

**** DRAFT POLICY****

**GENERAL POLICY FOR UTILITY MAINTENANCE TREE TRIMMING AND
TREE REMOVAL ON SCENIC ROADS IN DURHAM, NH**

Presented to Planning Board on October 24, 2018

This draft policy was developed in consultation with Robert Berner, Eastern Region Arborist for Eversource; Mike Lynch, Durham Public Works Director and Tree Warden; and John Parry, a Durham resident who works as an urban forester with a government agency. This policy applies to the current electric utilities provider for Durham, i.e., to Eversource or its successor.

It is recognized that a cooperative approach with Eversource has been in place for many years and has served Durham well. This document is an effort to record and enhance these practices. See the companion document below for background information about trimming and removing trees on scenic roads in Durham, New Hampshire.

General Procedures

- a) Scenic Roads. Durham has designated four scenic roads: Bay Road, Bennett Road, Durham Point Road, and Packers Falls Road. Requests to trim or remove trees on these scenic roads are presented to the Planning Board at a public hearing for review and approval pursuant to RSA 231:158.
- b) Threshold. Per the RSA, trees located within the road right of way (with the trunk or any portion of the trunk at ground level located within the right of way) that have a circumference of at least 15 inches (a diameter of 4-3/4 inches) measured 4 feet above the ground are subject to review.
- c) Review. A certified arborist working for Eversource will be involved in the review process and in the oversight of tree trimming and removal. Prior to the public hearing, the Eversource arborist will drive the roads with the Durham Tree Warden and Durham Town Planner to look at the individual trees to be removed and for an overview of the planned trimming. The Durham Tree Warden may provide comments to the Planning Board at his option. A knowledgeable professional will represent Eversource at the public hearing.
- d) Planning Board Action. The Planning Board will seek to take action in one meeting after holding the public hearing but it may continue the meeting and the public hearing and conduct a site drive as it sees fit.
- e) Standards. Eversource trims and removes trees based on internal procedures developed for utility line maintenance and standards developed by the New Hampshire Public Utility Commission (PUC 307.10) for cutting trees. As appropriate, Eversource follows arboricultural standards including: 1) ANSI A 300 Part 1. American National Standard for Tree Care Operations – Tree, Shrub, and Other Woody Plant Maintenance – Standard

Practices (Pruning) for utility pruning of trees; 2) Understanding Vegetation Management (published by PSNH); and 3) Pruning Trees near Electric Utility Lines by Dr. Alex L. Shigo. The first two documents are posted on the Town's website. The third is available for review in the Planning Office.

- f) Experience. Judgment and experience is necessary in managing trees for utility operations along scenic roads. To the extent practical, Eversource will seek to direct more experienced supervisors and crews to work on scenic roads. It is encouraged but not required that the supervisor be a certified arborist. Eversource will provide additional training to supervisors and crews on the techniques to be used, as appropriate.
- g) Communication. Eversource will communicate these procedures to the supervisor and tree workers assigned to tree trimming on scenic roads in Durham.

Tree Removal

- a) Identification of Trees. Eversource will mark the trees to be removed with ribbons and provide a matrix identifying each tree proposed for removal indicating the species, location (nearest utility pole), diameter at breast height (DBH), height, and condition.
- b) Criteria. In reviewing applications, the Planning Board weighs cost and benefit: the value of keeping the tree (based upon its species, size, health, condition, location, and appearance) vs. the potential impact of the tree upon the effective operation of the utility line and potential safety concerns. Generally, the Town has found that Eversource is careful and discerning in deciding which trees to remove.
- c) Threat to Infrastructure. Trees to be removed are identified in large part by the threat that they pose to the utility infrastructure. There may be other trees in the right of way with a risk of failure but if they are not deemed a threat to the utility infrastructure, they are not considered part of the scope of work in this process.

Tree Trimming

- a) Approval. The Planning Board approves the trimming of trees on scenic roads. However, this review involves a broad approval by the board for trimming as described by Eversource in their application consistent with Eversource's trimming policy and this document. Because so many branches are affected, unlike proposed tree removal, specific trees and branches to be trimmed are not identified in the application. In unusual cases, where there is concern about a particular tree, the Planning Board may establish parameters or limitations for the trimming of that tree.
- b) Objective. Eversource follows this procedure in order to reduce the loss of tree canopy, create fewer wounds to the tree, and improve aesthetics.
- c) Clearance Standard. Eversource generally trims branches within a box surrounding the utility lines as follows: 10 feet below the lines, 15 feet above the lines, and 8 feet to either side of the lines. This is the standard (PUC 307.10) used throughout the state and

is endorsed by the New Hampshire Public Utilities Commission. However, there is flexibility and judgment involved in trimming depending on the circumstances: locations of branches, species of tree, condition of tree, exact site conditions, etc.

- d) Directional Pruning. Eversource seeks to trim branches in a precise and strategic manner as outlined in its clearance standard. Branches are not simply cut at the prescribed distance from the conductor, but rather at the branch bark collar (the swollen area around the branch). This can be where the branch intersects the trunk or where the branch intersects another branch (a fork). Making the cut at a branch bark collar is desirable because the wound will grow over more quickly and less sprouting will occur. Eversource seeks to retain lateral branches where viable, cutting at an appropriate-sized lateral branch rather than cutting all the way back to the trunk or main branch.
- e) Branch Failure. Eversource recognizes that certain tree species are more prone to branch failure. Also, specific branches that are more likely to fail have certain traits that can be identified (including condition of the bark, branches with weak branch unions, long horizontal branches, deadwood, etc.).
- f) Smaller/shorter trees. For smaller or shorter trees especially, Eversource will consider the impact on the tree from the percentage of the existing crown that would be reduced.
- g) Specific Characteristics. Characteristics of specific tree species – such as rate of growth, resistance to decay, and proneness to branch failure – will be considered to the extent that pertinent information is readily available.
- h) Supervisors and Crews. To the extent practical, Eversource will use more experienced supervisors and crews to work on scenic roads. It is encouraged but not required that the supervisor be a certified arborist.

BACKGROUND INFORMATION ABOUT TRIMMING AND REMOVING TREES ON SCENIC ROADS IN DURHAM, NEW HAMPSHIRE

Background information about trimming and removing trees on scenic roads in Durham is provided here. See the companion document, General policy for tree trimming and tree removal on scenic roads in Durham, NH.

Tree-Pruning Standards – Public Utility Commission

The New Hampshire Public Utilities Commission sets many of the standards for tree trimming and removal along municipal roads. The written standards for PUC 307.10 are listed below and can be found online at:

<https://www.puc.nh.gov/Regulatory/Rules/PUC300.pdf>

PUC 307.10 Tree-Pruning Standards.

- (a) With the land-owner's consent, utilities shall prune trees adjacent to all distribution circuits to the following minimum clearances on no more than a 5 year cycle:
 - (1) 10 feet below the conductors;
 - (2) 8 feet to the side of the nearest conductor; and
 - (3) 15 feet above the conductors, at time of pruning.
- (b) Utilities shall implement measures such as mid-cycle reviews to identify and mitigate elevated risk from tree exposure on circuits or sections of circuits that are significantly and/or continually experiencing tree-related interruptions, where it is practical to do so.
- (c) Utilities shall not be required to prune to the clearance standards specified in (a) of this section where:
 - (1) The land-owner has refused or restricted permission to prune;
 - (2) A municipality or other local governing body, by ordinance or other official means, has refused or restricted permission to prune; or
 - (3) Pruning to the standards specified in subpart (a) would be detrimental to the health of the tree, in which the utility shall adhere to the guidelines provided in ANSI A300 Part 1– 2008 Edition, available as noted in Appendix B.

General Information about tree trimming and removal and Eversource procedures

Four year cycle. Eversource trims and removes trees on each road on a four-year cycle.

PUC Standards. The New Hampshire Public Utilities Commission sets many of the standards for tree trimming and removal along municipal roads. See section above.

Contractors. Eversource employs a wide variety of contractors based locally, regionally, and nationally.

Oversight of work. The work is overseen by a general foreman who works with the crew. He or she has a high level of practical experience but is not typically an arborist. The Eversource arborist coordinates with the general foreman on the project.

Tree species. Tree species vary in response to trimming: the strength of the wood, how much they sprout, how well they contain and heal from wounds, and generally how tolerant they are of pruning. If a tree is weak or much of the crown will be removed, then it is often better to remove the entire tree.

Risk ratings. Eversource does not generally conduct a specific risk rating for each tree but rather relies on professional judgment.

Right of way. The edge of the Town's right of way is generally located in line with stone walls. There are stone walls along significant portions of the scenic roads. If any portion of the base of the tree is in the right of way then it is considered to be in the right of way and subject to the scenic road provisions. If there is a question whether or not the tree is located in the Town right of way, Eversource treats it as being in the right of way.

Abutting property owners. Eversource notifies all abutting property owners of plans to trim or remove trees and seeks approval from those property owners including for trees on private property (per RSA 231:172) and for trees within the Town's right of way. The company contacts abutters for approval and does not generally seek to establish easements (It has no easements for tree cutting on private property in Durham that we know of).

Residue. Eversource leaves cut brush and tree branches and trunks behind if abutting property owners ask for the material. Otherwise, Eversource removes the material (within a few weeks depending on scheduling) or chips the material and disperses it into the woods. Eversource finds that abutters will remove the material from the right of way quickly to prevent others from hauling it off.

Stumps. Eversource's specification calls for all stumps to be cut as close to the ground as possible and in no case cut higher than 3" above grade except where constrained by site conditions.

Other utilities. The wires for Eversource are the top wires on the poles. There are other wires below for cable television and telephone. Those utilities do not general trim the trees because Eversource's trimming usually provides enough clearance for those lines and because those lines are not as potentially hazardous as the Eversource power lines. Eversource lines are thinner so they snap to avoid a tree hanging on a live wire. Eversource is reimbursed a percentage by the telephone company.

Documents. Various documents related to tree trimming and removal, including Eversource's policies, can be viewed on the Town's website at Planning Board – Other Planning Information – Weblinks.

General Comments from John Parry

John Parry, a Durham resident and professional urban forester with a government agency, noted the following in a 2015 letter to the Planning Board about tree trimming on scenic roads:

Eversource has a tough job in maintaining the utility lines, and I appreciate the work they do to keep the power on. However, I think there are a number of issues that should be considered in planning this work. Some of the more important concerns include:

Aesthetics. Clearing limbs on a large length of the tree trunk does not look natural, and I think impacts the scenic character of our roads.

Loss of too much tree crown affects long term tree health. Excessive trimming removes too much of the tree crown and foliage. Trees need leaves to produce food. Loss of leaf area reduces this food production and uses up energy reserves in the tree. Some trees may become more stressed and less able to tolerate insect, disease, drought or other problems. Larger trees have a smaller proportion of tree crown removed, so they can recover from the impact more easily. Small trees or unhealthy trees are less able to recover and may decline over a period of time. This makes them more prone to fail at some time in the future.

Tree Wounds. A large number of wounds caused to the tree through pruning provide entry points for disease and insects. Many wounds will close and not become a problem, but each wound is a spot where decay may begin in a tree. Removal of large limbs creates large wounds which take a long time to close. Over many years internal tree decay can enlarge and increase the risk of tree failure.

Re-sprouting. When heavily pruned some trees re-sprout prolifically. The sprouts grow quickly and are weakly attached near the outside of the trunk. As these weakly attached limbs get larger over several years they are more prone to failure than the original branches that formed as the tree grew.

Tree dynamics are changed. Tree crowns of different species grow in different crown shapes for a reason. The trees have evolved so that they can tolerate wind, snow, shade, etc. in different ways. When we heavily trim trees we change that dynamic. For instance a tree with branches spaced over the top 2/3 of its trunk (called live crown ratio) may be trimmed up so that branches only exist on the top 1/3 of the trunk. These changes affect the dynamics of wind force on the tree. In some species, drastically lowering the live crown ratio may result in a higher likelihood of failure.

I understand the need for tree pruning on roads and along utility lines, but I believe a more conservative technique can balance good tree health with utility line maintenance. Well trained arborists can identify and remove a large percentage of these tree branches that will ultimately fail. Branches that are more likely to fail have certain traits that can be identified (including bark, long horizontal branches, weak branch unions) and certain tree species are more prone to branch failure. This more conservative approach would reduce the amount of cutting done, the cost to the utility company and the impact on the trees and aesthetics along the roads.

General Comments from Todd Selig

Todd Selig, Durham Town Administrator, noted the following in an August 24, 2018 email to the Town Planner about cutting trees on scenic roads:

...Public safety is a considerable factor that must be weighed heavily in the Planning Board's decision-making regarding cutting on scenic roads in Durham.

We have residents who require medication, electricity to run essential medical devices, and generally citizens who require electric power to exist comfortably in their daily lives. When there is no power, even for a short timeframe, our residents become extremely concerned. When power is not available for longer durations and entire neighborhoods become inaccessible to essential/emergency services or food supplies, and when toilets and wells fail to function because of lack of power, the situation rapidly becomes dire. In such situations, while no one wants the trees in front of their home or on their scenic road to be cut, residents quickly blame the power company or Durham or the Planning Board for not trimming aggressively enough.

...As Administrator, I'm charged with the preservation of the health, safety, and welfare of persons and property in this town, among many other responsibilities. Ensuring the utility corridors are properly maintained per national best practices, while also giving reasonable consideration to maintaining the character of our scenic and other roadways, can be achieved. An unreasonable focus on scenic quality should not be pursued at the expense of public safety. I've observed dozens of cuttings on both scenic and other roadways in Durham and elsewhere over the years. So long as cutting/trimming is thoughtfully deployed, the trees and undergrowth branch out quickly, often in a single growing season. What is gained through this process are roadways that are not blocked due to downed trees and power lines, dependable electric power during storm events when that power is essential, and proactively keeping motorists, residents, pedestrians, emergency responders, and utility workers out of harm's way.

Proactive tree trimming is good practice and should be routinely undertaken in Durham on both scenic and non-scenic roads. I would encourage you and the Planning Board to be reasonable and keep public safety very high on your priority list as you weigh applications for cutting on scenic roadways.