To: Durham Planning Board Michael Behrendt Tod Selig

Aesthetic and Ecological Impacts of Eversource Tree Pruning on Durham Point

I am writing to oppose Eversource's proposal to install taller utility poles along Durham Point Road. Durham Point Road is a designated scenic road and as such allows and requires that the town government protect and preserve the aesthetic character of the roadway.

Many of my neighbors have written in opposition based on the aesthetics of pruning the trees along the road's edge. I am writing as an expert in urban forest health and ecology to describe:

- 1. The likely impacts of this pruning to the health of the forest and
- 2. The indirect aesthetic consequences of creating gaps in the Durham Point Road Canopy.

The town of Durham is currently engaged in controlling Japanese knotweed on its property (Figure 1). Exotic invasive vegetation like Japanese knotweed, oriental bittersweet, and multiflora rose can invade and take over forests once established. The impact of this forest invasion can result in preventing forest regeneration and invasive vines can pull down mature trees.

Eversource's proposed project will create ideal conditions for the establishment and spread of exotic invasive plant species by disturbing the soil and opening holes in the canopy.



UNH Nature Groupie Stewardship Interns Mindy Prieur and Gus Muscato stand proudly next to a giant pill of invasive Japanese knotweed that they helped cut behind the Town Hall. Courtesy of Ellen Snyder

CONTROLLING INVASIVE JAPANESE KNOTWEED IN SELECTED AREAS IN TOWN

The Town has embarked on an effort to control invasive Japanese knotweed along Mill Pond Road and around the Town Hall. Ellen Snyder is working with NH State Invasive Plant Specialist Doug Cygan on implementing the best control methods. Japanese knotweed (Reynoutria japonica) is an aggressive and highly invasive herbaceous to somewhat woody perennial originating from eastern Asia (Japan, Korea, China and Taiwan). One of the plant characteristics is the noticeably jointed stems, much like bamboo. It was first brought to the United States in the late 1800s for ornamental and horticultural purposes. It quickly became popular in the nursery trade and has been planted in landscapes throughout North America.

Figure 1. Excerpt from June 14, 2019 Friday Updates

We already have these species growing in isolated areas within our town. Thus, there is a local seed source. The Eversource activity will provide the other two ingredients these plants need to gain a foothold in our native forest, **disturbance** and light.

My work in New York City as an urban forest ecologist provides me with some stark examples of what happens to the health and aesthetics of our mature forested natural areas once exotic invasive vegetation becomes established.

In Pelham Bay Park in the Bronx we have old growth forests that have been taken over by oriental bittersweet (also found in Durham)(Figure 2).



Figure 2. Pelham Bay Park, Bronx, NY. Forested area taken over by oriental bittersweet. Current cost to restore the forest is \$43,000 per acre.

In Cunningham Park, Queens NY we see a younger forest that has been taken over by multiflora rose(Figure 3), another invasive found in Durham.



Figure 3. Cunningham Park, Queens, NY. Forest invaded by multiflora rose.

Once an invasion starts it may take decades before it reaches the stage we see in my photos from New York City. The canopy over Durham Point Road is protecting us from an increasing risk of invasion by exotic invasive plant species which are becoming more prevalent as our climate warms.

The decision you make today will have far reaching implications for the aesthetics and ecological health of our town's forests. The residents of Durham Point Road currently have adequate power. If old utility poles need to be replaced it should be done in a way that doesn't require taller poles which will in turn require removal of the canopy that is protecting our forest.

Sincerely,
Richard Hallett, Ph.D.
Research Forest Ecologist
18 Colony Cove Road, Durham, NH