

**West Windsor Township
Community Forestry Management Plan 2026-2030
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Appendix

Document 1. West Windsor Department of Public Works
Tree Equipment Inventory

The following is a listing of the equipment utilized by the West Windsor Township Department of Public Works to undertake tree work conducted by staff. This is current as of **August, 2026.**

<u>Qty.</u>	<u>Year of Mfg.</u>	<u>Description</u>
1	2021	Freightliner/Altec Aerial Lift – Model LR7-E70
1	2015	M118R Mobark Chipper
1	2010	Bobcat T770 w/ grapple
1	2019	Freightliner 108SC Dump Truck
1	2017	8-Ton Cam Tilt Trailer
3		Stihl MS391 20" Chainsaws
1		Stihl MS 362 20" Chainsaw
1		Stihl MS451 20" Chainsaw
1		Stihl MS441C 32" Chainsaw
1		Stihl MS362 20" Chainsaw
1		Stihl MS193T 14" Chainsaw
2		Stihl HT130 12" pole saws
2		Stihl HT131 12" pole saws
2		Stihl HT 133 12" pole saws
1		Stihl HT 130 6' fixed 12" pole saw
1		Hydraulic Operated 13" pole saw

END.

**West Windsor Township
Community Forestry Management Plan 2026-2030
Appendix**

**Document 2. West Windsor Shade Tree Commission and
Chapter 170 Trees**

§ 4-61.1. Shade Tree Commission. [Added 11-29-1999 by Ord. No. 99-34; amended 4-7-2008 by Ord. No. 2008-02; 6-1-2010 by Ord. No. 2010-11; 11-27-2023 by Ord. No. 2023-20; 2-24-2026 by Ord. No. 2026-10]

- A. Preamble. The Township has acquired and will continue to acquire various public lands, and the Township right-of-way has increased and will continue to increase with the future development of the Township. It is in the best interests of the Township to create a Shade Tree Commission in order to encourage proper arboriculture activities, to discourage improper arboriculture activities, to develop and periodically update a Community Forestry Management Plan for the location, planting and long-term care of trees and shrubbery on public land and in public rights-of-way and to set policy for the maintenance of the trees and shrubbery in such areas.
- B. Creation; appointment; terms of office; vacancies; compensation.
- (1) There is hereby created a Shade Tree Commission, which shall be known as the "Shade Tree Commission of West Windsor Township." The Commission shall consist of five members appointed by the Mayor with the advice and consent of Township Council. The members shall be residents of the Township and shall serve without compensation. With the advice and consent of Township Council, the Mayor may appoint advisors to the Commission who have knowledge and interest in trees. Advisors shall serve without compensation. Neither advisors nor Council liaisons have voting privileges in the Commission.
 - (2) The members shall serve for terms of five years each. However, the initial appointments shall be staggered for respective periods of one, two, three, four and five years. The initial term of appointment shall be designated at the time of appointment. Terms shall expire on January 14 of the year of expiration. Advisors serve for one-year terms that expire on January 14 of each year.
 - (3) All appointments to fill vacancies shall be for the unexpired term.
 - (4) A Chairperson shall be elected annually by the Commission. The Chairperson shall serve without compensation.
 - (5) A Vice Chairperson shall be elected annually by the Commission. The Vice Chairperson shall serve without compensation.
 - (6) A Secretary shall be elected annually by the Commission. The Secretary shall serve without compensation.
- C. Powers. The Commission shall have, but not be limited to, the following powers:
- (1) Establish Township policy for the regulation, planting and care of shade and ornamental trees and shrubbery now located or which may hereafter be planted in any public right-of-way, park and all other property owned by the Township, except state and county highways unless the Department of Transportation or County of Mercer shall consent thereto. Tree and shrubbery care shall include trimming; removing any tree, or part thereof, dangerous to public safety; treating or removing any tree which is believed to harbor a disease or insects readily communicable to neighboring healthy trees; spraying;

fertilizing; and other care and protection.

- (2) Advise the Township concerning the appropriate use of the ground surrounding shade and ornamental trees and shrubbery insofar as may be necessary for their proper growth, care and protection.
 - (3) Encourage proper arboricultural practices and discourage improper arboricultural practices on public, commercial and residential properties throughout the Township.
 - (4) (Reserved)
 - (5) Administer arbor day activities within the Township.
 - (6) Develop, adopt and adhere to a Community Forestry Management Plan, consistent with State requirements, that includes, among other items, tree inventories, tree planting plans, tree maintenance programs and tree remediation plans.
 - (7) Recommend to the Planning Board plans and programs for inclusion in the Municipal Master Plan for the development and use of public land and rights-of-way.
- D. Municipal arborist. The Shade Tree Commission may use the services of a Township employee as an arborist who shall consult with the Commission on arboriculture tasks.
- (1) Qualifications. The arborist shall be thoroughly knowledgeable and experienced in tree species, tree diseases, insects affecting trees, tree damage, tree maintenance, soil conditions affecting trees and tree transplanting and shall be a certified tree expert (CTE).
 - (2) Duties. The duties of the arborist may include:
 - (a) To inspect or supervise planting, maintenance and treatment work authorized by the Shade Tree Commission.
 - (b) To assist the Township Engineer with inspection of plantings required with site development by the Planning Board, Zoning Board, Township Engineer or Township Council.
 - (c) To advise or assist the Commission in evaluation of plans, drawings or specifications involving existing trees or proposed tree planting in or affecting the Township.
 - (d) To perform other tasks in the field of arboriculture related to the Township.
 - (e) To oversee administration of the West Windsor Trees Ordinance (Chapter 170 of the West Windsor Code) and this section.
 - (f) Attend all Shade Tree Commission Meetings and respond to members' suggestions and questions in a timely manner.
- E. Annual appropriation; estimate; amount. During the month of September in each year, the Shade Tree Commission shall forward to the Director of Community Development the estimated sum necessary for the proper conduct of its work during the ensuing calendar year.

The Township Council shall annually appropriate such sum as it may deem necessary for said purposes.

- (1) All funds in the annual appropriations shall be spent only after approval by the Commission members. The Township shall provide, on a quarterly basis, the total amount of funds appropriated, any approved expenditures and the running balance.
- F. In the first quarter of every year, the Commission Chairperson or their designee shall submit a report, either in writing or in person, to the Mayor and Council of the work completed by the Shade Tree Commission in the previous year.
- G. Removal of Commission member. The Mayor may remove any member of the Commission for cause on written charges served upon the member and after a hearing thereon before the Commission at which the member shall be entitled to be heard in person or by counsel.

Chapter 170

TREES

§ 170-1.	Trees on public and private property.	§ 170-6.	Reporting.
§ 170-2.	Definitions.	§ 170-7.	Violations and penalties.
§ 170-3.	Regulated activities.	§ 170-8.	Removal of dangerous trees.
§ 170-4.	Exemptions.	§ 170-9.	Severability.
§ 170-5.	Enforcement; appeals.	§ 170-10.	When effective.

[HISTORY: Adopted by the now Township Council of the Township of West Windsor 4-29-2024 by Ord. No. 2024-08.¹ Amendments noted where applicable.]

§ 170-1. Trees on public and private property.

Trees are a natural resource that provide environmental, aesthetic, health, and economic benefits to the municipality and its inhabitants. The proper care, management, and preservation of the community tree resource, both individual trees and woodlands, including the removal of dead, damaged, infested, or diseased trees; and the preservation of significant trees and woodland, on both public and private property, can have a significant positive impact on individual properties, neighborhoods, and the municipality as a whole. The adoption of this chapter is consistent with the Township's state-approved Community Forestry Management Plan, and is appropriate to protect the environment, while promoting the public's health, safety, and welfare, including reduced soil erosion, reduction of air and water pollutants and increased infiltration of stormwater.

§ 170-2. Definitions.

For this chapter, the following terms, phrases, words, and their derivations shall have the meanings stated herein unless their use in the text of this chapter clearly demonstrates a different meaning. When consistent with the context, words used in the present tense include the future, words used in the plural number include the singular number, and words used in the singular number include the plural number. The use of the word "shall" means the requirement is always mandatory and not merely directory.

APPLICANT — Any "person," as defined herein, who applies for approval to undertake the removal of a tree or trees regulated under this chapter.

COMMERCIAL FARM — A farm management unit of no less than five acres producing agricultural or horticultural products worth \$2,500 or more annually and satisfying the eligibility criteria for differential property taxation pursuant to the Farmland Assessment Act of 1964, N.J.S.A. 54:4-23.1 et seq.; or a farm management unit of less than five acres, producing agricultural or horticultural products worth \$50,000 or more annually and otherwise satisfying the eligibility criteria for differential property taxation pursuant to the Farmland Assessment Act of 1964, N.J.S.A. 54:4-23.1 et seq. A farm management unit is a parcel or parcels of land, whether contiguous or noncontiguous, together with agricultural or horticultural buildings, structures and facilities, producing agricultural or horticultural products, and operated as a single

1. Editor's Note: This ordinance also deleted former Ch. 170, Trees, adopted 12-27-1979 by Ord. No. 79-39 as Chapter XVI of the Revised General Ordinances, as amended. Ordinance No. 2024-08 has an effective date of 10-27-2024.

enterprise.

CRITICAL ROOT RADIUS (CRR) — The zone around the base of a tree, measured from the outer trunk bark. It is where the majority of the tree root system typically grows. This zone is calculated by multiplying the diameter, in inches, at breast height (DBH) of the tree by 1.5 feet/inch, the product is in feet. For example: a tree with a six-inch DBH would have a CRR = 6 inches x 1.5 feet/inch = 9 feet.

DANGEROUS TREE — A tree or limbs thereof that meet one or more of the criteria below, as determined by a licensed tree expert reported in writing, based upon accepted arboricultural standards. Trees or limbs that do not meet any of the criteria below and are proposed to be removed solely for aesthetic, tree or landscape growth, or any type of construction purpose do not meet the definition of a dangerous trees.

- A. Has an infectious disease or insect infestation that is likely to lead to the demise of the tree and/or nearby trees;
- B. Is dead, dying, severely declining, and/or severely damaged, including severely storm damaged and tree(s) felled by natural causes;
- C. Obstructs the operation or operational view of traffic signals and signs, streetlights, fire hydrants, sanitary sewer pipes, potable water pipes, or the safe passage of pedestrians or vehicles, where pruning attempts or protective measures have not been effective, or will cause demise of the tree;
- D. Is causing obvious damage to public or private structures and/or infrastructure, that cannot be pragmatically mitigated;
- E. Is otherwise determined, by a New Jersey Licensed Tree Expert, Certified Arborist, or an appropriate municipal representative, to be a threat to public health, safety, and/or welfare, which cannot be otherwise mitigated by an appropriate and pragmatic protection.

DIAMETER AT BREAST HEIGHT (DBH) — The diameter in inches of the trunk of a mature tree measured at a point 4 1/2 feet above ground level, along a line parallel to the trunk, from the uphill side of the tree. A mature tree is a tree that measures six inches, or greater, at diameter breast height (DBH). For trees where the main trunk divides (multi-stem) below the four-and-a-half-foot height, but at least six inches above ground level, the DBH shall be measured at the highest point below any division, or shall be the average of the stems measured at breast height, whichever is less. Multi-stem trees that split or fork below six inches above grade shall be treated as multiple individual trees.

LICENSED TREE CARE OPERATOR (LTCO) — A person who has been examined and proven to be competent in the science and skills to perform tree care operator services which means and includes tree pruning, repairing, brush cutting or removal, tree removal, and stump grinding or removal. The State of New Jersey license is a document that insures that the named individual has the expertise required to be presented to the public as a Licensed Tree Care Operator as established by N.J.S.A. 45:15C-11 et seq.

LICENSED TREE EXPERT (LTE) — A person who has been examined and proven competent in the science and art of diagnosing, treating and preventing tree injuries. The State of New Jersey license is a document that insures that the named individual has the expertise required to be presented to the public as a Licensed Tree Expert as established by N.J.S.A. 45:15C-11 et seq. Licensed Tree Experts can perform tree expert services, which means and includes: tree pruning, repairing, brush cutting or removal, tree removal, stump grinding or removal, tree establishment, fertilization, cabling and bracing, lightning protection, consulting, diagnosis, and treatment of tree problems or diseases, tree management during site planning and development, tree assessment and risk management, and lawful application of pesticides or any other form of tree maintenance.

MULCH — The application of a ground treatment, e.g., shredded bark, wood chips, within the critical root

radius of a tree. Over-mulch is the condition where mulch and/or soil is applied higher than four inches in height above soil surface within the critical root radius, or against the tree trunk or stems. Maintain mulch three to five inches away from the stems of young plants or shrubs, and eight to 12 inches away from mature tree trunks. Improper mulch is where a substance which is harmful to the tree is applied within the critical root radius of a tree.

PERMITTEE — A "person" who has received a tree removal permit from the Township.

PERSON — Any individual, resident, property owner, corporation, company, partnership, firm, property association, contractor, or subcontractor. Person shall not include a government agency or public utility, or the staff of these entities performing authorized work or actions on trees on property owned or operated by the agency or utility.

PLANTING STRIP or TREE LAWN — The part of a public or private street right-of-way or easement between the right-of-way, property, or easement line(s), and the cartway or portion of the street designed for vehicular traffic, exclusive of any sidewalk and driveways.

PUBLIC PROPERTY — Real property owned by federal, state, county or local governments or their agencies or departments.

REPLACEMENT TREE — A tree of a species, cultivar, size and form appropriate for the location it will be planted and shall adhere to the American Standard of Nursey Stock (American National Standards Institute: ANSI Z60.1 most recent edition), published by the American Horticulture Industry Association, d/b/a American Hort, Columbus OH.

RESIDENT — An individual who resides on the residential property or a contractor hired by the property owner or individual who resides on the residential property, where a tree, subject to this chapter, is proposed for removal or is removed.

STREET TREE — A tree located in the planting strip and/or in the public or private right-of-way or easement adjacent to the portion of the street designed for vehicular traffic. This also includes trees planted in planting strips within the street cartway, i.e., islands, medians, and pedestrian refuges. Trees adjacent to public or private driveways and parking lots, and outside the planting strip or tree lawn, are not street trees.

TREE — A woody perennial plant (deciduous or coniferous), typically but not exclusively, having a single stem or trunk growing to a considerable height and bearing lateral branches at some distance from the ground. Multi-stem trees that split or fork below six inches above grade shall be treated as multiple individual trees; otherwise, they shall be considered one tree.

TREE CALIPER — The diameter in inches of the trunk of a young tree, measured six inches above the ground level for field-grown trees; and measured from the soil line for container grown trees, which soil line should be at or near the top of the root flare, and six inches above the root flare for bare root plants, up to and including the four-inch caliper size interval (i.e., from four inches up to, but not including, 4 1/2 inches). If the caliper measured at six inches is 4 1/2 inches or more, then the caliper shall be measured at 12 inches above the ground level, soil line, or root flare, as appropriate. Multi-stem tree caliper shall be calculated as either 1/2 of the caliper of the three largest trunks, or the average caliper of all trunks.

TREE REMOVAL — To either purposefully kill or to cause irreparable damage that leads to the decline and/or death of a tree. Tree removal is typically the process of safely and methodically cutting down and removing a tree from its location. This can also include, but is not limited to, one or more of the following: digging, spading, excessive pruning, application of substances that are toxic to the tree, over-mulching or improper mulching, and improper grading, and/or soil compaction within the critical root radius (CRR) that leads to the decline and/or death of a tree. Tree removal does not include responsible pruning and maintenance of a tree, in accordance with industry accepted standards, the responsible application of treatments, and removal of exotic species intended to manage their spread pursuant to the "Prohibited

Replacement Tree List," adopted by the West Windsor Township Shade Tree Commission, or findings and official publication of a State of New Jersey agency. The Prohibited Replacement Tree List shall be available from the Township and shall be posted on the Township internet web page.

TREE REMOVAL PERMIT — Approval, issued by West Windsor Township, to conduct tree removal or other regulated activities upon a tree or trees. Tree removal permit applications, information, forms, and standard details shall be available from the Township and shall be posted on the Township internet web page.

§ 170-3. Regulated activities.

It shall be a violation of this chapter for any person to conduct purposeful tree removal, destruction, damage, injury, excavation, grinding, girdling, over-mulch, improper mulch, soil compaction, fill application, or construct structures within the critical root radius of any tree in West Windsor, not exempt from these regulations as described in § 170-4, without first obtaining a tree removal permit as provided herein.

A. Tree removal permit required.

- (1) Any person planning actions that include or may result in tree removal of a tree with a DBH of six inches or greater, or any size street tree, shall submit a tree removal permit application, and the prescribed initial application fee, to the Township on a complete form to be provided for this purpose.
- (2) West Windsor shall review and approve or deny the application within 20 business days (days that Township offices are officially open) of the date of receipt. If the application is determined to be incomplete, then the review period shall reset at 20 business days from the date of re-submission. If not acted upon by the Township within 20 business days, the application will be considered approved. No regulated nonemergency tree removal shall take place without an approved tree removal permit for the tree(s) involved.
- (3) If the applicant is the owner or operator of a commercial farm, as defined in the New Jersey Department of Agriculture regulations, then the Township may review the application with the Agricultural Advisory Committee, or appropriate staff liaison to the Agricultural Advisory Committee, to determine if the application is being made to benefit an anticipated land development proposal or application, in which case the tree removal permit application shall be denied and the applicant shall be advised to submit a land use application to the Township.
- (4) Activities related to a land development project that requires a zoning permit, Planning Board and/or Zoning Board of Adjustment approval shall provide an inventory of existing tree resources and a tally of proposed tree removal; and replacement; or replanting; or planting; for review by the Township with the land development application. The land development application shall also include a calculation of anticipated applicable additional application fees, as prescribed herein regarding tree removal. Issuance of the approved zoning permit to construct the approved land development work shall serve as the approved tree removal permit for tree removal activities, as detailed in the land development application, and shall include the additional application fees, calculated pursuant to § 170-3B and C. Regulated tree removal shall not occur prior to the payment of applicable fees, including fees prescribed herein regarding tree removal, and the issuance of a zoning permit, or a separate tree removal permit.
- (5) If § 170-3A(3) and/or (4) above is applicable to the tree removal permit application, the review periods detailed in § 170-3A(2) do not apply.

- (6) Tree care and removal are further regulated by the New Jersey Tree Experts and Tree Care Operators Licensing Act (N.J.S.A. 45:15C-11 et seq.). Businesses and individuals that provide tree care services are legally required to be appropriately insured, registered with the state, and must have individuals on staff that are licensed and appropriately trained to perform such services. Where tree removal permit application is filed by a property owner or resident, it must include information for the LTCE/LTCO involved with the removal.
- B. Tree replacement quantity requirements. Any person who removes one or more street trees of 2.5 inches or greater at DBH, or who removes one or more trees six inches or greater DBH, unless exempt under § 170-4, shall be subject to the tree replacement requirements in Table 1 below.

Table 1 Tree Replacement Requirements		
Category	Size of Tree to be Removed, (inches DBH)	Replacement Trees to be Planted (inches caliper)
1	6 to 12.99 DBH and street tree 2.5 to 12.99 DBH	Plant one tree with a minimum tree caliper of 1.5 for each tree removed
2	13 to 22.99 DBH	Plant two trees with minimum tree caliper of 1.5 for each tree removed
3	23 to 32.99 DBH	Plant three trees with minimum tree caliper 1.5 for each tree removed
4	33 or greater DBH	Plant four trees with minimum tree caliper of 1.5 for each tree removed

NOTE: A coniferous tree measuring five feet in height shall be considered equal to a deciduous tree measuring 1.5 caliper for replacement requirement.

- C. Tree replacement planting requirements.
- (1) The species and type of replacement trees shall not be of a species, type, cultivar, or selection, known to be invasive, pursuant to the "Prohibited Replacement Tree List," adopted by the West Windsor Township Shade Tree Commission, or the findings and official publication of a State of New Jersey agency. The Prohibited Replacement Tree List shall be available from the Township and shall be posted on the Township internet web page.
 - (2) Replacement trees shall be planted on the same property as the trees removed or at another location agreed upon by the Township, and shall be subject to post-planting observation by the Township to confirm compliance with this chapter.
 - (3) Replacement trees shall be planted, during an appropriate season and weather conditions, within 12 months of the date of tree removal of the original tree(s) or at an alternative date agreed upon by the Township.
 - (4) Replacement trees planted on private property shall be maintained and monitored by the permittee for a period of two years from planting date. Any tree that does not survive for that two-year period, or that upon observation by the Township has been determined to have been planted improperly, shall be replaced consistent with the replacement requirements herein.

- (5) Replacement trees shall be planted in accordance with the standard Township tree planting detail. Replacement trees shall not be planted in temporary containers and shall be planted in soil in a manner that will support tree health and survival. The standard tree planting detail shall be available from the Township and shall be posted on the Township internet web page.
- (6) Replacement trees shall not be planted in planting strips or tree lawns that measure less than 16 square feet in surface area, or less than three feet six inches in any dimension.
- (7) Replacement trees planted within six feet of a paved sidewalk, path, or plaza, shall include the installation of a tree root barrier at least 12 inches in depth for a length of six feet, centered upon the trunk of the tree, along the edge of the paved walk, path or plaza.
- (8) If tree replacement on the permittee's property is not feasible, then the fees listed below in Table 2 for each tree category shall be paid to the Township in the form of a tree removal permit additional application fee, to be deposited to a Township account or fund exclusively dedicated for the purposes of implementing community forestry arboricultural practices, including tree planting. When the Township plants trees with fees collected under this section, every effort will be made by the Township to plant the replacement trees at locations where the trees will result in environmental protection or enhancement, reduce soil erosion or pollutant runoff, and improve stormwater transpiration and infiltration.

Table 2		
Tree Removal Permit Additional Application Fee		
Category	Size of Tree to be Removed (inches DBH)	Additional Application Fee, Cumulative Per Tree
1	6 to 12.99 DBH and street tree 2.5 to 12.99 DBH	\$300
2	13 to 22.99 DBH	\$1,000
3	23 to 32.99 DBH	\$1,500
4	33 or greater DBH	\$2,000

- D. Conservation areas and Township property. No person shall purposefully cause to occur any disturbance to land or vegetation, including the harming, injuring, girdling, removing and destroying of living trees, on any Township property, or right-of-way, or in any area on private property designated for conservation by an approval of a Township land use board, whether such area is established by specific delineation or by application of principles and processes set forth in the land use board approval and application documents, and in any other area for which conservation restrictions are in place by virtue of easements, deed restrictions, or other legal instruments. Conservation areas created by land use board approvals may be established by Greenbelt or other easement or deed restriction, but shall also be subject to this chapter and potential penalties pursuant to § 200-254 of the Township Code if no deed restrictions or easements are recorded, whether or not the intent of the approval was to have such instruments recorded.

§ 170-4. Exemptions.

All persons shall comply with the tree replacement and permit standards described within this chapter, except in the cases detailed below. Justification shall be provided to the Township by all persons claiming an exemption, prior to undertaking any regulated activity.

- A. Tree removal within a residential property with one single-family or two-family dwelling, that involves the removal of up to three trees that fall into categories 1, 2, or 3 of the Tree Replacement Requirements Table 1 on an individual property, or per acre of an individual property exceeding one acre in size, with any partial acreage being prorated accordingly, within a five-year period. The number of trees removed is a rolling count across any five-year period. For example, if three trees from category 1 are removed in July 2024, the "count" resets to zero in July 2029. However, if one tree from category 1 is removed in July 2024 and another in July of 2026, the first tree will come off the count in July 2029 and the second in July 2031. A tree removal permit application and fee shall be required for these trees in order to justify and record the exemption.
- B. Dangerous trees shall not be counted in the determination of exemptions under § 170-4A and may be removed without incurring any replacement tree planting or tree removal permit application fee requirement, pursuant to § 170-3B and C, respectively. Any tree(s) with a base located within 25 feet of the applicant's residential structure (home and garage) on residential property with one single-family or two-family dwelling will be considered a dangerous tree(s) for purposes of this chapter. A tree removal permit application must be submitted to the Township to justify and record the removal of one or more dangerous trees. There shall be an exception from filing a tree removal permit application for dangerous trees located on residential property with one single-family or two-family dwelling, determined as dangerous by a licensed tree expert in a written report, even in the cases of storm-damaged trees and trees felled by natural causes. The written report must be retained at the property for a minimum of five years, in case verification is necessary to be provided.
- C. Educational institution tree farms and commercial tree farms in active operation, including nurseries, fruit orchards, and garden centers.
- D. Properties used for the practice of silviculture under a state-approved forest stewardship or woodland management plan that is active and on file with the Township.
- E. Any tree removal as part of a Township or state decommissioning plan. This exemption only includes trees planted as part of the construction and predetermined to be removed in the decommissioning plan.
- F. Any tree removal pursuant to a New Jersey Department of Environmental Protection (NJDEP) or U.S. Environmental Protection Agency (EPA) approved environmental cleanup, or NJDEP approved habitat enhancement plan.
- G. State-approved game management practices, as recommended by NJDEP.
- H. Tree removal, maintenance or land management by the Township or its authorized contractors or subcontractors.

§ 170-5. Enforcement; appeals.

The Township shall designate staff to enforce Chapter 170. The designated staff person(s) may confer with the Township Administration and Shade Tree Commission regarding enforcement of this Chapter 170. Applicants are hereby granted the right to appeal the aforesaid determination by the enforcement staff person to the Business Administrator, in which event, the applicant must submit a written notice of appeal to the Township within 10 days after receipt of the enforcement staff person's notification to the applicant. Thereupon, the Business Administrator will, upon notice to the applicant, proceed to hear the matter within 30 days after receipt of the appeal by the Township. The decision of the Business Administrator may affirm, reverse or modify the aforesaid determination and shall constitute the final administrative determination of the application.

§ 170-6. Reporting.

Township staff shall report to the Township Administration, Township Council and the Shade Tree Commission on an annual basis all application fees collected, expenditures of such fees and the locations of replacement trees on public property, related to fees collected under this chapter.

§ 170-7. Violations and penalties.

Any person who is found to be in violation of the provisions of this chapter shall, upon conviction, be liable to the penalty established in Township Code Chapter 1, General Provisions, Article II, Penalty, § 1-3, in addition to the applicable tree removal permit application fee. The Township may, based upon individual circumstances, require the planting of additional trees in accordance with the provisions of this chapter in lieu of a fine.

§ 170-8. Removal of dangerous trees.

If a tree becomes dangerous, or develops dangerous limbs, as established by the standard of this chapter, than the owner of the property on which the tree stands shall implement appropriate protections and/or barriers as soon as possible. The property owner shall also promptly act to cause safe removal of the tree or the dangerous part thereof on receipt of written notice to that effect from the Township Business Administrator or duly authorized personnel.

- A. Standard established; clear sight distance for vision at intersection. The owner or tenant of any lands lying within the Township shall keep all brush, hedges and other plant life growing within 10 feet of any street and within 25 feet of the intersection of two streets cut to a height of not more than 2 1/2 feet, as deemed necessary and expedient for the preservation of public safety after a determination by the Chief of Police or any subordinates acting under the Chief's direction.
- B. Removal by Township. If a property owner fails to remove the tree or portion thereof within 30 days after receipt of written notice to do so, the work may be performed by the Township under the advisement of the Township Business Administrator, who shall also certify the cost to the Mayor and Township Council.
- C. Costs charged against land; lien established. Upon determining the certified costs, the Mayor or designee shall examine them and shall cause the reasonable cost to be charged against the lands. The amount so charged shall become a lien upon the lands and shall be added to and become part of the taxes next to be assessed and levied on the lands, the same to bear interest at the same rate as other taxes and be collected and enforced by the same officer and in the same manner as taxes.

§ 170-9. Severability.

Each section, subsection, sentence, clause, and phrase of this chapter is declared an independent section, subsection, sentence, clause, and phrase, and finding or holding of any such portion of this chapter to be unconstitutional, void, or ineffective for any cause or reason shall not affect any other portion of this chapter.

§ 170-10. When effective.²

This chapter shall take effect 180 days after action or inaction by the Mayor as approved by law, or an override of a mayoral vote by the Council, whichever is applicable; and upon publication according to law.

2. Editor's Note: Ord. No. 2024-08 is effective 10-27-2024.

**West Windsor Township
Community Forestry Management Plan 2026-2030
Appendix**

Document 3. West Windsor Twp. Tree Canopy Goal



WEST WINDSOR TOWNSHIP

DEPARTMENT OF COMMUNITY DEVELOPMENT DIVISION OF ENGINEERING Shade Tree Commission

West Windsor Township Community Forestry Canopy Goal

West Windsor Township has a long history as a rural, agricultural community. Thus, the majority of the lands in the community were clear cut to facilitate cropland and livestock farming since colonial times. A review of historic aerial photography confirms that this clear cut condition was maintained through the early to middle 20th century. Through the 1960's, 70' and 80' and now into the early 21st. century the community has transitioned into a predominately suburban community with some urban corridors along Route 1 as well as the Northeast Corridor train line, including the Princeton Junction Train Station. Based upon this change in land use the forest canopy cover of the community has actually expanded.

Although, suburban and urban development frequently results in the loss of canopy cover the conversion from farm fields to suburban neighborhoods or urban office parks actually results in an increased presence of trees and thus canopy cover. In addition, West Windsor Township adopted a "Greenbelt Plan" in the 1970's. The Greenbelt Plan designated areas of environmental sensitivity (wetlands, floodplain etc) to be preserved to create sustainable habitat for native flora and fauna. The Greenbelt would consist of seven "belts" or interconnected "green" corridors along both sides of the streams the border and cross the Township. The minimum corridor width would be established at 400', which was determined to be the minimum dimension for a forest to regenerate and sustain native species. Through the middle of the community an "upland bridge" was designated to connect two of the main "belts" or stream corridors. These lands were previously farmed but with clustered land development a 400' plus width upland Greenbelt corridor was set aside in the 1980's and 90' and these areas are now forested through managed natural succession. The West Windsor Township Greenbelt has been very successful. In the 1990's the Greenbelt designation was expanded to include all upland woodland that were contiguous to the main belts. Thus, the area of woodland in the Township grew as lowland and upland farm fields were converted to Greenbelt in association with planned land development.

The Greenbelt has been established in the Township Master Plan as one of the categories in the land use map, and has guided land development and promoted cluster development throughout the community to set aside the majority of the Greenbelt lands. It is presently estimated that the Township Greenbelt encompasses 3,000 acres, including 1,600 acres that are protected via deed or conservation restrictions. West Windsor Township in whole encompasses a total of the 16,828 acres. The vast majority of the Greenbelt lands that are not presently protected are not open water or crop farmland. Thus the remaining unprotected Greenbelt lands are predominately environmentally constrained forest or successional forest at present.

The Township Master Plan offers the following land use data. Approximately 3,000 acres of West Windsor Township are presently preserved or environmentally constrained Greenbelt woodland. An additional 3,000 acres of the Township is designated as park land (including Mercer County Park). Deducting the farmland and open water acreage from the remaining Township lands establishes that 8,000 acres of suburban and urban developed lands are present. This analysis provides a basis to estimate the current canopy cover of West Windsor Township. Applying an estimated canopy cover of 25% for suburban and urban lands derives 2,000 acres of canopy cover in developed lands and applying 40% canopy cover for park lands derives that 1,200 acres of park land has canopy cover. The combined Greenbelt and developed canopy cover figures establish an estimated canopy cover of 6,200 acres or 37 percent of the Township.

<u>Designation</u>	<u>Total Area</u>	<u>Woodland</u>
Greenbelt and Environmentally Constrained Lands	3,000 acres	3,000 acres
Park and Recreation Lands (40 % canopy cover factor)	3,000 acres	1,200 acres
Developed Suburban and Urban Lands (25% canopy cover factor)	8,000 acres	2,000 acres
Vacant or Farm Lands	2,800 acres	0 acres
<u>Total Current Canopy Cover Estimate</u>		<u>(37 %) 6,200 acres</u>

As West Windsor Township continues to develop toward a relative build out it is anticipated that the community canopy will continue to grow modestly. A few large and small parcels are still likely to be developed over the next few decades but since a majority of these lands are still held or operated in active farmland use, with environmentally constrained lands that are and will remain wooded, it is anticipated that with land development the canopy cover will continue to expand.

It is estimated that 2,800 additional acres of West Windsor Township farm or vacant lands could be developed as the community is built out. The majority of these lands are zoned for dense development in accordance with smart growth planning goals. Applying a goal of 25% canopy cover to these remaining lands establishes a build out canopy goal of 6,900 acres or 41 percent of the community.

<u>Designation</u>	<u>Total Area</u>	<u>Woodland</u>
Existing Canopy Cover Estimate		6,200 acres
Vacant or Farm Lands that could be developed	2,800 acres	700 acres
<u>Total Township Canopy Goal with Community Build Out</u>		<u>(41%) 6,900 acres</u>

The Township Shade Tree Commission recommends that West Windsor Township continue to emphasize the set aside of Township Greenbelt lands and require land development to establish a minimum of 25% be established as open, undeveloped or landscape area with each land development application to achieve the above stated Community Forest Canopy Goal.

Adopted August 25, 2010

Aye - 4 *Nay* - 0 *Absent* - 1

West Windsor Township Shade Tree Commission

The West Windsor Township Shade Tree Commission adopted a “Tree Canopy Goal” at its August 25, 2010 meeting, and updated the statistics noted in the goal in 2018. The community, under direction by the Commission, has continued to manage land use and forestry actions to achieve the build out objectives listed in the Tree Canopy Goal. These tasks include continued acquisition of Greenbelt lands as well as continued application of Township code standards regarding the landscape development of private properties to achieve a desirable tree canopy cover.

**West Windsor Township
Community Forestry Management Plan 2026-2030
Appendix**

Document 4. Bacterial Leaf Scorch - Resident Advisory



WEST WINDSOR TOWNSHIP

DEPARTMENT OF COMMUNITY DEVELOPMENT Shade Tree Commission

Bacterial Leaf Scorch

Bacterial Leaf Scorch (BLS), caused by the bacterium *Xylella fastidiosa*, clog the xylem, the cells that transport water between the roots and the leaves of a tree and causes the leaves to scorch, which leads to branch dieback. The overall decline of an affected tree can last for several years, but the tree will eventually die.

Detection

BLS symptoms in New Jersey oaks are only visible for a few weeks in mid-summer and early fall. Although many of the symptomatic leaves remain on the tree until normal autumn defoliation, some will fall to the ground early, which indicates BLS. However, BLS symptoms can be similar to those caused by drought stress and normal autumn changes.

Leaf Symptoms

In leaves affected by BLS, the outer edges will turn brown, with the discoloration moving toward the center of the leaf in an irregular pattern, as shown on the oak leaf here. Perhaps the most distinguishing visible characteristic of BLS is that the affected leaf will present a "water-soaked" region, sometimes a red band, and sometimes a yellow halo at the transitional area between the browning portion and the healthy green portion of the leaf.

Tree Effects

BLS may affect only one area of the tree before spreading, or may exhibit symptoms throughout the crown. A tree can harbor a BLS infection and refoliate for several years, but eventually the stress of the disease and the resulting branch dieback will make the tree more susceptible to other pathogens and insects which will speed the tree's decline.

Transmission

BLS is believed to be spread by xylem feeding insects, such as leafhoppers, treehoppers and spittle bugs. These insects pick up the BLS bacteria by feeding on the xylem fluid of an infected plant and then inject the bacteria into the healthy plant leaves while they feed.

Management

Currently, there is no known cure for BLS. Injecting diseased trees with antibiotics can suppress symptom development, but cannot eliminate the bacteria. The injections are expensive, must be repeated yearly, put additional stress on affected trees, and result in only marginal success. The New Jersey Forest Service recommends that you water affected trees and prune off affected branches well below the symptomatic leaves. Monitor your trees and if necessary, seek advice from a New Jersey Certified Tree Expert or Approved Forester for pruning and removal needs.



**West Windsor Township
Community Forestry Management Plan 2026-2030
Appendix**

Document 5. Gouty Oak Gall – Resident Advisory



WEST WINDSOR TOWNSHIP

DEPARTMENT OF COMMUNITY DEVELOPMENT Shade Tree Commission

Gouty Oak Gall



Galls Weigh Down Branches

A Gouty Oak Gall is an irregular plant growth that can grow up to two inches in diameter. Although the galls are unsightly, they usually don't dramatically affect the host tree health.

Affected Trees

- Scarlet oak
- Red oak
- Pin oak
- Black oak

The Problem

Tiny wasps, called Gouty Oak Gall wasps, cause the formation of galls on twigs and stems of trees as a part of their lifecycle. In the spring, the female wasp lays its eggs within expanding plant tissue. The tree reacts to the chemicals from the wasp and forms the gall around the eggs.

The gall grows only briefly, and then stops to confine the larvae within. The gall is solid and woody with multiple larval chambers in the center. The inner gall tissue nourishes the wasp larvae. The wasps will develop within the gall until they emerge two years or later.

Tree Effects

When the galls heavily infest a tree, their weight may cause the branches to droop and possibly die. A heavily infested tree is more susceptible to storm damage.



Gouty Oak Gall

Management

Once a gall begins to develop, it is almost impossible to stop or reverse. Currently, there is little or no effective measure of control. Pesticides are not effective because the insects are confined within the galls. Affected branches can be manually pruned off and destroyed. Although the galls are unattractive, they will probably not kill the tree and usually natural controls will reduce the population in succeeding years.



Gall Inner Chambers

Source: N.J. D.E.P., Division of Parks and Forestry, Forestry Service - http://www.nj.gov/dep/parksandforests/forest/community/Gouty_Oak_Gall.htm

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**West Windsor Township
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Document 6. Hemlock Woolly Adelgid - Resident Advisory



WEST WINDSOR TOWNSHIP

DEPARTMENT OF COMMUNITY DEVELOPMENT Shade Tree Commission

Hemlock Woolly Adelgid

The Hemlock Woolly Adelgid, a tiny aphid-like insect from Asia, was first discovered in the Pacific Northwest in the 1920's. By the early 1950's it was discovered in Virginia and has since been found as far north as Rhode Island. Its preferred host tree is hemlock, but it may also attack spruce.

Tree Effects

The Hemlock Woolly Adelgid nymphs and adults feed on sap from the tree's twigs. The tree drops its needles and, if left uncontrolled, the adelgid can kill a tree within a year.

Monitoring

A tree infested with Hemlock Woolly Adelgid will exhibit gray-green needles and cotton-like wool tufts under the needles. By frequently inspecting trees for signs of Hemlock Woolly Adelgid, a homeowner can intervene in a timely manner and possibly prevent the tree from dying.

Management

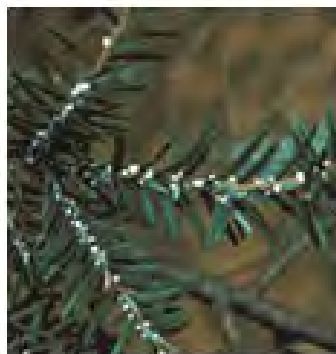
A homeowner can mechanically remove both eggs and adults by spraying the twigs with water or pruning the most heavily infested branches from the tree. An infested tree can be successfully treated any time except when needles emerge. Spray the affected tree thoroughly with horticultural oil. Horticultural oils are highly effective in killing adelgids, yet relatively safe to the applicator, beneficial insects, and the environment.

Prevention

To prevent infestation, homeowners should place all bird feeders away from hemlock trees because birds, as well as squirrels and deer, can spread the adelgid from tree to tree. Since the adelgid affects stressed trees more quickly, homeowners should water their hemlocks in drought.



Hemlock Woolly Adelgid



Cotton-like tufts

Source: N.J. D.E.P., Division of Parks and Forestry, Forestry Service - http://www.nj.gov/dep/parksandforests/forest/community/Gouty_Oak_Gall.htm

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**West Windsor Township
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Document 7. How to Prune Young Shade Trees - Resident Handout



How to Prune Young Shade Trees

What you do to your tree in the first few years of its life will affect its shape, strength, and even its life span. After selecting the right tree for the site and carefully planting it, early pruning is the most important thing you can do for a young tree. Proper pruning will save you money and give you safer, healthier, more beautiful, and easier-to-maintain trees.

Pruning for Strength and Form

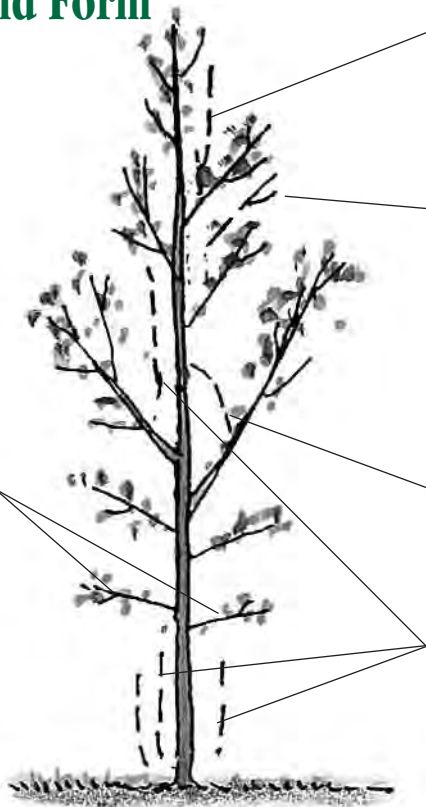
At Planting Time...

Prune modestly when transplanting a new tree. The immediate objective is to strengthen and expand the root system, which is helped by leaving intact as much of the leaf surface as possible. Only damaged or dead limbs should be removed.

After the first year, pruning should begin in earnest. Pruning with strength and form as the objective is the best way to avoid weak branches and prevent expensive corrections later on.

Temporary Branches

Branches below the lowest permanent branch can protect young bark from injury from sun scald and add taper and strength to the trunk. Particularly in lawn plantings where lower limbs do not block passage or tempt vandals, the limbs may be left for 3 to 4 years after planting. Then remove them over the next 2 to 3 years. Don't let temporary branches become large and vigorous.



Multiple Leaders

Protect the leader from competition. In trees with two equally vigorous leaders, remove the one that has a crook or other defects, or that creates a lopsided appearance.

Thinning and Spacing

Most trees benefit from thinning – removing some of the limbs that compete for space and light. A good rule of thumb is to try to maintain evenly spaced laterals, 8 to 12 inches apart in a young tree. Over-pruning can damage or even kill your tree. Always keep at least two-thirds of your tree as live crown.

Rubbing Branches

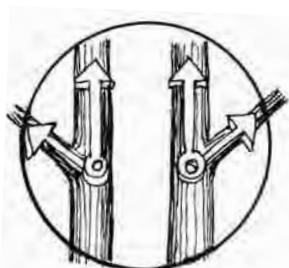
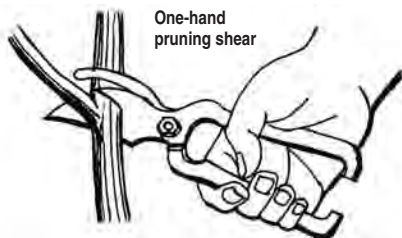
Branches that rub against each other result in wounds, decay, and notches. Remove one of the offending branches.

Watersprouts and Suckers

These can occur at the base or inside the crown. They are rapidly growing, weakly attached, and upright. It is best to remove them as soon as possible after the first year.

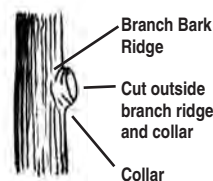
Keys to Good Pruning

1. Prune early in the tree's life so pruning wounds are small.
2. Identify the best leader and lateral branches before you begin pruning and remove any defective parts before pruning to form. Try to find and use lateral branches that form "10 o'clock" or "2 o'clock" angles with the trunk.



3. Keep your tools sharp. One-hand pruning shears with curved blades work best on young trees.

4. When you prune back to the trunk or a larger limb, branches too small to have formed a collar (swollen area at base) should be cut close. For larger branches, cut just outside the branch bark ridge and collar. Do not leave a protruding stub.



5. When shortening a small branch, make the cut at a lateral bud or another lateral branch. Favor a bud that will produce a branch that will grow in a desired direction (usually outward). The cut should be sharp and clean, and made at a slight angle about 1/4 inch beyond the bud.

Correct
Pruning
Cut



Too
Close



Too
Long



Too
Slanted



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**West Windsor Township
Community Forestry Management Plan 2026-2030
Appendix**

Document 8. Tree Maintenance - Resident Advisory



WEST WINDSOR TOWNSHIP

DEPARTMENT OF COMMUNITY DEVELOPMENT Shade Tree Commission

Tree Maintenance

Prune

Proper pruning removes the parts of the tree that are not required or effective. By removing unnecessary parts, the tree's energy goes to the healthy limbs. However, be careful to use the proper techniques and tools because improper pruning can injure or kill a tree. Prune as few branches as possible, as even proper pruning stresses the tree.

Three steps to pruning a branch:

1. Make a small wedge shaped cut on the underside of the branch just on the branch side of the branch collar. This will break the bark at that point and prevent a tear from running along the bark and stem tissue.
2. Somewhat farther along the branch, starting at the top of the branch, cut all the way through the branch leaving a stub end.
3. Finally, make a third cut parallel to and just on the branch side of the branch collar to reduce the length of the stub as much as possible.

When to Prune

The best time to prune is in the dormant season, after leaf drop in fall until bud break in spring. However, limbs broken in a storm or dead branches can be removed at any time. Flowering trees are best pruned immediately after flowering occurs.

Reasons to Prune:

- Safety, removal of dead wood or weak branches
- Health, to remove diseased or insect infested limbs
- Structure, to improve or correct structural defects
- Repair damage caused by storms
- Training young trees
- Promote flower and fruit

Mulch

Mulch should never be piled up against the tree trunk. Mulching in a "volcano" shape can make the tree more susceptible to fungus, insects, and rodents. Instead mulch in a "donut" shape. Keep mulch 6 inches from the trunk and mulch out as far as the branches extend above. Keep the mulch 2-4" thick. Every spring, break up old mulch and add new to maintain a 2-4" layer.

Properly applied mulch provides these benefits:

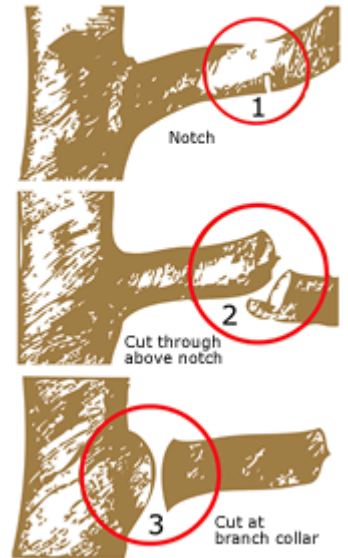
- Prevents soil compaction
- Retains water in the soil for tree roots
- Keeps lawn equipment from damaging the trunk
- Moderates temperature
- Reduces competing vegetation
- Provides nutrients to the tree as it breaks down

Water

During drought, sufficiently water trees. Drought stressed trees are more susceptible to pests and diseases.

Inspect

Thoroughly inspect trees yearly for insects, diseases, and defects such as cracks and rot. Take action to prevent hazard trees.

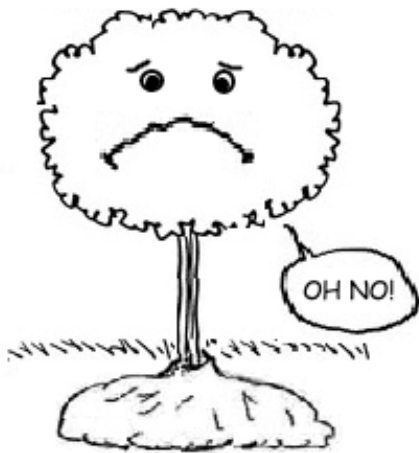


Source: N.J. D.E.P., Division of Parks and Forestry, Forestry Service - <http://www.nj.gov/dep/parksandforests/forest/community/Pruning.htm>

**West Windsor Township
Community Forestry Management Plan 2026-2030
Appendix**

**Document 9. Mulch Madness – Resident Advisories, including
 multilingual**

STOP MULCH MADNESS!



MULCH VOLCANO = BAD!

1. A BAD THING
2. ANOTHER BAD THING
3. AND ANOTHER BAD THING



MULCH DONUT = GOOD!

1. A GOOD THING
2. ANOTHER GOOD THING
3. AND ANOTHER GOOD THING



REMIND YOUR LANDSCAPERS TO MULCH RESPONSIBLY!

BAD MULCH – “VOLCANO”

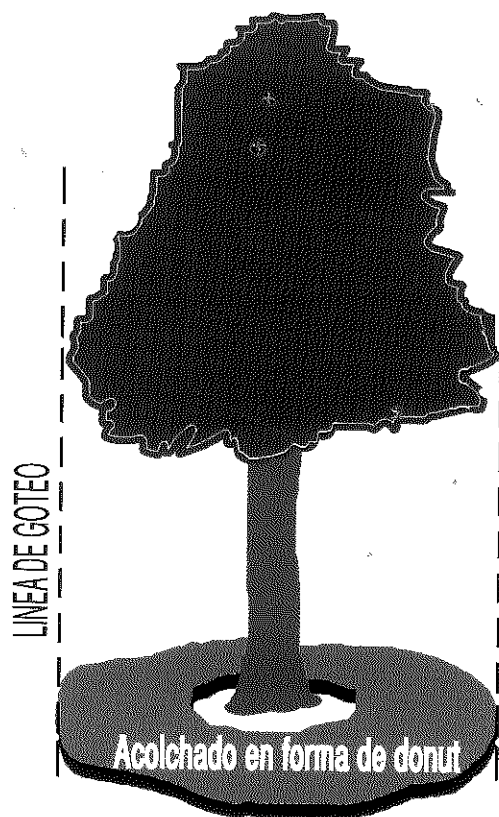
1. DIRT or GRASS while re-setting the tree ring edge & MULCH should never be piled against the tree trunk.
 2. Mulching in a “volcano” shape can make the tree susceptible to fungus, insects, and rodent damage.
 3. Mulch against the trunk can result in the growth of circling roots that will strangle the tree with time.
- ✓ Mulch in a “donut” shape. Keep mulch 4-6 inches from the trunk. Mulch out as far as the branches extend, or at least 3 feet from the trunk. Keep the mulch 2-4” thick.
 - ✓ Break up old mulch, every Spring, and add new wood chip mulch to maintain a 2-4” layer. Coarse textured mulch will allow more air and water to penetrate to the roots.
 - ✓ Properly applied mulch provides many benefits including....

GOOD MULCH – “DONUT”

1. Prevents soil compaction and helps to keep water in the soil for tree roots.
2. Keeps lawn equipment from damaging the trunk.
3. Moderates temperature and adds beneficial organics as it breaks down.

¿Qué necesito saber para acolchar árboles de una manera correcta?

- Comience a 6 pulgadas del tronco del árbol a nivel del suelo y extienda el acolchado hacia afuera hasta la parte más ancha de la copa del árbol (línea de goteo) con un máximo de 2 a 4 pulgadas de profundidad.
- Mantenga una capa de 2 a 4 pulgadas alrededor del árbol pero sin tocar su base. Extienda el acolchado en la mayor área posible debajo del árbol sin que éste toque el tronco.
- ¡Nunca amontone un cono de acolchado alrededor del tronco del árbol! Los ratones, los insectos y los hongos podrían esconderse al pie del tronco y alimentarse de partes del árbol. Los acolchados en forma de cono y las capas gruesas de acolchado también impiden que el agua llegue a las raíces del árbol. Las raíces que crecen hacia el cono de acolchado y salen del suelo no pueden ser saludables.
- Una capa de tela de arpillera para jardinería puede ser usada por debajo del acolchado en áreas con mucha maleza. Nunca use coberturas plásticas por debajo del acolchado. Estas bloquean el paso del aire y del agua e impiden el crecimiento de las raíces.
- Cada primavera o cada dos primaveras, rastrille o quite toda costra y añada más acolchado, pero sólo lo suficiente para mantener una capa de 2 a 4 pulgadas. Nunca deje acumular una capa más espesa al añadir nuevo acolchado por encima del que ya está ahí.



2 A 4 PULGADAS DE PROFUNDIDAD
COMIENZE A 6 PULGADAS DEL TRONCO

¡El acolchado incorrecto mata los árboles! El acolchado nunca se debe amontonar formando un cono alrededor del tronco del árbol. Estos volcanes de acolchado están matando los árboles y se está desperdiciando dinero en más acolchado de lo necesario. Es fácil de recordar . . .

¡LOS VOLCANES SON MALOS!

¡LAS DONUTS SON BUENAS!

LOS VOLCANES ESTÁN MATANDO LOS ÁRBOLES EN NUEVA JERSEY



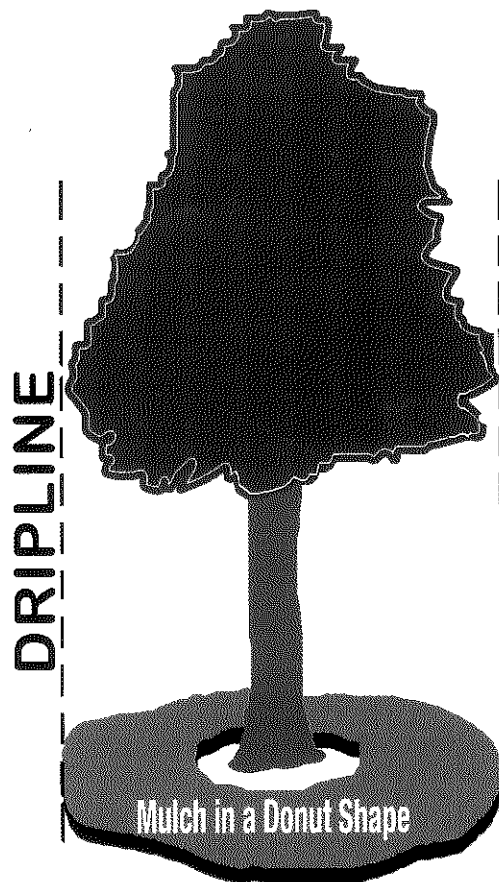
Ésta es la manera incorrecta de usar acolchado (mulch) alrededor de un árbol.

¡Nunca amontone el acolchado contra la corteza!

¡Los acolchados en forma de volcán están matando nuestros árboles!

What do I need to know to mulch trees the right way?

- Start 6 inches from the tree trunk at ground level and mulch outward to the edge of the dripline to a maximum depth of 2 inches to 4 inches.
- Keep a 2-inch to 4-inch layer around, but not touching the base of the tree. Mulch as much of the area under a tree as possible without having mulch touch the trunk.
- Never pile-up a cone of mulch around the tree trunk! Mice, insects, and fungus may hide next to the trunk and feed on parts of the tree. The cone-shaped mulch piles and thick layers of mulch also prevent water from reaching a tree's roots. Tree roots that grow up into the cone of mulch on top of the soil cannot be healthy.
- One layer of woven Landscape Fabric may be used under mulch in heavy weed areas. Never use plastic sheets under the mulch. Plastic sheets block the passage of air and water and stunt root growth.
- Every spring or every other spring, rake or remove any hard crust and add only enough new mulch to maintain a 2-inch to 4-inch layer. Never build up layers of mulch by adding new mulch on top of the old mulch around a tree.



**2 INCHES TO 4 INCHES DEEP
START 6 INCHES FROM THE TRUNK**

Improper mulching kills trees! Mulch should never be piled up into a cone around a tree trunk. These *mulch volcanoes* are killing trees and are wasting money on excess mulch material. It is easy to remember . . .

VOLCANOES ARE BAD!

DONUTS ARE GOOD!

VOLCANOES KILLING TREES IN NEW JERSEY



This is the wrong way to use mulch around a tree.

Never pile mulch against bark!

Mulch volcanoes are killing our trees!

**West Windsor Township
Community Forestry Management Plan 2026-2030
Appendix**

Document 10. “When A Storm Strikes” - Resident Handout



When a Storm Strikes

Never is danger greater to a tree than during the inevitable trial by storm. The weight of ice or snow and the fury of wind test the strength of limbs, trunk, and roots. The homeowner, helpless at the moment, can only watch and hope that the tree survives. Survival or loss – the key can be the care you give your tree before and after a storm. Knowing ahead of time what to do when a storm strikes can prevent or minimize your financial loss.

The Morning After...

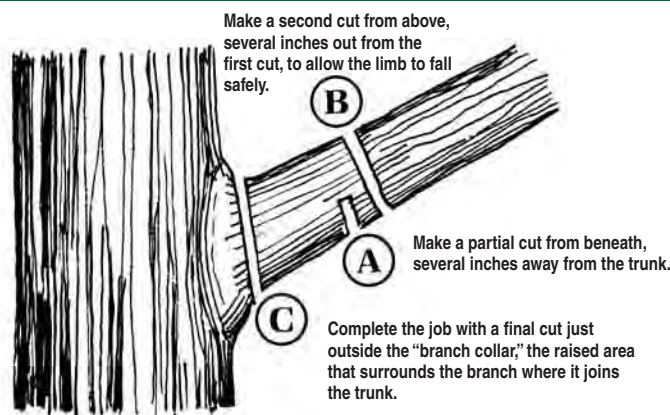
Although your trees may look mortally damaged after a storm, trees have an amazing ability to recover from damage. With proper pruning and care, all but the most severely damaged have a good chance to regain their original health and beauty. Here are some things to do following a major storm in your community:

1. Assess the Damage

Don't be too quick to declare a tree beyond hope. If damage is relatively slight, or if most of the tree's basic structure is still intact despite the loss of many smaller limbs, the tree stands a good chance of making it. On the other hand, if the trunk is split or if most of the tree's leafy crown is down, the tree may be beyond help.

2. Get Professional Help

If large limbs are hanging, if utility wires or structures are involved, or if high climbing is required, don't try to make repairs yourself. Secure the services of a certified arborist, a tree professional who can recommend needed repairs. They are generally listed in classified telephone directories under "Tree Service." Above all, don't hire just anybody who shows up on your doorstep with a chainsaw offering to remove or repair your trees. They are often interested in little more than removing your money.



Tree First Aid After a Storm

1. **Take safety precautions.** Be on the alert for downed power lines and "widow makers," dangerous hanging branches ready to fall. And, unless you really know how to use one, leave chainsaw work to the professionals.
2. **Remove broken branches** that are still attached to the tree. Branches should be pruned at the point where they join larger ones, following the steps shown at left.
3. **Don't top your trees!** Never cut the main branches back to stubs. Ugly, weakly attached limbs will often grow back higher than the original branches and be more likely to break off in a future storm.

An Ounce of Prevention

Follow these keys to preventing tree damage in future storms:

- ✓ Where early ice storms are a problem, avoid planting species that hold their leaves late into the fall.
- ✓ Keep trees healthy and vigorous by watering, fertilizing, and protecting the soil from compaction.
- ✓ Annually prune dead or weakened limbs, and occasionally thin excess branches from the crown. The goal is to produce

a well-shaped tree with the center of gravity squarely over the trunk and a crown that lets wind pass through it rather than catching it like a sail.

- ✓ Avoid planting brittle species such as elms, willows, box elder, poplars, or silver maple in locations where breakage can endanger life or property.
- ✓ When planting, try to visualize the tree when mature, and avoid placing it too close to buildings or power lines.



**West Windsor Township
Community Forestry Management Plan 2026-2030
Appendix**

**Document 11. “Do’s and Don’ts with Storm Damaged Trees” - Resident
Advisory**



WEST WINDSOR TOWNSHIP

DEPARTMENT OF COMMUNITY DEVELOPMENT Shade Tree Commission

DO'S AND DON'TS WITH STORM DAMAGED TREES

West Windsor has been “hit” with significant storms and hurricane season is far from over. It is therefore timely to remind residents what they should and should not do when their trees are damaged by storms:

DON'T shelter under a tree during a thunder storm. If you hear thunder, lightning is closer than you might think.

DO stay far away from downed power lines, cables or anything they may be touching – particularly metal fences, puddles, other trees and vehicles that may be electrified.

DO assume all power lines and cables are live.

DON'T touch or try to prune a broken branch that is within 10 feet of a live power line.

DO report blocked roadways and house damage promptly to local police / emergency services.

DON'T try to clean up storm damage on your own if there is any risk of injury.

DO put up with a large hanging branch until a qualified and properly equipped arborist is available.

DO avoid scam artists who show up with chain saws and try to take advantage of you after a storm. It is now MANDATORY to hire a tree care business that is registered with the State of NJ and has employed a Licensed Tree Expert or Licensed Tree Care Operator, depending on the services they offer for hire. It is important to make sure that the person is qualified to do tree work and fully insured in case an accident happens.

DO prune stubs of broken branches in the approved manner – close to the trunk or main stem but not so that you damage nearby bark. Avoid “coat hooks”. Repair damaged bark by trimming.

DON'T block street drains with branches while waiting for yard waste collection.

DON'T attempt to restore the shape of a tree that has suffered the loss of its main stem by pruning lateral branches. The result will probably be disappointing and potentially dangerous. Consult a qualified arborist who understands how the tree will react to damage and pruning.

DO follow up a month or two after a storm to check for and remedy tree damage or decay which may have been hidden by leaves or branches and which could be a hazard in a future storm.

DO remember that trees are living and complex. Like people, they change as they age, are impacted by their environment and do not live forever. Treating them well will promote health and longevity. They will reward your tender care.

West Windsor Shade Tree Commission

271 CLARKSVILLE ROAD · P.O. BOX 38 · WEST WINDSOR, NEW JERSEY 08550 · PHONE (609) 799-9396

WEBSITE: WWW.WESTWINDSORTWP.GOV

E-MAIL: ENGINEERING@WESTWINDSORTWP.GOV

**West Windsor Township
Community Forestry Management Plan 2026-2030
Appendix**

Document 12. Arbor Day Art Contest Flyer



West Windsor Township Arbor Day K-8 Student Art Contest - 2026

2026 THEME: *Revolutionary Roots*

"Revolutionary Roots" reminds us that trees have always been part of our story—from the Liberty Trees of the American Revolution to the trees we plant today. Just as the roots of a tree help it grow tall and strong, the roots of our history help guide our future. Think about how trees connect the past, present, and future. Your artwork can show Liberty Trees, colonial farmers, the Princeton White Oak, or the trees that make West Windsor a wonderful place to live today. When we plant and care for trees, we are growing the next chapter of our community's history. That is the true meaning of Revolutionary Roots.

CONTEST RULES

- Open to all WWP K-8 students and West Windsor students who are home-schooled or attending private school:
 - Elementary (K- 1st and 2nd-3rd grades)
 - Upper Elementary (4th- 5th grades)
 - Middle school (6th - 8th grades)
- Artwork must be original with the tree theme of: **"Revolutionary Roots"**.
- Artwork must be 2-dimensional; drawings, paintings, photographs/digital images. Maximum size 12" x 18."
- West Windsor Township Shade Tree Commission and invited guests shall judge entries.
- All work must also include entry form securely taped to the back of artwork & be submitted to Guidance Counselor, Teacher or to the Township directly.
- Any artwork without contact information or a fully completed entry form will not be accepted.
- Artwork will be returned back through School or to the person who submitted it after judging.
- Winning Artwork will be displayed by the Township after Arbor Day and will be returned back through School or person who submitted it.
- Winners must attend Arbor Day celebration to collect their prizes.
- Prizes will be awarded at the West Windsor Arbor Day Celebration, Saturday, April 25th @ approximately 10 AM at the Ronald R. Rogers Arboretum (across from WWP HS South).
- Winners are asked to share their artistic inspiration with those viewing their artwork at the celebration.
- Submissions are due **Wednesday, April 8 @ 4 PM.**

* RELEASE: By signing below the Parent / Guardian of the student artist hereby grants the Township of West Windsor permission and rights to post an image of the art work submitted herewith on the Township web page in association with this contest and also as a backdrop or side post on the web page.

Cash Prizes

GRADE LEVEL

	K-1	2-3	4-5	6-8
First Place	\$70	\$70	\$70	\$85
Second Place	\$40	\$40	\$40	\$45
Third Place	\$20	\$20	\$20	\$25

CONTEST ORGANIZED BY THE WEST WINDSOR TOWNSHIP SHADE TREE COMMISSION

Entry Form Please fill in all information Entry Form Please attach to back of artwork Entry Form

Name: _____ Age: _____
(STUDENT ARTIST NAME - PLEASE PRINT CLEARLY) (On April 8, 2026)

Address: _____

Parent's Name & Phone number: _____ Parent/Guardian e-mail: _____
(DAYTIME CONTACT NEEDED TO NOTIFY WINNERS)

*PARENT / GUARDIAN RELEASE TO POST IMAGE OF ARTWORK ON TOWNSHIP WEB PAGE: X _____
(PARENT / GUARDIAN – SIGNATURE HERE)

School: _____ Teacher: _____ Grade: _____

_____ (Check here for West Windsor students who are home-schooled or are out-of-district students. Please drop off your artwork at the West Windsor Township Offices no later than 4 PM on April 8, 2026 at 271 Clarksville Road, West Windsor Township)

BLANK ENTRY FORMS are available at the Township Offices or via the Township web page – westwindsonj.org

**West Windsor Township
Community Forestry Management Plan 2026-2030
Appendix**

Document 13. Street Tree Inventory Report (Summary)

WEST WINDSOR TOWNSHIP

MERCER COUNTY, NEW JERSEY

STREET TREE INVENTORY 2026

Daniel Dobromilsky,
NJ Licensed Tree Expert # 397
Daniel Dobromilsky & Associates
Landscape Architecture, Planning
& Tree Experts
177a Rossmoor Drive
Monroe Twp., NJ 08831

Introduction

The Township of West Windsor, NJ commissioned Daniel Dobromilsky, Licensed Tree Expert (NJ LTE #397) as a consultant to assist with the preparation of an inventory of the municipal street trees commencing in the winter of 2025.

What is a Street Tree Inventory and why conduct one ?

Trees provide important contributions to a community. They offer environmental, economic, health, social, and aesthetic benefits. These benefits are very broad and are not always apparent making it difficult to accurately measure value or service presented to a community by this resource. There are calculators that will offer an estimated monetary value based upon various criteria and research. However, intrinsically it is accepted that trees improve - the health of residents; environmental quality (air, water, etc.); and are a source of great enjoyment within a community. It is generally estimated that the value of a property with trees is 5%-7% higher than one without trees, and tree lined streets can increase home values by a factor of 2%-5%. As an invaluable resource, the community forest needs to be properly managed and conserved. A street tree inventory is an essential component of a Community Forestry Management Plan. Only after a community knows the current state of its public trees can it efficiently plan for their management. The following is a discussion of what an inventory of street trees should include to present an effective tool for such planning.

What is a Street Tree ?

A 'tree' is defined as a woody perennial plant, generally with one main trunk, having the potential to exceed 10 feet in height. A 'street tree' is further defined as a tree growing within the community's right-of-way (generally the area between the curb and the sidewalk along the side of a street, or within eight to ten feet of the street edge) that has been planted by the home builder, Township, or a resident. The right-of-way is the property that includes the paved street, curbing, and generally an area on both edges that may include a landscape strip (lawn or planting), a paved walk, as well as overhead or underground utilities such as electric, gas, water, and sewer service. Some streets may have a planted island in the middle of the paved street commonly referred to as a “median” or “boulevard” island, or within a turnaround at the end of the street “cul de sac island.” Trees within these islands are also considered to be street trees.

Review and Analysis:

Upon a review of existing West Windsor Township tree inventory data, which was incomplete, out of date, and inconsistent, it was determined that the process should start with an analysis of the current processes or methods of managing the tree resource, as well as the capability and availability of municipal staff to implement management tasks. The various data points – identification, measurements, and observations typically inventoried were analyzed relative to West Windsor Township's capabilities.

Tree Size:

This review revealed that the Municipal Department of Public Works has limited capability, and is most suited to maintenance / management tasks associated with younger trees (removal of trees < 25" dbh and pruning of trees < 12" dbh). Note: dbh is tree diameter at breast (+/- 4') height. The Township frequently must contract for the removal of trees greater than 25" dbh.

It should be the Township's objective to implement corrective pruning (i.e. canopy clearance, co-dominant leader, crossing branches) before a tree achieves 12" dbh. Corrective pruning and/or the removal of dead, damaged or diseased limbs in trees greater than 12" dbh will likely need to be contracted to an Arborist with more appropriate equipment and training.

The Township has historically contracted a Licensed Tree Expert or Tree Care Operator to conduct maintenance tasks on larger trees, as noted above.

Thus, it is the conclusion of this analysis that in terms of tree size it is most important for the persons involved in the management of the street tree resource to know the quantity and location (which street) for trees 12" dbh and less; 12" dbh to 25 dbh; and 25 dbh or greater. A more detailed tree size within these ranges does not offer a significant data point in terms of management and maintenance.

Trees of Concern:

Likely the most important data point needed to allow for the management of the street tree resource is to know the location of trees that present a potential concern for a physical failure. More specifically, trees that are presently dead. Additionally, trees that exhibit significant decline due to disease, structural weakness, or other factors are indicators of potential future physical failure and facilitate the planning of near future actions and budgets.

Thus, an inventory should quantify trees that present such concern. In such cases, the specific location (street or address) would be helpful but the precise location is not necessarily critical, as it is possible for staff to observe the trees on the street to locate these trees when planning and implementing appropriate actions. Thus, street by street data for this point would be sufficient.

Species Diversity:

In addition to an overall count of the street tree population, it would be very helpful to know the quantity and mix of trees by species within the street tree resource. This data point will help guide the planning of future plantings either as replacements or new installations. It is a general guide to plan for diversity such that no single species (e.g. Red Maple, *Acer rubrum*) exceeds 10% of the population, and that no single genus (e.g. Maple, *Acer*) exceeds 20% of the population.

Presence of Sidewalk and Tree Lawn Width:

The Township allocates a significant budget toward the repair of sidewalks lifted by street tree roots. An annual program is administered to locate and repair the sidewalk sections lifted by street tree roots. An inventory should include the presence of sidewalk and width of the tree lawn, or offset between the curb and sidewalk, for each individual street. This data will assist with the planning of future replacement and new tree planting. However, the actual location of uplifted sidewalks is handled in a manner that does not continually rely upon the street tree inventory to implement the repair program, thus only the presence of tree lawn dimensions should be included in the street tree inventory.

Canopy Clearance:

The height of the lowest tree crown branches from the base of the tree(s), or canopy clearance, is one of the basic maintenance tasks mostly managed by the Township Department of Public Works. A street tree inventory that lists the location and quantity of trees in total and on individual streets that exhibit a canopy clearance of 7' to 10' height (pedestrian and bicycle clearance), and/or canopy clearance below 14' height (bus and truck clearance within the street), would be beneficial. Thus, the street tree inventory should attempt to track the number of trees on individual streets that exhibit a canopy clearance less than 14' height, to help direct future work to manage this aspect of the resource. It should be noted

that the timing of canopy clearance pruning must be balanced with the vegetative volume of the tree canopy. It is never wise to remove more than 20% of a tree canopy within a single growing season. The mature height and width of a particular tree or cultivar must also be considered when planning for canopy clearance pruning. Thus, canopy clearance to an ultimate height above 7' or 14' may take place in stages but will also be determined based upon the mature shape and width of the tree canopy. A street by street quantity of tree in need of canopy clearance pruning tree will present a long-term planning guide of potential work needed over a period of time.

Trees Impeding Street Lighting:

West Windsor Township does not require or endeavor to illuminate Township streets with continuous lighting. Lights are frequently placed to illuminate street intersections and significant bends of the road layout. Thus, the impedance of illumination is not a very common nor critical issue.

However, impedance does occur, and it would be beneficial to allow for the implementation of pruning to minimize this impedance as resources allow. Thus, the quantity trees and street with trees that impede the effectiveness of street lighting would be a helpful data point.

Presence of Overhead Wires (OHW):

Since the Township ceased the planting of trees beneath overhead wires several decades ago it was determined that this data point is not a significant concern. Furthermore, since the utility companies generally manage trees in conflict with overhead wires this data does not present a specific task that the Township will need to apply resources toward. However, listing neighborhoods and streets with overhead wires would assist with any planning of tree replacement and planting, thus the data should be collected.

Other Data Points:

Data points such as tree height, crown width, percentage of canopy missing or declining, do not specifically offer information that the Township will regularly or typically utilize to implement maintenance and management tasks, and thus the collection of this data is deemed to be unnecessary.

Conclusion:

Based upon this analysis it was determined that the Township likely has significant data regarding many of the points noted as beneficial to future management and planning. The current data requires consolidation, verification, updates, and codification, to create a single inventory that is easily read and updated.

During this preliminary analysis it was determined that it would be possible to utilize the existing inventory data and on-line street view images to update the inventory into a functional and usable document. It is also noted that at this time the i-tree software suite is experiencing some uncertainty regarding the potential and long-term assurance of software updates due to funding cuts.

Thus, in order to best inform community forest management actions now it was determined that the Township would be best served by recording a complete street tree inventory utilizing existing data augmented by on-line street view images. The Township decided to proceed in this direction, Thus, it was agreed that the Township initially proceed to utilize existing street tree inventory data, codified into a uniform format, verified by in field observation, as needed to create a functional inventory, tailored to current management and planning tasks. The exception to this determination is the location of trees of concern (dead trees). A separate inventory of trees of concern should be developed and maintained for the small quantity of trees that meet this data point.

Inventory Scope:

The scope of a street inventory includes trees located within the right of way for all public Township streets within West Windsor Township. This generally includes trees planted between the edge of pavement or street curb and the sidewalk (tree lawn), or offset approximately eight to ten feet from the street pavement if no sidewalk is present. Roads under private, County or State jurisdiction are not within the scope of this project as these trees are not actually owned by the Township and are subject to maintenance by others.

Inventory Format:

All computer workstations utilized by Township staff have access to Microsoft Office programs including MSword and MSexcel. Access and utilization of Geographic Information Systems (G.I.S.) is very limited. Thus, it is determined that at present, development of a street tree inventory in MSexcel spreadsheet format would be most easily accessible and functional for Township staff.

In addition, a MSExcel formatted inventory will facilitate easier printing of paper copies of data for individual streets or other points, by a greater number of staff persons at a greater number of workstations. Since a majority of the staff has a working familiarity with MSExcel it is also likely that the data can be more easily updated as maintenance and management task are completed.

As the Township explores the development of G.I.S. or similar (L.I.D.A.R.) data collection for other street data points (e.g. pavement width, curbing, condition, etc.) it may be sensible to fold in the location of individual street trees. Further review and analysis should be conducted when and if the Township implements this type of digital data collection and inventory.

Inventory Description:

Subsequent to the completion of all observations of all streets and street trees, and data entry, the data was sorted into various formats within a spreadsheet workbook document to facilitate analysis, use, and future management of the inventory. Data analysis allows for a summary or thumbnail of the street tree inventory resource as a whole based upon species and size characteristics, but also allows for the creation of sheets or lists of trees by individual street and street with trees determined to present a priority concern for resource management.

A paper report that includes this narrative introduction and analysis is accompanied by a copy of the street-by-street spreadsheets has been delivered along with digital copies of the data.

The digital copy of the data has been delivered in a msExcel workbook, composed of numerous spreadsheets. The majority of the workbook includes individual sheets for each individual street listing the tree data for street by tree species, with an indication of the quantity of missing, declining, and dead trees. These sheets also inventory the cul de sac and median island street trees for streets with such islands. Finally, the number of trees requiring pruning are tallied for each street.

A final sheet in the workbook is an overall tally of trees by genus and species, with tallies for the data noted above (i.e. dead, declining, in need of pruning).

Summary of Observations and Analysis:

The following narrative offers an analysis of the data collected, followed by a copy of the overall data sheets for individual tree species from the inventory.

The West Windsor Township street tree resource was observed to have the following characteristics:

Total number of Trees:	13,707
Number of Tree Genera (e.g. <i>Acer</i>):	58
• Number of Tree Genera w/ >100 Trees:	21
• Number of Tree Genera w/ <100 Trees:	37
Genera that exceed 20% of Total:	2
Number of Tree Species (e.g. <i>Rubrum</i>):	78
• Number of Tree Species w/ >100 Trees:	25
• Number of Tree Species w/ <100 Trees:	53
Tree Species that exceed 10% of Total:	1
Range of tree sizes:	
• Total # Trees less than 12" dbh:	10,409
• Total # Trees between 12" and 25" dbh:	3,119
• Total # Trees greater than 25" dbh:	179
Total # Trees of Concern (Removal Needed):	107
Total # Trees Exhibiting Decline (May need future attention):	568
Total # Ash (<i>Fraxinus</i>) Genus Trees (Susceptible to EAB):	157
Total # Trees that impede Lights:	132
Total # Trees with low Canopy < 14' Height:	7,147
Total # Exotic, Highly Invasive Species Trees:	966
Total # Trees in Median or Cul de Sac Islands:	626
Approximate # Open Planting Sites (new tree planting)	222

TREE SPECIES				Diameter Breast Height (4' ht.)							ANALYSIS		OVERALL
GENUS	SPECIES	COMMON NAME	TREE ID#	1"-12" DBH	12"-25" DBH	> 25" DBH	Genus Totals (56)	% Genus of Totals (20%)	Species Totals * TOTAL # of TREES	% Species Total (10%)	COMMENTS	MANAGEMENT RECOMMENDATION	
INVENTORY TOTALS and GUIDELINES PRIMARY GENERA (19)				% #	75.94% 10409	22.75% 3119	1.31% 179						13,707
Amelanchier	species	Serviceberry	1766		224	0	0	224		224	2%		STREET TREE TOTAL OVERALL QUANTITY *
Acer							4395	32%			Genus "Acer" exceeds 20% of total	Limit Planting of New Maple Trees	
Acer	buergerianum	Trident Maple	1661		0	0	0	0	0	0%			Note: Overall Quantity does not include street trees along State and County Roads
Acer	campestre	Hedge Maple	1662		6	0	0	6	6	0%			
Acer	ginnala	Amur Maple	1664		32	1	0	33	33	0%			222
Acer	palmatum	Japanese Maple **	1674		3	0	0	3	3	0%			
Acer	platanoides	Norway Maple **	1676		335	24	0	359	359	3%			OPEN PLANTING SITES (Missing) OVERALL QUANTITY
Acer	rubrum	Red Maple	1678		2025	615	34	2674	2674	20%	Species "rubrum" exceeds 10% of total	Limit Planting of New Red Maple Trees	
Acer	saccharinum	Silver & Red/Silver Hybrids	1679		67	11	4	82	82	1%			Note: This is an estimate of open or missing planting sites - Some locations may have restrictive conditions
Acer	saccharum	Sugar Maple	1680		1083	154	1	1238	1238	9%			
									0	0%			107
Cetis	occidentalis	Hackberry	460		255	7	0	262	262	2%			
Crataegus	species	Hawthorne	542		118	0	0	118	118	1%			TREE REMOVAL NEEDED (Dead) OVERALL QUANTITY
Cladrastis	species	Yellowwood	497		91	2	0	93	93	1%			
Fraxinus							157	1%					7,147
Fraxinus	species	White / Green Ash	3378		77	76	4	157	157	1%	4 Large Ash on Wilder Ave.	OBSERVE ASH : Remove & Replace When Trees Fail	
Ginkgo	biloba	Ginkgo	3452		115	9	0	124	124	1%			CANOPY RAISE PRUNING NEEDED - NOW or FUTURE - OVERALL QUANTITY
Gleditsia	triacanthos	Honeylocust	3456		197	24	1	222	222	2%			
Koeleruteria	paniculata	Golden Rain Tree	3748		100	0	0	100	100	1%			132
Liquidambar	styraciflua	Sweetgum	3850		297	111	1	409	409	3%			
Maackia	amurensis	Maackia	1362		184	0	0	184	184	1%			568
Nyssa	sylvatica	Black Tupelo	4248		156	3	0	159	159	1%			
Platanus	acerfolia	London Planetree	6415		538	182	18	738	738	5%			TREES DECLINING OR DAMAGED FUTURE TREATMENT NEEDED OVERALL QUANTITY
Prunus	species	Cherry and Plum	1038		457	128	11	596	596	4%	Includes all Cherry and Plums		
Pyrus	calleryana	Callery pear**	4810		573	31	0	604	604	4%			626
Quercus							3205	23%			Genus Quercus exceeds 20% of total	Carefully Select New Trees from Genus "Quercus"	
Quercus	acutissima	Sawtooth Oak	4821		575	74	0	649	649	5%			BLOCKING LIGHT PRUNING NEEDED OVERALL QUANTITY
Quercus	alba	White Oak	4824		6	14	7	27	27	0%			
Quercus	bicolor	Swamp White Oak	4839		135	9	0	144	144	1%			568
Quercus	imbricaria	Shingle Oak	4906		33	0	0	33	33	0%			
Quercus	nigra	Water Oak	4943		6	11	0	17	17	0%			TREES IN MEDIAN / CUL DE SAC ISLANDS OVERALL QUANTITY
Quercus	macrocarpa	Bur Oak	4926		20	22	1	43	43	0%			
Quercus	palustris	Pin Oak	4952		181	494	41	716	716	5%			966
Quercus	phellos	Willow Oak	4956		157	156	3	316	316	2%			
Quercus	rubra	Red Oak	4970		681	546	28	1255	1255	9%			** HIGHLY INVASIVE EXOTIC SPECIES OVERALL QUANTITY
Quercus	velutina	Black Oak	5001		3	1	1	5	5	0%			
Styphnolobium	japonicum	Scholar / Pagoda Tree	5669		264	61	0	325	325	2%			626
Syringa	reticulata	Tree Lilac	5762		229	0	0	229	229	2%			
Tilia							551	4%					TREES IN MEDIAN / CUL DE SAC ISLANDS OVERALL QUANTITY
Tilia	americana	Linden - Basswood	5857		67	24	0		91	1%			
Tilia	cordata	Littleleaf Linden	5858		329	89	5		423	3%			966
Tilia	tomentosa	Silver Linden	5862		26	11	0		37	0%			
Ulmus							140	1%					** HIGHLY INVASIVE EXOTIC SPECIES OVERALL QUANTITY
Ulmus	americana	Elm & Hybrids	5903		128	3	1	132	132	1%			
Ulmus	parvifolia	Lacebark Elm	5907		8	0	0	8	8	0%			966
Zelkova	serota	Zelkova	6044		228	194	12	434	434	3%			

TREE SPECIES				Diameter Breast Height (4' ht.)							ANALYSIS	
GENUS	SPECIES	COMMON NAME	TREE ID#	1"-12" DBH	12"-25" DBH	> 25" DBH	Genus Totals (56)	% Genus of Totals (20%)	Species Totals = TOTAL # of TREES	% Species Total (10%)	COMMENTS	MANAGEMENT RECOMMENDATION
SECONDARY TREE GENERA (37) - less than 99 Total Trees of these Genus							438	3%				
Aesculus	hippocastanum	Horsechestnut	1710	6	0	0	6		6	0%		
Betula	nigra	River Birch	2020	5	1	0	6		6	0%		
Carpinus	betulus	Uprt. Euro. Hornbeam	2175	8	0	0	17		8	0%		
Carpinus	caroliniana	Hornbeam	2176	9	0	0	above		9	0%		
Carya	species	Hickory	439	3	1	0	4		4	0%		
Catalpa	speciosa	Catalpa	2234	1	0	0	1		1	0%		
Cedrus	species	Cedar (Blue Atlas/Deodar)	2292	1	0	0	1		1	0%		
Cercis	species	Redbud	464	35	0	0	35		35	0%		
Chamaecyparis	species	False Cypress	472	1	0	0	1		1	0%		
Chionanthus	species	Fringe Tree	497	2	0	0	2		2	0%		
Cornus	species	Dogwood (Flwr/Kousa/Hybrid)	533	62	2	0	64		64	0%		
Cotinus	species	Smoke Bush	538	1	0	0	1		1	0%		
Cryptomeria	japonica	Japanese Cedar	551	3	0	0	3		3	0%		
Cupressus	x leylandi	Leyland Cypress	2830	3	0	0	3		3	0%		
Fagus	species	Beech	640	14	7	3	24		24	0%	3-Emerald; 3-Forest; 3-Glacier; 1-Gambrel; 3-Highol; 1-Orly; 1-Hiddkkn; 1-Lanwin; 5-Prize	1- SleepyHollow ; 2- Yellowstone
Gymnocladus	dioica	Coffee Tree	710	88	3	0	91		91	1%		
Halesia	species	Silverbell	713	2	0	0	2		2	0%		
Ilex	opaca	American Holly	3622	1	0	0	1		1	0%		
Juglans	nigra	Black walnut	3703	1	0	1	2		2	0%		
Juniperus	virginiana	Eastern Red Cedar	3721	4	0	0	4		4	0%		
Lagerstroemia	indica	Crape myrtle	3776	1	1	0	2		2	0%		
Liriodendron	tulipifera	Tulip Tree	3852	10	0	0	10		10	0%		
Magnolia	species	Magnolia	1362	7	0	0	7		7	0%		
Malus	species	Crabapple	856	66	0	0	66		66	0%	Includes all Apples	
Metasequoia	glyptostroboides	Dawn Redwood	949	2	0	1	3		3	0%		
Morus	alba	Mulberry	4156	2	1	0	3		3	0%		
Ostrya	virginiana	Hophornbeam	949	5	0	0	5		5	0%		
Picea	abies	Norway Spruce	4416	7	2	1	17		10	0%		
Picea	mariana	Colorado Spruce	4431	7	0	0	Above		7	0%		
Pinus	strobus	Eastern White Pine	4497	13	9	0	22		22	0%		
Pseudotsuga	species	Douglas Fir	1045	7	0	0	7		7	0%		
Robinia	pseudoacacia	Black Locust (Purple)	1083	6	2	0	8		8	0%		
Salix	species	Willow, Weeping	1099	8	0	0	8		8	0%		
Sassafras	albidum	Sassafras	1110	2	0	0	2		2	0%		
Taxodium	distichum	Bald Cypress	5794	1	3	0	4		4	0%		
Thuja	occidentalis	Arbovitae	5882	3	0	0	3		3	0%		
Tsuga	canadensis	Hemlock	5895	3	0	0	3		3	0%		

* DEERFIELD DRIVE APPROX. 250 PRESERVED WOODLAND TREES IN MEDIAN and ROADSIDE EDGES : Including ~ 20 Fagus / Beech Trees in Median : Not included in sheet or overall tally

Analysis

Based upon the findings of these observations several characteristics are worthy of discussion to help inform resource management planning and actions. The following is an analysis of the findings for this purpose:

- Acer (Maple) genus makes up 32% of the inventoried tree population, significantly exceeding the guidance to have no one genera exceed 20% of the total.
- Quercus (Oak) genus makes up 23% of the inventoried tree population, minimally exceeding the 20% genera guidance.
- Acer rubrum (Red Maple) species makes up 19% of the tree population, significantly exceeding the guidance to have no one species exceed 10% of the total.
- Acer saccharum (Sugar Maple) and Quercus rubra (Red Oak) species make up 9% of the tree population, just below the 10% species guidance.
- Highly invasive, exotic species make up 7% of the tree population with the majority of these trees being Pyrus calleryana (Callery Pear) at 618 trees.
- Open planting sites (missing) represent only 1.5% of the “tree” population.
- Trees in need of removal (dead) make up less than 1% of the tree population, but if Fraxinus (Ash) totals are added to this quantity the make-up would bump up to 2%.
- Tree blocking lights makes up less than 1% of the tree population.
- Trees that will require canopy clearance pruning (presently or in the future) makes up 52% of the tree population.
- Smaller or younger trees make up 76% of the tree population.
- The EAB management plan and actions that resulted in the replacement of approximately 2,000 Ash street trees with mostly smaller understory tree species greatly improved the diversity of the West Windsor Township street tree resource. As these trees mature analysis should be conducted to determine the species that seem to perform best and those that do not fair well as street trees to refine the selection process for future replacement street trees.
- As cul de sac and median island trees fail the potential to introduce additional variety of tree species should be considered.

Action Items

Action items that could be taken from this analysis might include:

- Curtail significantly the planting of new or replacement Acer (Maple) genera trees and particularly limit the planting of Acer rubrum and Acer saccharum species trees
- Limit the planting of new or replacement Quercus rubra (Red Oak) species trees.
- Avoid the planting of highly invasive, exotic species trees, looking to State guidance or regulation regarding trees that exhibit such tendencies and potential alternate selections.
- Plan for the gradual removal of highly invasive, exotic species trees, particularly Pyrus calleryana (Callery Pear). Develop a list of appropriate alternate species trees as replacements.
- Plan for the removal of dead trees as soon as practical.
- Plan for the observation of trees exhibiting decline on a regular basis and implement pruning, treatment, or removal of trees that present concern.
- Plan for the planting of trees to fill open planting sites.
- Develop a workable plan for cyclical canopy clearance pruning of street trees anticipating that over 50% of the tree population will likely require such action over the next decade.
- make up 7% of the tree population with the majority of these trees being Pyrus calleryana (Callery Pear) at 618 trees.
- Continue to manage and observe Fraxinus (Ash) genera trees including treatment, pruning and removal, relative to Emerald Ash Borer (EAB) infestation.
- Evaluate the understory trees planted as replacement of Ash trees and determine those species that should be continued or limited as replacement tree selections.
- Consider the potential for tree species that don't typically make optimal street tree selections as cul de sac and median island replacement trees to foster improved diversity and seasonal interest.

The data, analysis, and action items from this inventory should be utilized to direct goals, objectives and actions of the West Windsor Township Community Forestry Management Plan.

End.