \$110,525** including labor, materials, and equipment. A Green Communities Grant was awarded to the Township this year.

Labor: \$90,600

- Emergency response to fallen trees \$1,250
- Township-wide roadside tree removals \$5,000
- Tree pruning on Township properties \$5,000
- Annual Township-wide utility line trimming \$20,000
- Township Tree Specialist \$7,500
- Shade Tree Commission Recording Secretary \$1,250
- DPW leaf collection \$33,400
- Township-wide hazard tree removals \$17,200

Materials: \$13,925

- Trees purchased and planted \$10,525

- Third 5-year CFM Plan *\$3,400
- DPW Equipment Depreciation: \$6,000
- Trucks, chipper, leaf vac, sprayers, hand tools, saws, *etc.* \$6,000

*A Green Communities grant of \$3,000 was awarded in 2014 and the Township was reimbursed for \$3,000 in 2015 through this grant, thus linking Year Two with Year Three budgets. CSIP Grants were not made available in 2014.

3.1.3. Year Three: 2015 achievements

There were several changes in the Commission in 2015 while the following participants did remain in their positions: Steve Chisholm Sr., Leo Kissling, Joseph Aufiero, David Ossonski, Ron Dollman, Barbara Abolino, and Michael McCabe. Both Terry Holt and James Picon are no longer involved while Donald Orban was a new member and Kathy Sevchenko replaced the previous Recording Secretary. Meetings continued on the 2nd Monday of each month with agenda items including but not limited to: tree planting planning, hazard tree removals and pruning, Emerald Ash Borer, and website upgrades.

- Several members participated in the ISA Garden State Tree Conference held in Atlantic City in March.
- The Arbor Day celebration was held in early June at the Veterans' War Memorial Park where several members provided the labor and equipment to plant a pair of American Hollies (*Ilex opacca*) and sixty Boxwoods (*Buxux sempervirens*). Additionally, several trees were pruned to enhance the view of the adjoining lake.
- Five members of the Commission as well as the Township Tree Specialist attended the Annual Shade Tree Federation Conference at the end of October.
- The Chairman held tailgate-training sessions with DPW employees involved with Township tree and brush removals.
- In early December, several Commission members attended the NJ Chapter of the ISA Annual Work Day held at Branch Brook Park located in Newark, NJ.
- Bidding was conducted and contracts were awarded for various tree planting, pruning, and removal projects in 2015.
- Maintained Tree City USA status along with the signs at Township entrances.
- The Commission planned on achieving eleven Objectives established for 2016 as part of their CFM Plan implementation.

The Total Tree Budget for **2015 was \$111,125** including labor, materials, and equipment.

Labor: \$102,125

- Emergency response to fallen trees \$1,250
- Township-wide roadside tree removals \$7,500
- Tree pruning on Township properties \$7,500
- Annual Township-wide utility line trimming \$20,000
- Township Tree Specialist \$7,500
- Shade Tree Commission Recording Secretary \$1,250
- DPW leaf collection \$33,125
- Township-wide hazard tree removals \$24,000

Materials: \$3,000

- Various trees purchased and planted \$3,000

DPW Equipment Depreciation: \$6,000

- Trucks, chipper, leaf vac, sprayers, hand tools, saws, *etc.* \$6,000

*Note: Green Communities grant of \$3,000 was awarded in 2014 and the Township was reimbursed for \$3,000 in 2015 through this grant, thus linking Year Two with Year Three budgets. CSIP Grants were not made available in 2014 or in 2015.

3.1.4. Year Four: 2016 achievements

There was one change in the Commission in 2016 while all other participants did remain in their positions. Brian Smith replaced Barbara Abolino on the Commission. Meetings continued on the 2nd Monday of each month with agenda items including but not limited to: tree planting planning, hazard tree removals and pruning, Emerald Ash Borer, and web site upgrades.

- Several members participated in the ISA Garden State Tree Conference held in Atlantic City in March.
- The annual Arbor Day celebration was held in mid-May at the Township Municipal Complex where members of the Shade Tree Commission and several other Township volunteers planted a Japanese Stewartia (*Stewartia pseudocamellia*), a Sugar Maple (*Acer saccharum* BonfireTM), and an Apple Serviceberry (*Amelanchier x grandiflora* Autumn Brilliance[®]). The Commission planted 20 Leyland Cypresses (*Cupressocyparis leylandii*) at Jackson Liberty HS and 12 at Elms Elementary for screening purposes.
- The Chairman and four members of the Commission as well as the Township Tree Specialist attended the Annual Shade Tree Federation Conference at the end of October and earned CEU's.
- The Chairman held tailgate-training sessions with DPW employees involved with Township tree and brush removals.
- Maintained Tree City USA (15 Years) status along with the signs at Township entrances.
- Bidding was conducted and contracts were awarded for various tree pruning and removal projects in 2016.
- The Commission planned on achieving eleven Objectives established for 2017 as part of their CFM Plan implementation.
- In early December, several Commission members attended the NJ Chapter of the ISA Annual Work Day held at Atlantis Golf Course in Little Egg Harbor, NJ.

The Total Tree Budget for **2016 was \$123,225** including labor, materials, dues, education, and equipment depreciation.

Labor: \$102,125

- | | |
|--|----------|
| • Emergency response to fallen trees | \$1,250 |
| • Township-wide roadside tree removals | \$7,500 |
| • Tree pruning on Township properties | \$7,500 |
| • Annual Township-wide utility line trimming | \$20,000 |
| • Township Tree Specialist | \$7,500 |
| • Shade Tree Commission Recording Secretary | \$1,250 |
| • DPW leaf collection | \$33,125 |
| • Township-wide hazard tree removals | \$24,000 |

Materials: \$14,285

- | | |
|---------------------------------------|----------|
| • Various trees purchased and planted | \$14,285 |
|---------------------------------------|----------|

Education and Dues: \$815

- Training and education for the Shade Tree Commission \$720
- Professional Association dues \$95

DPW Equipment Depreciation: \$6,000

- Trucks, chipper, leaf vac, sprayers, hand tools, saws, etc. \$6,000

3.1.5. Year Five: 2017 achievements

2017 Annual Accomplishment Report form was filed on-line. This is the first time that the Commission has used the on-line form. Some of the categories from previous years of reporting were moved into other sub-headings but comparison issues will be resolved going forward as Annual Accomplishment reporting will all be on-line. Ron Dollman remained on retainer as the Township Tree Specialist and Steve Chisholm, Sr. remained as the Commission Chairman.

- The Commission submitted its Tree City USA Application.
- Bidding was conducted and contracts were awarded for various tree projects in 2017.
- Members of the Commission attended the 2017 Annual Shade Tree Federation Meeting in late October
- Arbor Day was celebrated in early May at the Lucy Holman Elementary School where Commission volunteers worked with the Kindergarten class to plant a Dawn Redwood (*Metasequiua glyptostromboides*) on the front lawn of their school.
- Partial Tree Inventory was initiated.
- The Township website was updated to include links to information concerning pruning trees, Tree Owner's Manual, and Don't Top Trees.
- 92 trees were planted in public spaces.
- Trees were pruned in public parks to reduce hazard risk.
- The search is continuing as locations are being investigated for their suitability as a Jackson Arboretum.
- The LTCO list of registered tree service firms was being developed and will be used.
- Jackson Township produced compost from its urban wood.

The Total Tree Budget for 2017 was \$127,286 including administration, stewardship, education, and outreach.

Administration: \$20,630

- Municipal Salaries \$1,250
- Indirect Costs \$5,600
- Volunteer Contribution \$13,780

Stewardship: \$104,236

- Planting \$54,856
- Pruning \$16,800
- Removals \$13,780
- Leaf Collection \$16,800
- Emerald Ash Borer Management \$2,000

Education and Outreach: \$2,420

- Employee Education \$780
- Volunteer Education \$200
- Public Outreach \$240
- Other \$1,200

3.2 Achievements Corresponding to the Goals:

3.2.1. The first goal was to do an inventory. Work was completed in 2017 on an ash tree Hazard Tree Assessment inventory. The ongoing development and updating of the Hazard Tree Assessment inventory in parallel with a Comprehensive Street Tree Inventory is Goal 3 listed for the 2019-2023 Plan.

3.2.2. Hazard tree management was listed for implementation in the last Plan. Substantial progress was regularly made in the implementation of this goal throughout the last five years. Much of this work was in response to Superstorm Sandy recovery efforts. Hazard tree removals accounted for \$96,180 of the budget in the last five years. This investment does not include all the attention given to pruning of hazard trees to reduce the risk from that tree. Pruning was carried out in each of the last five years and especially in response to specific requests.

3.2.3. Tree planting was given extensive attention in the third and fourth Goals of the prior Plan. Tree purchases and planting costs accounted for \$93,661 of the budget in the last five years. The Township ordinance established a Tree Trust Fund escrow account (which accrues no interest) to fund the plantings. The long-term goal of species composition optimization is at least partially dependent upon the inventory work that is currently in progress and will be providing further guidance to future plantings including those planned for Arbor Day events and in residential neighborhoods.

3.2.4. There is no mention of Goal 4 and the Township Master Plan in the Annual Accomplishment Reports, however it is listed as a Goal of this Plan. The Shade Tree Commission does communicate on a regular basis with members of the Township Planning Board and with the Township Engineer, both are involved with the Township Master Plan.

3.2.5. The fifth Goal in the prior Plan concerned establishing search criteria for the Jackson Arboretum location. The Annual Accomplishment report for 2017 mentioned that the search is continuing as locations were being investigated for their suitability as a Jackson Arboretum. Locating a Jackson Arboretum property is a Goal 1 of the 2019-2023 Plan.

3.2.6. The establishment of criteria for dealing with tree service firms was the sixth goal in the prior CFM Plan. Bidding was conducted and contracts were awarded in each of the five years of the Plan's implementation. Additionally, the 2017 Annual Accomplishment Report mentions that the LTCO list of registered tree service firms was being developed and will be used. All of these speak to the objectives of the sixth goal in the prior Plan.

3.2.7. The seventh and final goal of the prior Plan was to develop a wildfire protection plan in 2016-2017. There is no mention of wildfire in the Annual Accomplishment Report; however, it is Goal 7 of this Plan.

3.3. Problems and Issues Encountered:

As if Hurricane Sandy did not cause enough harm while we address Southern Pine Beetle, the Township often struggles to deal with the Gypsy Moth caterpillars (as they are a terrible burden on our oak trees), and now we are cutting down our ash trees with the arrival of the Emerald Ash Borer. Budgets are a never-ending battle just to keep current funding levels for our tree resource and not have the budget cut. With staffing levels in all Township departments below what they probably should be, it continues to be difficult to prioritize cooperative projects with the other departments. Budget cuts are the ongoing concern with the Tree Trust Fund escrow account being used for hazard tree removals and replacement plantings.

The Township is situated in a wildland forest fire-prone ecosystem (see *1924-2011 Major Wildfire History* map in Appendix). The Township has many acres of State owned forestland that is not being actively managed. After seeing the horrific results of the Camp Fire in Paradise, CA this year, there is a deepening concern about the possible threat posed by the Pinelands we love. The State has not made it clear to the Township Shade Tree Commission that it is actively monitoring for or directly treating any of the non-native invasive pests that we know about in the Township State owned forests. This is a concern.

Storms, pests, fire threat and tight budgets are our issues and problems. The Shade Tree Commission is dealing with them by continuing to be proactive in reinforcing our commitment to resiliency and sustainability in our community forest management. Proper care and maintenance of our trees makes them less vulnerable to storms and pests. Diversifying our species selection also provides a layer of protection from future pests impacts. The use of our ordinance and the Tree Trust Fund escrow account along with engaging volunteers and applying for grants will help us with the budget issues moving forward. Simply by developing this CFM Plan and our commitment to it, we are expressing the Township's deep resolve to deal with these problems.

3.4. Statement of Overall Benefits for Following a CFM Plan:

The benefits of following a CFM Plan actually exist on multiple levels. We have protection from liability claims related to our trees as long as we maintain our CEU's (which we do) and supply our Annual Accomplishment Reports by February (which we do).

Communities that have a prioritized schedule of tree related work are ultimately more resilient when there is a severe weather event in at least three ways. Planting under utility lines the trees that mature around thirty feet helps to protect a reliable electric service. Removing hazardous trees and proper pruning of other trees results in fewer tree-related blocked roads and property damage. Having a plan in place for woody debris management, possibly shared services agreements, and good contractors ready can make storm recovery quicker and save money.

Then there are the environmental benefits of cleaner air, storm water flooding reduction, noise abatement, songbird and wildlife habitat, and greater resiliency in the face of non-native invasive species when planting is done to enhance biodiversity of the community forest.

Additionally, the socioeconomic benefits accrue by following the CFM Plan and then there are aesthetic benefits. Trees are beautiful. They work to enhance property values and help to improve business and retail districts. Having trees in our viewshed lowers our stress level. Trees have a traffic calming effect while helping to dissipate sun glare at sunrise and sunset along our roadways. Summer shade helps to make our blacktop last longer and reduces pothole formation thus saving on road repair costs. Trees have been associated with greater social cohesion as they encourage people living in big developments to be outside in the shade and meet their neighbors.

With thought given to where trees are planted (especially in new developments) and whether they are evergreen or not, trees can reduce our HVAC energy costs. Summer shade lowers our cooling costs even in the heat of July. Then, as the leaves fall, the branches help block winter winds while letting some lower sunrays through lowering our heating costs. Evergreens used as a windscreen along the north edge of an area protect from prevailing winter storms and cold wind that would impact our heating costs.

Education and awareness are provided to the public by the Tree City USA signs and during Arbor Day when people have a chance to participate in the celebration of the Township trees and meet others involved in caring for the trees. Residents also benefit from the informative material made available on the web. These are ways that the tree resource can garner further community support at budget time and all are related to the benefits of following a CFM Plan.

3.5. Current Tree Resource and How It Changed in Five Years:

Superstorm Sandy had devastating effects on community forests across New Jersey at the end of 2012 and certainly impacted the trees of Jackson Township. Many downed and damaged trees have been removed and the Township is committed to ongoing reforestation as financial resources allow. This is evidenced by the many trees being planted every year and especially at Arbor Day celebrations. Our Tree Trust Fund escrow account encourages tree planting.

Gypsy Moths continue to attack our oaks and Southern Pine Beetles have certainly changed the Pinelands of Jackson Township. These are two pests that we are trying to learn to live with and manage their impacts so as to mitigate the effects on our community forests. The oaks that succumb to repeated defoliation by the Gypsy Moth caterpillars are generally removed as they are identified and prioritized along with the pine trees that are discovered to be hazardous by having an obvious defect and intermittent or immovable target should the tree fail.

The Township is also dealing with the threat from Emerald Ash Borer. Monitoring and hazard tree assessments are continuing and ash tree removals have certainly been taking place and continue. New shade trees are being planted throughout the Township thanks to the funds made available by our ordinance, the Tree Trust Fund, the Township budget, and grants when available.

Overall, hundreds of new trees have been planted in the last five years while the Township had to remove some ash, oaks, and pines in response to pests. Other trees were removed due to storm damage, vehicle accidents and for other reasons. By following our CFM Plan the trend is towards a better tree resource.

3.6. Trees and the Master Plan, Planning Board, Open Space Committee:

The Township has an Open Space Plan and management of the tree resource needs to be included in it. There are no conflicts between this CFM Plan and the Open Space Plan. The Shade Tree Commission communicates on a regular basis with members of the Planning Board and the Open Space Committee. All involved parties are awaiting the next opportunity to update and edit the Township Master Plan and the Open Space Plan, hopefully in the next few years and that is why this is one of the Goals in this CFM Plan.

3.7. New or Updated Ordinances:

The Township's tree ordinance was substantially addressed prior to the last Community Forestry Management Plan. The Jackson ordinance Chapter 100 *et seq* was challenged by the Builders Association and ruled constitutional by the NJ Supreme Court in a unanimous decision in 2009. The Chapter is now 405 and we continue to implement this law to the benefit of the Jackson Township community forest and all the people who reside in or simply visit here. At this time there are no plans to update the ordinance or to write a new tree-related ordinance. In the future, however, we may consider revisiting this ordinance or creating additional ordinances.

4. COMMUNITY FORESTRY PROGRAM ADMINISTRATION

4.1 Responsible for Township Tree Resource and Plan Implementation:

Ron Dollman of CME Associates is the paid, part-time Township Tree Specialist. Ron works closely with the **Jackson Township Shade Tree Commission (identified on the Municipal/County Information Form)** and the Director of Public Works Fred Rasiewicz who is a Certified Public Works Manager. In addition to Ron Dollman, The Shade Tree Commission consists of Kathy Sevckenko who is the Recording Secretary and:

- Steve Chisholm, Sr., Chairman
- Leo Kissling, Vice Chairman
- Donald Orban, Alternate
- Joseph Auferio, Member
- David Ossowski, Member
- Michael McCabe, Member
- Nancy Aughtry, Alternate

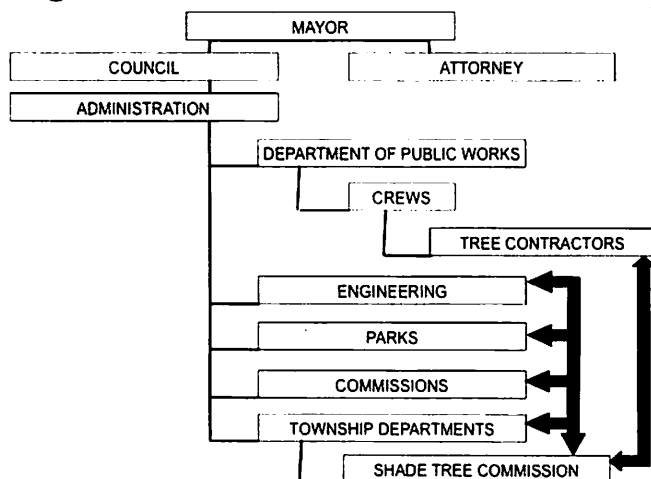
4.2 Involved in the Management of the Township Tree Resource:

While those listed above have a more direct involvement in the tree resource, the following also play an important roll in the successful implementation of the Plan and often engage in the day-to-day activities related to the Township's tree resource:

- Michael Reina, Mayor
- Kenneth J. Bressi, Council Member
- Rob Nixon, Council President
- Andrew Kern, Council Member
- Barry Calogero, Council Vice President
- Alex Sauickie, Council Member
- TBD, Business Administrator
- Samantha Novak, Assistant Administrator
- Janice Kisty, Municipal Official Township Clerk
- Jeff Purpuro, Zoning Officer

It must be noted that the above information may change as new administrations come into office and as staffing needs change but is accurate as of January 14, 2019.

4.3 Organizational Chart



4.4 Tree Management Description

4.4.1 The **Department of Public Works (DPW)** Director is responsible for managing day-to-day operations of the Township. The Director reports to the Administrator and has a crew that will handle tree related emergencies during and after storms and other events. Buildings and parks are also under the Director, and trees in Township parks are handled in cooperation with Engineering and the Shade Tree Commission. Additional responsibilities include tree plantings in parks, and supervising foremen who perform various tree related work.

4.4.2 While the DPW does not have a specific **DPW Tree Crew *per se***; nonetheless, those staff assigned as the Tree Crew report to the DPW Director and are responsible for:

- Completing emergency tree removals and other maintenance work on public trees under the direction and to the specifications of the Director in an efficient and safe manner.
- Following all current and accepted arboricultural standards and practices.
- Abiding by all current safety standards relating to tree care operations.
- Obtaining and maintaining all necessary licenses and certifications including any necessary training.
- Reporting any tree-related hazards or other problems immediately to the Director.
- Maintaining all equipment in a safe and efficient operation condition and in an acceptable appearance.

4.4.3 The Department of Public Works Tree Crew completes all pruning and most removals of public trees; **Private Tree Care Firms** complete the balance, as necessary. Private Tree Care Crews work within the terms of their contract agreement and are responsible for:

- completing tree removal and planting work under the direction and to the specifications of the DPW Director and the Shade Tree Commission in an efficient and safe manner;
- following all current and acceptable arboricultural standards relating to tree care operations;
- abiding by all current and applicable safety standards relating to tree care operations;
- providing proof of current and appropriate insurance as required by the Township;

- e. providing proof of all appropriate licenses and certifications to the Director;
- f. reporting any tree-related hazards or other problems immediately to the Director.

4.4.4 Other **Township Departments** involved in the Shade Tree Management Program to the extent that they implement Township policies, procedures, and ordinances that relate to trees, and/or will notify the DPW of conditions or plans that may affect the public trees, as follows:

- a. The Planning Board, the Zoning Board, and the Township Engineer administer and enforce Ordinance #109 – 159 Land Use Ordinance, 109 – 31 Tree Protection Requirements, which controls the destruction of trees during the development of certain private land are the responsibility of Shade Tree Commission and Code Enforcement.
- b. All Departments will immediately notify the DPW Director of tree related hazards for emergency response (for example, the Police Department notifies the DPW Director of a downed tree, etc.).

4.4.5 An outside **Engineering** consulting firm is responsible for all Township construction projects, policies, procedures, and ordinance compliance. The firm consults with all departments and participates in the planning stages and tree related issues. The Township's in-house Engineer handles all Township projects, including tree removals on capital improvements and coordinates with the outside firm. This engineer is the Gypsy Moth coordinator for the New Jersey Department of Agriculture.

4.4.6 The five-member **Shade Tree Commission** is established by ordinance and:

- a. members are appointed each year by the Township Committee;
- b. appointments are for one year, two-year, three-year, four-year, and five-year terms;
- c. appointments are made in January during the Township Reorganization Meeting; and
- d. the five members serve until their respective successors are appointed;
- e. meets primarily on the 2nd Monday of the month at 7:30 p.m. in the municipal building on County Route 528 (West Veterans Highway).

The six powers and duties of the Shade Tree Commission are codified in Township ordinance as:

- a. The regulation, recommendation for the planting and care of shade and ornamental trees and shrubbery now located, or which may hereafter be planted, in any public highway, park or parkway, including the planting, trimming and spraying, care and protection thereof.
- b. The regulation and control of the use of the ground surrounding the same so far as may be necessary for the proper growth, care and protection thereof.
- c. Moving or requiring the removal of any tree or part thereof dangerous to public safety.
- d. Measures and programs for the beautification of the Township.
- e. Responsible to all provisions of the ordinance.
- f. Issuance of permits for tree removals.

The Shade Tree Commission provides the following six services:

- a. Issuance of tree removal permits and certificates of occupancy approvals.
- b. Site planning for the identification of shade tree locations in new developments.
- c. Assisting residents in identification of diseased trees and recommendations for the cure if one exists.

- d. Instructing residents in the care and maintenance of newly planted trees and shrubs.
- e. Arbor Day Programs and educational seminars.
- f. Assisting other Township departments when necessary such as Engineering, DPW, Planning and Zoning, and Code Enforcement.

The Shade Tree Commission employs a **Tree Specialist**:

- a. contracted through the outside engineering consulting firm;
- b. who is a New Jersey Licensed Tree Expert (LTE);
- c. that decides and structures CFM Plan compliance and certain tree issues;
- d. and the office of this LTE operates from 9 a.m. to 5 p.m. on Monday and on Wednesday.

4.4.7 It is the responsibility of the **Public Utilities** to provide safe and uninterrupted services.

Therefore, action must be taken to minimize conflicts between trees and utility services.

However, it is the responsibility of the Public Utilities to ensure that such actions do not damage Township trees. Public Utilities shall report to the Shade Tree Commission office while working on or around public trees in the Township and shall be responsible for:

- a. keeping the Township informed as to their work plans and schedules;
- b. exercising reasonable diligence in the installation and maintenance of its facilities so as to avoid damage to public trees;
- c. not removing any tree without prior approval of the Shade Tree Commission;
- d. following all current and accepted arboricultural standards and practices;
- e. assisting the Shade Tree Commission and/or contractors working for the Township in completing tree removal and maintenance work around their facilities, where necessary, and when return cycle permits.

4.5 Resident and Municipal Tree Service Requests

Property owners are involved in the Shade Tree Management Program to the extent that they are encouraged to properly care for trees on private property and are asked to water new public tree planting adjacent to their properties. They also notify the Shade Tree office of tree service requests. All calls are forwarded to the Shade Tree office for processing. Some of these calls come in from people who do not live in the Township but work here or are visiting or driving through the Township.

Processing involves the login of each call, complaint, concern or request on a rapid work order form. The person receiving the call forwards it depending on the circumstance. A tree that has fallen goes to the DPW Director to pick up, for example. Any requests for services and all other issues are forwarded to the Shade Tree Commission. Then, either a Commissioner(s) or the Township Tree Specialist will review and decide its disposition. Some requests are sent back to the resident citing ordinance requirements such as property maintenance issues.

Emergencies or immediate hazard situations are handled by DPW if within their limitations. Any situation outside their limitations is contracted to **Private Tree Care Firms** (see further discussion above in 4.4.3). Additional requests, not deemed emergency or a hazard tree, are pooled to collect a list and contracted out by the DPW and confined by the limits of the budget. The Shade Tree Commission handles all tree-planting requests and residents are told that they are put on a list for the next planting opportunity.

4.6 Plans for Improvement

The Township is very fortunate to have enthusiastic, knowledgeable, skilled, and dedicated people involved in all levels of community forestry management. In every great endeavor there is always room for incremental improvement and the Township plans to continue seeking ways to improve our program administration to better interact with the community Planning Board and the Zoning Board on community forestry management issues. We may make an effort to invite members to our monthly meetings and we may possibly find improvement opportunities as the Township further develops its web presence. Having a more complete inventory of street trees may also help to improve administration of the community forest. The development of a New Master Plan and of a Wildfire Protection Plan of some kind will also help to improve administration of our tree resource.

5. COMMUNITY MAP (not different from previous 5-year CFM Plans)

6. TRAINING PLAN

In order to carry out the successful implementation of this CFM Plan, the Township will provide training opportunities for both the paid staff and for the unpaid volunteer participants. This will be done to meet the resource needs, the safety needs, and especially the mandates of the New Jersey Community Forestry Council's training requirements under the State's Training Skills and Accreditation Program of which CORE Training, CEU's training, this CFM Plan, its implementation, and the Annual Accomplishment Reports are all critical components.

6.1 Who to Consider for Training

The following individuals and groups are considered for these training opportunities and will continue to be appropriately budgeted for:

- Township Shade Tree Commissioners and other volunteers;
- Township Public Employees responsible for tree maintenance: DPW crew, for example;
- all interested persons identified in Section 4 as having oversight responsibilities: the Director of the DPW, or example; and
- at least two of the Township's CORE trained individuals.

6.2 Funding for Training

"TRAINING & EDUCATION" has been established as a Line Item in the Jackson Township tree budget and funded each year along with "CONFERENCES & MEETINGS" where much important training and education is offered. The Township will continue to pay for this required training and maintain funding for those Line Items.

6.3 Opportunities for Training

Each year for the next five years the Township plans to:

- Be in contact with the following to remain informed of upcoming training opportunities:
 - Municipal Excess Liability Joint Insurance Fund Safety Institute offers free training on numerous topics including chainsaws and chippers.
 - NJ Shade Tree Federation located on Cook Campus at Rutgers University holds their annual Conference near the end of October every year for the last 90 years and offers training on both days.
 - Rutgers University Office of Continuing Professional Education offers classes on pruning trees and on hazard trees, as just two examples. Rutgers University also has an outreach coordinator for their Urban and Community Forestry program.
 - NJDEP Community Forestry Program and the NJDEP Pesticide Control Program are both headquartered in Trenton and have a presence on the web. They also offer training events.
 - Committee for the Advancement of Arboriculture offers two weeks of classes every April-May for those involved in tree work. The entire two weeks can be taken as one course or individual days can be taken as individual classes.
 - The Fire Department was offered chainsaw training twice a year.
- Use these and other sources such as the New Jersey Tree Foundation to:

- maintain CORE and CEU's required to remain in compliance with the NJ Shade Tree and Community Forestry Assistance Act.
- help DPW workers involved with tree care to refresh their skills, develop new skills, and continue to perform their tree work in a safe and productive fashion.
- provide training for interested Shade Tree Commission volunteers.

6.4 Topics for Training

Here are some of the types of training that the Township may seek in the coming five years of this Community Forestry Management Plan:

- Outreach Training
- Volunteer Recruitment
- Budgets and Municipal Finance
- Legal Rights and Responsibilities of Shade Tree Commissions
- How to write grant proposals and finding grant opportunities
- Technical Training
 - Community forest inventory skills
 - How to be a FireWise Community
 - Tree Pests and Community Response
 - Emerald Ash Borer
 - Spotted Lanternfly
 - Gypsy Moth
 - Southern Pine Beetle
 - Planting the right tree, the right way, in the right place
 - Tree pruning
 - Urban soils and trees
 - Hazard tree identification
 - Tree care for disaster planning
 - Sidewalk / tree conflicts and how to avoid them
 - Trees around power-lines and around utility right-of-ways
 - Recreational Use of Woodlands
 - Watershed management practices
 - Writing specifications for requesting vendor bid proposals
 - Tree selection: choosing the right tree at the nursery for the planting location
 - Pesticide applicator Core Exam-prep and Forest Pest Category 2 Exam-prep
 - Chain saw and chipper safety, use, and maintenance
 - EHAP Electrical Hazard Awareness Program for tree care workers

7. PUBLIC EDUCATION / AWARENESS / OUTREACH

7.1 Programs

The Township's Shade Tree Commission has been in existence since 1999 and has nearly twenty years of experience with the value of engaging the public in the care and management of its community forest. The Township earned **Tree City USA** for the first time in 2001 and continues to be recertified on an annual basis; having been recognized in 2016 for Fifteen Consecutive Years as a Tree City USA. Volunteers are very careful to maintain the signs at Township entrance roadways.

The Township holds an annual **Arbor Day Celebration** to which the public is invited. Trees are planted and cared for at this celebration that helps to raise awareness. Seedlings have also been distributed in the schools and there have been years in which multiple locations were involved.

- In 2013 there were 53 trees planted at the soccer complex.
- In 2014 there were 16 trees planted at the softball field complex.
- In 2015 there were 8 trees planted at the Veterans' War Memorial and pruning was done in the area to enhance the view of the lake.
- In 2016 a total of 35 trees were planted across 3 locations that included a high school, an elementary school, and the municipal complex.
- In 2017 Commission volunteers worked with a Kindergarten class to plant a Dawn Redwood tree on the front lawn of their school.

As per Goal 6, Arbor Day will be celebrated every year for the next five years.

7.2 Media Communications

The Township continues to expand and develop its **web presence** and certainly the Shade Tree Commission is playing a growing part in that presence by providing pdf versions of important outreach materials to the public including the *Don't Top Trees* brochure and the *Homeowners Guide to Tree Care*. There is a Goal in this CFM Plan that aims to update the web presence of the Shade Tree Commission.

7.3 Outreach to Groups

The Township holds its annual **Jackson Day** in September. This community-wide event attracts much of the Township's population and thus is a great opportunity to reach out to all kinds of groups. Most years the Shade Tree Commission shares a booth with the Environmental Commission and distributes literature on tree planting and care, giving out seedlings, and has even raffled off a shade tree. As long as the Township holds this event, the Shade Tree Commission will be there spreading the good news about Jackson's community forest resources.

The Shade Tree Commission plans to reach out to both the New Jersey Forest Service (NJFS) and the New Jersey Forest Fire Service (NJFFS) to achieve the goals of this plan. Specifically, the NJFS for help with forest health in Goal 10 and the NJFFS for help with Goal 7, Develop a Wildfire Protection Plan and becoming a FireWise Community.

8. STATEMENT OF TREE BUDGET

8.1 Township Budget and Trust Funds: Budget Funds

The Township is a stable source of funding for the Shade Tree Commission. This source is above levels in the years prior to 2012 (pre-Hurricane Sandy) when funding was derived from Planning and Zoning O&E lines. The Township budget supports clerical, dues, conferences, training and education, and an LTE.

Additionally, there is a shade tree escrow fund, Shade Tree Trust, available for planting shade trees and the salary of the LTE. This fund was established for the exclusive use of the Township, with the recommendation of the Shade Tree Commission, for the purpose of planting trees and shrubs, for the benefit of the community as a whole. Money held in the Trust account is generated from developers upon approval of development applications and from tree removal Permit Fees.

The Township of Jackson *Budget Account Status/Transaction Audit Trail* documents indicate that the *Begin Balance* of \$9,050 for the following *Line Items* were approved and released on 01/01/18 for Township Shade Tree Commission:

<u>Begin Balance</u>	<u>Line Item</u>	<u>Expended (examples)</u>
\$ 150	ADVERTISING	Asbury Park Press: Meeting Dates Announcement
\$7,000	PROF. CONSULTANT	Misc. Forestry Service, Monthly Report & Meeting
\$1,000	OTHER CONTRACT SERVIC.	Recording Secretary
\$ 0	BOOKS & PUBLICATIONS	
\$ 0	OFFICE MATERIALS	
\$ 500	CONFERENCES & MEETINGS	NJ Shade Tree Federation Annual Conference
\$ 200	TRAINING & EDUCATION	School sessions, DPW training
\$ 200	PROFESSIONAL ASSOC. DUES	NJ Shade Tree Federation Dues

The Township did apply for a Green Communities Grant from the NJ Forest Service for 2018.

8.2 Product Contributions

There were no physical products sold from the community forest. All Shade Tree Commission publications were made available free of charge to the public on the Internet. The Township did not sell firewood and/or mulch.

8.3 Volunteer in-kind hours

The Shade Tree Commissioners are volunteers who contribute countless hours throughout the entire year and provide their expertise at no cost to the Township. It has been conservatively estimated that Shade Tree Commission volunteer hours would be at about 400 hours per year and would only vary should there be another major event, like Hurricane Sandy, in which case that number of hours would increase. The federal Volunteer Hour Value was set at \$24.69 in April 2018 and would mean that these 400 hours are worth approximately \$9,876 annually.

8.4 Services Shared

Township Department in-kind services including both equipment and staff hours (DPW, Parks, Engineering, clerical, Administrative) do contribute substantially throughout the year to the

mission of the Shade Tree Commission. An annual estimate of over 4,900 DPW Tree Crew hours, not counting Hurricane Sandy clean-up, would be appropriate and have a value exceeding \$100,000 based on numbers available in Section 8 of the previous CFM Plan.

- The following summary of Total Tree Budgets is based on the numbers reported in the last five Annual Accomplishment Reports that were discussed in greater detail in Section 3.1 near the beginning of this CFM Plan.

Summary of Total Tree Budgets for the Last Five Years

	2013	2014	2015	2016	2017 estimated
Materials (trees planted)	\$ 10,955	13,925	3,000	14,285	54,856
Labor	\$183,669	90,600	102,125	102,125	57,670
DPW Equip. Depreciation	\$ 6,000	6,000	6,000	6,000	6,000
Education and Dues	\$ <u>0</u>	<u>0</u>	<u>0</u>	<u>815</u>	<u>980</u>
TOTALS (avg. \$134,557)	\$200,624	110,525	111,125	123,225	127,286

- In contrast to 2013-2016, the 2017 numbers are estimated based on the first year of web-based Annual Accomplishment Reports that requested data divided into categories a bit differently from the previous reporting years. The above chart clearly demonstrates that Township in-kind services including equipment and labor as well as materials contribute reliably and substantially to funding the management of the Jackson Township tree resources while implementing a Community Forestry Management Plan.

In summary, annually, the Jackson Township budget supplies \$9,050 to the Shade Tree Commission directly while there are about \$9,876 worth of volunteer in-kind hours plus an average of \$134,557 made available for the Total Tree Budget when DPW equipment depreciation, new trees purchased, and labor are included.

9. STATEMENT OF PLAN IMPLEMENTATION

- a. These are the action statements, the specific things the Township will do to carry out the goals and objectives to accomplish the things that are planned. This section is broken into the four basic elements of the Plan.
- b. The fifth part of this Section is a timeline prioritizing this work across a five-year schedule that will be used to identify the Township's need for grant money.
- c. The sixth part of this Section is a checklist of yearly goals and objectives.

9.1 Tree Inventory/Assessment

- a. A **Comprehensive Inventory of Street Trees** was started in 2017 and will take several years to complete due to the size of Township (100 square miles makes it 3rd largest in the state) and the persistent rural nature of many areas of the Township. Less than 5% of the Township Assessment of Hazard Trees has been accomplished through interdepartmental cooperation. More trees will be added to this inventory. Additionally, as the Township plants trees, regardless of the funding source or the reason for the planting, they will be added to this Inventory.
- b. In preparation for the next hurricane, the Township may be starting a pre-storm inventory of stems by random DPW Zones that will be identified so as to facilitate readiness to apply for FEMA funds to help pay for community forest recovery. This is part of **Goal 11**. During Sandy recovery in Jackson, FEMA was only able to track woody debris based on truck volumes delivered to the recycling area. Having i-Tree Storm data ready before the storm could be valuable.
- c. Every tree that gets called into the Township for pruning, removal, or planting results in an assessment of that particular situation.

9.2 Hazard Tree Identification and Management

- a. As stated in **Goal 3**, the Township Assessment of Hazard Trees will be continuously updated as trees are added and those trees will be prioritized for public safety upon login.
- b. All tree calls are forwarded to the Shade Tree office or to the DPW..
- c. Processing involves the login of each call, complaint, concern or request on a rapid work order form. The person receiving the call forwards it depending on the circumstance.
- d. Emergencies or immediate hazard situations are handled by DPW if within their scope of training and equipment. Any situation outside their limitations (wires in the tree, for example, or the need for a crane) is contracted to a Private Tree Care Firm (see further discussion above in **Section 4.4.3**).
- e. Any requests for services and all other issues are forwarded to the Shade Tree Commission. Then, either a Commissioner(s) or the Township Tree Specialist will review and decide its disposition.
- f. Hazard Trees is one of the topics listed in the Training Plan in **Section 6**.
- g. We continue to keep a list and to act on them according to the immediacy of the need.

9.3 Tree Planting

- a. Every Arbor Day in the Township will be celebrated with tree planting. **Goal 9** is to plant more trees on Arbor Days and throughout the five years of the plan in the Township. This tradition will continue to result in trees being planted at athletic fields and schools as well as at municipal owned buildings and other properties owned by the Township.

- b. Hundred of trees were planted under the previous CFM Plan through funding from DPW and the Tree Trust Fund escrow account. The Township has an LTE Tree Specialist working at least two full days a week on tree related issues like tree plantings and ensuring that new developments meet their landscape obligations. The **Tree Trust Fund** will continue to be used to fund tree plantings.
- c. Commission volunteers also work to get more trees planted in the Township's established residential neighborhoods and to identify where more trees can be planted.
- d. At least three nurseries will be used to source the tree stock for the plantings.
- e. The **NJ One Call (Call 811)** 1-800-272-1000 will be contacted three full business days before any digging for utility mark-outs and work will be performed within the rules of the OneCall program.
- f. Nursery stock will only be tagged for purchase and delivery if it is of the best quality and an appropriate species for the planting site keeping in mind the list of fall-dig hazard trees.
- g. All trees will be installed as per **ANSI Standard A300 Part 6** for tree planting.
- h. All debris will be removed from the planting area after the tree is planted, watered, and correctly mulched.
- i. The Township will continue to seek to establish an arboretum in which numerous trees will be planted. This botanical garden established for trees will be devoted to study and to display while adding to the tree canopy and diversity of the Township. The arboretum is listed in **Goal 1** of this CFM Plan.
- j. Tree Planting is one of the topics listed for possible future training (see **Section 6, Training Plan**). The Township will continue to offer training and financially support those attending.

9.4 Tree Maintenance and Care

- a. Tree maintenance and care will continue on an as-needed basis across the Township.
- b. The Township will login each call for tree care and maintenance on a rapid work order form. The person receiving the call will forward it to the Shade Tree Commission and to the DPW.
- c. The Township Tree Specialist or a Commissioner will decide on the disposition of the request for tree maintenance or care.
- d. As tree care and maintenance requests accumulate they will be bundled for the DPW Director's Tree Crew or for a Private Tree Care Firm to take action on.

9.5 Goals and Objectives: Timeline and Checklist

Year 1, 2019

- A. During the first year of this Plan the Shade Tree Commission (STC) will continue to address the removal of ash trees with the DPW and it is expected that this will be an ongoing project. This is a top priority for possible public safety concerns and ties in directly to the ongoing development of the hazard tree inventory.
- B. Likewise, the development of a wildfire protection plan of some kind must begin now, especially after what happened in Paradise, CA on November 8, 2018. So, as a first step, an inquiry will be made to the NJ Forest Fire Service as to how do we begin. This inquiry will be in the winter or in the summer as the primary fire season is the spring and fall.
- C. In anticipation of a possible revision of the Master Plan, the STC will be looking through the current Master Plan to determine what sections are related to the work of the STC and begin to consider programs designed to follow the expected new Plan.
- D. Rosa Yoo, the NJ Forest Service Forest Health Specialist, will be invited to address the STC this year to discuss forest pests and diseases that threaten the Township. Species of trees will continue to be selected in light of these concerns and the STC will begin to develop an overall forest health initiative after the discussion.
- E. The website will be updated with new information as it becomes available and outdated information will be removed. Upcoming STC meetings will be listed and agenda items will be indicated. Pest Alerts from APHIS can be uploaded for Emerald Ash Borer, Spotted Lanternfly, and others. Links can be added for the NJ Forest Service, NJ Forest Fire Service, US Forest Service, NJ Audubon, NJ Shade Tree Federation, NJ Tree Foundation, American Forests, and others.
- F. Tree Inventories work is expected to continue under the coordination of the Township Tree Specialist working with the DPW.
- G. Members of the STC and the DPW will attend the Shade Tree Federation Meeting as they have in the past and they will take other appropriate opportunities for training and to maintain their CEU's for accreditation.
- H. The Annual Accomplishment Report for 2018 will be filed on-line as it was last year.
- I. Plans are already underway for the 2019 Arbor Day Celebration with tree plantings expected in Putnam Park, the Justice Complex, and on Dante Court. Additional autumn and spring tree plantings are being scheduled with support from the Tree Trust escrow fund and the budget.
- J. Tree City USA standards will be met and paperwork filed to remain a Tree City USA.
- K. The STC will share a booth with the Environmental Commission on Jackson Day and use that opportunity for public outreach and education.

Year 2, 2020

- A. During the second year of this Plan the STC will return to the search for an Arboretum site in the Township. Commissioners on the arboretum sub-committee will visit a few arboretums in New Jersey and talk with their directors about a good general size, rest rooms, parking, the number of species to be planted and any other considerations.

- B. A speaker from the NJ Forest Fire Service will be invited to address the STC on becoming a FireWise community and other wildfire prevention and preparedness related issues. Then the speaker will be asked to address the Mayor and Council on these matters if deemed appropriate. Recommendations will be made on how to proceed with a Wildfire Protection Plan.
- C. The STC will consider designing Shade Tree programs to follow the expected revised Master Plan and continue regular communications with members of the Planning Board and the Township Engineer, both of whom are involved in the Master Plan and its development.
- D. The website will be updated with new information as it becomes available and outdated information will be removed. Upcoming STC meetings will be listed and agenda items will be indicated. New Pest Alerts from APHIS can be uploaded and new links can be added as they are identified. Possibly a list of dates and tree related events can be added to the website. All the old links should be checked to make sure they are still active and there are no Error 404 messages for broken links.
- E. Surveillance and monitoring for some of the identified forest health threats will be considered. Species of trees to plant will be selected in light of forest health.
- F. Tree Inventories work is expected to continue under the coordination of the Township Tree Specialist working with the DPW. i-Tree Storm will be investigated as a possible software for storm preparedness inventory and preparations for woody debris and tree removals and their costs.
- G. Members of the STC and the DPW will attend the Shade Tree Federation Meeting as they have in the past and they will take other appropriate opportunities for training and to maintain their CEU's for accreditation.
- H. Tree City USA standards will be met and paperwork filed to remain a Tree City USA.
- I. The Annual Accomplishment Report for 2019 will be filed on-line by February 15, 2020.
- J. The 2020 Arbor Day Celebration with tree plantings will take place at the end of April. Additional autumn and spring tree plantings will be scheduled with support from the Tree Trust escrow fund and the budget.

Year 3, 2021

- A. During the third year of this Plan the STC will further its efforts to establish the arboretum by engaging representatives of the Township and County agencies for their location ideas. The STC will also reach out to land owners in the Township to determine if any wish to donate land in exchange for other Township land or maybe for naming rights or dedication rights for the arboretum.
- B. The website will be updated with new information as it becomes available and outdated information will be removed. Upcoming STC meetings will be listed and agenda items will be indicated. New Pest Alerts from APHIS can be uploaded and new links can be added as they are identified. Possibly a list of dates and tree related events can be added to the website. All the old links should be checked to make sure they are still active and there are no Error 404 messages for broken links.
- C. Tree Inventories work is expected to continue under the coordination of the Township Tree Specialist working with the DPW. If i-Tree Storm has been determined as a good software to use for storm preparedness then work will continue on its data collection and

- updating of the forms for possible use with FEMA should a disaster impact the community forest (flood, hurricane, ice storm, wildland fire).
- D. Members of the STC and the DPW will attend the Shade Tree Federation Meeting as they have in the past and they will take other appropriate opportunities for training and to maintain their CEU's for accreditation.
- E. The Annual Accomplishment Report for 2020 will be filed on-line by February 15, 2021.
- F. The 2021 Arbor Day Celebration with tree plantings will take place at the end of April. Additional autumn and spring tree plantings will be scheduled with support from the Tree Trust escrow fund and the budget.
- G. Tree City USA standards will be met and paperwork filed to remain a Tree City USA.
- H. The STC will consider designing Shade Tree programs to follow the expected revised Master Plan and continue regular communications with members of the Planning Board and the Township Engineer, both of whom are involved in the Master Plan and its development.
- I. Surveillance and monitoring for some of the identified forest health threats will be considered. Species of trees to plant will be selected in light of forest health. If forest health matters are identified they will be addressed.

Year 4, 2022

- A. During the fourth year of this Plan the STC will establish its arboretum if it has not already been created in Jackson Township.
- B. Tree City USA standards will be met and paperwork filed to remain a Tree City USA.
- C. Surveillance and monitoring for some of the identified forest health threats will be considered. Species of trees to plant will be selected in light of forest health. If forest health matters are identified they will be addressed.
- D. Members of the STC and the DPW will attend the Shade Tree Federation Meeting as they have in the past and they will take other appropriate opportunities for training and to maintain their CEU's for accreditation.
- E. Tree City USA standards will be met and paperwork filed to remain a Tree City USA.
- F. The Annual Accomplishment Report for 2021 will be filed on-line by February 15, 2022.
- G. The 2022 Arbor Day Celebration with tree plantings will take place at the end of April. Additional autumn and spring tree plantings will be scheduled with support from the Tree Trust escrow fund and the budget.
- H. The website will be updated with new information as it becomes available and outdated information will be removed. Upcoming STC meetings will be listed and agenda items will be indicated. New Pest Alerts from APHIS can be uploaded and new links can be added as they are identified. Possibly a list of dates for 2022 and tree related events can be added to the website. All the old links should be checked to make sure they are still active and there are no Error 404 messages for broken links.
- I. Tree Inventories work is expected to continue under the coordination of the Township Tree Specialist working with the DPW. If i-Tree Storm has been determined as a good software to use for storm preparedness then work will continue on its data collection and updating of the forms for possible use with FEMA should a disaster impact the community forest (flood, hurricane, ice storm, wildland fire).

- J. It is anticipated that the Master Plan will either have been revised or will be in the process of being revised. STC will be designing programs to follow the revised Master Plan. And if necessary, the STC will make recommendations to the Planning Board to amend the Master Plan during the review cycle.

Year 5, 2023

- A. During the fifth year of this Plan the STC will focus on the Fifth Community Forestry Management Plan for the Township and make sure that we have met our goals from this Plan. The STC will apply for a Green Communities grant to help pay for the plan and begin tracking all their in-kind volunteer hours as a match for the grant while searching for a qualified LTE to write the Plan. Budgets and Accomplishment Reports along with other related documents will be assembled for the consultant by the spring.
- B. Tree City USA standards will be met and paperwork filed to remain a Tree City USA.
- C. Surveillance and monitoring for some of the identified forest health threats will be considered. Species of trees to plant will be selected in light of forest health. If forest health matters are identified they will be addressed.
- D. Tree Inventories work is expected to continue under the coordination of the Township Tree Specialist working with the DPW. If i-Tree Storm has been determined as a good software to use for storm preparedness then work will continue on its data collection and updating of the forms for possible use with FEMA should a disaster impact the community forest (flood, hurricane, ice storm, wildland fire).
- E. It is anticipated that the Master Plan will either have been revised or will be in the process of being revised. STC will be designing programs to follow the revised Master Plan. And if necessary, the STC will make recommendations to the Planning Board to amend the Master Plan during the review cycle.
- F. Members of the STC and the DPW will attend the Shade Tree Federation Meeting as they have in the past and they will take other appropriate opportunities for training and to maintain their CEU's for accreditation.
- G. The Annual Accomplishment Report for 2022 will be filed on-line by February 15, 2023.
- H. The 2023 Arbor Day Celebration with tree plantings will take place at the end of April. Additional autumn and spring tree plantings will be scheduled with support from the Tree Trust escrow fund and the budget.

9.6 The Five-year Checklist a a Glance

A darkened ball follows each goal below for the years that work will be done on it. The checklist allows a visualization of the work balance achieved by prioritizing the community forest needs in a format that is easy to implement. In some cases the same objective will be repeatedly addressed. In other cases there may be different objectives addressed in different years. See Section 9.5 for more details related to this.

GOALS No. & Brief Title	1 st Year <u>2019</u>	2 nd Year <u>2020</u>	3 rd Year <u>2021</u>	4 th Year <u>2022</u>	5 th Year <u>2023</u>
1. Establish Arboretum	①	②	③	④	⑤
2. Update Website	①	②	③	④	⑤
3. Tree Inventories	①	②	③	④	⑤
4. Training and Reports	①	②	③	④	⑤
5. The Next CFM Plan	①	②	③	④	⑤
6. Arbor Day	①	②	③	④	⑤
7. Wildfire Plan	①	②	③	④	⑤
8. Master Plan	①	②	③	④	⑤
9. Plant More Trees	①	②	③	④	⑤
10. Forest Health	①	②	③	④	⑤
11. i-Tree Storm Tree Count	①	②	③	④	⑤

10. COMMUNITY STEWARDSHIP INCENTIVE PROGRAM (CSIP)

The CSIP provides State funding through grants to facilitate the successful implementation of Community Forestry Management Plan Goals by various communities that are in compliance with the Shade Tree and Community Forestry Assistance Act. These are the fifteen possible categories that grants may be offered for and where the category is addressed in this Plan.

10.1. CSIP #1 Training

- Part of **Goal 4** is to Provide Training and Education. Jackson Township has shown an ongoing commitment to training and plans to continue that commitment into the future. This includes specific Line Items in the Township budget for Conferences and for Training. Annual Accomplishment Reports show the Township achieving above and beyond the minimum required training.
- Please see **Section 6**, Training and Education, which speaks extensively to these details.
- Annual Accomplishment Reports listed tailgate safety talks and special trainings being held for DPW Tree Crew members to attend. The fire department has been involved with chain saw training twice a year. This is now a standard practice and will continue to be one throughout the next five years.

10.2. CSIP #2 Ordinance Establishment

- The Township's tree ordinance is well established and was substantially addressed prior to the last Community Forestry Management Plan. The Jackson ordinance Chapter 100, was challenged by the Builders Association and ruled constitutional by the New Jersey Supreme Court in a unanimous decision in 2009. The **Chapter is now 405** and the Township continues to implement this law to the benefit of the community forest and all the people who reside in or simply visit here as mentioned in **Section 3.1** of this Plan.
- Additionally, some paraphrased specifics of the ordinance are in **Section 4.4** where the establishment, powers, duties, and services of the Shade Tree Commission are listed.
- The Township has established the Tree Trust Fund escrow account through its ordinance as described in **Section 3.2 and Section 8.1** of this Plan. (Ordinance is in Appendix)
- A future Heritage Tree Ordinance and No Net Loss plan have been considered.

10.3. CSIP #3 Public Education and Awareness

- An outreach event is held every spring around Arbor Day and every September at Jackson Township Day. **Goal 6** of this CFM Plan involves annually Celebrating Arbor Day in the Township. **Section 7** of this CFM Plan provides details for the last five Arbor Day events in the Township and describes the Commission's joint effort on Jackson Day with the Township Environmental group.
- The Township website provides pdf format *Homeowner's Guide to Trees* and a brochure on *Don't Top Trees*. **Goal 2** is to update the website.
- The Tree City USA signs are maintained at the entrance roadways to the Township and reported on in the Annual Accomplishment Reports. In 2016 the Township was honored for 15 Consecutive Years as a Tree City USA. These signs will continue to provide awareness of the tree resource and Jackson's commitment to it. Jackson will remain a Tree City USA as stated in **Goal 6**.

10.4. CSIP #4 Arbor Day

- **Goal 6** of this CFM Plan involves annually Celebrating Arbor Day in the Township.

- **Section 7** of this CFM Plan provides details for the last 5 Arbor Day events in the Township. The Commissioners always look forward to these events and will expand them as human resources and financial resources allow.

10.5. CSIP #5 Tree Inventory

- **Goal 3** of this Plan involves further work on the **Comprehensive Inventory of Street Trees** that was started in 2017 and the investigation of i-Tree Storm for use as a storm readiness stem count inventory software is **Goal 11**.

10.6. CSIP #6 Hazard Tree Assessment

- As stated in **Goal 3**, the **Township Assessment of Hazard Trees** inventory will be continuously updated as trees are added and those trees will be prioritized for public safety upon login (please see **Section 4.5** in paragraphs two and three for more details).
- Hazard Trees is a topic listed for possible future training in **Section 6** Training Plan.

10.7. CSIP #7 Storm Damage Assessment

- **Goal 11** includes investigating i-Tree Storm software. The ultimate intention is to determine if having a random DPW Zone by Zone stem count ready for after a hurricane would be of any help in securing FEMA assistance with paying for woody debris and damaged tree management. Jackson has 8 DPW Zones for management and recycling.

10.8. CSIP #8 Tree Maintenance and Removal

- Pruning trees and removal is a normal part of the responsibilities of the DPW Tree Crew work whenever the pruning or removal is within their abilities and equipment. If a pruning or removal is required that is beyond the scope of their training or equipment (such as involving wires or the need for a crane) then a Private Tree Care Firm is contacted. This is mentioned in **Goal 3** as part of the response to a Hazard Tree and then again in both **Section 4.4** and **Section 4.5** of this Plan. The Tree Trust Fund escrow account has been used for hazard tree removals as well as tree replacements.

10.9. CSIP #9 Insect and Disease Management

- **Goal 10** is to engage the State Forest Service's Forest Health Specialist to help with
 - Gypsy Moths
 - Southern Pine Beetle
 - Spotted Lanternfly
 - Emerald Ash Borer
 - Bacterial Leaf Scorch

10.10. CSIP #10 Wildfire Protection

- **Goal 7** is the establishment of a Wildfire Protection Plan under the guidance of the State Forest Fire Service. This may include becoming a FireWise Community.

10.11. CSIP #11 Tree Planting

- **Goal 9** involves planting more trees throughout the Township. Removing the wire baskets, planting only quality stock and putting the right tree in the right place are all specifically addressed in the objectives of Goal 9.

- **Goal 1** involves finding a property for the Township arboretum and as soon as that is accomplished, there will be trees planted there specifically for display and study.
- **Goal 6** involves Celebrating Arbor Day, which by long-established Township tradition always involves tree planting.

10.12. CSIP #12 Tree Recycling

- The Township collects brush, branches, and old Christmas trees at the Vista Site recycling center. (Appendix has Recycle details) The County brings in a drum grinder to reduce the volume with the product made available to residents as wood chips or mulch.

10.13. CSIP #13 Sidewalk Maintenance Program

- There is no cost share for sidewalk maintenance in the right-of-way. All costs are on the property owner for sidewalks. The Township has a sequence of events for damaged sidewalks involving:
 - First, a Notice of Violation is issued to notify the adjacent property owner that the repair must be made. This can involve tree removal.
 - Second, if the maintenance does not occur then a Citation is issued followed by a Summons and then a Fine.
- New sub-divisions typically have sidewalks only on one side of the street.

10.14. CSIP #14 Storm Water Management

- The Township has a paid professional who files the State's required Storm Water Management Reports and coordinates the maintenance of the infalls and outfalls as well as of the related infrastructure. He is also responsible for coordinating the Township leaf pick-up and recycling with County cooperation. The County runs the leaf windrows for composting. The Shade Tree Commission funds a sub-contractor to aid in the overwhelming leaf collection demands every autumn. Our management plan includes these stipulations and the Shade Tree Commission cooperates with the DPW to make the compost available to residents at no charge. These leaves would clog storm water drainages if they weren't aggressively managed.

10.15. CSIP #15 Other

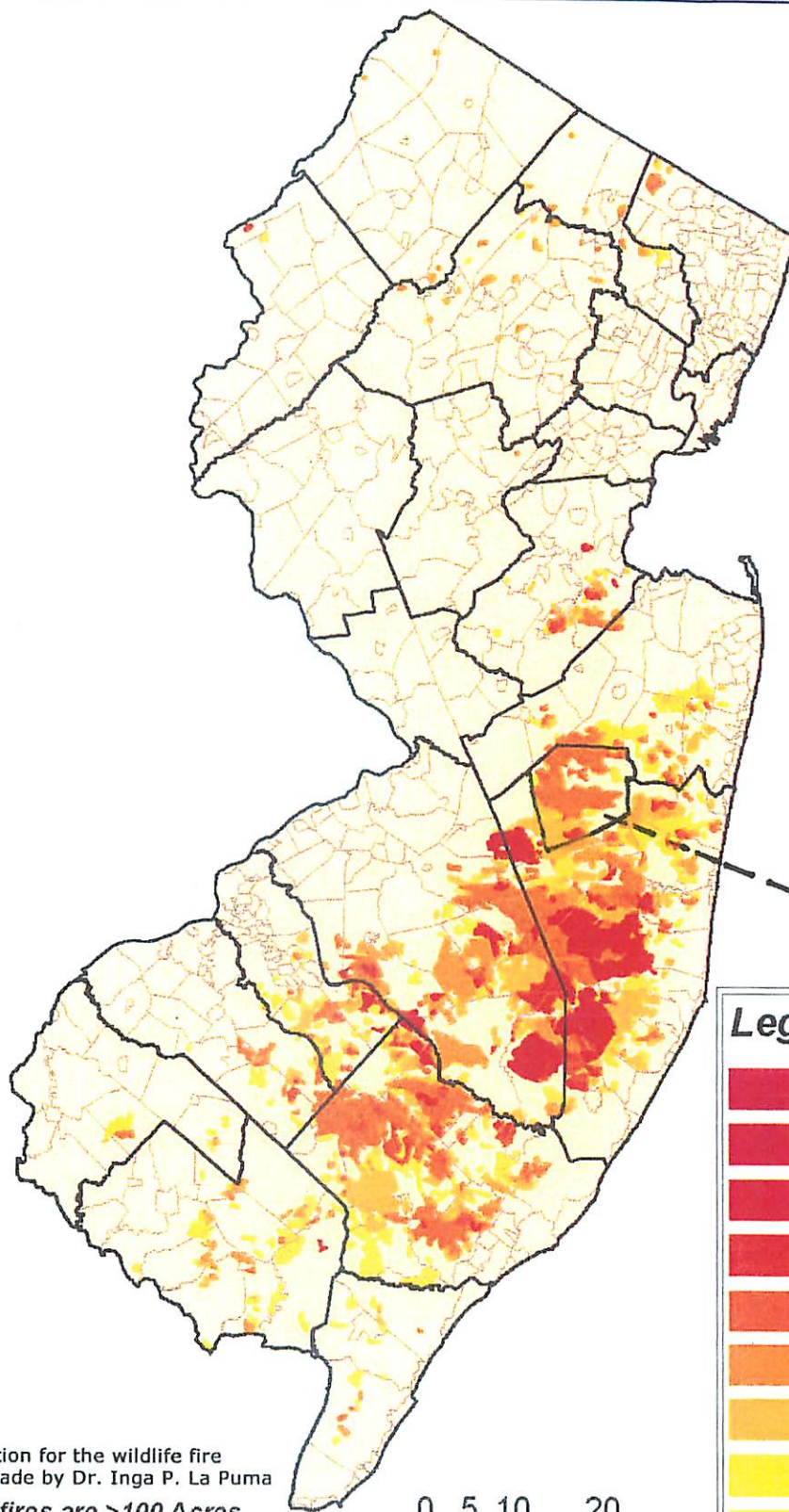
- The Township has a problem with invasive vines management. Some of these vines grow on the trees and block the sun from their leaves. This leads to a decline in the tree's vitality. Additionally, the weight of the vines bends the trees and can eventually cause the tree to collapse. The Township would like to engage in vine management that would include but not be limited to mile-a-minute, honeysuckle, wisteria, oriental bittersweet, and kudzu. (see Mile-a-minute Pest Alert in Appendix)
- Establishing a Heritage Tree Ordinance and a no Net Loss Plan are two more ideas carried forward from a previous plan but at this time we have no resources to engage in these endeavors.

11. APPENDIX

- 11.1. NJFFS Map of 1924-2011 Major Wildfire History
- 11.2. *How to Prepare Your Home for Wildfires* brochure NFRA (2 pages)
- 11.3. *Becoming a Nationally Recognized FireWise USA® Site*, from www.firewise.org 2019
- 11.4. *i-Tree Storm*, 2 pages, summary from www.itreetools.org/storm/ January 2019.
- 11.5. Trees for Under or Near Electric Utilites
- 11.6. Pest Alert: Bacterial Leaf Scotch
- 11.7. *Remove or Treat Ash Trees Today*, by Rosa Yoo, 2 pages, January 2018 edition of The League of Municipalities magazine.
- 11.8. NJ Pest Alert *Emerald Ash Borer*, February 2017 (2 pages)
- 11.9. USDA FS Pest Alert: *Gypsy Moth*, 1 page, November 2007.
- 11.10. NJ Forest Service Pest Alert: *Gypsy Moth*.
- 11.11. USDA FS Pest Alert: *Mile-a-minute Weed*, 2 pages, June 2009.
- 11.12. USDA APHIS Pest Alert: *Spotted Lanternfly*, 2 pages, November 2014.
- 11.13. NJ Forest Service Poster: *Spotted Lanternfly: See it, report it!*
- 11.14. 2018 Jackson Recycling Guide
- 11.15. Jackson Township Tree Ordinance: Chapter 405 (14 pages)
- 11.16 NRCS USDA New Jersey Fact Sheet: *Southern Pine Beetle*, January 2013.



1924-2011 Major Wildfire History New Jersey Forest Fire Service



TOWNSHIP of
JACKSON in
OCEAN COUNTY

Legend

	2001-2011 Wildfires
	1991-2000 Wildfires
	1981-1990 Wildfires
	1971-1980 Wildfires
	1961-1970 Wildfires
	1951-1960 Wildfires
	1941-1950 Wildfires
	1931-1940 Wildfires
	1924-1930 Wildfires

Significant contribution for the wildlife fire history map were made by Dr. Inga P. La Puma

*Note: Major wildfires are >100 Acres.
Not all wildfires shown.*

0 5 10 20
Miles

HOME SAFETY CHECKLIST

SIMPLE STEPS FROM ROOF TO FOUNDATION TO MAKE A HOME SAFER FROM EMBERS AND RADIANT HEAT

HOME SAFETY CHECKLIST

- ☐ Clean roofs and gutters of dead leaves, debris and pine needles that could catch embers
- ☐ Replace or repair any loose or missing shingles or roof tiles to prevent ember penetration
- ☐ Reduce embers that could pass through vents in the eaves by installing 1/8 inch metal mesh screening
- ☐ Clean debris from exterior attic vents and install 1/8 inch metal mesh screening to reduce embers
- ☐ Repair or replace damaged or loose window screens and any broken windows
- ☐ Screen or box-in areas below patios and decks with wire mesh to prevent debris and combustible materials from accumulating
- ☐ Move any flammable material away from wall exteriors - mulch, flammable plants, leaves and needles, firewood piles - anything that can burn
- ☐ Remove anything stored underneath decks or porches

VISIT FIREWISE.ORG FOR MORE DETAILS



OTHER CONSIDERATIONS

- ☐ Create small fuel breaks w/hardscape features
- ☐ Landscape with fire-resistant plants
- ☐ Mow the lawn regularly
- ☐ Participate in the national Firewise USA® program
- ☐ Prune low-hanging tree branches
- ☐ Store firewood at least 30' from the home

FOR MORE INFORMATION about how to protect your home and property visit firewise.org.

Talk to your local forestry agency or fire department to learn more about the specific wildfire risk where you live.



FIREWISE USA®
Residents reducing wildfire risks

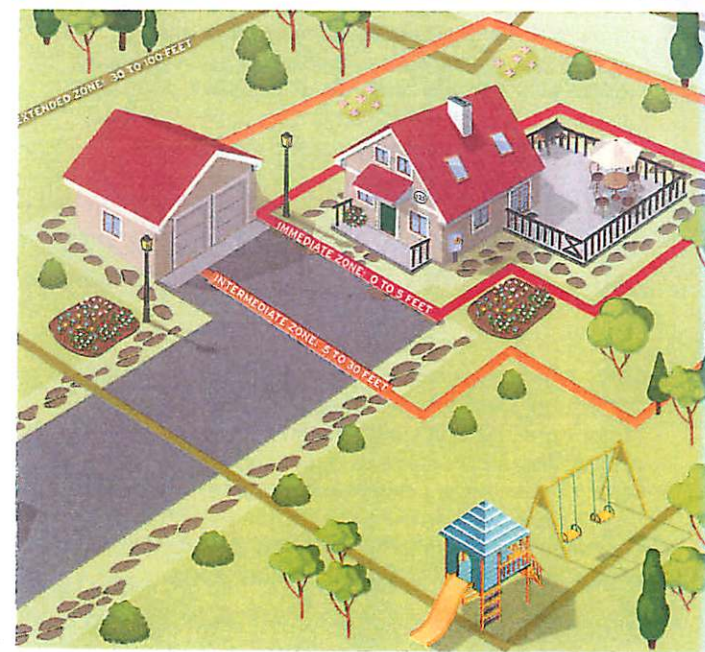
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FIREWISE USA®
RESIDENTS REDUCING WILDFIRE RISKS

HOW TO PREPARE YOUR HOME FOR WILDFIRES

WILDFIRE RISK REDUCTION STEPS
THAT CAN MAKE YOUR HOME SAFER
DURING A WILDFIRE



WILDFIRE PREPAREDNESS

ORDER A REDUCING WILDFIRE RISKS
IN THE HOME IGNITION ZONE
CHECKLIST/POSTER AT FIREWISE.ORG

■ VEGETATION MANAGEMENT

1. HOME IGNITION ZONES

Limiting the amount of flammable vegetation, choosing fire-resistant building materials and construction techniques, along with periodic exterior maintenance in the three home ignition zones - increases the chances your home will survive a wildfire when exposed to embers and/or a surface fire. The zones include the **Immediate Zone**: 0 to 5' around the home; **Intermediate Zone**: 5 to 30' and the **Extended Zone** 30 - 100'. Visit www.nfpa.org for more details on the Home Ignition Zones.

2. LANDSCAPING AND MAINTENANCE

To reduce ember ignitions and fire spread, trim branches that overhang the home, porch and deck and prune branches of large trees up to (depending on their height) 6 to 10 feet from the ground. Remove plants containing resins, oils and waxes and replace mulch in the **Immediate Zone** of 0 to 5 feet with non-combustible mulch products like crushed stone and gravel. Maintain vegetation annually.

5. SIDING AND WINDOWS

Embers can collect in small nooks and crannies and ignite combustible materials; radiant heat from flames can crack windows. Use fire-resistant siding such as brick, fiber-cement, plaster or stucco and dual-pane tempered glass windows.

■ BE PREPARED

6. EMERGENCY RESPONDER ACCESS

Ensure your home and neighborhood has legible and clearly marked street names and numbers. Driveways should be at least 12' wide with a vertical clearance of 15' for emergency vehicle access.

7. DISASTER PLAN

Develop, discuss and practice an emergency action plan with everyone in your home. Include details for pets, large animals and livestock. Know two ways out of your neighborhood and have a pre-designated meeting place. Always evacuate if you feel it's unsafe to stay - don't wait to receive an emergency notification if you feel threatened from the fire.

8. ANNUAL INSURANCE CHECK-UP

Conduct an annual insurance policy check-up to adjust for local building costs, codes and new renovations. Create/update a home inventory to help settle claims faster.

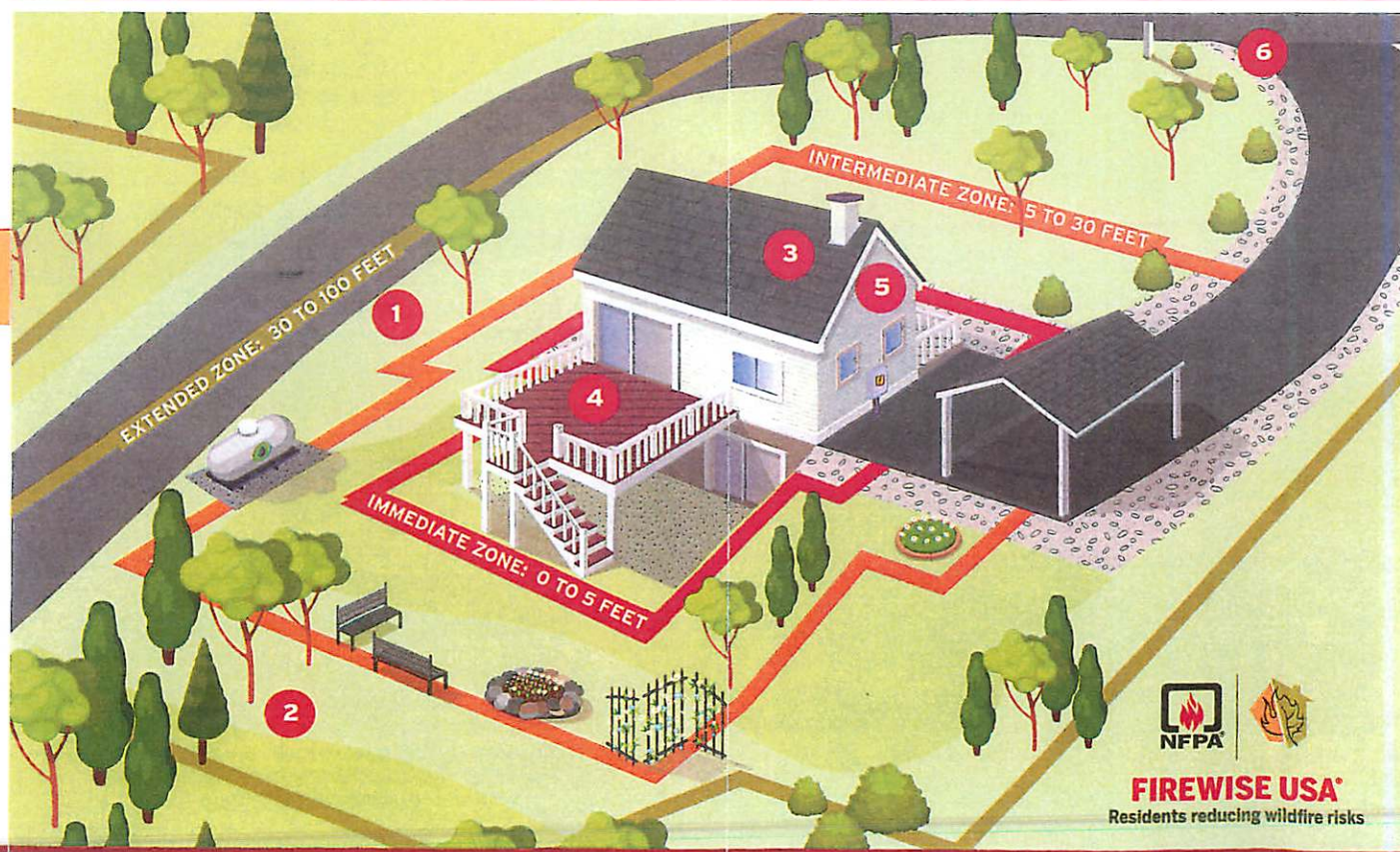
■ FIRE RESISTIVE CONSTRUCTION

3. ROOFING AND VENTS

Class A fire-rated roofing products offer the best protection. Examples include: Composite shingles, metal, concrete and clay tiles. Inspect shingles or roof tiles and replace or repair those that are loose or missing to prevent ember penetration. Box-in eaves, but provide ventilation to prevent condensation and mildew. Roof and attic vents should be screened to prevent ember entry.

4. DECKS AND PORCHES

Never store flammable materials underneath decks or porches. Remove dead vegetation and debris from under decks/porches and between deck board joints.



FIREWISE USA®
Residents reducing wildfire risks

Becoming a Nationally Recognized Firewise USA® Site

www.firewise.org

The Firewise USA® program provides a collaborative framework for neighbors to reduce wildfire risks at the local level. The national recognition program's annual criteria is designed to empower and engage residents living in wildfire prone areas with a plan and actions that can increase their home's chances of surviving a wildfire; while also making it safer for firefighters.

Steps to Achieving National Recognition:

Wildfire Risk Assessment

Completing a written wildfire risk assessment is the first step in becoming a nationally recognized Firewise USA® site. Contact your Firewise liaison for the state's requirements on developing a risk assessment.

Board/Committee

Form a board/committee comprised of residents and other applicable wildfire stakeholders. This group will collaborate on developing the site's risk reduction priorities and they will develop a multi-year action plan based on the assessment, along with overseeing the completion of the annual renewal requirements.

Action Plan

Action plans are a prioritized list of risk reduction projects developed by the participant's board/committee for their site. Plans include recommended home ignition zone projects, educational activities and other stakeholder outreach efforts that the site will strive to complete annually or over multiple years.

Educational Outreach

Each participating site is required to have a minimum of one wildfire risk reduction educational outreach event, or related activity annually.

Wildfire Risk Reduction Investment

At a minimum, each site is required to invest the equivalent value of one volunteer hour per dwelling unit in risk reduction actions annually. A wide range of qualifying actions and expenditures (contractor costs, rental equipment, resident activities, grants, etc.) comprise the overall investment totals.

Application

Applicants begin the overall process by creating a site profile at: Portal.firewise.org. The application is eligible for submission when the overall criteria is completed.

State liaisons approve applications with final processing completed by the National Fire Protection Association (NFPA). **Please note:** Individual states may require additional application requirements beyond those of the national program.



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i-Tree Storm

i-Tree Storm

The i-Tree Storm Damage Assessment Protocol Utility is now simply called i-Tree Storm. i-Tree Storm establishes a standard method to assess widespread damage immediately after a severe storm in a simple, credible, and efficient manner. This assessment method is adaptable to various community types and sizes, and it provides information on the time and funds needed to mitigate storm damage. A Hurricane Adaptation of the utility is also available for i-Tree Storm users.

Using sample street segments which are randomly chosen in a community, a survey is performed, and time and cost estimates are made. Data collection applications for use on personal digital assistants (PDAs) facilitate data collection and entry. Paper forms are available for those choosing or needing to do this work manually.

The protocol includes an optional pre-storm stage that evaluates a community's street-side and adjacent trees, and estimates the amount of cleanup that might be needed after a severe storm. The advantages of this pre-storm work are to create the critical random sample before an emergency, and to provide reliable cleanup numbers that are useful in persuading community officials of the seriousness of the potential event.

Once a storm has passed with community-wide damage, the same sample plots are re-surveyed; if pre-storm work was not done, random sample plots are created and surveyed. A qualified damage assessor evaluates the amount of debris and tree damage in each plot.

A template developed in Microsoft's Excel allows all computations to be carried out automatically as soon as the field data are uploaded or manually entered. It estimates the initial resources necessary for hazard mitigation and debris cleanup for the entire community.

Natural Disaster Damage

Each community has differing capabilities to deal with storm-related emergencies. Because of this, FEMA recommends that each community have an [Emergency Operation Plan](#).³ and a [Debris Management Plan](#).⁴ Since debris removal is reported as the most significant storm-related problem, a [FEMA Debris Management Guide](#)⁵ can be found on the FEMA website which provides guidance in planning, organizing, mobilizing, and controlling a debris removal and disposal operation, and the Forest Service has recently developed a useful [Tree Emergency Plan Worksheet](#)⁶ for setting up a plan to deal with natural disasters to the urban forest.

In this Protocol, methods are provided to estimate the following:

- The potential (pre-storm) and actual (post-storm) amount of tree debris in cubic yards generated from a natural disaster, and costs for its removal.
- The potential and actual man-hours and costs required for approved tree removals.
- The potential and actual man-hours and costs for hazard pruning.

The Storm Damage Assessment Protocol is intended to provide this information in a timely fashion immediately after a storm. It is important to keep in mind that the Protocol is not a replacement for the more extensive full-scale surveys or estimates of damage to trees that would typically occur in the days and weeks after a storm emergency. Full-scale surveys are needed to estimate damage more accurately and direct cleanup work after a storm.

Credits/Contact Info

i-Tree Storm is an adaptation of the Storm Damage Assessment Protocol Utility, which was cooperatively developed by the USDA Forest Service, Northeastern Area, the Northeast Center for Urban and Community Forestry, and the Davey Tree Expert Company. The Florida Hurricane adaptation was cooperatively created by Francisco J. Escobedo, School of Forest Resources and Conservation, University of Florida at Gainesville and Chris J. Luley and Jerry Bond of Urban Forestry LLC. This Utility is in the public domain and available at no cost to all interested individuals and organizations through i-Tree.

Links

1. <http://www.itreetools.org/>
2. <http://www.fs.fed.us/>
3. <http://www.fema.gov/about/divisions/cpg.shtm>
4. <http://www.fema.gov/government/grant/pa/demagde.shtm#4>
5. <http://www.fema.gov/government/grant/pa/demagde.shtm#content>
6. http://www.na.fs.fed.us/urban/ucfdisasters/tree_emerg_plan/TreeEmerPlanWkSheetJune2006.pdf

TREES UNDER OR NEAR ELECTRIC UTILITIES (SMALLER TREES 25' IN HEIGHT)

When selecting trees to plant underneath or near utility pole lines, it is important to select smaller sized trees to minimize conflicts with overhead electrical construction equipment and wires. By selecting smaller trees, the need for line clearance pruning is minimized or eliminated all together. Additionally, smaller trees will not look severely pruned as with taller growing species mistakenly planted in this area.

The following list of trees should be compatible with overhead facilities. Local conditions should prevail in selecting the species in any specific location:

Ash, Snowberry	<i>Sorbus discolor</i>
Cherry, Accolade Flowering	<i>Prunus sargentii</i> "Accolade"
Cherry, Amanogawa	<i>Prunus serrulata</i> "Amanogawa"
Cherry, Cornelian	<i>Cornus mas</i>
Crabapple, Red Baron	<i>Malus</i> "Red Baron"
Crabapple, Narragansett	<i>Malus</i> "Narragansett"
Crabapple, Prairifire	<i>Malus</i> "Prairifire"
Crabapple, Red Bud Flowering	<i>Maluszummi calocarpa</i>
Crabapple, Snow Drift	<i>Malus</i> "Snowdrift"
Crabapple, Sugar Tyme	<i>Malus</i> "Sutyizam"
Dogwood, Celestial*	<i>Cornus</i> "Rutdan"
Dogwood, Constellation*	<i>Cornus</i> "Rutcan"
Dogwood, Kousa	<i>Cornus kousa</i>
Dogwood, Kousa National	<i>Cornus kousa</i> 'National'
Dogwood, Ruth Ellen*	<i>Cornus</i> "Rutlan"
Dogwood, Stellar Pink*	<i>Cornus</i> "Rutgan"
Dogwood, White Flowering	<i>Cornus florida</i>
Fringe Tree	<i>Chionanthus virginicus</i>
Golden Chain Tree	<i>Laburnum anagyroides</i>
Hawthorn, Crimson Cloud	<i>Crataegus oxyacantha</i> "Crimson Cloud"
Hawthorn, Crusader	<i>Crataegus crus-galli inermis</i> "Cruzam"
Hawthorn, Lavalley	<i>Crataegus x lavalleyi</i>
Hornbeam, Japanese*	<i>Carpinus japonica</i>
Ivory Silk Tree Lilac	<i>Syringa reticulata japonica</i> "Ivory Silk"
Japanese Tree Lilac	<i>Syringa reticulata japonica</i>
Magnolia, Oyama	<i>Magnolia sieboldii</i>
Magnolia, Wada's Memory*	<i>Magnolia</i> "Wada's Memory"
Maple, Amur	<i>Acer ginnala</i> "Flame"
Maple, Hedge*	<i>Acer campestre</i>
Maple, Japanese	<i>Acer palmatum</i>
Maple, Purpleblow	<i>Acer truncatum</i>
Maple, R. Slippers Amur	<i>Acer ginnala</i> "Ruby Slippers"
Maple, Tartarian	<i>Acer tataricum</i>
Pear, Korean Sun	<i>Pyrus fauriei</i> "Westwood"
Plum, Newport Purpleleaf	<i>Prunus cerasifera</i> "Newport"
Redbud, American	<i>Cercis canadensis</i>
Shadblow, Cumulus	<i>Amelanchier laevis</i> "Cumulus"
Shadblow, Pink	<i>Amelanchier x grandiflora</i> "Robin Hill"
Silverbell, Jersey Belle	<i>Halesia tetraptera</i> "Jersey Belle"
Silverbell, Magniflora Two-winged	<i>Halesia diptera</i> "Magniflora"
Snowbell, Japanese	<i>Styrax japonicus</i>
Sourwood	<i>Oxydendrum arboretum</i>
Stewartia, Korean	<i>Stewartia koreana</i>
Trinity Flowering Pear	<i>Pyrus calleryana</i> "Trinity"

* - trees may grow over 25 feet in height

Bacterial Leaf Scorch



Pest Alert



BLS DAMAGE

BACTERIAL LEAF SCORCH

(*Xylella fastidiosa*)

Bacterial leaf scorch (BLS) of shade trees is considered a threat to urban trees such as oak, sycamore, maple, and elm throughout the Eastern United States and as far west as Texas. The disease is caused by the bacterium *Xylella fastidiosa*, which grows and multiplies in the xylem (water conducting tissue) of affected trees. As bacteria spread throughout the tree, water transport is disrupted, resulting in moisture stress. The bacterium may also trigger a defense reaction in the tree, which further impedes water transport. This moisture stress causes marginal leaf scorch, tree decline, and in some hosts, death.

LOCAL HISTORY

In the most northern range of this disease (southern New York to Delaware), BLS is primarily associated with oaks in the red oak group. Incidence on other shade trees is rare. In New Jersey, BLS causes leaf scorch and decline primarily on mature red and pin oaks planted as landscape and street trees. The disease was first identified in the region in the mid 1980s and has since increased to alarming proportions (up to 44%) in some areas.

MARGINAL LEAF SCORCH ON RED OAK



IDENTIFICATION

Symptoms of BLS appear in late summer and continue through autumn. The margins of leaves on affected branches dry and turn brown in an irregular pattern. A distinct, yellow to brown transition zone between the margin of scorched and healthy tissue is often evident. Affected leaves may prematurely fall from the tree. Disease severity may increase during periods of drought. Symptoms may be confused with other foliar diseases, the effects of environmental stress, or normal fall changes in leaf pigmentation.



LEAF SCORCH

HOST PLANTS

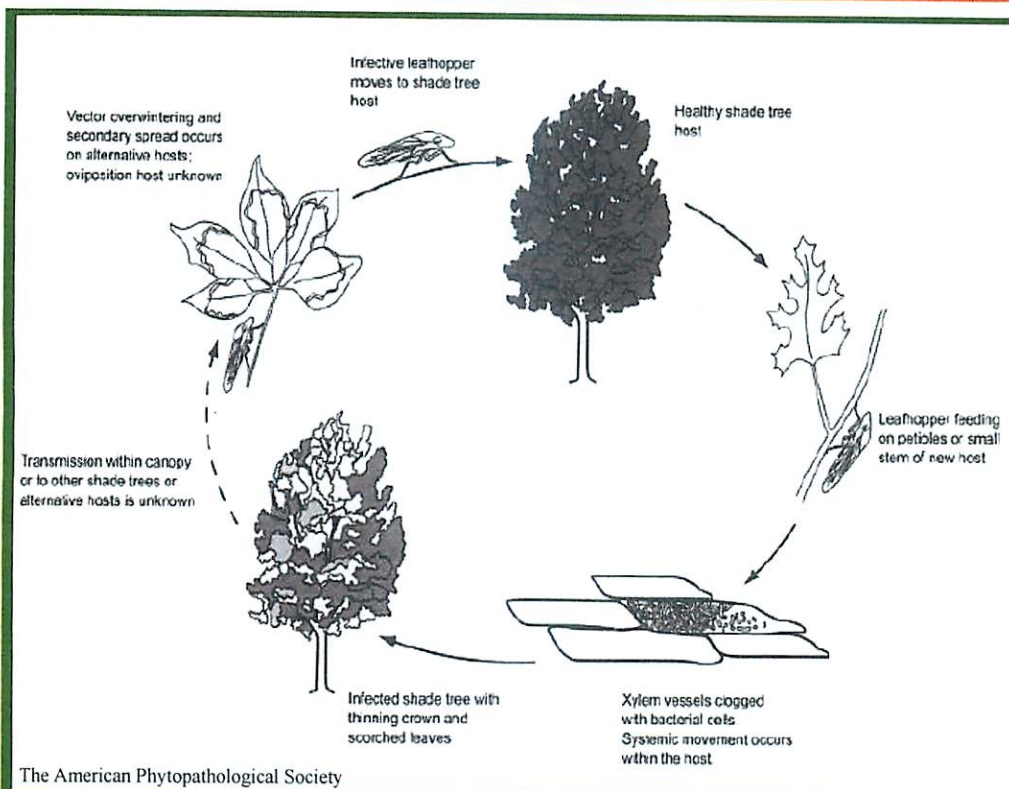
HOST PLANTS:

Oak, sycamore, London plane, sweetgum, elm, mulberry and maple. *Xylella fastidiosa* also causes diseases in alfalfa, citrus, coffee, grape, peach, and plum.

WHERE TO LOOK:

Leaves on diseased trees begin to die along leaf margins and death of then leaf progresses slowly downward toward the midrib and petiole.

LIFE CYCLE



LEAFHOPPER

BLS is spread primarily by leafhopper insects known as sharpshooters, and to a lesser extent, spittlebugs (family Cercopidae). Both adult and immature (nymph) stages acquire the bacterium when feeding on succulent tissues of infected hosts by pierce-sucking mouthparts. Xylem fluid is drawn into the insect, bacterial cells attach to the foregut of the insect. There, the bacterium multiplies and once an insect acquires bacterium, transmission to a new host can begin within 1 to 2 hours.

WHEN & WHERE TO LOOK

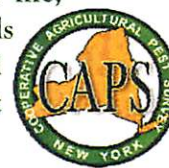
Leaves on diseased trees begin to scorch in an irregular pattern along leaf margins in summer and fall. During early stages of the diseases, leaves on one or more branches are symptomatic. As the disease progresses, the canopy thins and branches die. Affected oaks may enter a long period of decline during which branches that pose a hazard must be removed. Other shade trees, such as elm, may be killed outright.

LEAF DAMAGE



MANAGEMENT

Currently, there is no cure for BLS. Injecting diseased trees with antibiotics reduces symptom development but cannot eliminate the pathogen. Injections are expensive and must be repeated. Tree life, however, may be extended by improving general tree health. It is recommended that soils where young, smaller-diameter oaks are growing be tested for soil pH and nutrients and amended accordingly. Water during drought, and inspect trees regularly for branches that pose a hazard and must be removed.



NYS Dept of Agriculture & Markets
Division of Plant Industry
10B Airline Drive
Albany, New York 12235
Toll Free: 1-800-554-4501, Ext 72087



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500 New Karner Road
Albany, New York 12205

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www.nyscaps.com

Remove or Treat Ash Trees Today

Prevent costly problems tomorrow

By Rosa Yoo, Forest Health Coordinator, New Jersey Forest Service

It may be hard to believe that a tiny green insect can wreak havoc on an entire tree species, but it is happening in 30 states nationwide, including right here in New Jersey. The emerald ash borer (EAB) has the potential to kill as many as 99% of the ash trees in the Garden State. That includes ash in forests, along streets, around homes, in parks, and along edges of fields. That is why anyone who has even one ash tree on their property or manages properties with ash trees should protect against the EAB now, even if a formal detection has not been made in their jurisdiction.



What is EAB?

This metallic green insect measures about 1/2 inch in length. For such a small creature, it can do enormous damage. An infestation of EABs can kill ash trees in as little as three to four years. The beetle's larvae feed on the inner layer of the bark, which effectively girdles the tree, eliminating its ability to move water and nutrients from the roots to the leaves, eventually killing the tree.

EAB is a non-native, invasive insect that was first detected in North America in Michigan in 2002. In 2014, EAB was detected in New Jersey, and has since been found in 12 counties and 52 municipalities, with new detections constantly appearing.

Treat ash trees

It is not too early to start pesticide treatments to protect ash from EAB infestation. Pesticide treatments are effective in protecting individual ash trees from EAB infestation. However, ash trees selected for treatment should be relatively healthy, as most pesticide treatments are taken up by the cambium, the tree's vascular system.

Ash trees with low levels of EAB infestation can be still be protected via pesticide treatments if done early enough and with appropriate pesticides. Pesticide treatments should be performed by a licensed certified pesticide applicator, and continue for at least 10 to 15 years.

Remove ash trees

It's also not too early to start removing any ash trees that you do not plan to treat. Begin this work sooner than later, and spread the work out over multiple years, which will make this otherwise daunting task more manageable.

Unfortunately, soon after an ash tree dies, the wood becomes brittle and prone to failure. Dead ash trees can pose a serious threat to people and property from falling branches. For this reason, be sure to remove ash trees in high-use areas, within striking distance of homes, yards, driveways, and buildings.

It is safer to cut and remove live ash trees than dead ash trees. Do not wait until ash are dead to start removals.

For More Information

Visit emeraldashborer.nj.gov for:

- A sample EAB Action Plan
- List of pesticide treatment options
- List of professionals to assist with ash removals
- List of wood utilization companies
- Downloadable outreach materials
- Map of confirmed EAB detections in NJ



Tree damage inflicted by the Emerald Ash Borer.

Act now

Address EAB today, because in as little as 3 to 5 years there may be no live ash in your communities, in your forests, or around your homes.

With more than 24 million ash in forested areas in New Jersey, and countless more in parks, landscapes, and then along streets, EAB-induced ash mortality will only increase and expand as time goes on unless treatment measures are started as soon as possible.

It is not too late to begin treatments on healthy ash trees you want to protect from EAB, and initiate removals on the other ash that are not slated for treatments.

Some areas of the state are at a critical point where EABs have been present for several years. Without action to slow the spread, widespread death of ash trees is a real possibility in the near future.

To address the EAB crisis in your town, develop a plan of action, prioritize areas or specific trees for management activities, and establish partnerships to get the work done.

EAB Task Force

In preparation for the EAB invasion, New Jersey established the New Jersey Emerald Ash Borer Task Force. It is comprised of representatives from:

- New Jersey Department of Agriculture
- New Jersey Forest Service
- U.S. Department of Agriculture (USDA) Animal and Plant Health Inspection Service (APHIS)
- Rutgers University
- USDA Forest Service

It was established to unify the outreach and education message to residents, municipalities, and counties within the State on how to deal with EAB.

The Task Force maintains emeraldashborer.nj.gov. This site is updated regularly with new information and resources to assist with addressing EAB, as well as to track EAB detections throughout the state.

Grants

Through participation in the New Jersey Urban and Community Forestry Program (NJUCF), grant opportunities are available for municipalities and counties to assist with EAB/Ash management planning, reforestation, and tree planting.

There is currently no funding source to assist with ash removals. Municipalities and counties that do not participate in the NJUCF should consider becoming accredited for all the benefits the program can provide to your community. ♣

@ Visit communityforestry.nj.gov for more information.

Rosa Yoo is a Regional Forester with the New Jersey Forest Service. She is the Forest Health Specialist, mainly focusing on exotic invasive insects and diseases that threaten New Jersey's forests.

PODCAST

Listen to the DEP Podcast on EAB: njdep.podbean.com/e/episode-13-emerald-ash-borer-with-regional-forester-rosa-yoo/

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Emerald Ash Borer

Agrilus planipennis



7

he exotic emerald ash borer (EAB) has been killing ash trees across North America. Native to China, eastern Russia, Japan, and Korea, it was first discovered near Detroit in 2002 and has since spread to 30 states, including New Jersey.

Damage

This metallic green insect infests and kills ash trees—all ash species are susceptible, with the exception of mountain ash. EAB larvae feed on the inner bark and disrupt the movement of water and nutrients, essentially girdling the tree. This insect often infests the upper branches of the tree first and may affect

branches as small as 1" in diameter. It takes 2-4 years for infested trees to die, but mortality is imminent.

Signs and symptoms

Often the first sign that a tree is infested is woodpecker damage.

When feeding on EAB, woodpeckers scrape off outer bark, leaving smooth, light colored patches. Under the bark of an infested tree, you can often see S-shaped galleries weaving back and forth on the surface of the wood. The beetles also leave 1/8" D-shaped exit holes. Between May and August, you may find the 1/2" long metallic green adult beetles which have a copper color abdomen under the wing covers.

Images by David Cappaert



Adult beetle



D-shaped exit hole



Larva



Woodpecker damage on an EAB infested tree

Emerald Ash Borer in New Jersey

Since its discovery in North America, EAB has spread rapidly. It occurs in 30 states and 2 Canadian provinces. It was first discovered in NJ in 2014. The greatest impact will be for community trees and privately owned trees.

The beetles are strong fliers, and good at finding ash trees. When the beetle first arrived in Maryland, the infested area expanded about 1/2 mile per year.

Often people unintentionally spread this insect when they move firewood from an infested area to a new location. Beetles and larvae also hitchhike to a new area in nursery trees and saw logs.

Over the next few years, 99% of NJ ash trees will die due to emerald ash borer infestations

Ash in New Jersey Facts

- Forests contain 24.7 million ash trees
- 24% of all forested land contains ash
- Ash is found in forests throughout the state, but concentrated in northern New Jersey
- Ash has been commonly planted as a street and landscape tree throughout the state

Managing Your Ash Trees

For Landowners

EAB is in New Jersey. Plan for EAB now if you have ash. Know what's at risk: how much ash you have, its size and quality, and where it's located. Consider the ecological, aesthetic, and economic value of your ash, your tolerance of risk, and your objectives for ownership.

Forest Management Plan

If your land is enrolled in Farmland Assessment or the Forest Stewardship Programs, you must follow your approved forest management plan or an approved amendment.

Contact your consulting forester if you wish to change your planned activities, treatment schedule, or management objectives. Remember that the state forester needs to approve any changes before the management activity begins.

With an approved forest management plan that addresses EAB, you can salvage and restore ash in riparian areas when they follow the prescribed Best Management Practices.

Reassess your plan if EAB is detected in or near your county. Go to emeraldashborer.nj.gov for current EAB detection in the state. The threat of imminent tree mortality increases when EAB is within 10 miles of your property.

Salvaging Ash Logs

Work with a consulting forester or Certified Tree Expert to get the most from your forest. Studies have shown that owners who use professional forestry services before they cut make more money and are more satisfied with the results than owners who sell timber on their own.

More information www.myhealthywoods.nj.gov

Take action

Identify ash trees. Ash species have opposite branches and leaves and a compound leaf with 5-11 leaflets. The bark has a unique diamond-shaped ridge bark on older trees, but younger trees may have smoother bark.

Monitor your ash trees for EAB, you will know when the risk of mortality becomes urgent. Look for the dying branches at the top of the tree, woodpecker damage, galleries under the bark, D-shaped holes, green adult beetle, and sprouting.

Spread the message, "Don't Move Firewood." Visitors who bring infested firewood to second homes or campgrounds near you put your trees at risk. Talk with neighbors and campground owners in your community.

Report EAB sightings to the NJ Department of Agriculture. Collect and/or photograph any suspect insects and larvae. Note that several insects look similar to the EAB.

For Municipalities

If your municipality or county currently has an approved Community Forest Management Plan and ash is a major component of your community's forests along streets or in parks, consider including a section in your plan that addresses your community's response to EAB. Contact a Certified Tree Expert for assistance.

Municipalities with ash trees should:

- Conduct a tree inventory: know the size, health status, and where ash trees are located
- Begin to remove ash trees that are in decline and replace with non-host species
- Identify high value ash trees that you would like to treat to protect them from EAB
- Determine how infested ash tree removals be handled
- Identify a contact for EAB management issues (ie; Shade Tree Commission, Department of Public Works, Environmental Commission)
- Plan for restoration efforts with non-host species

More information on the community forestry management plan program
www.communityforestry.nj.gov

More information on the emerald ash borer
www.emeraldashborer.nj.gov



EAB infested ash wood



White ash leaf and bark



S-shaped galleries

New Jersey EAB Task Force



More information

www.emeraldashborer.nj.gov

Report sightings to Department of Agriculture
NJ Forest Service

609.406.6939

609.292.2532

Info from USDA
Look-alike beetles

www.stopthebeetle.info

www.nyis.info/index.php?action=identification

This publication was made possible through grant funding through the USDA Forest Service

Pest Alert

United States
Department of Agriculture

Forest Service
Southern Region
Northeastern Area

NA-PR-05-01

Reprinted November 2007

Gypsy Moth



Larva (May-June) - hairy caterpillar with five pairs of blue spots and six pairs of red spots along the back

The gypsy moth has been an important pest of hardwoods in the Northeastern United States since its introduction in 1869. Established populations exist in all or parts of 19 states from Maine to Wisconsin and south to Illinois and generally in a southeasterly line from Illinois to northeastern North Carolina.

Oaks are the preferred host species for feeding caterpillars, but apple, sweetgum, basswood, gray and white birch, poplar, willow and many others serve as hosts. Gypsy moths avoid ash, yellow-poplar, sycamore, black walnut, catalpa, locust, American holly, and shrubs such as mountain laurel, rhododendron and arborvitae. Older larvae will also feed on a number of conifers such as hemlock, pines, spruces and southern white cedar.

Because the ecological range for this pest is extensive, there are still many states that can expect infestations in the future. Without intervention, this pest spreads about 13 miles per year. Artificial movement dramatically hastens the spread by the insect hitchhiking on items that are moved long distances such as nursery stock, vehicles, forest products, and outdoor household articles such as deck furniture. Federal and state regulations require that items to be moved from infested areas to uninfested areas must carefully be inspected and certified to be free of gypsy moth life stages.



Pupa (July-August) - female left and male right



Adults and egg mass (July-August) - male moth is brown; female is white with brown markings



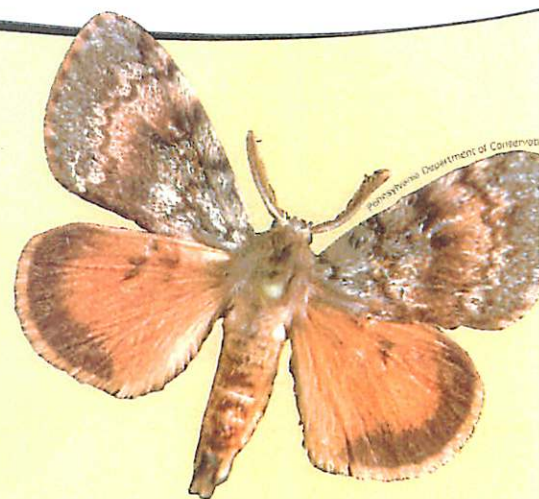
Adults females with egg masses (eggs-August-May)



For more information about the gypsy moth see this website:
<http://www.na.fs.fed.us/pubs/detail.cfm?id=895>

Gypsy Moth

Lymantria dispar



The caterpillar stage of the insect pest gypsy moth feeds on hundreds of varieties of trees and shrubs. The moth prefers the oak as a host tree - such as New Jersey's state tree, Northern red oak.

NON-NATIVE INVASIVE PEST

The Gypsy Moth, originally from Europe, was introduced to Massachusetts in 1869 by a French botanist trying to develop the silkworm industry. Once the insects escaped from his laboratory, they colonized and spread. Currently gypsy moths populate 19 states. Without intervention, this pest spreads at about 13 miles per year.

CONTROLLING THE SPREAD

To control gypsy moths a property owner should monitor populations, maintain tree health, remove and destroy egg masses, and trap larvae by banding trees with burlap. Heavy infestation may require treatment with insecticide such as Bt (*Bacillus thuringiensis*) - a naturally occurring bacteria. Bt is often recommended because it only affects the caterpillar stage of moths and butterflies.

Spray the tree's leaves with Bt from late April to early May when caterpillars first hatch and are less than 5/8" long. Bt does not work on older caterpillars or other moth life stages. Some Bt brand names are: Dipel, Thuricide, and Caterpillar Attack. Hire a certified pesticide applicator to apply Bt as well as other pesticides such as Mimic, Sevin, Gypchk, or Dimilin. A good home remedy is to spray the egg masses with a 1:1 vegetable oil and water mixture.

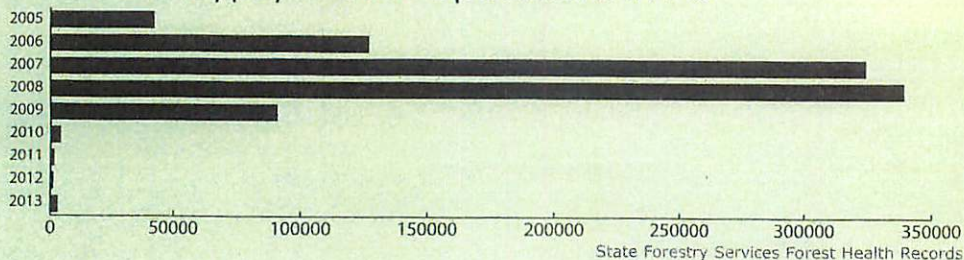
TREE DAMAGE

If a healthy tree is defoliated, the tree may re-leaf during the summer, but with smaller leaves. This stress to the tree makes it more susceptible to borers, fungus, and drought. A healthy tree may be able to survive one or two defoliations. A stressed tree may partially or totally die from defoliation and the impact may not be seen for many years.

GROWING POPULATIONS

In 1981, New Jersey suffered the worst gypsy moth defoliation: 800,000 acres. State Forestry Services keeps a watchful eye on gypsy moth populations through aerial surveys. Historically, there is a gypsy moth outbreak every 8-12 years.

Historical Gypsy Moth Populations in NJ



Plant resistance to gypsy moth

SUSCEPTIBLE PLANTS*

apple	larch
aspen	mountain ash
basswood	oak
gray, paper, & river birch	rose
hawthorne	serviceberry
hazelnut	sweetgum
hophornbeam	willow
	witch-hazel

RESISTANT PLANTS*

beech	maple
black birch	pear
blackgum	persimmon
blueberry	pine
cherry	redbud
chestnut	sassafras
choke cherry	sourwood
elm	spruce
hemlock	walnut
hickory	

IMMUNE PLANTS

arborvitae	American holly
ash	horsechestnut
atlantic-white cedar	Kentucky coffee tree
azalea	locust
yellow birch	mountain laurel
dogwood	mulberry
eastern redcedar	pitch pine
elderberry	rhododendron
fir	sycamore
grape	tuliptree
greenbriar	viburnum

* All gypsy moth larvae prefer the susceptible species, but only older larvae attack the resistant species. However, in extreme infestation no plant species is safe.

Life cycle

Adult

Adult male moths are brown, while females are whitish, slightly larger, and flightless. Females emit a pheromone to attract a mate. After mating, the female deposits eggs. Adults die soon after, leaving a new generation to hatch in the spring.



Egg Mass

The female moth deposits egg masses on trees, rocks, buildings, and woodpiles. She then covers the egg masses with scales and hairs from her body to provide winter protection. Egg masses, containing 200-1000 eggs, are buff-colored, but may bleach from weathering.



Tiny Larva

Larvae emerge from late April to early May. The larvae grow rapidly, molting weekly into progressively larger instars. During the first instar, the tiny larvae may be blown by the wind several miles to spread the infestation. Apply Bt insecticide at this time.



Defoliating Larva

First they feed during daylight on leaf edges. Then the older caterpillars feed at night. Larvae feed the heaviest in the month before they pupate. When an area is heavily infested, feeding is continuous. You can identify the caterpillars by the 5 pairs of blue spots and 6 pairs of red spots.



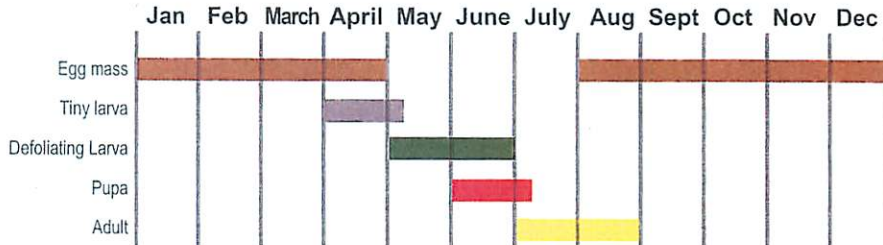
Pupa

In late June and early July the larva will crawl to a protected bark crevice and form a pupa. After about 2 weeks, moths emerge.



Months gypsy moth stages are visible

Inspect your trees and plants - especially oaks - for signs of gypsy moth throughout the year.



Look alikes



Eastern tent caterpillar - unlike gypsy moth, this caterpillar builds tents. Also, it has a stripe down its back whereas the gypsy moth has dots.



Fall webworm - unlike gypsy moth, the caterpillar is found in late summer and early fall and it builds tents.



Forest tent caterpillar - unlike gypsy moth, the caterpillar is found in late summer and early fall and it spins silken mats on tree trunks. The dots on its back are shaped like keyholes.

NJ Department of Agriculture - Gypsy moth information
www.state.nj.us/agriculture/divisions/pi/prog/gypsymoth.html

US Forest Service - Gypsy moth information
www.fs.fed.us/ne/morgantown/4557/gmoth/

NJ State Approved Foresters
www.state.nj.us/dep/parksandforests/forest/acf.pdf

NJ Certified Tree Experts
www.state.nj.us/dep/parksandforests/forest/community/cte.htm

State Forestry Services

Forest Health Office in Trenton	609-292-2531
Southern Region Office in Mays Landing	609-625-1124
Central Region Office in New Lisbon	609-726-1621
Northern Region Office in Andover	973-786-5035

This publication was funded in part by a grant from

US Forest Service This institution is an equal opportunity provider

Images: Bugwood.org

MILE-A-MINUTE WEED (*Persicaria perfoliata* (L.) H. Gross)



Dense mats of mile-a-minute weed overgrow a forest edge, completely covering other vegetation.

(Photo by Randy Westbrooks, U.S. Geological Survey)

Introduction

Mile-a-minute weed (*Persicaria perfoliata* (L.) H. Gross, formerly *Polygonum perfoliatum*, L.) is an annual vine in the Polygonaceae or Buckwheat family. It is native to eastern Asia including India, Bhutan, Nepal, China, Burma, Japan, Korea, Indonesia, Bangladesh, Siberia, the Philippines, New Guinea, the Malay peninsula and the Indochina peninsula. The plant was introduced into the United States in the 1930s from Japan at a plant nursery in York County, Pennsylvania, and an introduction garden in Prince Georges County, Maryland. Although mile-a-minute weed was eradicated from the introduction garden, it became established and eventually spread from the Pennsylvania site. Since mile-a-minute weed was introduced, its range has expanded in several directions for approximately 300 miles.

Ecological Threat

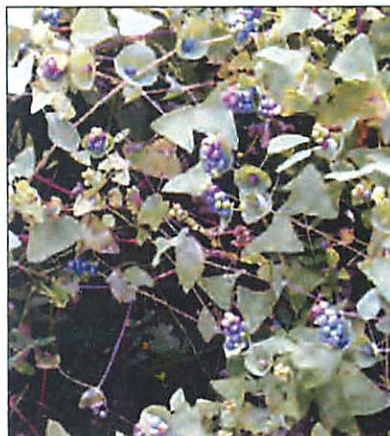
Mile-a-minute weed grows rapidly, out-competing native species by blocking available light. It infests nurseries, orchards, openings in forested areas, roadsides, and drainage ditches. As an early successional species, mile-a-minute weed grows rapidly in areas previously treated with herbicides, such as kudzu eradication sites, powerline rights-of-way, and recreational areas. Plant diversity is greatly reduced in these areas. Subsequently, wildlife species are affected by diminished food and habitat sources.

Economic Damage

Mile-a-minute weed is particularly threatening to forest regeneration by out-competing tree seedlings. It is extremely difficult to eradicate with a single herbicide application due to prolonged seed persistence in the soil. The seeds may survive in the soil for up to 6 years. Mile-a-minute weed also infests recreational and residential areas. Dense thickets of the sharp-spined plants can provide an unpleasant experience.

Identification and Biology

Mile-a-minute weed varies in height depending on habitat. In open areas it forms dense mats that cover everything, including small trees and shrubs. At forest edges, plants climb on other vegetation reaching up to 8 m in height. The light green, triangular leaves, 4 to 7 cm long and 5 to 9 cm wide, are alternately arranged along the stem. The stems are green, turning reddish with age and becoming woody near the base. The main veins, petioles and stems have sharp, recurved hook-like barbs. The ocrea, a saucer shaped sheath 1 to 2 cm in diameter encircles the node. The inflorescence is a spike-like cluster of 10 to 15 tiny white flowers. The fruits resemble blueberries and are 5 mm in diameter, arranged in clusters. Each fruit contains a single round, shiny-black achene. Annual plants have shallow, fibrous roots. In the eastern United States, mile-a-minute weed germinates in full sun in early spring, flowering begins in early June or July, and fruits are produced between early August and the first frost, usually mid-October.

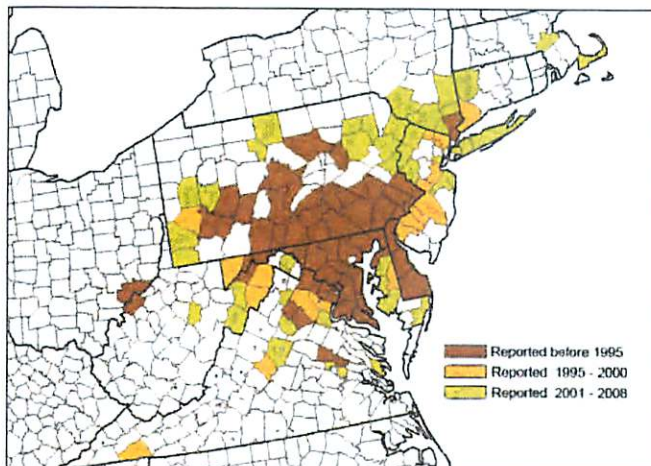


Triangular leaves, recurved barbs, and numerous bright blue fruits make mile-a-minute weed easy to identify.

(Photos by Denise Binion, USDA Forest Service)

Distribution

Mile-a-minute weed is currently found in Connecticut, Delaware, Maryland, Massachusetts, New Jersey, New York, Ohio, Pennsylvania, Rhode Island, Virginia, Washington, DC, and West Virginia. Fifteen additional states within Plant Hardiness zones 6 and 7 have climates favorable to mile-a-minute weed establishment, growth, and spread.



Counties in the eastern United States with mile-a-minute weed.

Habitat

Mile-a-minute weed is a colonizer of disturbed sites and open areas, wetlands, forest edges, stream banks, roadsides, and open fields. Although it can tolerate partial shade, mile-a-minute utilizes its ability to attach to other plants and climb over them to reach higher light levels. Mile-a-minute weed prefers moist soils but survives in relatively dry areas.

Control and Management

Mechanical Methods

Because of its relatively weak root system, hand pulling, weeding and cultivation are useful for small infestations. Hand pulling of seedlings should be done before the sharp recurved barbs harden. Plant removal can continue throughout the summer, but is more effective when done before seeds are produced. Repeated low mowing and trimming will prevent flowering and reduce or eliminate seed production. However, seeds that remain in the ground may germinate for up to 6 years.

Cultural Methods

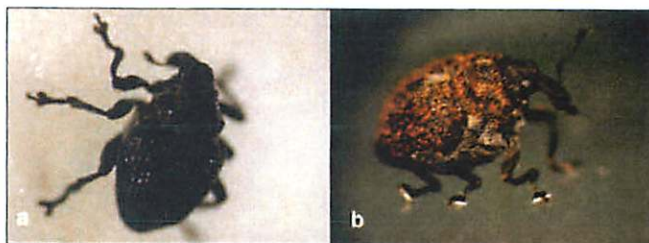
Maintain vegetation continuity and avoid creating gaps in existing vegetation. Maintain vegetative buffers along streams and forest edges to prevent establishment of and seed dispersal.

Herbicides

Both pre- and post-emergent herbicides are effective in killing mile-a-minute weed.

Biological Control

From 1996 to 2001, weed populations were surveyed in China, and 111 insect species were collected and identified. Among the insect species, a weevil, *Rhinoncomimus latipes* Korotyaev (Coleoptera: Curculionidae) proved to be the most promising biological control agent. The larva of the weevil causes damage to mile-a-minute weed by boring into the plant's stem. In 2000-2003 *R. latipes* was shipped to a Delaware quarantine facility for host range testing. In 2004, *R. latipes* was reared at the University of Delaware and the New Jersey Department of Agriculture, and released in Delaware and New Jersey based on recommendations of the Technical Advisory Group and subsequent approval by the Animal and Plant Health Inspection Service, Plant Protection and Quarantine. A total of approximately 150,000 weevils were released in five states from 2005 through 2009.



Rhinoncomimus latipes. Adult weevils are black upon emergence (a), but turn orange-brown (b) soon after feeding on mile-a-minute weed.

References and Resources

Visit the following Web sites for additional information on mile-a-minute weed.

<http://ag.udel.edu/enwc/research/biocontrol/mileaminute.htm>

www.nps.gov/plants/alien/fact/pope1.htm

Contact

Yun Wu, USDA Forest Service,
Forest Health Technology Enterprise Team (FHTET),
180 Canfield Street, Morgantown, WV 26505.
(304) 285-1594, ywu@fs.fed.us



Pesticides used improperly can be injurious to humans, animals, and plants. Follow the directions and heed all precautions on the labels.

NOTE: Some States have restrictions on the use of certain pesticides. Check your State and local regulations. Also, because registrations of pesticides are under constant review by the Federal Environmental Protection Agency, consult your county agricultural agent or State extension specialist to be sure the intended use is still registered.



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United States Department of Agriculture

Pest Alert

Animal and Plant Health Inspection Service
Plant Protection and Quarantine

Spotted Lanternfly (*Lycorma delicatula*)

The spotted lanternfly is an invasive pest, primarily known to affect tree of heaven (*Ailanthus altissima*). It has been detected on many host plants, including apples, plums, cherries, peaches, nectarines, apricots, almonds, and pine. It also feeds on oak, walnut, poplar, and grapes. The insect will change hosts as it goes through its developmental stages. Nymphs feed on a wide range of plant species, while adults prefer to feed and lay eggs on tree of heaven (*A. altissima*).¹ If allowed to spread in the United States, this pest could seriously harm the country's grape, orchard, and logging industries.

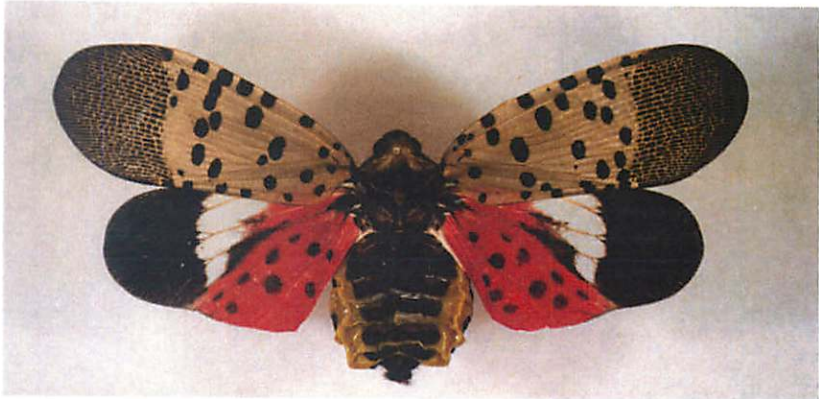
Distribution and Spread

The spotted lanternfly is present in China, India, Japan, South Korea, and Vietnam. The insect was detected in Pennsylvania in September 2014. This was the first detection of spotted lanternfly in the United States.

Spotted lanternflies are invasive and can spread rapidly when introduced to new areas. While the insect can walk, jump, or fly short distances, its long-distance spread is facilitated by people who move infested material or items containing egg masses.

Damage

Both nymphs and adults of spotted lanternfly cause damage when they feed, sucking sap from stems and leaves. This can reduce photosynthesis, weaken the plant, and eventually contribute to the plant's death. In addition, feeding can cause the plant to ooze or weep,



Adult spotted lanternfly

resulting in a fermented odor, and the insects themselves excrete large amounts of fluid (honeydew). These fluids promote mold growth and attract other insects.

Description

Adult spotted lanternflies are approximately 1 inch long and one-half inch wide, and they have large and visually striking wings. Their forewings are light brown with black spots at the front and a speckled band at the rear. Their hind wings are scarlet with black spots at the front and white and black bars at the rear. Their abdomen is yellow with black bars. Nymphs in their early stages of

development appear black with white spots and turn to a red phase before becoming adults. Egg masses are yellowish-brown in color, covered with a gray, waxy coating prior to hatching.

Life Cycle

The spotted lanternfly lays its eggs on smooth host plant surfaces and on non-host material, such as bricks, stones, and dead plants. Eggs hatch in the spring and early summer, and nymphs begin feeding on a wide range of host plants by sucking sap from young stems and leaves. Adults appear in late July and tend to focus their feeding on tree of heaven (*A. altissima*) and grapevine

¹ In Pennsylvania, adult spotted lanternflies have also been found feeding and egg laying on willow, maple, poplar, and sycamore, as well as on fruit trees, like plum, cherry, and peach.

(*Vitis vinifera*). As the adults feed, they excrete sticky, sugar-rich fluid similar to honeydew. The fluid can build up on plants and on the ground underneath infested plants, causing sooty mold to form.

Where To Look

Spotted lanternfly adults and nymphs frequently gather in large numbers on host plants. They are easiest to spot at dusk or at night as they migrate up and down the trunk of the plant. During the day, they tend to cluster near the base of the plant if there is adequate cover or in the canopy, making them more difficult to see. Egg masses can be found on smooth surfaces on the trunks of host plants and on other smooth surfaces, including brick, stone, and dead plants.

Report Your Findings

If you find an insect that you suspect is the spotted lanternfly, please contact your local Extension office or State Plant Regulatory Official to have the specimen identified properly.

To locate an Extension specialist near you, go to the U.S. Department of Agriculture (USDA) Web site at www.nifa.usda.gov/Extension. A directory of State Plant Regulatory Officials is available on the National Plant Board Web site at www.nationalplantboard.org/membership.



Nymphs are black with white spots in early stages of development. (Credit: itchydogimages)



Nymphs turn red just before becoming adults. (Credit: itchydogimages)



Hatched and unhatched egg masses



Cluster of adults on the trunk of a tree at night

SEE IT, REPORT IT!



Spotted Lanternfly

What to do:

If you see egg masses, scrape them off, double bag and throw away.
You can also place the eggs into alcohol, bleach or hand sanitizer to kill them.

Collect a specimen:

Specimens of any life stage can be turned in to the New Jersey Department of Agriculture's lab for verification.

Take a picture:

With your GPS function turned on your smartphone or a camera with GPS, take a photograph of **ANY** life stage (including egg masses).

Submit picture to: **SLF-plantindustry@ag.nj.gov**

Report a site:

If you can't take a specimen or photograph, call and leave a message detailing the sighting location/address and your contact information.

NJ Spotted Lanternfly Hotline at 1-833-223-2840 (BADBUG0)



Jackson Senior Center offers fitness, crafts, ceramics, billiards, hot lunch and many other programs. The center is open Monday – Friday 8:30 a.m. – 4:30 p.m. There is transportation available to and from the senior center on a daily basis. Transportation is also available for medical appointments and shopping. To register at the center you must be a Jackson resident over the age of 50. Call 732-928-2313 or stop by at 45 Don Connor Blvd.

2018 Senior Center Events

List of events can be found in the monthly newsletter.

Message from Michael Campbell, CTC.....

Reminder

Quarterly taxes are due on 2/1, 5/1, 8/1 and 11/1. Taxes can be paid online or by auto debit. For additional information please visit the collector's page on the Jackson Township Website. www.jacksontownpnj.net

Jackson Recreation – 732-928-1200 ext. 1255
jzapata@jacksontownpnj.net

Registration can be done online at
www.capturepoint.com

Presorted
 Standard
 U.S. Postage
PAID
 APLUS
 08701

ECRWSEDDM

Jackson Township Department of Public Works
 10 Don Connor Blvd – Jackson NJ 08527



Mayor Michael Reina

Council President - Kenneth J. Bressi
 Council Vice President - Robert Nixon

TOWN COUNCIL

Barry Calogero
 Scott Martin
 Ann Updegrave

RESIDENTIAL CUSTOMER

PROPERTY OWNERS: PLEASE MAKE SURE YOUR TENANTS RECEIVE THIS IMPORTANT INFORMATION

IMPORTANT CURBSIDE RECYCLING INFORMATION ENCLOSED



2018 RECYCLING GUIDE



BULKY WASTE CONVENIENCE CENTER AND COMPOST SITE 732-928-1311

Bulky Waste Convenience Center/Recycling

10 Don Connor Blvd.

Hours of operation

Friday through Tuesdays 8:00 a.m. – 3:45 p.m.

(Closed Wednesdays & Thursdays)

Bulky Waste Convenience Center

Accepts bulky waste items and is open to Jackson residents who are current residents living in their homes Landlords and commercial businesses or vehicles are not permitted to dispose of any Bulky Waste.

Acceptable items include furniture, appliances, (doors removed) grills, lawnmower, mattress, boxspring, etc.

Construction debris (requires voucher) doors, windows, sheetrock, fence, wood, roofing, siding, tub, toilet, sink, tile, cabinets, child swings set, etc.

Our Recycling Center is also located within the Bulky Waste Convenience Center. Residents may dispose of the following: Cardboard, bottles, aluminum and tin cans, newspaper, mixed paper, magazines, plastic containers (necks are smaller than container) used motor oil (up to 5 gallons) rigid plastic

**Effective March 1, 2018 we will start collection of
Electronics / E-Waste at our Convenience Center**

**RESIDENTS MAY BRING THEIR ELECTRONIC WASTE
TO INCLUDE: TV, COMPUTER, PRINTER, MONITOR AND FAX MACHINES**

Small businesses (trucks no larger than 8000lbs. GVW) may dispose of recycling materials ONLY. Commercial vehicles will not be permitted entry with anything other than recycling items as long as they meet the Gross vehicle Weight requirements.

Please make use of the donation bins that are located throughout Jackson for disposal of clothing, shoes, and other personal items.

Please register online at www.jacksontownshipnj.net for email notifications and new schedules

**ON THE WEBSITE YOU WILL FIND ALL OF THE CURBSIDE SCHEDULES
AND UPCOMING JACKSON TOWNSHIP EVENT NOTICES**

PLEASE FOLLOW THE GUIDELINES BELOW FOR CURBSIDE BULK & LEAF PICK UP

Place neatly at your curb 24hrs prior to schedule date

Never place vehicle or logs on, in or over piles

Brush shall be no larger than 4' long & 4" round

Piles shall be no larger than 4'x4'x8' curbside

Leaves should not impede roadways stormdrains

Plastic bags ARE NOT acceptable for any curbside pick up

Hazardous items are strictly prohibited from being placed in curbside waste

Small pieces of broken toys, light bulbs, households glass, etc. should be placed in your regular garbage

Construction or demolition debris is prohibited



Compost Facility – Located at 334 Jackson Mills Road

Hours of operation - Fri. - Tues. 8:00 a.m. – 3:45 p.m

The Compost Facility accepts brush, branches and leaves. Brush must be cut into 4' pieces or less. Compost, when available, is free for Jackson residents.

WE DO NOT ACCEPT GRASS CLIPPINGS OR STUMPS

**CHRISTMAS TREES MAY BE BROUGHT TO:
COMPOST SITE - JOHNSON PARK, WOODLANE PARK,
CAMP JOY, PUTNAM PARK**

ALL DECORATIONS AND LIGHTS MUST BE REMOVED FROM TREES

BETWEEN 12/26 & 1/31 PLACE IN PILE NEAR ENTRANCE

2018 BRUSH & BULK PICK-UP SCHEDULE

ZONE	BULK PICK UP	BRUSH PICK UP
ZONE 1	April 1, 2018	May 7, 2018
ZONE 2	April 16, 2018	May 21, 2018
ZONE 3	April 30, 2018	June 4, 2018
ZONE 4	May 14, 2018	June 18, 2018
ZONE 5	May 29, 2018	July 2, 2018
ZONE 6	June 6, 2018	July 16, 2018
ZONE 7	June 25, 2018	July 30, 2018
ZONE 8	July 9, 2018	August 8, 2018

**NO CURBSIDE PICK-UP OF CONSTRUCTION
DEBRIS OF ELECTRONICS**

**BRUSH INCLUDE: max. 4' long branches, twigs
TREE LIMBS (not to exceed 6" round)**



BULK PICK UP PRIVATE COMMUNITIES 2018

SOUTH KNOLLS	May 21, 2018
METEDECONK	June 4, 2018
THREE PENCE	June 6, 2018
SOUTHWIND	June 11, 2018
WILLOW POINT/ 60 ACRES	June 25, 2018
MEADOWBROOK VILLAGE	July 2, 2018
LUXURY PARK	July 10, 2018
WEST LAKE	July 12, 2018
WEST LAKE MEWS	July 12, 2018
WINDING WAYS	July 17, 2018
JACKSON GREEN	July 24, 2018
WOODMERE/PINEVIEW	July 30, 2018
FOUNTAIN HEAD	August 6, 2018

DO NOT TIE OR BUNDLE PAPER
DO NOT BAG MATERIAL
NO PLASTIC BAGS

Single Stream Recycling – Acceptable Items
(As per Ocean County Guidelines)
NO PLASTIC BAGS

Plastic Bottles – Where the neck is smaller than the base of the container like beverage, shampoo/conditioner/ laundry/dish detergent, milk jugs, condiments- ketchup & salad dressing.

Cans – Aluminum Cans, steel, tin and empty aerosol cans

Glass bottles, jars containers (all shapes, sizes and colors) Empty and rinse all bottles & containers

Corrugated Cardboard Boxes ~ Clean Cardboard Pizza Boxes
Please flatten all cardboard boxes

Mixed Paper – Magazines, catalogs, paperback books, hardcover books with cover removed, junk mail (including envelopes) office paper, computer paper, school papers, newspapers plus inserts, brown paper bags, construction paper, wrapping paper, greeting cards

RIGID PLASTIC ACCEPTED AT OUR FACILITY ON DON CONNOR BLVD

OCEAN COUNTY DIVISION OF SOLID WASTE MANAGEMENT
732-506-5047

Household Hazardous Waste and Paper Shredding

This service is provided by the Ocean County Division of Solid Waste Management and is scheduled by Ocean County.

If you would like to be notified of the County schedule, please register online for email notifications at
www.co.ocean.nj.us/solidwaste.

You will also find a complete listing of services and resources offered by Ocean County for Jackson residents listed on this website including but not limited to disposal of tires, fluorescent lighting, paint, leaves, brush and other vegetative waste.

**NO PLASTICS OTHER THAN THOSE
LISTED ARE ACCEPTABLE**

Single Stream Recycling – Items NOT Acceptable
(As per Ocean County Guidelines)

- BAGGED OR BUNDLED MATERIAL
- PLASTIC BAGS
- Dairy tubs such as margarine, yogurt, sour cream
- Plastic flower or shrubbery pots, plastic laundry baskets, plastic garbage cans or buckets
- Garden hoses, plastic toys, plastic totes
- PVC pipe/tubing, plastic, metal drums or 5-gallon water bottles
- Motor oil bottles
- Plastic food storage containers or lids, plastic fast food containers, plastic cafeteria or microwave trays
- Styrofoam of any kind
- BOTTLE CAPS AND JAR LIDS (PLASTIC OR METAL), plastic 6-pack holders, plastic cups and plastic bags
- Frozen food, ice cream or frozen juice containers
- Waxed paper or waxed cardboard containers
- Shelf-table cartons or refrigerated cartons (milk, juice, egg substitute)
- File folders, stickers or address label sheet waste
- Gray or chip board such as tissue, cereal, pasta, beverage carriers, gift boxes, **pizza boxes**, paper plates, paper to go containers, paper towel or toilet tissue rolls
- Soiled cardboard pizza boxes
- Aluminum foil or plastic wrap, shrink wrap and stretch film
- Aluminum throw away pans, plastic or metal deli trays
- Dinnerware or glassware, window glass, mirrors, ceramic containers, ceramic knick knacks, Pyrex dish or cookware, light bulbs
- Pots & pans
- Scrap metal (may be brought to recycling center)
- Telephone books (recycle separately at recycling center)
- Aerosol cans for paint, lubricants, motor oil or other hazardous materials

PLEASE NOTE

**MUNICIPAL HOLIDAYS DO NOT AFFECT
RECYCLING PICK UPS, PLEASE FOLLOW
THE SCHEDULE LISTED IN THIS
PUBLICATION**

Recycling Hotline (missed pickups)
609-771-8005

Jackson Township Municipal offices
732-928-1200

Ocean County Solid Waste Management
732-506-5047

IMPORTANT RECYCLING TIPS

- 1) Jackson Township follows Single Stream Recycling rules. All acceptable items should be placed in the same container.
- 2) Please follow the recycling guidelines as to what you may place in your recycling container. If you place items that are not acceptable, your containers will be deemed "Contaminated" and will not be picked up.
- 3) You may use 96 Gallon cans if they have been provided for you by your waste hauler
- 4) Please do not over fill containers – You may place out up to seven containers of up to 30 gallons each. Do not place lids on containers.
- 5) Place containers out the evening before your scheduled pickup or no later than 6:00 a.m. on the day of your scheduled pickup. If your container is not out, Waste Management will not return.
- 6) Please make sure that all containers are visibly marked with recycling stickers (available for free in the Department of Public Works located at 10 Don Connor Blvd.)
- 7) Please make sure that you do not use any type of plastic bags. You may use brown paper bags.
- 8) Do not place recycling containers behind parked vehicles or other obstacles.
- 9) If your pickup is missed, please do not remove your cans from the curb. Please call the recycling hotline at 609-771-8005
- 10) To check for cancelled pickups due to weather emergencies, please call the recycling hotline or check our website at www.jacksontwpnj.net.

2018 RECYCLING SCHEDULE

MONDAY ZONE 1	TUESDAY ZONE 2	WEDNESDAY ZONE 3	THURSDAY ZONE 4 / 60 Acres	FRIDAY Metedeconk	FRIDAY South Wind	FRIDAY South Knolls
January 8 & 22 February 5 & 19 March 5 & 19 April 2, 16, 30 **May 14, & 29 June 11 & 25 July 9 & 23 August 6 & 20 **September 4 & 17 October 1 & 15 & 29 November 12 & 26 December 10 & 24	January 9 & 23 February 6 & 20 March 6 & 20 April 3 & 17 **May 1, 15 & 30 June 12 & 26 July 10 & 24 August 7 & 21 **September 5 & 18 October 2 & 16 & 30 November 13 & 27 **December 11 & 26	January 10 & 24 February 7 & 21 March 7 & 21 April 4 & 18 **May 2 & 16 & 31 June 13 & 27 July 11 & 25 August 8 & 22 **September 6 & 19 October 3 & 17 & 31 November 14 & 28 **December 12 & 27	January 11 & 25 February 8 & 22 March 8 & 22 April 5 & 19 May 3 & 17 **June 1 & 14 & 28 July 12 & 26 August 9 & 23 **September 7 & 20 October 4 & 18 November 1 & 15 & 29 December 13 & 28	January 12 & 26 February 9 & 23 March 9 & 23 April 6 & 20 May 4 & 18 **June 2 & 15 & 29 July 13 & 27 August 10 & 24 **September 8 & 21 October 5 & 19 November 2 & 16 & 30 **December 14 & 29	January 12 & 26 February 9 & 23 March 9 & 23 April 6 & 20 May 4 & 18 **June 2 & 15 & 29 July 13 & 27 August 10 & 24 **September 8 & 21 October 5 & 19 November 2 & 16 & 30 **December 14 & 29	January 12 & 26 February 9 & 23 March 9 & 23 April 6 & 20 May 4 & 18 **June 2 & 15 & 29 July 13 & 27 August 10 & 24 **September 8 & 21 October 5 & 19 November 2 & 16 & 30 **December 14 & 29

** HOLIDAY SCHEDULE

MONDAY ZONE 5	TUESDAY ZONE 6	WEDNESDAY ZONE 7	THURSDAY ZONE 8	FRIDAY Westlake & Westlake Mews	FRIDAY Winding Way	FRIDAY Cooks Bridge
**January 2 & 15 & 29 February 12 & 26 March 12 & 26 April 9 & 23 May 7 & 21 June 4 & 18 July 2 & 16 & 30 August 13 & 27 September 10 & 24 October 8 & 22 November 5 & 19 December 3 & 17	**January 3 & 16 & 30 February 13 & 27 March 13 & 27 April 10 & 24 May 8 & 22 June 5 & 19 July 3 & 17 & 31 August 14 & 28 September 11 & 25 October 9 & 23 November 6 & 20 December 4 & 18	**January 4 & 17 & 31 February 14 & 28 March 14 & 28 April 11 & 25 May 9 & 23 June 6 & 20 **July 5 & 18 August 1 & 15 & 29 September 12 & 26 October 10 & 24 November 7 & 21 December 5 & 19	**January 5 & 18 February 1 & 15 March 1 & 15 & 29 April 12 & 26 May 10 & 24 June 7 & 21 **July 6 & 19 August 2 & 16 & 30 September 13 & 27 October 11 & 25 **November 8 & 23 December 6 & 20	**January 6 & 19 February 2 & 16 March 2 & 16 & 30 April 13 & 27 May 11 & 25 June 8 & 22 **July 7 & 20 August 3 & 17 & 31 September 14 & 28 October 12 & 26 **November 9 & 24 December 7 & 21	**January 6 & 19 February 2 & 16 March 2 & 16 & 30 April 13 & 27 May 11 & 25 June 8 & 22 **July 7 & 20 August 3 & 17 & 31 September 14 & 28 October 12 & 26 **November 9 & 24 December 7 & 21	**January 6 & 19 February 2 & 16 March 2 & 16 & 30 April 13 & 27 May 11 & 25 June 8 & 22 **July 7 & 20 August 3 & 17 & 31 September 14 & 28 October 12 & 26 **November 9 & 24 December 7 & 21

MISSED RECYCLING 609.771.8005

THE HOLIDAYS BELOW WILL EFFECT YOUR SCHEDULED RECYCLING COLLECTION

NEW YEARS DAY FALL ON MONDAY ALL RECYCLING IS PUSHED ONE DAY / PICKED UP THE NEXT DAY

MEMORIAL DAY MAY 28, 2018 FALLS ON MONDAY ALL RECYCLING IS PUSHED ONE DAY / PICKED UP THE NEXT DAY

FOURTH OF JULY / JULY 4TH, 2018 FALLS ON A WEDNESDAY ALL RECYCLING IS PUSHED ONE DAY / PICKED UP THE NEXT DAY

LABOR DAY SEPTEMBER 3, 2018 FALLS ON MONDAY ALL RECYCLING IS PUSHED ONE DAY / PICKED UP THE NEXT DAY

THANKSGIVING NOVEMBER 22, 2018 FALLS ON THURSDAY / THURSDAY AND FRIDAYS ZONES ARE PUSHED ONE DAY / PICKED UP THE NEXT DAY

CHRISTMAS DECEMBER 25, 2018 FALLS ON TUESDAY ALL RECYCLING IS PUSHED ONE DAY / PICKED UP THE NEXT DAY

2018

** HOLIDAY SCHEDULE

UNSURE OF YOUR ZONE?

call 732-928-1311

WWW.JACKSONTWPNJ.NET

Recycling Stickers are available, free of charge, at
the Department of Public Works
10 Don Connor Blvd.

For Misled Recycling Please Call
609-771-8005

If your recycling is missed **DO NOT REMOVE**
CANS FROM THE CURB. If they are not picked up
by the next morning please call the number for
missed recycling

Jackson Township - 732-928-1200

Jackson Residents are permitted to have
a Maximum of 7 /30 gallon containers
NOT TO EXCEED 45 GALLONS,
WE WILL NOT COLLECT ANY CAN
LARGER THAN 45 GALLONS.
Your cans must be clearly Marked with
the Jackson Recycles Sticker

Director of Public Works

Fred Rasiewicz, CPWM

frasiewicz@jacksontwpnj.net

Recycling Coordinator

Susan C. Kane

sckane@jacksontwpnj.net

Township of Jackson, NJ
Monday, September 9, 2013

Chapter 405. TREE REMOVAL

[HISTORY: Adopted by the Township Committee (now Council) of the Township of Jackson 12-22-2003 by Ord. No. 41-03; amended in its entirety by the Township Council 8-11-2009 by Ord. No. 21-09 (Ch. 100 of the 1972 Code). Subsequent amendments noted where applicable.]

GENERAL REFERENCES

Land use and development regulations — See Ch. 244.

§ 405-1. Intent and purpose.

- A. Indiscriminate, uncontrolled and excess destruction, removal and cutting of trees upon lots and tracts of land within Jackson Township will cause increased drainage control costs, increased soil erosion and sedimentation, decreased fertility of the soil, degradation of water resources, decreased groundwater recharge, increased buildup of atmospheric carbon dioxide, the establishment of a heat island effect and increased dust and pollution. The singular or cumulative affect of any of the foregoing could adversely impact the character of Jackson Township, decrease property values, render the land unfit and unsuitable for its most appropriate use, and negatively affect the health, safety and general welfare of Jackson's residents. Thus, the Township governing body desires to regulate and control indiscriminate and excessive cutting of trees within the Township and to require appropriate tree replacement.
- B. It is recognized that there is a strong interrelationship between the integrity of the Township's water resources, development on steep slopes, tree removal, soil disturbance, stormwater management and the general use of the land resources. Fewer trees throughout the Township also correlates with increased air pollution. Therefore, the governing body finds that the appropriate management of these resources is an important health, safety and general welfare concern. Managing the Township's tree resources is consistent with the state-approved community forestry management plan, as in P.L. 1996, c. 135. *Editor's Note: See N.J.S.A. 13:1L-17.1 et seq.* The appropriate management guidelines for tree preservation to be utilized are:
- (1) The American National Standard, ANSI A300 (Part 5) — Management;
 - (2) Trees and Development: A Technical Guide to Preservation of Trees During Land Development, Nelda Matheny and James R. Clark; and

(3) Protection and Care of the Urban Forest, NJDEP Division of Parks and Forestry.

- C. Trees are declared to be an important cultural, ecological, scenic and economic resource. Proper management of this resource will ensure its maintenance and result in economic returns. A forestry management program is intended to meet the objectives of preserving, protecting, enhancing and maintaining trees and providing opportunities for the continued use of forest resources which are compatible with the maintenance of the environment. This will be accomplished by ensuring management of forest and trees through the application of sound management practices. To that end, it shall be unlawful to cut down, damage, poison or in any other manner destroy or cause to be destroyed any trees covered by this chapter, except in accordance with the provisions of this chapter.
- D. The enforcement of this chapter shall be the duty of the Shade Tree Commission of Jackson Township and its agents, such as the Tree Specialist, through the regulation, planting, care and control of shade, ornamental and evergreen trees and shrubs in the streets, highways, public places of the Township and tree removal on all lands within the Township.

§ 405-2. Definitions.

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

CALIPER: ANSI Z60 FOR NURSERY STOCK

"Caliper" is a type of diameter measurement used in the nursery industry. The height measurement shall be taken from ground level for field-grown stock and from the soil line for container-grown stock, which should be at or near the top of the root flare. Caliper measurement of the trunk shall be taken six inches above the top of root flare up to and including four-inch caliper size. If the caliper at six inches above the ground exceeds four inches, the caliper should be measured at 12 inches above the top of root flare. Seldom are tree trunks perfectly round. The most accurate measurement will result from the use of a diameter tape. Caliper measurements taken with manual or electronic slot or pincer type caliper tools should be the average of the smallest and largest measurements.

COMMUNITY FORESTRY MANAGEMENT PLAN

A plan developed by a municipality that outlines the goals and objectives for managing trees on municipal property with the intent of minimizing liability to the municipality and maximizing the useful life of the tree resource. The plan is to be approved by the New Jersey Department of Environmental Protection, Division of Parks and Forestry, New Jersey Forest Service. A Shade Tree Commission shall be formed to oversee the implementation of the community forestry management plan.

DIAMETER BREAST HEIGHT (DBH)

The diameter of a tree measured 4 1/2 feet above the uphill/highest side.

EROSION

The detachment and movement of soil or rock fragments by water, ice, wind and gravity.

EXEMPT AREA

The lot area as provided in this chapter for which tree replacement shall not be required.

FOREST MANAGEMENT PLAN

A plan for the management of timbered or forested lands approved by the New Jersey Department of Environmental Protection, New Jersey Forest Service, or similar state or federal agency.

HISTORIC TREE

A tree that has been found to be of notable historic interest to Jackson Township because of its age, type, size or historic association and which has been so designated and that designation has been officially made and promulgated as part of the official records of the Township.

OPEN SPACE

Any parcel or area of land or water essentially unimproved and set aside, dedicated, designated or reserved for public or private use and enjoyment or for the use and enjoyment of owners and occupants of land adjoining or neighboring such open spaces, provided that such areas may be improved with only those buildings, structures, streets and off-street parking and other improvements that are designated to be incidental to the natural openness of the land.

SHADE TREE COMMISSION

Shade tree commissions can be formed by municipal ordinance, N.J.S.A. 40:64-1 et seq.

SPECIMEN TREE

Any tree in fair or better condition which is so designated by the Shade Tree Commission based on considerations of whether the tree is a rare species or specimen thereof; is abnormal in height, trunk diameter or dripline circumference for a tree of its species; has foliage of an unusual quality for a tree of its species; occupies a location which confers special shade tree, fragrance, erosion control, aesthetic, scenic enhancement, historic, preservation or cultural values to the community. For purposes of this definition, "in fair or better condition" shall mean that a tree has a relatively sound and solid trunk with no evidence of extensive decay or visual evidence of being hollow and with no major insect or pathological problem.

TREE

Any deciduous or coniferous species which has a DBH of six inches or greater.

TREE ESCROW FUND

A fund established by the governing body for the administration and promotion of tree and shrubbery resource sustainability projects and practices which may be consistent with the Community Stewardship Incentive Program as outlined within the New Jersey Shade Tree and Community Forestry Assistance Act, P.L. 1996, c. 135. *Editor's Note: See N.J.S.A. 13:1L-17.1 et seq.*

TREE PLANTING PLAN

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

TREE PRESERVATION AND REMOVAL PLAN (TREE SAVE PLAN)

A specific plan that contains tree locations and other information in accordance with § 405-5 herein.

TREE REMOVAL PERMIT

The permit issued by the Shade Tree Commission or its designee to remove or destroy a tree or trees.

TREE REPLACEMENT PLAN

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

TREE SPECIALIST

A. The Mayor shall appoint a Tree Specialist. This individual shall be responsible for the inspection of sites for which application(s) are filed under this chapter. This individual will be responsible for the administration and protection requirements of this chapter and enforcement of the chapter as directed by the Shade Tree Commission.

B. A Tree Specialist is either of the following:

(1) A forester who shall have a bachelor's degree in forestry or arboriculture from a college or university, shall be certified as a certified tree expert by the State of New Jersey and shall have a minimum of three years' experience in planting, care and maintenance of trees. The forester shall have the responsibility of reviewing an approved forest management plan and inspecting the forested site for plan compliance if requested by the Tax Assessor.

(2) A conservation officer who shall be certified as a certified tree expert by the State of New Jersey and shall have a minimum of three years' experience in planting, care and maintenance of trees.

C. The Tree Specialist shall be paid from the Tree Escrow Fund, which is established herein, and shall be paid in accordance with a fee schedule established by contract with the municipality.

§ 405-3. Applicability.

The terms and provisions of this chapter shall apply as follows:

A. Unless specifically excepted in Subsection **C** below, it shall be unlawful for any person to remove or cause to remove trees with a DBH of six inches or more without first having obtained a tree removal permit as provided herein.

B. Specimen and historic trees.

(1) Trees which have been designated as specimen or historic under the provisions of this chapter shall be maintained in a living condition, and it shall be unlawful for any person to remove such tree without an approved tree removal permit. No specimen or

historic tree shall be removed unless the applicant has obtained the approval of the Shade Tree Commission.

(2) The condition of trees proposed to be saved shall be evaluated by use of guides as follows:

(a) Evaluation of Hazard Trees in Urban Areas, ISA Books, Nelda Matheny and James R. Clark.

(b) Urban Tree Risk Management, USDA Forest Service, Northeastern Area.

(c) The Guide for Plant Appraisal, the Council of Tree and Landscape Appraisers.

C. Exceptions. The provisions of this chapter shall not apply to the following:

(1) Any property upon which no trees are located, as confirmed by a statement of no tree verification.

(2) Any tree of less than six inches DBH.

(3) Any tree or trees removed or cut in accordance with a forest management plan, provided that such plan is filed with the Tree Specialist, Shade Tree Commission and Tax Assessor.

(4) Any tree or trees removed or cut in accordance with an approved conservation plan prepared by the Soil Conservation District, provided that such plan has been filed with the Shade Tree Commission and Tax Assessor.

(5) Any tree or trees planted and grown for commercial purposes on property used as a commercial nursery, tree farm, garden center, Christmas tree plantation or tree orchard.

(6) Any tree growing in a utility right-of-way or fire trail subject to the approval of the Shade Tree Commission.

§ 405-4. Tree removal permits.

A. Any person wishing to obtain a tree removal permit shall make application to the Shade Tree Commission by filing a written application with the Tree Specialist and paying such fees as are set forth in § 405-8. No permit shall be issued until a tree preservation and removal plan for the lot or parcel has been reviewed and approved as compliant with § 405-5 by the Tree Specialist.

B. Where an application, as required by this chapter, has been submitted, no permit shall be issued until a tree save plan for the lot or parcel, if necessary, has been reviewed and approved as compliant with § 405-5 by the Tree Specialist, and until the filing of a written report of an on-site inspection by the Tree Specialist. Where an application is made in

connection with the construction of a building or other improvement, no building permit shall be issued until the tree removal permit has been issued.

- C. All required escrow and bond fees for any application, including required tree replacements or fees, shall be verified as paid prior to the issuance of the tree removal permit.
- D. Tree removal permit applications shall be filed at the Tree Specialist's office and shall be completed in full. The application must be deemed complete and all required fees, as set forth in § 405-8, be paid prior to review.
- E. Inspections. After the application is complete and reviewed, the Tree Specialist shall inspect the trees and property which are the subject of the permit application within 30 days.
- F. Permit approval or denial. The Tree Specialist shall approve or deny the tree removal permit within 10 business days after completion of the inspection. The Tree Specialist shall notify the applicant in writing of the factual basis and criteria for any denial. The final decision of the Tree Specialist may be appealed to the governing body by filing written notice within 10 days of the final decision. The governing body shall hold a public hearing and issue its decision within 60 days after notice of appeal is filed, unless the applicant requests and the governing body consents to an extension of time. The governing body may delegate its appeal responsibilities to the Shade Tree Commission.

§ 405-5. Tree preservation and removal plan.

A tree preservation and removal plan shall be submitted to the Tree Specialist's office. Applications that require Planning Board or Zoning Board approval shall have tree preservation and removal plans as part of the submittal to the Planning Board or Zoning Board and said plans provided to the Tree Specialist for review and approval in accordance with this chapter. Tree preservation and removal plans shall contain the following:

- A. The name and address of the applicant.
- B. The name and address of the owner of the property from which the trees are to be removed.
- C. The lot and block of the property.
- D. The shape and dimensions of the lot or parcel, including the location of all existing and proposed easements. If the tree removal permit is for a single-family residence, the plan shall consist of a tree location sketch containing the minimum amount of pertinent information to enable the determination of compliance with the regulations in this chapter, including the information set forth in Subsection **D(1), (2), (6) and (8)** below. The plan for any other property shall include a survey prepared by a licensed land surveyor that contains tree locations. The survey shall contain, at a scale of no less than one inch equals 50 feet, the following information:

- (1) The existing and proposed tree preservation limits.

- (2) The proposed limit of the clearing and all individual trees to be retained outside the tree clearing identified by some approved method as determined by the Tree Specialist, such as flagging, prior to the field inspection. For any clearing greater than or equal to three acres, a representative 5% of the wooded areas proposed to be cleared shall be inventoried. The representative 5% shall be determined by agreement between the Tree Specialist and the applicant. Where less than three acres is proposed to be cleared, all trees to be removed shall be inventoried.
- (3) The installation and limits of a temporary existing tree protection fence along the limits of the proposed tree removal shall be in compliance with § **405-10**.
- (4) Locations of all forest types shall be identified by common and botanical names of dominant tree species.
- (5) All specimen and historic trees to be removed shall be indicated on the plan. All reasonable efforts shall be made to preserve such trees, including, but not limited to, if feasible, relocation of infrastructure, roadways and buildings. Removal of such trees shall require specific written approval of the governing body with consideration of the Shade Tree Commission's recommendations.
- (6) A proposed tree replacement plan in accordance with this chapter. A tree replacement plan shall be considered the proposed landscaping plan required for all subdivision and site plan approvals.
- (7) A North arrow.
- (8) The location of existing and proposed structures and improvements, if any.

§ 405-6. Term of permit.

Any and all permits approved by the Shade Tree Commission shall be declared null and void if the tree removal is not completed within a reasonable time, not to exceed 12 months after permit issuance. In no case will the permit be valid for more than 12 months. Permits not used within this period will require a new application and the payment of new fees. For purposes of this section, a permit shall no longer be valid when the work authorized by the permit is completed.

§ 405-7. Criteria for issuance of permits.

- A. Upon completion of the Tree Specialist's field inspection report and review of any requested recommendations, the Tree Specialist shall approve a permit if:
- (1) The tree preservation and removal plan is compliant with § **405-5**;
 - (2) The tree replacement plan is approved by the Tree Specialist;
 - (3) None of the conditions set forth below in Subsection **B** exists;

(4) At least one of the criteria as follows has been satisfied:

- (a) The tree is located in an area where a structure or improvements will be placed in accordance with the approval of Planning/Zoning Boards and the tree cannot be relocated on the site because of age, type or size of the tree.
- (b) The tree is dead, diseased, injured, in danger of falling, is too close to existing or proposed structures, interferes with existing utility service, creates unsafe vision or clearance or conflicts with other ordinances or regulations.
- (c) The tree is to be removed for harvesting as a commercial product or for the purpose of making land available for farming or other agricultural activity, or is to be removed in furtherance of a forest management plan or soil conservation plan, or to serve some other purpose which is consistent with the purposes of this chapter.

B. The Tree Specialist may deny a permit if the removal will contribute to extra runoff of surface water onto adjacent properties, erosion or silting, and such conditions are not otherwise satisfactorily abated, or if the tree removal causes:

- (1) Impairment to the growth or development of remaining trees on the applicant's property or upon adjacent properties;
- (2) Soil instability;
- (3) Dust;
- (4) Drainage or sewerage problems;
- (5) Dangerous or hazardous conditions; or
- (6) Depression of the value of adjacent properties.

§ 405-8. Fees.

A. Application.

- (1) The applicant, at time of filing the application with the Tree Specialist, shall pay the application fee of \$10 for each new or existing lot. No application shall be considered without the payment of the required fees. An inspection fee of \$25 will be applied to all applications requiring an on-site verification.
- (2) The replacement fee will be in accordance with § 405-9.

B. Tree Escrow Fund.

- (1) A Tree Escrow Fund shall be established and maintained by the Chief Financial Officer of Jackson Township to receive and disburse replacement tree contributions.

Appropriations from the Tree Fund shall be authorized by the governing body with consideration of the Shade Tree Commission recommendation in accordance with the municipal tree planting plan.

- (2) The primary purpose of said fund is to provide for the planting and maintenance of trees and shrubs on public property. The fund will also cover administrative costs to implement the provisions of this chapter, including but not limited to site inspections, processing of permits and supervision of tree replacements. Administrative costs imposed in accordance with this chapter shall not exceed 30% of the fund, as determined on an annual basis.

§ 405-9. Replacement trees.

A. Tree replacement schedule.

- (1) Any tree removed pursuant to this chapter, unless exempt under § 405-3C, shall be replaced based on the following:

Number of Trees to be Removed	Size/Diameter (inches)	Number of Replacement Trees	Size of Replacement Trees	Or Dollar Amount
1	Greater than 6 up to 10	1	2 to 2 1/2	\$240
2	Greater than 6 up to 10	1	3 1/2 to 4	\$420
1	Greater than 10 up to 16	2	2 to 2 1/2	\$480
1	Greater than 16 up to 23	2	3	\$840
1	Greater than 23 up to 30	4	3 1/2 to 4	\$1,680
1	Greater than 30	5	3 1/2 to 4	\$2,100

- (2) In cases where the tree cost requirement criteria is combined with other criteria of this subsection, the value of proposed shade, ornamental, evergreen and shrub material shall be deducted from the calculated amount for replacement trees. The value of the proposed landscape material shall be calculated based upon average local material costs for planting.

- B. The applicant will receive a one-for-one replacement tree credit should stands of 10 or more trees greater than four inches in diameter be preserved within the limit of the disturbance line.

- C. All replacement trees shall be planted on site in accordance with the foregoing. However, if one or more of the following conditions exist, some or all of the replacement trees may be planted off site:
- (1) The site in question cannot physically accommodate the total replacement amount of trees, and the applicant contributes an amount equal to the calculated monetary value of nonreplaced trees to the Tree Escrow Fund; or
 - (2) The Tree Specialist and applicant agree in writing that the applicant shall make payment to the Tree Escrow Fund based upon the chart provided; or
 - (3) The Tree Specialist and applicant agree in writing that the applicant shall plant replacement trees off site on municipally owned property pursuant to the municipal tree planting plan.
- D. Notwithstanding the tree replacement fee schedule in Subsection **A** above, in all commercial and industrial applications, the tree replacement fee shall be \$25 per tree, with a maximum amount of \$2,500 per acre. Specimen and historic trees shall not be included in this fee calculation, but shall be assessed a separate fee in accordance with the fee schedule provided in Subsection **A** above.

§ 405-10. Protection of existing trees during construction.

A. Protective barriers.

- (1) Prior to construction and any tree removals, suitable tree protective barriers shall be erected, and this protection, where required, shall remain until such time as the protection is authorized to be removed by the Tree Specialist or after issuance of a final certificate of occupancy. In addition, during construction, no attachments or wires shall be attached to any of said trees so protected. Where some grading must take place within the dripline of trees in the protection zone, appropriate measures shall be taken to minimize impact to the trees. Any trees seriously damaged during construction must be professionally treated by a New Jersey certified tree expert or replaced if the damage is beyond treatment.
- (2) A detail of the existing tree self-supported protective barrier shall be provided on all applications. The protective barrier shall be a minimum of four feet high.
- (3) The self-supported protective barrier shall be placed, as determined by the Tree Specialist, at the dripline of any tree along the limit of clearing and around the entire dripline for trees to remain undisturbed within the limit of clearing. Refer to: Trees and Development, Table 6.2, page 74.
- (4) It shall be unlawful for any person in the construction of any structure or other improvement to place solvents, material, construction machinery or temporary soil deposits within the dripline.

- B. Street right-of-way and utility easements may be delineated by placing stakes a minimum of 50 feet apart and tying ribbon, plastic tape, rope, etc., from stake to stake along the outside perimeters of such areas to be cleared.
- C. Large property areas separate from construction and land clearing areas into which no equipment will venture may also be delineated as set forth above in § 405-10B, as determined by the Tree Specialist following a field evaluation.

§ 405-11. Tree replacement.

Any tree removed pursuant to a tree removal permit shall be replaced as provided below, unless said tree is located in an exempt area, is dead or fatally diseased as determined by a certified tree expert, or tree replacement payment is made pursuant to § 405-9. Tree replacement shall be required in accordance with the standards set forth in ANSI Z60.1, American Standard for Nursery Stock. Tree replacement shall be in accordance with either Subsection A, B, C or D below or a combination of Subsections A, B, C and D.

- A. One-to-one tree replacement. For each tree six inches in DBH or greater that is removed, the applicant shall prepare a replanting plan for other areas of the property. The replacement plan or landscape plan shall reflect a one-to-one tree replacement for each tree six inches or greater to be removed. All proposed replacement trees shall be in accordance with selections from Trees For New Jersey Streets, published by the New Jersey Shade Tree Federation, and Street Tree Factsheets, a publication of the Municipal Tree Restoration Program, and submitted for review and approval prior to the issuance of a tree removal permit.
- B. Tree area replacement/reforestation. For each square foot of tree area to be removed, the applicant shall prepare a reforestation scheme on other treeless open space areas of the property to compensate for the tree removals. The reforestation plan shall be based on a twenty-foot-by-twenty-foot grid. Of this number of trees, 10% shall be balled and burlaped, two-inch to two-and-one-half-inch caliper; 20% shall be balled and burlaped, one-and-three-fourths-inch to two-inch caliper; 30% shall be bare root one-and-one-fourth-inch to one-and-one-half-inch caliper; and 40% shall be bare root six-foot- to eight-foot-tall whips. A mixture of trees, indigenous to the area and site, shall be utilized. Proposed trees shall be planted in natural groves and may be spaced five feet to 20 feet on center. The ground shall be seeded with a grass mixture approved by the Shade Tree Commission. The reforestation formula shall follow the guidelines as set forth in the New Jersey No Net Loss Reforestation Act, P.L. 1993, c. 106 (N.J.S.A. 13:1L-14.2).
- C. Credits. The permit applicant will receive a one-to-one replacement tree credit:
 - (1) For stands of 10 or more trees with a DBH of six inches or greater preserved within the limit of the disturbance line; or
 - (2) Forested areas of one acre or greater, which are left natural and conveyed to the Township with a deed restriction that they will remain forested and undeveloped. This conveyance excludes all previous dedicated easements.

D. All replacement trees shall be planted on site, unless all of the replacement trees cannot be physically accommodated. In such instance, the applicant shall pay the tree replacement fee in accordance with the schedule in § **405-9**.

E. Exempt areas.

- (1) For all existing residential properties and new residential development with a proposed lot area of less than 40,000 square feet, up to 50% of the lot area may be exempt area. For residential development with a proposed area of 40,000 square feet or greater, up to 20,000 square feet in area may be exempt area. The exempt area shall be calculated as a contiguous, circular area from a fixed point within the footprint of the existing or proposed primary residential structure on the property. The exempt area should be calculated to minimize any adverse environmental impacts.
- (2) Agricultural operations are exempt from replacement requirements because such operations are governed by the Right to Farm Act, N.J.S.A. 4:1C-1 to 4:1C-10, which preempts local regulation. Property owners claiming exemption under this subsection must continue to farm the property in question as described on the tree removal permit for a minimum of five consecutive years after the date of clearing or date of commencement of the prescribed farming activity that is deemed compliant by the Tree Specialist. An approved permit must be submitted prior to clearing. If the property is not farmed as prescribed on the tree removal permit within three years of the tree removal or is developed for any other use before the five years expires, the reforestation replacement obligation in accordance with § **405-11B** will be enforced according to the new use of the property.
- (3) In all commercial, industrial and nonresidential developments, with a proposed buildable lot area less than 40,000 square feet, up to 50% of the lot area may be exempt area. For development with a proposed buildable area of 40,000 square feet or greater, up to 20,000 square feet in area may be exempt area. The exempt area shall be calculated as a contiguous, circular area from a fixed point within the footprint of the existing or proposed primary structure on the property. The exempt area should be calculated to minimize any adverse environmental impacts.
- (4) Utility line clearance operations, provided that such plan is filed with the Tree Specialist and work performed in accordance with ANSI A300 Part 7: BMP Utility Pruning of Trees, and Board of Tree Experts Pruning Standards for Shade Trees, Section 5.5.

§ 405-12. Emergencies.

In case of emergencies, such as hurricanes, fire, windstorm, ice storm, flood, freezing temperatures or other disaster, or in the case of dead or diseased trees which are a hazard to persons or property, the requirements of the regulations set forth in this chapter may be waived by the Tree Specialist upon a finding that such waiver is necessary so that the public or private work to restore order on the property in the Township will not be impeded.

§ 405-13. Stop-work orders.

- A. The Shade Tree Commission is hereby authorized to issue stop-work orders to the holder of the tree removal permit, and the Tree Specialist is authorized to recommend the issuance of stop-work orders in the event that there is:
- (1) A failure to comply with the approved plan, such as a site plan, forest management plan or soil conservation plan;
 - (2) Noncompliance with the tree removal permit granted pursuant to this chapter; or
 - (3) Noncompliance with the provisions of this chapter.
- B. The stop-work order shall remain in effect until the Shade Tree Commission, upon recommendation of the Tree Specialist, has determined that the resumption of work will not violate the plans, permit or the provisions of this chapter.

§ 405-14. Enforcement.

The Shade Tree Commission in conjunction with the Tree Specialist shall oversee all tree removals pursuant to an issued tree removal permit. The Tree Specialist shall conduct adequate inspections of all sites for which a tree removal permit has been issued. Upon the ascertainment of a violation of this chapter, the Tree Specialist or Shade Tree Commission shall refer enforcement actions to the Code Enforcement Officer.

§ 405-15. Applicability to tree removal construction companies; permit required.

All provisions of this chapter shall apply to any person removing trees on behalf of any other person, including all tree removal construction companies or persons in the business of removing trees or construction. It shall be unlawful for any person or company to remove or cause to be removed any tree or undertake any work for which a permit is required pursuant to this chapter unless a valid permit therefor is in effect and is displayed in accordance with the provisions set forth in § 405-16; such removal or work shall constitute a violation of this section and shall subject the person or company violating this section to all penalties provided herein.

§ 405-16. Display of permit; carrying of plan or authorization; right of entry.

- A. The applicant shall prominently display on the site the tree removal permit issued. Such permit shall be displayed continuously while trees are being removed or replaced or work done as authorized on the permit and for 10 days thereafter. In addition, the person or persons cutting or removing trees, if other than the applicant, shall carry with him/her authorization from the owner or applicant authorizing such person to cut or remove trees. In the event that the trees are being cut or removed in accordance with a forest

management plan or a soil conservation plan, a copy of the plan shall be in the possession of the person cutting or removing such trees.

- B. As a condition for the issuance of the permit, the applicant shall agree in writing to the entry onto his/her premises by the Tree Specialist and all law enforcement officers as necessary to effectuate the provisions of this chapter, and such entries shall be deemed lawful. Failure to allow such entry shall be unlawful and shall constitute a violation of this chapter and shall constitute failure to display the permit as required herein. It shall be unlawful and considered a violation of this chapter for any person to engage in the business of plant cutting, trimming, removal, spraying or otherwise treating trees, shrubs or vines within the Township and without the applicable certification or license for the designated work. All contractors offering tree care services for hire within Jackson Township shall register annually with the Tree Specialist, provide a current certificate of insurance showing evidence of employer liability and workers' compensation coverage for the work to be performed, and shall comply with applicable OSHA regulations, ANSI Z133.1 Safety Standards, New Jersey Board of Tree Experts Pruning Standards for Shade Trees and ANSI A300 Practice Standards.

§ 405-17. Duties of Tree Specialist.

The Tree Specialist shall perform the duties set forth in this chapter and shall be responsible for the enforcement of the provisions of this chapter as directed by the Shade Tree Commission. In this regard, the Tree Specialist is authorized and shall perform any necessary inspections and is further authorized and shall issue violation notices and shall sign complaints and provide testimony in the Municipal Court for violations of this chapter.

§ 405-18. Violations and penalties.

- A. Any person, firm, partnership, corporation, association or other legal entity violating any of the provisions of this chapter shall, upon conviction of such violation, be punished by a fine of up to \$2,000 for each offense, in the discretion of the Judge before whom conviction may be had. Each illegally removed tree shall be considered a separate violation. Each violation of any of the provisions of this chapter and each day the same is violated shall be defined and taken to be a separate and distinct offense. In addition, the court may order restitution (fine and/or appraised value, whichever is greater) and/or replacement of the tree illegally removed.
- B. In addition to other remedies, the Shade Tree Commission, Tree Specialist or other authorized official may institute any appropriate legal action to prevent a continuing violation of the terms of this chapter.



United States Department of Agriculture
Natural Resources Conservation Service



NEW JERSEY
AUDUBON
SOCIETY

New Jersey Fact Sheet: Southern Pine Beetle

Introduction

Southern Pine Beetle (*Dendroctonus frontalis*) is a native bark beetle and a well-known pest of Southern forests. Outbreaks of this pest have historically been less common in New Jersey than in many other states, but the state has experienced an increase in outbreaks since 2001.



Adult male
Southern Pine
Beetle (Gerald J.
Lenhard, LSU,
Bugwood.org)

Impacts of a Southern Pine Beetle (SPB) outbreak can include loss of timber value, loss of wildlife habitat value, increased risk of severe wildfire, and loss of aesthetic and recreational values. Significant tree mortality is often associated with larger SPB outbreaks, typically occurring when trees in a forest are already stressed. Some common causes of stress are drought and high forest density. Management practices that reduce forest density lower stress on individual trees, increasing their resilience to SPB.

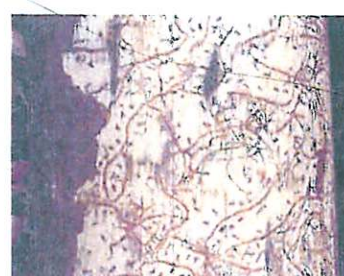
Signs

The first signs of an outbreak a landowner might see are pitch tubes on the tree's bark. When adult beetles bore into the tree to lay their eggs, the tree exudes natural resins called pitch, in order to fill the hole and stop the beetle. Another symptom of SPB is a change in the color of the needles from a healthy green color

to yellow to brown in a relatively short period of time. A landowner may find S-shaped galleries or tunnels under the bark of an infected tree. These galleries are where the larvae feed on the living tissue, known as cambium, of the tree. Other signs of a recent attack are exit holes where adult beetles have emerged, and sawdust from those exit holes at the base of the tree. Other pine bark beetles can create some of the above symptoms, so the unique shape of the SPB galleries may be the best diagnostic tool for assessing their presence. A trained forester can help differentiate between infestations of SPB and other bark beetles.

Spread

SPB uses pheromones, or chemical signals, to spread en masse from one tree to the next. The adult beetles release a pheromone trail that attracts other beetles over relatively short distances between trees.



Signs of SPB infestation. Above left: Pitch tubes on a pine tree. (James R. Meeker, USDA Forest Service, Bugwood.org) Above center: Infestation of Southern Pine Beetle moving from right to left. (Robert L. Anderson, USDA Forest Service, Bugwood.org) Above right: The S-shaped galleries created by Southern Pine Beetle feeding on the cambium. (Ronald F. Billings, Texas Forest Service, Bugwood.org)

SPB Outbreak Management Options

One method to suppress an SPB outbreak is the “cut and leave” method. The infested trees and a buffer of uninfested trees are felled so that their crowns point in the direction of where the infestation started (see figure A). The other recommended method is “cut and salvage.” In this case, infested trees and a buffer of uninfested trees are cut and removed from the site (see figure B). Each of these plans may require review or permitting by local authorities and for properties within the Pinelands, by the Pinelands Commission. A forester will be able to plan the suppression effort and assist landowners with the permitting process. Private landowners may need assistance to suppress an outbreak on their property. Landowners who have

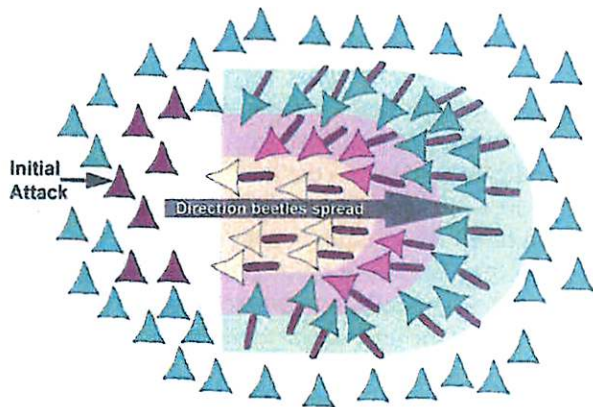


Figure A (above). Cut and leave. In this method of suppression, infested trees and a 40- to 70-foot buffer of uninfested trees are felled toward the initial attack. Green trees are living, brown are dead. Pink and yellow represent different levels of infestation. (From the NJ Southern Pine Beetle Action Kit.)

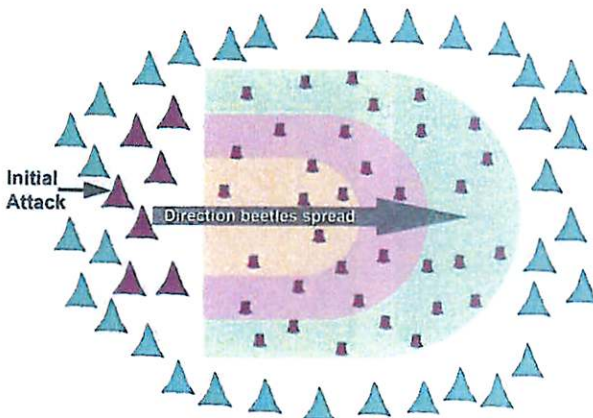


Figure B. Cut and salvage. In this method of suppression, infested trees and a 40- to 70-foot buffer of uninfested trees are removed from the site. Green trees are living, brown are dead. Pink and yellow represent different levels of infestation. (From the NJ Southern Pine Beetle Action Kit.)

either a Forest Management Plan or a Forest Stewardship Plan are eligible for cost-share assistance through the New Jersey Forest Service.

More detailed information about New Jersey's Southern Pine Beetle outbreak, including information about state-administered financial assistance for SPB suppression, can be found at: www.southernpinebeetle.nj.gov

Prevention of SPB through Responsible Forest Management

Many land managers believe that the most effective method of managing SPB is by preventing outbreaks by maintaining healthy forests. Active management is often the primary tool for making forests less susceptible to an SPB outbreak. A forester can help a landowner maintain or improve forest health by evaluating the existing conditions and developing a written plan of forest management strategies.

Forest management assistance is available to landowners through their local Natural Resources Conservation Service (NRCS) service center. Landowners with more than 10 acres of forest land may be eligible for cost-share assistance to develop a Forest Stewardship Plan. A Forest Stewardship Plan is a document that takes into consideration a landowner's goals to develop a plan for ecologically sound management on the property. Forest Stewardship Plans cost-shared by NRCS must be developed by an NRCS-approved Technical Service Provider (TSP). A landowner with a Forest Stewardship Plan may be eligible for the Environmental Quality Incentives Program (EQIP), which can help cost-share forest management practices that are prescribed in their plan. This includes Forest Stand Improvement (FSI) activities that will help reduce the chance of a SPB outbreak. For information contact your local NRCS office.

NRCS office locations and more detailed information about NRCS assistance and the EQIP program can be found at:
<http://www.nj.nrcs.usda.gov/>

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