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CHAPTER 23 TREE ORDINANCE

2300 AUTHORITY

This Ordinance is adopted by the Exeter Select Board pursuant to RSA 41:11 and RSA 41:11-a.

2301 PURPOSE

The purpose of this Chapter is to encourage the proper management of Public Trees within the Town of Exeter; to establish a standard of care and provide clear guidance to Town officials and Town Contractors regarding the planning, planting, preservation, maintenance, care, and removal of trees in public parks and on town-owned rights-of-way within the Town of Exeter; and to establish and assign proper authority regarding care of Public Trees on these lands within the Town of Exeter.

2302 JURISDICTION

Areas subject to the Ordinance: All streets, highways, parks, or other grounds owned by the Town, including any town-owned right-of-way along public roads ("Public Property"). This ordinance shall not apply to town-owned conservation land or cemeteries.

Activities subject to the Ordinance: Planning, planting, preservation, maintenance, care, and removal of trees in Public Property within the Town of Exeter. Any work on Public Trees shall comply with the tree regulations regardless of who performs the work.

2303 DEFINITIONS

As used in this Chapter, the following terms are defined as follows:

2303.1 Caliper

Tree Caliper means an American National Standards Institute (ANSI) standard for the measurement of nursery trees and shall be used for trees under 12" in Diameter at Breast Height (DBH). The caliper measurement of a trunk shall be taken 6" above the ground for trees up to and including a 4" caliper size at that height. If the caliper at 6" above ground exceeds 4", the caliper measurement should be taken at 12" above the ground. For trees above 12" in diameter, Diameter at Breast Height (DBH) is used.

2303.2 Central Leader

Referred to as the leader or dominant leader. It is a vertical continuation of the main trunk, beginning above the highest lateral branch and extending to the top of the tree.

2303.3 Diameter at Breast Height (DBH)

The measurement of a tree's trunk diameter in inches at breast height (4 ½)

feet above ground level at the tree's base). For trees with less than $4 \frac{1}{2}$ feet of clear trunk, the diameter shall be of the largest leader measured $4 \frac{1}{2}$ feet above ground level. For multi-trunk trees, it shall be the sum of the diameter of the individual trunks measured $4 \frac{1}{2}$ feet above ground level.

2303.4 Hazard Tree

A tree or tree part that has defects or structural weaknesses that poses a high risk upon its failure of causing personal injury or death, or damage to property; public or private, and could be a threat to public passage or traffic safety.

A tree becomes a potential hazard when its woody structure is weakened by one or more defects which decrease its structural integrity and increase its potential for failure. Defects are visible signs that a tree has failed, is failing, or has the potential to fail. There are seven main categories of defects:

- 1. Cracks.
- 2. Weak branch unions,
- 3. Stem or branch decay,
- 4. Cankers, infectious disease, insect problems,
- 5. Dead trees, tops or branches,
- 6. Root problems, and
- 7. Poor tree architecture.

As defined by the International Society of Arboriculture (ISA), a hazard tree must meet three (3) criteria:

- 1. The tree is sufficiently large enough to cause damage should it fall;
- 2. The tree has a target that would be damaged should it fall;
- 3. The tree has a condition that would make it likely to fall.

By definition, a hazard tree = a defective tree plus a target

Note: Hazard trees within the river are addressed through the River Hazard Removal Policy (Select Board Policy 2010-01)

2303.5 Memorial Tree Program

The Exeter Parks and Recreation Department's Memorial Tree Program is designed as a resource to allow residents, organizations, and businesses the opportunity to assist the Town in its beautification of public spaces with a purchase of designated trees. The Memorial Tree Program contributes to the Town's goal of increasing trees in the community through the efforts of the Tree Committee.

Through this special Exeter Parks and Recreation program, trees can also be purchased and planted in public places as living tributes to friends and loved ones or to commemorate a special occasion.

2303.6 Park

An area of land owned and managed by the Town and set aside for environmental protection and/or recreation.

A list of Exeter's parks can be found here.

2303.7 Property Owner

A person or business entity with a legal or equitable interest in a property (as shown by the Town's Assessor's list).

2303.8 Pruning

A horticultural practice of selectively cutting/removing specific portions of a tree (such as roots, buds, branches) that are dead, undesirable, or overgrown, OR trimming for healthy plant development and aesthetic purposes. Pruning can be considered preventive maintenance.

2303.9 Public Property

All streets, highways, parks, or other grounds owned by the Town, including any town-owned right-of-way along public roads. For the purposes of this ordinance, Public Property does not include town-owned cemeteries or town-owned conservation land.

2303.10 Public Trees

Public Trees refers to trees, shrubs, and other woody vegetation found on Public Property. This includes shade, ornamental, and forest trees or shrubs growing on any public property.

2303.11 Replacement Trees

A tree or trees to be planted to replace any trees removed. The replacement trees will be nursery grown, with a preference for native trees.

- **a. Equivalent Replacement**: The replacement of a removed or damaged tree to compensate for that tree's removal, or its damage, with one tree the same diameter, or a combination of smaller trees that will equal that removed tree's DBH as defined herein. Alternatively, payment of equivalent replacement value can be made to the Parks and Recreation Memorial Tree Fund.
- **b. Tree-for-Tree Replacement**: Replacing a removed tree with a tree, or trees, with a minimum of two to two-and-one-half inches in cumulative trunk diameter at breast height (DBH). The Tree Warden and the Tree Committee will develop and maintain within the regulations an up-to-date list of approved trees for planting under appropriate circumstances.

2303.12 Significant Trees

Significant trees, as defined in Exeter's Site and Subdivision regulations (7.4.7), are 20-inches or greater in diameter at breast height (DBH).

2303.13 Tree Maintenance

Activities, equipment, plans, and provisions to keep trees alive and flourishing.

2304 TREE WARDEN

The Exeter Tree Warden is an appointed official with relevant training and/or experience, who has the authority and responsibility for maintaining Public Trees, and advising the public on matters relating to Public Trees as defined in NH RSA 231:139. The Tree Warden works with and is supported by the Exeter Tree Committee.

The Tree Warden's job may include, but is not limited to, the oversight of the following:

- Pruning of trees for health and safety;
- Spraying of trees;
- Removal of trees that are dead or dying as a result of storms, insects, disease, or old age;
- Identification of sites for planting new trees;
- Planting new trees;
- Maintaining an inventory of Public Trees:
- Supervising Town tree workers;
- Inspecting contracted tree work;
- Utility arboricultural operations;
- Assessment of trees for potential hazards to public safety.

The Technical Review Committee may request that the Tree Warden or designee provide advice on tree removal, tree selection, and placement of trees on projects that come before the Planning Board.

The Tree Warden shall advise on and help coordinate landscaping efforts on Town properties and/or within the Town's right-of-way.

2305 TREE COMMITTEE

The Exeter Tree Committee was created in 2019 as part of the Town of Exeter's efforts to be officially recognized as a Tree City. The Committee is a subcommittee of the Conservation Commission, and is made up of volunteers who will:

- Coordinate efforts in support of Exeter's Tree City USA designation;
- Aid in carrying out the provisions of this ordinance;
- Collaborate with the Tree Warden, Town departments, and other Town officials to foster a tree-rich community;
- Help monitor the health and protection of Public Trees;
- Work to update our inventory of Public Trees;
- Seek grants and secure funds to support and advance the work of

the committee;

 Advance educational efforts to promote awareness and knowledge of the benefits of trees.

More information on the Tree Committee can be found on the Town's website under the Conservation Commission Main Web Page.

More information on Tree City USA at Arborday.org can be found here.

2306 PERMISSION REQUIRED

Permission must be obtained from the Tree Warden prior to doing any work related to Public Trees, or commencing any activity on Public Property that may disturb roots, trunks, or limbs of Public Trees. This can include, but is not limited to, trimming, fertilizing, planting, treating with chemicals (fertilizer, herbicides, or pesticides), and removal.

Any person engaging in the business of cutting, planting, pruning, removing, spraying or otherwise treating Public Trees must first produce evidence of certification/license to the Tree Warden or designee.

Permission for removal of a Public Tree will not be granted without first establishing an acceptable plan for replacement. The Tree Warden shall determine which replacement method (Equivalent or Tree-For-Tree Replacement) is appropriate for the given circumstance.

2307 TREE COMMITTEE CONSULTATION

A Significant Public Tree (defined as having a diameter larger than 20" DBH) may be removed only following consultation with the Tree Committee, and only after the opportunity for public input at a Tree Committee meeting, *except* where delay in the removal of the tree would pose an imminent threat to public safety or property.

Replacement plans for Significant Trees will be determined in consultation with the Tree Committee.

2308 SPONSORSHIP OF PUBLIC TREES

The sponsorship of Public Trees on Public Property by the abutting property owner is permissible and encouraged provided that the Tree Warden approves the location and selection of such trees. The selected tree or trees will be planted by the Department of Public Works, and it will be the responsibility of the abutting property owner to water the tree(s) until they have become successfully established.

** See standards for planting and care.

2309 TREE REMOVAL AND REPLACEMENT

The Tree Warden shall take such action necessary to order the removal of a Public Tree or trees along town-roads when necessary to preserve public safety or to prevent the spread of disease or insects to other Public Trees and places.

See Section XX Private Trees for removal of trees on private property along town roads within the Town's right-of-way.

Consultation with the Tree Committee is not necessary for trees under 20" DBH or in emergency situations when public safety, health, and welfare is at risk.

Prior to the removal of a Public Tree, a replacement plan must be approved by the Tree Warden. The plan shall identify the replacement method (Equivalent Replacement or Tree-for-Tree Replacement), planting location, and tree species. If the tree to be removed is a Significant Public Tree, the replacement plan will be determined in consultation with the Tree Committee.

When a Public Tree has been (unlawfully) damaged or destroyed, in addition to tree replacement, the responsible party shall pay for the removal and disposal of the removed tree, including the stump, and any resulting sidewalk and/or landscape repairs, and shall provide a 3-year guarantee of success. Trees that do not survive must be replaced.

2310 HARMING PUBLIC TREES

No person shall, willfully or mischievously, break down, injure, climb upon, or commit any injury to Public Trees, nor shall they interfere with the roots or place signs or posters or any other fixture on a tree using nails or other devices which may damage the tree. Removal of any guard, stake, or watering device intended for the promotion of the health and protection of a Public Tree is also prohibited.

2311 PENALTIES

Anyone who violates any provision of this ordinance, upon being found guilty of violation, shall be subject to a fine not to exceed (\$300) for each separate offense. If the injury, mutilation, or death of any Public Tree(s) is caused, the cost of repair or replacement, or the appraised dollar value of such tree(s), shall be borne by the party in violation.

2312 ENFORCEMENT

The Tree Warden or designee shall have the power to promulgate and enforce regulations, rules, and specifications concerning the spraying, trimming, removal, planting, and protection of Public Trees.

2313 PRIVATE TREES

If the Tree Warden determines that a tree on private property along a town road is a public safety or traffic hazard, the Tree Warden will notify the property owner to make them aware of the problem, and alert them that immediate action must be taken to resolve the issue. If the property owner does not take corrective action within 10 days of notification, the Town Manager will be notified and the Tree Warden may take such necessary actions to ensure public safety, including removal of the hazardous tree. The lumber from any tree removed from private property shall, at the owner's option, be left on site for the owner's use.

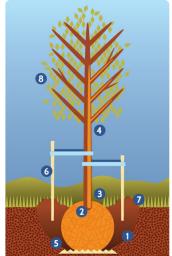
2314 STANDARDS FOR PROPER PLANTING AND MAINTENANCE

See *Exhibit A* for technical planting and maintenance specifications.

The following are general planting guidelines to aid in successful tree/shrub planting and maintenance:

- Dig a shallow, broad planting hole. The hole should be three times the diameter of the tree's root ball but only as deep as the root ball itself. It's important to make the hole wide because roots on the newlyestablished tree push through surrounding soil to establish.
- 2. Identify trunk flare. Find the trunk flare so you can determine how deep the hole needs to be for proper planting. Trunk flare is the point where roots spread at the tree base. This point should be partially visible after the tree is planted (see diagram). If the trunk

flare is not visible, remove some soil from the top of the root ball.



- 3. Place tree at the proper height. Before placing the tree in its hole, ensure that the hole has been dug to the proper depth. Many roots on the newly-planted tree will develop in the top 12 inches of soil. If the hole is too deep, new roots will have difficulty developing from lack of oxygen. Plant the tree two to three inches above the base of trunk flare. This planting level allows for settling (see diagram). To avoid damage when setting the tree in the hole, lift it by its root ball, never by the trunk.
- 4. Straighten the tree. Before backfilling, check the tree from several directions to confirm that it's straight.
- 5. Fill the hole gently but firmly. Fill the hole about 1/3 with soil and gently

but firmly pack that soil around the base of the root ball. If the root ball is wrapped, cut and remove any fabric, plastic, string, and wire from around the trunk and root ball to facilitate growth (see diagram). Take care not to damage trunk or roots while unwrapping.

Fill in the hole, packing soil firmly to eliminate air pockets that may cause roots to dry out. Add soil a few inches at a time and settle with water. Continue until the hole is filled and the tree is firmly planted. Fertilizer isn't necessary during planting.

- 6. Stake the tree, if necessary. Trees establish more quickly and develop stronger trunk and root systems if they aren't staked during planting. However, protective staking may be required on sites where lawn-mower damage, vandalism or windy conditions are concerns. If staking is necessary, use two stakes in conjunction with a wide, flexible tie material on the lower half of the tree. This holds the tree upright, provides flexibility, and minimizes injury to the trunk (see diagram). Remove support staking and ties after the first year of growth.
- 7. Mulch the tree's base. Mulch acts like a blanket that holds in moisture, controls soil temperature extremes and prevents grass and weed competition. Choices include leaf litter, pine straw, shredded bark, peat moss, or composted wood chips. A two to four-inch layer is ideal. More than four inches may cause oxygen problems. When placing mulch, don't cover the tree trunk (it promotes decay). A mulch-free area, one to two inches wide at the base of the tree, prevents moist bark conditions and decay.
- 8. Follow-up care: Keep soil moist but not soaked; overwatering causes leaves to turn yellow or fall off. Water trees at least once weekly and more frequently during hot weather. When soil is dry below the surface of the mulch, it's time to water. Continue until mid-fall, tapering off for lower temperatures that require less-frequent watering.

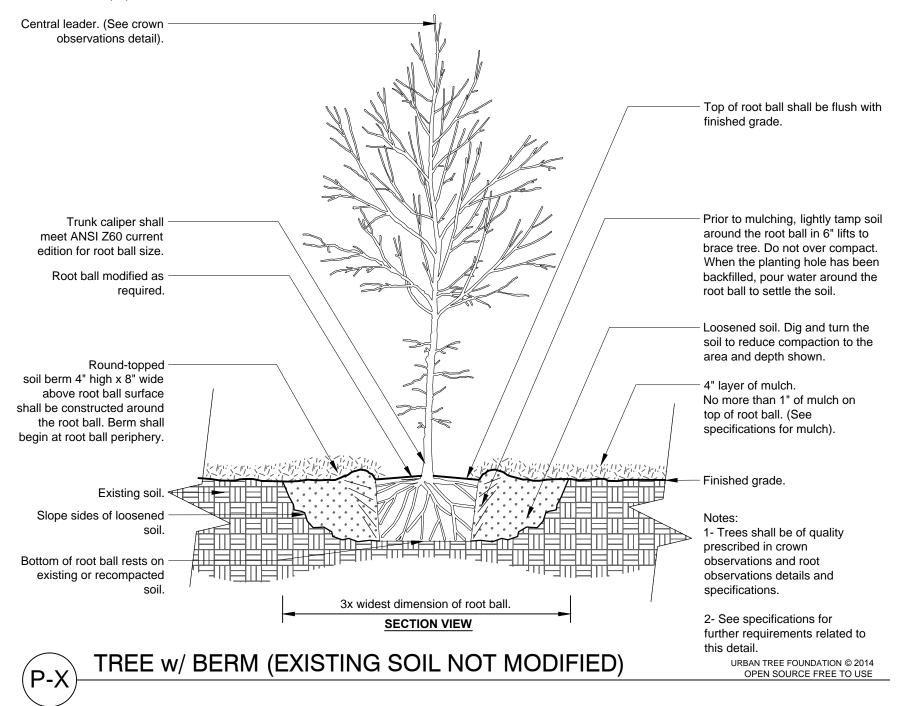
2315 NATIVE TREES AND SHRUBS

See Exhibit B: Approved Trees and Shrubs

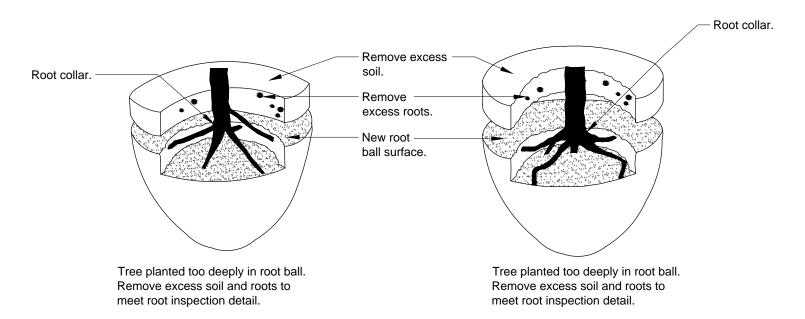
See Exhibit C: Prohibited Trees and Shrubs Note: *This will be updated every 5 years.*

Adopted: November 15, 2021

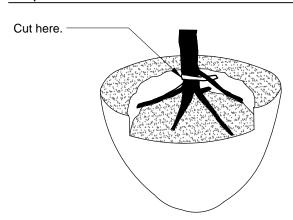
Exhibit: A(1)



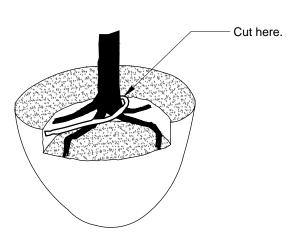
Step 1 - Remove soil and roots over the root collar.



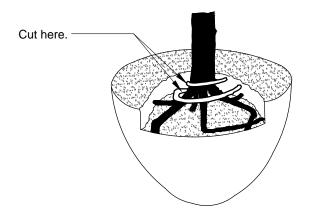
Step 2 - Remove defects.



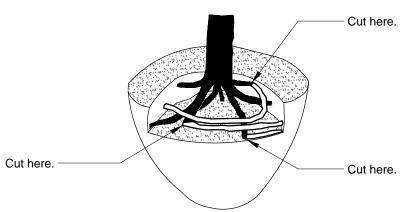
Five structural (large) roots shown in black. Remove structural (white) root wrapping root collar.



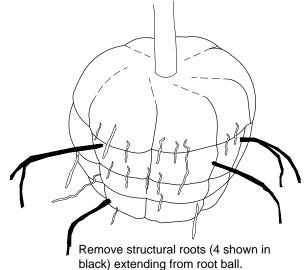
Four structural roots shown in black. Remove root (white) growing over structural roots.

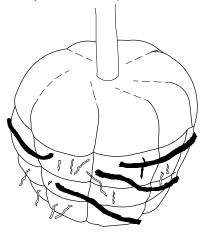


Six structural roots shown in black. Remove structural roots (white) growing over root collar by cutting them just before they make an abrupt turn.



Seven structural roots shown in black. Remove structural roots (white) growing around or over root collar by cutting them just before they make an abrupt turn.





Remove structural roots (4 shown in black) deflected on root ball periphery. Small roots ($\frac{1}{4}$ " or less) at the periphery of the root ball are not defined as defects and do not need to be removed.

Notes:

- 1- All trees shown are rejectable unless they undergo recommended correction.
 2- First step 1, then step 2. Adjust hole depth to allow for the removal of excess soil and roots over the root collar.
- 3- Roots and soil may be removed during the correction process; substrate/soil shall be replaced after the correction has been completed. 4- Trees shall pass root observations detail following correction.





EXHIBIT B: APPROVED TREES AND SHRUBS

Please Note: Justification must be provided prior to the selection of a non-native species.

The Town maintains a spreadsheet with tree characteristics and suitable planting conditions (street tree, park or suitable for larger area, high salt tolerance, and more). Contact the Tree Warden at the Department of Public Works if you would like assistance in selecting a species for particular conditions. (*indicates native to the Eastern US)

Common name	Scientific name	Native
Red maple	Acer rubrum	Yes
Sugar maple	Acer saccharum	Yes
Freeman maple	Acer xfreemanii	Yes
Serviceberry/ juneberry	Amelanchier canadensis	Yes
River birch (single trunk)	Betula nigra	Yes
American hornbeam, ironwood, musclewood	Carpinus caroliniana	Yes
Hackberry	Celtis laevigata	Yes
Common hackberry	Celtis occidentalis	Yes
Pagoda dogwood/alternate leaf dogwood	Cornus alternafolia	Yes
Flowering dogwood	Cornus florida	Yes
Hawthorn	Cratageus macrosperma	Yes
American beech	Fagus grandifolia	Yes
Eastern red cedar	Juniperus virginiana	Yes
Sweetgum	Liquidambar styraciflua	Yes*
Tulip tree or tulip poplar	Liriodendron tulipifera	Yes*
Cucumber magnolia	Magnolia acuminata	Yes*
Black gum or black tupelo	Nyssa sylvatica	Yes
Ironwood	Ostrya virginiana	Yes
White spruce	Picea alba	Yes
Pitch pine	Pinus ridgida	Yes
White pine	Pinus strobus	Yes
American sycamore	Platanus occidentalis	Yes
Pin cherry	Prunus pensylvanica	Yes

Common name	Scientific name	Native
White oak	Quercus alba	Yes
Swamp white oak	Quercus bicolor	Yes
Scarlet oak	Quercus coccinea	Yes
Bur oak	Quercus macrocarpa	Yes
Red oak	Quercus rubra	Yes
Black willow	Salix nigra	Yes
Sassafras	Sassafras albidum	
American mountain ash	Sorbus americana 'dwarfcrown'	Yes
Common baldcypress	Taxodium distichum	Yes
American linden/basswood	Tilia americana	Yes*
American elm	Ulmus americana	Yes
Eastern redbud	Cercis canadensis	Yes
White fir	Abies concolor	No
Flame amur maple	Acer ginnala 'flame'	No
Paperbark maple	Acer griseum	No
Fort McNair horse chestnut	Aesculus carnea 'fort McNair'	No
European hornbeam	Carpinus betulus	No
Northern catalpa	Catalpa speciosa	No
Yellowwood	Cladrastis kentukea	No
		No
Stellar pink dogwood	Cornus 'stellar pink'	No
Cornelian-cherry dogwood	Cornus mas	No
Gingko	Gingko biloba	No
Honey locust	Gleditsia triacanthos	No
Kentucky coffee tree	Gymnocladus dioicus	No
Elizabeth magnolia	Magnolia 'elizabeth'	No
Flowering crabapple	Malus spp.	No
Dawn redwood	Metasequoia glyptostroboides	No

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Common name	Scientific name	Native
Sourwood	Oxydendron arboretum	
		No
Norway spruce	Picea abies	
		No
Bloodgood london planetree (sycamore, plantanus occidentia)	Platanus acerfolia	
		No
Japanese cherry	Prunus serrulata	
		No
Douglas fir	Pseudotsuga menziesii	
	0 -	No
Pin oak	Quercus palustrus	
	2 p	No
Scholar tree or japanese pagodatree	Sophora japonica	
J.T	J. J	No
Japanese stewartia	Stewartia pseudocamellia	
	Siewania pseudoeanienia	No
Japanese tree lilac	Syringa reticulata	- 1.2
supunese tree mae	Syringa reticulata	No
Japanese zelkova	Zelkova serrata	110
Supunese Zerkova	Zemova serraia	No
Green vase zelkova	Zalkova samuata 'anaan ···asa'	140
Green vase zerkova	Zelkova serrata 'green vase'	No
		NO

EXHIBIT C: PROHIBITED TREES AND SHRUBS

<u>Prohibited Species</u>: No trees or shrubs that have been designated a State of New Hampshire Prohibited Species may be planted. The full list can be found at <u>State of New Hampshire Office of Legislative Services, Administrative Rules s Agr-3800</u> and shall be the main resource. Below is a compilation of the trees and shrubs from that list, current as of 8/6/21.

Prohibited Plant Species			
Scientific name	Synonyms	Common name	
Acer platanoides L.	Acer platanoides var. schwedleri Nichols.	Norway maple	
Ailanthus altissima (P. Mill.) Swingle	Ailanthus glandulosa Desv.	Tree of heaven	
Alnus glutinosa (L.) Gaertn.	Alnus alnus (L.) Britt.; Betula alnus L. var. glutinosa L.	European black alder	
Berberis thunbergii DC.		Japanese barberry	
Berberis vulgaris L.		European barberry	
Celastrus orbiculatus Thunb.		Oriental bittersweet	
Elaeagnus umbellata Thunb. var. parvifolia (Royle) Schneid.	Elaeagnus parvifolia Royle	Autumn olive	
Euonymus alatus (Thunb.) Sieb.	Celastrus alatus Thunb.	Burning bush	
Frangula alnus P. Mill.	Rhamnus frangula L.	Glossy buckthorn	
Ligustrum obtusifolium Sieb. & Zucc. var. obtusifolium	Ligustrum obtusifolium var. leiocalyx (Nakai) H. Hara	Blunt-leaved privet	
Ligustrum vulgare L.		Common privet	
Lonicera japonica Thunb.	Nintooa japonica (Thunb.) Sweet	Japanese honeysuckle	
Lonicera maackii (Rupr.) Herder*		Amur honeysuckle*	
Lonicera morrowii Gray*		Morrow's honeysuckle*	
Lonicera tatarica L.*		Tartarian honeysuckle*	
Lonicera ×bella Zabel*	Lonicera morrowii × L. tatarica	Bella honeysuckle*	
Lysimachia nummularia L.		Moneywort	
Rhamnus cathartica L.		Common buckthorn	
Rosa multiflora Thunb. ex Murr.		Multiflora rose	

^{**}See page 2 for Plants Recommended for Avoidance**

Recommended for Avoidance: The following list of plants are strongly discouraged for public tree planting is based on a combination of the NH Invasive Plant Species Watch List, developed by the New Hampshire Invasive Species Committee (ISC), as well as additional plants that are discouraged due to their invasive-like growth qualities.

Scientific	Synonyms	Common Name
Acer ginnala Maxim.		Amur maple
Amorpha fruticosa L.	Amorpha fruticosa var. angustifolia Pursh; Amorpha fruticosa var. oblongifolia Palmer; Amorpha fruticosa var. tennesseensis (Shuttlw. ex Kunze) Palmer	False indigo-bush
Bassia scoparia (L.) A.J. Schott	Chenopodium scoparium L.; Kochia scoparia (L.) Schrad.; Kochia scoparia var. pubescens Fenzl; Kochia scoparia var. subvillosa Moq.	Firebush smotherweed
Cytisus scoparius (L.) Link var. scoparius	Spartium scoparium L.	Scotch broom
Elaeagnus angustifolia L.		Russian-olive
Euonymus europaeus L.		European spindle-tree
Euonymus fortunei (Turcz.) Hand Mazz	Euonymus fortunei var. radicans (Sieb. ex Miq.) Rehd.; Euonymus fortunei var. vegetus (Rehd.) Rehd.; Euonymus radicans Sieb. ex Miq.; Euonymus radicans Sieb. ex Miq. var. vegetus Rehd.	Climbing spindle-tree
Kalopanax septemlobus (Thunb.) Koidz.	Acanthopanax ricinifolius (Sieb. & Zucc.) Seem.; Kalopanax pictus (Thunb.) Nakai	Castor-aralia
Lespedeza bicolor Turcz.		Two-colored bush-clover
Lonicera xylosteum L.		Fly honeysuckle
Phellodendron amurense Rupr.	Phellodendron amurense var. sachalinense F. Schmidt; Phellodendron japonicum Maxim.; Phellodendron sachalinense (F. Schmidt) Sarg.	Amur corktree
Pinus sylvestris L.		Scotch pine
Populus alba L.	Populus alba L. var. bolleana Lauche	White poplar
Pyrus calleryana,		Callery/Bradford Pear
Robinia pseudoacacia L.		Black locust
Rosa rugosa Thunb.		Beach rose
Ulmus pumila L.		Siberian elm