

# Lincoln Conservation Commission

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## Tree/Shrub Replacement Guidelines

This Guidance Document was created to provide helpful information to landowners wishing to cut trees on their property which require mitigation plantings, per Lincoln's Tree Removal Policy. Native plants in and near wetlands will intercept pollutants, slow down runoff from adjacent land, provide some wildlife habitat, and reduce the use of watering, pesticides, and herbicides.

### **What kind of Mitigation Planting is required?**

According to Lincoln's Tree Removal Policy, the loss of trees cut in or near Wetland Resource Areas shall be mitigated as follows (size refers to Diameter at Breast Height (DBH):

1. Large trees (>12" DBH): the owner shall plant a native tree sapling (or two native shrubs) for each large tree cut.
2. Small trees (<12" DBH): For every small tree proposed to be cut, the owner shall plant one native tree sapling or one native shrub.

### **Replacement Tree/Shrub Requirements.** A replacement tree/shrub shall:

1. Be planted at least as close to the resource area as the cut tree closest to the wetlands that the new tree is replacing.
2. Be of a native species
3. Trees shall have a caliper size of 1" or greater and at least 5-feet tall; shrubs shall be a 2-gallon pot or greater
4. Optimize wildlife habitat value to the maximum extent practicable; and
5. Survive two growing seasons. The owner must describe the steps that will be taken to maintain the tree for at least 24 months after the date that it is planted.

**What is a Native Plant?** Native plants (also called indigenous plants) are plants that have evolved over thousands of years to adapt to the geography, hydrology, and climate of a particular region. As a result, native plants form communities with other plants that provide habitat for a variety of local wildlife species such as songbirds and butterflies.

NATIVE PLANTS:
<ul style="list-style-type: none"><li>▪ Do not require fertilizers.</li><li>▪ Require fewer, if any, pesticides than lawns.</li><li>▪ Require less water than lawns.</li><li>▪ Help reduce air pollution.</li><li>▪ Provide shelter and food for wildlife.</li></ul>

## TREE/SHRUB REPLACEMENT GUIDELINES

**Why Use Native Plants?** Because native plants are adapted to local conditions, they provide a beautiful, hardy, drought resistant, low maintenance landscape while benefiting the environment. Once established, they can save time and money by eliminating the need for fertilizers, pesticides, water, and lawn maintenance equipment.

**Select the type of native plants -** When selecting plants, keep in mind the amount of light and water the location gets as well as the type of soil. A sunny, dry location with sandy soil will need different plants from a shady, wet one with acid soil. Also keep in mind plants that provide natural foods for wildlife such as fruits, seeds, nuts, and nectar. Please refer to Appendix 2 for a partial list of acceptable native plants.

### **Submit a plan**

After selecting the plants, draw up a sketch plan at a scale of 1" = 40'. You may use a plot plan printed from the Town of Lincoln's "MapsOnline": <https://www.axisgis.com/LincolnMA/>

Please show approximately where the plants will go. Vegetation should be planted in a "naturalistic manner" (i.e. clumping, mini-communities, etc.).

### **Get Approval**

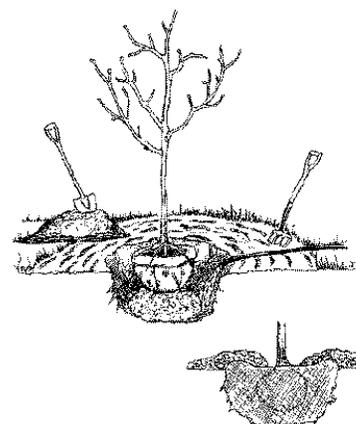
Your re-planting plan shall be submitted with the Tree Removal Request Application and will either be approved by the Conservation Administrator, the Conservation Commission, or will require a more formal application process through a formal Conservation Commission meeting. Please check with the Conservation Administrator as to the process your application and how long the process will take. Once your project is properly approved, you will receive a memo from the Conservation Administrator indicating that our tree cutting, and re-planting may proceed.

### **DOING THE WORK**

**Times to Plant -** Planting is largely a late fall or early spring activity occurring at the beginning or end of the growing season. The growing season for Middlesex County goes from April 16 – October 18. Planting in hot, dry summer conditions may delay seed germination and plant growth or require extensive watering.

As with any planting, watering may be necessary while the plants are becoming established, especially during a drought or heat wave. Watering seeded areas, however, is usually not mandatory as native species will usually germinate when conditions are most appropriate. Mulch of dead leaves or compost helps to retain moisture in the soil for a young transplant.

Fall plantings should be done before the first frost which occurs sometime around October 18. Shrubs and trees, however, may be planted up to November 15, weather permitting. It should be noted, however, that some plant species are ill-suited to fall plan.



**LINCOLN CONSERVATION COMMISSION  
TREE / SHRUB REPLACEMENT GUIDELINES**

**Planting trees and shrubs** - Native plants are installed the same way as any other potted or bare root stock by digging a hole large enough so it will not constrict root systems. You will want to use proper tree planting procedures - to make sure the tree has the best chance for a long life.

- Dig the hole as deep as the root ball and twice as wide.
- Check to see if the soil around the hole is too hard - if it is, loosen it up a bit with the shovel.
- Remove the container from the root ball. - The roots are like the plant's blood vessels, and they work best if they are not all twisted and knotted up, so you might need to straighten them out if they are circling around after having grown in the container.
- Place the tree in the hole, making sure the soil is at the same level on the tree as when the tree grew in the garden center. If your tree has burlap around the root ball, place the tree in the hole and then carefully untie the burlap. Leave the burlap lying in the bottom of the hole - this is okay - the burlap will simply turn into organic matter over a period of time.
- Fill in around the root ball with soil and pack the soil with your hands and feet to make sure that there are no air pockets.
- Make a little dam around the base of the plant as wide as the hole with left over soil or grass clumps to hold in the water.



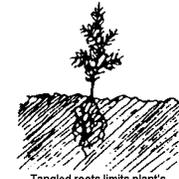
Air pockets leaves roots without soil



Upturned roots leaves plant without water and soil



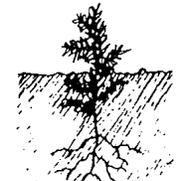
Rock blocks plant's growth



Tangled roots limits plant's reach for water



Too shallow planting leaves roots exposed



Too deep planting strangles the plant

**MONITORING OF RESTORED AREA**

Applications of fertilizers or pesticides should be avoided. Maintenance should be limited to invasive species removal to maintain native plant diversity. It is the landowner's responsibility to replace trees and shrubs that do not survive.

**Summary**

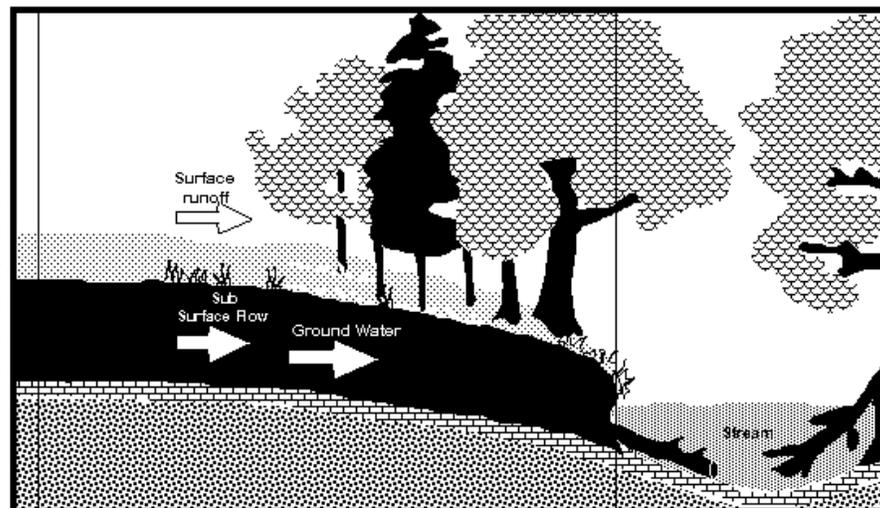
By choosing native plants suited to the site conditions, little maintenance, chemical fertilizers, herbicides, or additional watering will be necessary for the plants to thrive. This all adds up to time and cost savings as well as a healthier habitat for you and the wildlife that inhabit your yard.

## INTERNET REFERENCES

Choosing the Right Plant for Your Place - Check out these key resources to help identify plants for your home garden:

- **Go Botany** - Learn about native species in New England and check other common garden plants to see which are native:  
<https://gobotany.nativeplanttrust.org>
- **Where to Buy Native Plants** - See Native Plant Trust's ample selection of native plants on sale at Garden in the Woods and Nasami Farm Nursery, and browse our CSA and Plant Collections:  
<https://www.nativeplanttrust.org/for-your-garden/buy-native-plants/>
- **Invasive plants brochure** - Be sure not to plant invasive species, one of the chief threats to native plants. See:  
[https://www.nativeplanttrust.org/documents/321/Managing\\_Common\\_Invasives\\_40519.pdf](https://www.nativeplanttrust.org/documents/321/Managing_Common_Invasives_40519.pdf)
- **List of landscape designers** who can assist you in your buffer zone restoration project (Select "MA" but leave the zip code blank):  
<https://www.ecolandscaping.org/member-directory/>

**A buffer zone (between the 2 vertical lines) allows water to slow down and be filtered before it empties into the stream or wetland. This helps keep our groundwater and surface waters cleaner.**



## SUGGESTED NATIVE PLANTS

For a complete listing, please refer to Native Plant Trust's native plant listing at:

<https://www.nativeplanttrust.org/>

### Easy Plants for Dry Soils

#### **TREES**

*Sassafras albidum* - Sassafras  
*Quercus Alba* - White Oak  
*Quercus rubra* - Northern Red Oak  
*Pinus strobus* - Eastern White Pine

#### **SHRUBS**

*Amelanchier* species - Serviceberry  
*Cornus racemosa* - Gray Dogwood  
*Ilex glabra* - Inkberry Holly  
*Kalmia angustifolia* - Sheep Laurel  
*Myrica pensylvanica* - Morella carolinensis -  
Bayberry  
*Rhododendron vaseyi* - Pink-shell Azalea  
*Rosa virginiana* - Virginia Rose  
*Spiraea alba var latifolia* - Meadowsweet  
*Vaccinium angustifolium* - Lowbush  
Blueberry  
*Vaccinium pallidum* - Hillside Blueberry

### Easy Plants for Moist Soils

#### **TREES**

*Acer Rubrum* - Red Maple  
*Betula nigra* 'Heritage' - River Birch  
*Cercis canadensis* - Eastern Redbud  
*Liriodendron tulipifera* - Tulip Tree  
*Quercus rubra* - Red Oak  
*Quercus palustris* - Pin Oak

#### **SHRUBS**

*Amelanchier canadensis* - Serviceberry  
*Clethra* spp. - Sweet Pepperbush  
*Cornus alternifolia* - Pagoda Dogwood  
*Hamamelis virginiana* - Common Witchhazel

*Ilex verticillata* - Winterberry  
*Kalmia latifolia* - Mountain Laurel  
*Rhododendron vaseyi* - Pink-shell Azalea  
*Sambucus canadensis* - Elderberry  
*Vaccinium corymbosum* - Highbush  
Blueberry  
*Viburnum dentatum* - Arrowwood  
*Viburnum nudum* - Witherod Viburnum

### Easy Plants for Wet Soils

#### **TREES**

*Platanus occidentalis* - American Sycamore  
*Quercus palustris* - Pin Oak  
*Acer Rubrum* - Red Maple  
*Fraxinus Pennsylvania* - Green Ash

#### **SHRUBS**

*Aronia arbutifolia* - Red Chokeberry  
*Ilex glabra* - Inkberry Holly  
*Ilex verticillata* - Winterberry  
*Lindera benzoin* - Spicebush  
*Rhododendron viscosum* - Swamp Azalea  
*Vaccinium corymbosum* - Highbush  
Blueberry

**LOCAL NURSERIES THAT SELL NATIVE PLANTS**

<p><b>Bigelow Nurseries, Inc.</b>          455 West Main Street - NOT Rte 20          P.O. Box 718          Northboro, MA 01532          Phone: 508-845-2143          FAX: 508-842-9245</p>	<p>This is a semi-local nursery that has a standard variety of native - and non-native plants. <a href="http://www.bigelownurseries.com/">http://www.bigelownurseries.com/</a></p>
<p><b>New England Wetland Plants, Inc</b>          820 West St.          Amherst, MA 01002          Phone: 413-548-8000          Fax: 413-549-4000</p>	<p>These are the experts in wetland plants and will answer questions. They have seed mixes for a variety of conditions. They will ship seed &amp; plants, but they encourage you to pick them up. About 1 ½ hours from Framingham.  <a href="http://www.newp.com/">http://www.newp.com/</a></p>
<p><b>Native Plant Trust</b>          180 Hemenway Road          Framingham, MA 01701          Phone: 508-877-7630          TTY: 508-877-6553</p>	<p>Native Plant Trust runs 2 nurseries specializing in native plants of all kinds. One is in Framingham at the <i>Garden in the Woods</i>, the Society's museum - and garden idea center for wildflowers and other native plants. Their other nursery, <i>Nasami Farms</i>, is in Whately, MA. If you want to get creative this is the place for you.  <a href="https://www.nativeplanttrust.org/for-your-garden/buy-native-plants/">https://www.nativeplanttrust.org/for-your-garden/buy-native-plants/</a></p>
<p><b>Russell's Garden Center</b>          397 Boston Post Rd - Rt. 20          Wayland, MA 01778          Phone: 508-358-2283          FAX: 508-358-2473</p>	<p>This is a semi-local nursery that has a standard variety of native - and non-native plants. A treat to walk in the greenhouses in winter.  <a href="http://www.russellsgardencenter.com/">http://www.russellsgardencenter.com/</a></p>
<p><b>Weston Nurseries of Hopkinton, Inc.</b>          93 East Main Street - Rte. 135          P.O. Box 186          Hopkinton, MA 01748          Phone: 508-435-3414</p>	<p>This is also a semi-local nursery which does some of its own hybridizing. It has a variety of native - and non-native plants.  <a href="http://www.westonnurseries.com/">http://www.westonnurseries.com/</a></p>

## Town of Lincoln Conservation Commission Native Plant Mitigation Form

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Name \_\_\_\_\_

Address \_\_\_\_\_

Location of Restoration Area \_\_\_\_\_

Size of Restoration Area - square feet \_\_\_\_\_

### Name and Type of native vegetation to be planted

#### Species Name

Common Name

Quantity

Common Name	Quantity
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

Nursery where plants will be purchased \_\_\_\_\_

Proposed date of planting \_\_\_\_\_

**Please attach a sketch plan of the planting area  
with the approximate location of plantings  
at a scale of 1"=40'.**