ROCKINGHAM COUNTY

113 North Road Brentwood, NH 03833-6623 (603) 679-5616 Fax (603) 679-8070 TDD (603) 679-5263 extension.unh.edu



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UNH Cooperative Extension State Office 862-1520 Dear Ms. Rice,

Thank you so much for the opportunity to tour the 180+ acre Windham Town Forest (Lord/Stolarz Property) with you and other members of the town Forestry Committee. Fred Borman, the Rockingham County Forester, and I really enjoyed meeting you and taking a walk on such a beautiful property. I'm writing to provide you with a summary of our discussions during our field tour of the property.

Our primary objective was to discuss ways to enhance wildlife habitat as part of an upcoming timber harvest planned for the property with Michael Powers, the town's consulting forester. In general, a timber harvest provides an excellent opportunity to improve habitat for wildlife. The parts of the Town Forest we walked through were generally Appalachian-Oak-Pine forest, and in many places contained a nice understory of blueberries. Cutting mature trees to create small open patches in this forest type will allow sunlight to reach to forest floor, which in turn produces a flush of new growth and allows the shrubs and young trees already growing in the understory to fill in these openings. The resulting dense plant growth provides valuable cover for wildlife. The increase in sunlight will also allow the blueberries and other fruiting shrubs to produce more fruit, greatly improving an important source of food for many wildlife species.

During our walk, we also discussed the importance of oak trees, especially white oak, to wildlife. Acorns are a very important source of food for wildlife and white oak acorns, which contain less tannin than red oaks, are particularly tasty to a wide range of species. As such, we recommend, when possible, leaving some of the larger white oaks. We also recommend "releasing" any larger oaks, which simply means removing a few of the surrounding trees, to give the tree more room to grow. This usually allows the oak tree to produce more acorns, further benefitting wildlife. Other trees to consider leaving on the landscape during the timber harvest are patches of hemlock trees, which provide important winter cover for wildlife, and did not seem to occur in any great number on the parts of the property we visited. We also recommend leaving dead standing trees, or snags, when possible (where they are not a hazard to trails). These dead trees provide important denning and nesting cavities for a many birds and mammals including pileated wood peckers, flying squirrels, raccoons, chickadees, and many more.

The size and location of patches created during a timber harvest will determine what species will use and benefit most from them. Small patches (anything from removing a couple trees up to 1 acre) will benefit the wildlife species already using the Town Forest. These openings provide browse and cover for deer, turkey, grouse, chipmunks, white-footed mice, and chickadees, just to name a few. If you have the opportunity to create larger openings (2 or more acres) you may start to see some new species using the property. For example, common-yellowthroat warblers, chestnut-sided warblers, yellow warblers, and white-throated sparrows are among the species that may benefit from the creation of slightly larger openings.

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UNH Cooperative Extension State Office 862-1520 The location of the patches will determine what species of plants grow into those openings. As I mentioned above there is a significant component of blueberry in the understory of the Town Forest, when possible, locating patches where there are a lot of blueberries growing will help to increase the amount of fruit available to wildlife. We also discussed creating patches along the edges of the large forested wetland in the middle of the property. This will create an opening with a gradient of soil types from wetter soils close to the wetland to dry soils as you move away from the wetland, which means that you'll get a diversity of plant-types growing within the opening. And a diversity of plants often benefits the greatest diversity of wildlife.

During our walk we visited several of the wetland features on the property. There is a large open pond, several vernal pools, and the large forested wetland mentioned above. The open pond is clearly an important habitat feature for wildlife on the property. As we walked around the far side of the pond, we heard a belted kingfisher, saw a small shorebird (possibly a migrating least sandpiper), and found evidence of either a river otter or raccoon. The pond is likely utilized by many other species of wildlife including green frogs, bull frogs, pickerel frogs, wood ducks, and great blue heron. It seems unlikely that the timber harvest would impact the pond, but it's certainly an important wildlife feature to recognize on the property. Hanging a duck box, may be one way to improve habitat on the pond for wood ducks and/or mergansers. You can find more information on how to build and install a duck box on the <u>Ducks Unlimited website</u>.

We also noticed several vernal pools throughout the property. Vernal pools are important to a wide range of wildlife, but in particular the amphibians (wood frogs, and spotted salamanders) that rely on them for breeding, as well as the predators (snakes and turtles) that take advantage of these food-rich wetlands. I recommend minimizing impacts to vernal pools as much as possible, and would refer you and your forester to the Vernal Pool Chapter of Good Forestry in the Granite State, which contains the most up-to-date recommendations for managing around vernal pools.

The large forested wetland in the middle of the Town Forest also provides important habitat. These types of swampy forests are often the first places within the forest to green up in the spring. The flush of ferns and grasses that grow in the understory can provide important food for deer after a long winter, and can also provide good cover for hiding fawns. While I do recommend cutting right up to the edge of this wetland where feasible, I don't recommend cutting within the wetland itself.

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UNH Cooperative Extension State Office 862-1520 To summarize, here are our key recommendations:

- Create patches that vary in size.
- When possible, locate patches where there is an established understory of blueberry.
- Locate one or more patches close to the edge of the forested wetland.
- When possible leave larger white oaks and 'release' them to help improve tree health and increase acorn crops.
- When possible leave hemlock stands, which provide great winter cover for wildlife.
- Leave dead standing trees, which provide important cavities for a range of wildlife species.

Thank you again for inviting us to visit the Town Forest. Please let us know if you have any additional questions, or need any additional input. I looking forward to hearing about the timber harvest and am confident that it will greatly benefit the wildlife of the Windham Town Forest! Don't hesitate to contact either Fred Borman or me at the Rockingham County Cooperative Extension Office at (603) 679-5616 or by email at Fred.Borman@unh.edu or Emma.Carcagno@unh.edu.

Sincerely,

Emma F. Carcagno

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Land and Water Conservation Field Specialist

UNH Cooperative Extension

Web Resources:

Good Forestry in the Granite State http://extension.unh.edu/goodforestry/index.htm

Good Forestry in the Granite State - Vernal Pool Chapter http://extension.unh.edu/goodforestry/html/7-3.htm

Ducks Unlimited – Wood Duck Boxes

http://www.ducks.org/conservation/waterfowl-biology/wood-duck-boxes