

Town of Carlisle
Conservation Commission
66 Westford Street
Carlisle, MA 01741

Tree Removal and Mitigation Policy
UNDER THE MA WETLANDS PROTECTION ACT
AND CARLISLE WETLANDS BYLAW
Adopted September 8, 2022

No trees may be cut from Wetland Resource Areas and/or Buffer Zones (Jurisdictional Areas) unless permission has been granted by the Carlisle Conservation Commission. This policy applies to all Jurisdictional Areas, whether natural or landscaped. Landscaped areas are those locations comprised predominantly of lawn or landscaping shrubs. Natural areas are those areas comprised predominantly of naturally occurring vegetation. The Conservation Commission has jurisdiction over the following areas (“Jurisdictional Areas”):

- Wetland Resource Areas, defined as 100-year floodplains, wetlands, streams, Bank, ponds, and marshes.
- Riverfront Areas - Land within 200 feet of a perennial stream.
- Certified Vernal Pools
- Buffer Zones - Land within 100 feet of a Bordering Vegetated Wetland or Bank.

These wetland resource areas may sometimes appear to be dry and difficult to identify. All landowners are encouraged to contact the Conservation Office at (978) 369-0336 to discuss any proposed work.

Purpose of this Policy: This tree removal and mitigation policy is intended to assist homeowners in understanding the requirements for tree removals and replacements; to provide a consistent implementation of the Commission’s policies under its wetland regulatory authority and to allow landowners to maintain safety and enjoyment of their property

Ecological Value of Trees and Natural Landscapes: Trees provide substantial public and private benefits. They filter and absorb air pollution, providing cleaner air for all. Studies show that mature trees can absorb a substantial amount particulate pollution from the atmosphere. Trees fight climate change by removing carbon dioxide from the air, storing carbon, and releasing oxygen into the atmosphere. Trees naturally and efficiently reduce stormwater runoff. Rainfall is held in the leaves and bark, and slowly released into the soil to replenish the groundwater and improve water quality. Wildlife use trees for food, cover, nesting sites, and shelter. Contiguous tree canopy promotes wildlife diversity and healthier ecosystems. Trees provide shade that contributes to healthy vegetation and cooler water temperatures. Even dead trees can be valuable, providing habitat for cavity-nesting birds,

insects for wildlife, and organic nutrients for healthy soil. Similarly, even invasive trees provide carbon storage, nesting and cover for wildlife, and shading.

Guiding Principles. The Commission is sensitive to the needs of a landowner to manage their property. Through good land stewardship, individual removal of trees usually does not pose any significant threat to resource areas and in some cases may present opportunities for improvement. However, removal of trees to create or enlarge a manicured lawn area or for other aesthetic purposes (e.g., enhance vistas) are not viewed favorably by the Commission. To ensure that the ecological values of trees are retained, the Commission may require the applicant to replace trees and/or leave snags for wildlife. In certain cases, the Commission may exercise its discretion in the application of this policy. List of factors commission would consider in granting or denying administrative approval are danger to structures, access to the home, distance from the protected resource area, diameter of trees, and whether they are diseased or exotic.

Conditions for Tree Removal. Generally, all tree removal requests within jurisdictional areas must receive Commission approval. This includes landscaped or natural areas. Equipment is encouraged to remain in landscaped or paved areas and outside of natural areas. To minimize disturbance, the only tree trunks that may be ground below the surface are those in landscaped areas or at least 50 feet from the wetland resource area. A written report from a certified arborist may be required. Trees are categorized as small (4-10 inches), medium (11-20 inches) or Large (more than 20 inches). If the owner is requesting removal based upon tree health or for safety, a letter from a certified arborist may be required.

Tree Removal Request Application

- A. *Application Form.* A landowner proposing to cut up to five small trees or 3 medium trees in a Jurisdictional Area must file a “Tree Removal Application Form” which includes the following information:
 - 1. Tree(s) size (diameter 4’ off the ground) type, and condition
 - 2. Reason for the tree removal request
 - 3. whether the tree(s) are in a natural area, landscaped area, lawn area or on a steep slope.
 - 4. the scope of work and the equipment to be used
 - 5. Whether stumps will be cut flush, ground or a totem/snag left for wildlife
- B. *Site Map.* The landowner should include with the Tree Removal Application an informal map showing:
 - 1. Existing Wetland Resource Areas (including Riverfront Area, where applicable) and the 100-foot buffer zone, structures, trees, and other relevant features; and
 - 2. Proposed trees to be cut (numbered in a way that can be cross-referenced with application).A site plan may be available through the Conservation office showing approximate wetland locations available from former wetlands filings.

Review and Approval Process

- A. Conservation Commission Staff Administrative Review/Approval. Conservation Commission staff may administratively approve up to five (5) small trees or 3 medium trees, within Jurisdictional Areas, following informal review before the Conservation Commission at a scheduled Commission meeting.
- B. Formal Conservation Commission Review/Approval- If tree removal in a Jurisdictional Area is proposed beyond what staff are authorized to approve, such removal may be permitted by the Conservation Commission, provided that the owner files a Request for Determination of Applicability or Notice of Intent and the Conservation Commission permits such removal under the Massachusetts Wetlands Protection Act, its regulations and the Carlisle Wetlands Non-zoning Bylaw.

Tree Mitigation Requirements and Conditions

- A. Mitigation. The Conservation Commission may require loss of trees cut in particularly sensitive Jurisdictional Areas be mitigated as follows:
 - 1. Hazard Trees¹. Landowners are encouraged to replant native trees at a 1:1 ratio for trees removed, or 2:1 native shrubs for trees removed, and/or leave a 10-15 foot high snag for wildlife.
 - 2. Healthy Trees. If removal of healthy trees is permitted, landowners may be required to mitigate a total of 50% caliper of new native trees for the total caliper lost. For example, if three trees totaling 60 inches diameter at breast height (DBH) are approved to be removed, the landowner is responsible for replanting any combination of trees that achieve 30 inches caliper of native replacements (*i.e.*, five 6-inch caliper trees, ten 3-inch caliper trees, etc.).
 - 3. Invasive Species². Invasive species may be mitigated at a 25% caliper of new native trees.
 - 4. To assist mitigation planning, the Conservation Commission has provided a list of plants native to Middlesex County, Massachusetts on their website.
- B. Replacement Tree Requirements.
 - 1. Replacement trees must be a species native to New England with a minimum caliper of 2 inches
 - 2. Replacement trees must be planted within the same Jurisdictional Areas or closer to the wetland edge.
 - 3. Evergreen trees (measured in feet of height, *i.e.*, 8 ft. high or tall) must be a minimum of 8 feet to count towards mitigation. Hedges DO NOT COUNT towards mitigation totals. The height of evergreen trees in feet shall be multiplied by 0.25 to calculate the corresponding contribution value in caliper inches. For

¹ **Hazard Tree** - A tree which is dead or dying and/or has a structural defect that may cause it to fall on a target such as people, permanent or temporary structures, or usable surfaces (lawn, driveway).

² The **MA Invasive Plants Advisory Group** has identified 36 invasive species in the state:
<https://www.massnrc.org/mipag/invasive.htm>

example, a 10-foot balsam fir would count as a 2.5-inch caliper tree for mitigation purposes.

4. Multi-stemmed trees must be a minimum of 8 feet tall at the time of planting to count towards mitigation. The height of multi-stemmed trees in feet shall be multiplied by 0.25 to calculate the corresponding contribution value in caliper inches. For example, a 12-foot multi-stemmed River Birch would count as a 3-inch caliper tree for mitigation purposes.
5. All new trees planted to satisfy mitigation requirements must be maintained in good health for a period of no less than twenty-four months from the date of planting. Periods of unusual weather (including drought) shall not relieve this obligation. The Conservation Commission must be provided with a report by October 31 for each of the two years after planting detailing the tree and plant survival rate of at least 90%. In most circumstances this information can be provided by the homeowner with photographs.