

## Frequently Asked Questions about the Councilor-Proposed Changes to Newton's Tree Ordinance

Send questions to [ProtectNewtonTrees@gmail.com](mailto:ProtectNewtonTrees@gmail.com)

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Click [here](#) to see Councilor Malakie and Councilor Norton's Sept 28 Presentation Slides.

### **Q: How will the Councilor-proposed changes affect the people of Newton?**

**A:** The most important effects for Newton neighborhoods will be cleaner air, fewer heat islands, reduced flooding, and improved public health. There will also be fewer tax dollars spent on heating and cooling, resurfacing roads, and other climate-related problems.

We had many days over 90 degrees F this summer, and [we know it's going to get worse](#). Whether we actually stop destruction of tree canopies (both urban and forest) will influence how much worse it's going to get for all of us as a community.

For individual homeowners, their own trees will be protected from damage from construction on abutting lots. Higher mitigation requirements will encourage developers to preserve more boundary trees that do not affect the footprint of new construction.

### **Q: What if I want to expand my house or add an accessible ramp and there is a healthy tree in the way?**

**A:** You can still apply to remove it; you will pay higher costs than before to better reflect the neighborhood's and City's lost environmental benefits from that tree. (Both the Councilor proposal *and* the Mayor's proposal will have higher costs.) The goal of the higher costs is to encourage property owners to adopt the best practices of Green Housing (see below).

### **Q: What if I need to remove a dangerous or diseased tree?**

**A:** You would file an application for a Tree Removal Permit, including a form signed by a Certified Arborist confirming that the tree is diseased or dangerous. There will be no environmental mitigation payment required for removing diseased or dangerous trees.

**Q: Does preserving more trees serve Newton’s Green Housing goals?**

**A:** Yes. The best practices of Green Housing—called “low-impact development” and recommended in a 2018 City report—include planning construction on any individual site around existing Green Infrastructure, notably trees. (See the City of Newton’s 2018 [“Climate Vulnerability Assessment and Adaptation and Resiliency Action Plan,”](#) pp. 58-59.)

**Q: Which proposal will preserve more trees?**

**A:** The Councilor-proposed changes will preserve more trees because *all* lots in Newton will be subject to the *same* ordinance requirements.

By contrast, both the current ordinance and the mayor’s proposed changes allow the exemption of about 60 percent of Newton’s properties from the requirement to replace healthy trees that are cut down.

The mayor’s proposed changes may result in a higher loss of trees than under the current ordinance because the new standard for exemption—no “planned” construction for 24 months—cannot possibly be enforced. How could the City ever prove false an owner’s claim that there were no plans for construction at the time of tree removal, even if construction occurs within 24 months?

**Q: How high are the costs? I heard \$850 as a base value times (x) the cross-sectional area in inches.**

**A:** There has been no recommendation or decision on base value. As an example, it was noted that the City of Cambridge uses \$850 as a base value and reduces the required payment for low-income residents. Once there is agreement that an environmental mitigation payment is needed *for removing healthy trees*, then there should be discussion on how to calculate the required payment. The Newton City Council may choose whatever base value and whatever reductions for low-income residents make sense for the residents of Newton.

It is proposed that there be no mitigation payment required for dead, diseased, or dangerous trees.

Planting a specified amount of replacement trees will reduce the required environmental mitigation payment.

**Q: What minimum size healthy, not-dangerous tree will always require mitigation (whether in the form of replacement trees or payment)?**

**A.** Under the Councilor-proposed changes, healthy not-dangerous trees will require mitigation (and notification of abutters) if they are at least 6 inches in diameter at breast height (DBH, 4.5 feet off the ground), slightly smaller than the tree pictured below on the left.



7-inch DBH tree



47-inch DBH tree

Under the Mayor-proposed changes, only a tree that is 55 inches DBH can never be issued a tree exemption permit—that’s 8 inches *larger than* the tree pictured on the right above (the beech at Newton Centre Green). In other words, a 54-inch DBH tree, on a 1- or 2-family lot with no construction intention *disclosed*, would be exempt and could be cut down without even requiring replacement trees.

10/14/2022	Administration Docket Item					Councilor Docket Item
	3+ family & private non-residential (inc. commercial) lots (with or without construction)	1-2 family: no construction disclosed		1-2 family: disclosure of construction (within 24 months)	Special Permit lots (disagreement on special permits)**	All lots
<b>Which trees are protected?</b>	Trees 6" DBH or larger	None under 55" DBH	Legacy Trees (55" DBH or larger)	Trees 6" DBH or larger	if conflict, Tree Ord not valid	Trees 6" DBH or larger
<b>What are the new tree categories for replacement purposes?</b>	Protected Tree = 1:1 Significant Tree = 1.5:1 Landmark Tree = 2:1 Legacy Tree = 3:1	NA	3:1	Protected Tree = 1:1 Significant Tree = 1.5:1 Landmark Tree = 2:1 Legacy Tree = 3:1	NA	Protected Tree = 1:1 Significant Tree = 1.5:1 Landmark Tree = 2:1 Legacy Tree = 3:1
<b>Are there exemptions for cutting protected trees?</b>	40B Projects exempt	All exempt*	No	No	NA	40B Projects exempt
<b>What are the replacement/mitigation requirements?</b>	Replacement trees OR Payment in Lieu	None	Replacement trees OR Payment in Lieu	Replacement trees OR Payment in Lieu	Not specified	Mitigation payment with DEDUCTION for replacement trees
<b>Is a Certified Arborist required?</b>	Yes	No	Yes	Yes	No	Yes
<b>When is a Certified Arborist required?</b>	nos. 1 - 7 below	NA	nos. 1 - 7 below	nos. 1 - 7 below	NA	nos. 1 - 7 below
<b>Protection of abutter trees during construction and tree removal?</b>	Yes	NA	NA	Yes	Not specified	Yes
<b>Notification given to abutters?</b>	No	No	No	No	No	Yes
Notes	(1) relocation of trees; (2) (a) dead, (b) diseased, (c) injured, (d) in danger of falling, (e) dangerously close to existing structures, (f) disrupting public utility services, (g) causing drainage or (h) passage problems on rights of way, or (i) posing a threat to public safety; (3) grade changes w/in Tree Save Area; (4) Exterior work or tree removal; (5) health of other trees; (6) confirm tree protections in place; (7) confirm replacement trees in place					
	* Any and all trees under 55" DBH will be granted an exemption permit.					
	** Admin version of Sec. 21-90 says, "to the extent that any provision hereof conflicts with said special permit procedures, such provision shall not be valid."					

The chart above shows the multiple categories of lots and conditions with different degrees of protection for different size trees.

**Q: Do I have to get a Certified Arborist before I remove any tree 6 inches DBH or larger?**

A: Yes. The Tree Removal Permit application will require a Certified Arborist to sign a City form stating whether each tree proposed for removal is dead, diseased, or dangerous. This requirement is in both the Councilors' and the Mayor's proposals.

**Q: How will the Councilors' proposed ordinance impact affordable housing and special-permit projects?**

A: Preserving trees will have less impact on **affordable housing** than the electrification and other requirements in the City's proposed [2022 Building Emissions Reduction and Disclosure Ordinance](#).

No changes are proposed for 40B projects (with 20 % or more affordable housing). The state gives the Zoning Board of Appeals, which reviews and approves 40 B projects, the ability to waive any local regulations, and this will continue.

**Special permit projects**, which may or may not include affordable housing, are proposed to be subject to the same requirements as all property owners: For removal of any healthy, not-dangerous tree, there will be a required environmental mitigation payment, which can be reduced by planting a specified amount of replacement trees.

Current practice has been that the City Council routinely makes compliance with the Tree Preservation Ordinance a condition of special permits. The Councilors' proposal would make this practice a formal requirement.

In the September 21 Programs and Services Committee meeting, some individual Councilors expressed the view that large developers should have a higher mitigation payment. The Newton City Council may choose to add such a requirement (as Cambridge has done), but the Councilor-proposed ordinance changes do *not* include a higher payment for special-permit projects.

No one is suggesting that dense housing be torn down or prevented.

**Q: What about Norway Maples or other invasive species?**

**A:** Neither the Councilor-proposed changes nor the Mayor-proposed changes give any reductions or exemptions for removing trees that are invasive species.

Existing tree ordinances have never distinguished between species or treated invasive species differently because they're doing the same climate work that non-invasive trees do: carbon sequestration, providing shade, absorbing storm water, cooling the air, filtering particulate pollution, and so on. Sometimes the only screening for privacy or from sound that people have is Norway Maples.

**Q: What about tree damage from gas leaks?**

**A:** Gas Utilities are regulated by the Mass. Department of Public Utilities, not by City ordinance.

Several years ago the City declined to join other municipalities in a lawsuit against National Grid but negotiated a settlement for approximately 10% of damages.

**Q: Will this ordinance allow me to stop my neighbors from removing healthy trees?**

**A:** No. But Councilors' proposal will require that you be notified, in the same way that the City currently notifies neighbors when there is a special permit application or a Traffic Council docket item affecting their street. We hope that neighbors can discuss tree removals at the edges of properties, since removal affects both properties.

Neighbors and abutters already have the right to appeal the decision on a tree-removal permit (within five business days of the decision) under the current ordinance. However, without notification that a permit has been applied for, abutters are often unaware a permit has been issued until they see the trees being cut.

**Q: Are other communities in Massachusetts moving to preserve their tree canopy?**

**A:** Yes. Cambridge and Boston have taken the lead in acting to preserve and protect their existing tree canopy in addition to planting new trees to expand their canopy. Other communities are also discussing the issue.

Senator Cindy Creem has introduced [state legislation to help fund municipalities](#) seeking to preserve and expand their tree canopies, with a goal of achieving 60% tree cover in each municipality. According to a 2018 City report, Newton's tree canopy covers

48% of total land, and 55.5% of that tree canopy is on residential property ([Climate Vulnerability Assessment and Adaptation and Resiliency Action Plan](#),” pp. 29-30).

**Q: What are the monetary costs when a mature, healthy tree is cut down?**

A: There are two types of costs. We can currently only calculate one type, but we do need to remember that there are substantial additional costs.

TYPE 1: LOST BENEFITS

There are costs from the lost environmental and public-health services that the tree would have provided during the time that it takes a “replacement” tree to grow to maturity and thus actually come close to providing the same services.

There are publicly available means of estimating some of these lost benefits. The Arbor Day Foundation estimates the annual monetary benefits of a tree for

- draining stormwater
- increasing property value
- saving energy (by reducing heat)
- improving air quality
- reducing atmospheric carbon

The first step is to get an estimate of the annual benefit of a tree. Anyone can calculate this estimate using the Arbor Day Foundation’s National Tree Benefit Calculator:

<https://www.arborday.org/calculator/index.cfm>

Necessary information:

Zip code

All Newton zip codes give the same estimate.

Land-use type

Because benefits here are tied to the assumed property value of different types of lots, I suggest using “single family residential” for all calculations to avoid inequality.

Tree species

Tree DBH

For the example below, I use a 30-inch DBH Northern Red Oak.

annual benefit from Arbor Day calculator = \$275

The second step is to calculate how the annual benefits would accrue over the period of time until a “replacement” tree is large enough to provide the same benefits.

Two assumptions are required to make this calculation:

- annual benefits compound at 5%  
basis of assumption: an American Forestry Association book, quoted here:  
<https://forestry.usu.edu/trees-cities-towns/urban-forestry/what-is-a-tree-worth>
- it takes about 30 years for a Newton tree to grown to maturity  
basis: Newton City Forester, public presentation

Anyone can make this calculation by using a a compound interest calculator, such as this one: <https://www.moneygeek.com/compound-interest-calculator/>

Necessary information to input for the 30-inch DBH Northern Red Oak example:

- initial amount: \$275 (the annual benefit in the first year)
- contributions: \$275 (the assumed annual benefit in each subsequent year)  
select annual contributions (not monthly)
- rate of return: 5%
- years of growth: 30 (years to replacement tree maturity)

Result = \$19,459

The estimated \$19,459 cost of the lost benefits of cutting down a healthy 30-inch Northern Red Oak is an UNDERestimate of the lost benefits.

For example, this estimate is for only the property owner; it does not take into account similar losses to abutters. It also assumes that, once mature, the replacement tree provides as much benefit as a 30-inch tree. But since a newly mature tree is likely to be smaller than 30 inches, it would provide fewer annual benefits.

Still an estimate of \$19,459 in losses from cutting a healthy 30-inch oak is substantial, and far more than most people realize when they cut a tree.

## TYPE 2: DISPOSAL COSTS

There are environmental and public-health costs of cutting and disposing of the mature, healthy tree. These costs include

- the release of all the carbon sequestered in that tree into the atmosphere

- the contribution to worse air quality and increased energy usage by machines to cut, chip, and probably burn the tree (as [woody pellet biomass, which pollutes worse than burning coal](#))
- the use of technology to drain stormwater (as required by federal law) and mitigate soil erosion without the tree
- the reduction in property value

Unfortunately, there is not yet any publicly accessible means to calculate these costs. Just because we cannot currently estimate them does not mean that these costs are not substantial. [City Green, for example, estimates it at \\$150,000.](#)

It may be these costs that the *City of Cambridge* is capturing in its required environmental mitigation payment for a 30-inch DBH tree: \$38,250.