

HILLSBOROUGH COUNTY

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UNIVERSITY of NEW HAMPSHIRE
COOPERATIVE EXTENSION

Carter Terenzini, Town Administrator
PO Box 139
Moultonborough, NH 03254
Tel. 476-2347



Mr. Terenzini

April 12, 2013

It was good to meet you yesterday afternoon and look at the trees at the town States Landing Park on the lake. We marked 14 trees for removal because of their poor health and 7 trees for pruning of dead limbs (see list and maps attached). Five trees are within 50' of the shore (with 3 marked for removal) and 7 are very close to this (with 2 marked for removal). The Shoreland Water Quality Protection Act (SWQPA) restricts tree cutting within 50' of the shore, but allows exceptions for the removal of dead, diseased or unsafe trees evaluated by an arborist. This letter and maps will serve as that evaluation and you should also photograph each of the trees and keep this information in your files to show that this tree cutting is in compliance with the SWQPA (information enclosed).

To mitigate the loss of these 5 trees closest to the shore, I recommend planting 1 white oak tree of 2" caliper, 2 crabapple trees of 2" caliper and 5 high bush blueberry shrubs. This can be done next spring if the 5 trees are removed this year. I also recommend creating an island of wood chip mulch 2" deep edged with landscape timbers around the trees, starting at tree #1 and running to the grey birch clumps at the south end of the beach. This will be about 150' long and average 20' wide in an "amoeba" random curving design. This will protect the trees, contain the wood chips from washing onto the beach, create a more attractive appearance and prevent vehicles from driving from the parking area onto the beach.

Parking cars in the forest should be discouraged because it compacts the soil and damages the roots. Consider signage that restricts parking to the side of States Landing Road and the parking area. To prevent cars from parking under the trees from the parking area, consider erecting 10 foot sections of double rail wooden fence along the forest side of the drainage ditch. This is a distance of about 200'. Rather than having a continuous fence, plan on having 4' gaps between each 10' section to allow for walking from the parking area into the forest for picnicking, use of the portable toilet, etc.

Page one of two.

County Offices

Belknap County
527-5475

Carroll County
447-3834

Cheshire County
352-4550

Coös County
788-4961

Grafton County
787-6944

Hillsborough County
641-6060

Merrimack County
796-2151

Rockingham County
679-5616

Sullivan County
863-9200

Education Center
629-9494 (Office)
877-398-4769 (Toll Free)

**UNH Cooperative
Extension State Office**
862-1520



The southern half of the park is a natural forest of pole size to 20" trunk diameter white pine, hemlock, red maple, white oak, red oak and birch. There is a thick understory of hemlock saplings, which provide privacy for the neighbors. The northern half of the park is pole size to 20" mixed hardwoods of red oak, white oak, red maple and birch with only a few scattered white pine and hemlock. This has a wide open "savannah" appearance because the ground cover of low bush blueberries, winter berries, partridge berries and sheep laurel has been mowed with a lawn mower. This also eliminates the tree seedlings that would have been the future forest. Each spring the state forest nursery has low cost fruiting shrubs that are beneficial to a wide variety of wildlife. Planting these in clumps would help restore a more natural environment. See their excellent catalogue at www.nhnursery.com. No trees were marked for removal in this larger park area because there was not a danger of them falling onto cars parked along the road. Yes, there are dead and uprooted trees present, but there is no public safety or silvicultural reason to remove them.

Mowing the park or having the fire department burn the ground cover will not be effective in controlling ticks. See our 16 page information on the biology and management of ticks in NH at

www.extension.unh.edu/resources/files/Resource000528_Rep1451.pdf.

Unfortunately, ticks are prevalent throughout the area. The best way to limit contact is by personal daily vigilance (checking your body each evening) and creating cleared walking paths through the woods. These should be 4' wide (or up to 10' wide if maintained by vehicles) and smooth surfaced with stone dust or gravel. Individuals on their own properties can hire professional application of insecticides (remember that this may be restricted within the SWQPA), but even this will not offer 100% control and personal vigilance will still be expected.



Jonathan W. Nute
County Extension Forester
& ISA Certified Arborist

Cc: Wendy Scribner

**STATES LANDING PARK
TOWN OF MOULTONBOROUGH, NH
TREES MARKED FOR REMOVAL OR PRUNING OF DEAD LIMBS**

J.W. Nute, County Extension Forester & ISA Certified Arborist

April 11, 2013

Trees suggested for pruning of dead limbs were marked with blue flagging. Trees suggested for removal were marked with orange flagging. None of the trees need immediate removal, but instead can be scheduled for treatment any time convenient within one year.

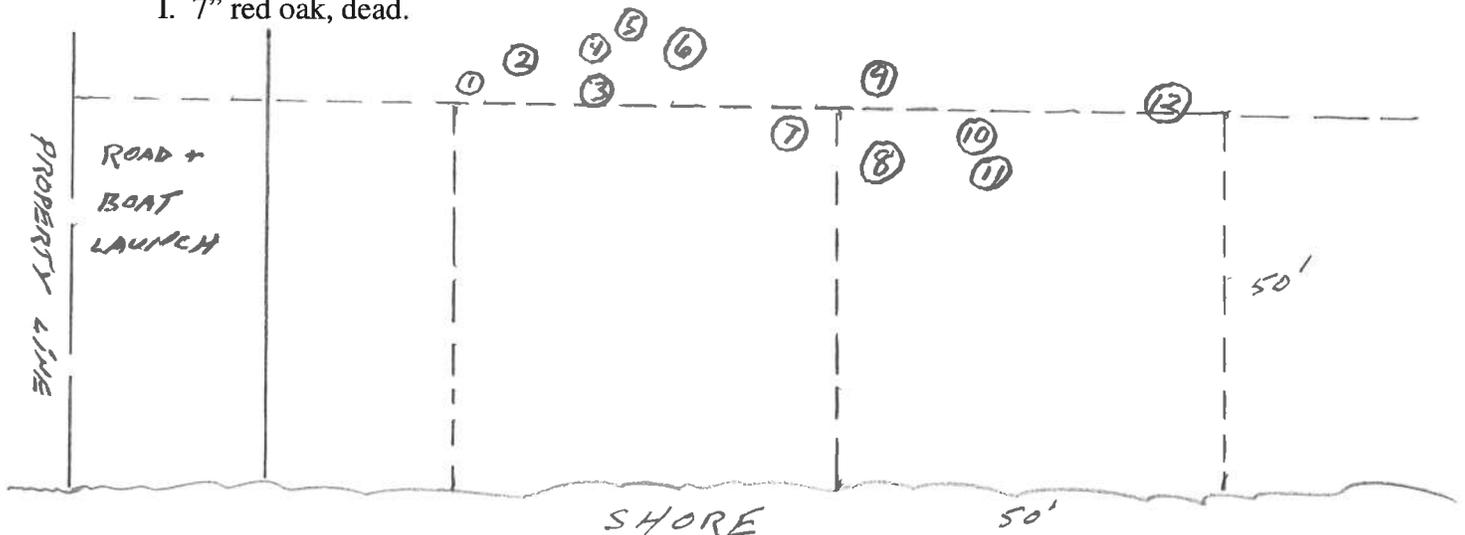
TREES WITHIN OR NEAR 50' OF THE SHORE: (see map below)

1. Prune 16" trunk diameter red maple.
2. Remove 16" red oak, top dead, extensive limb dieback, health in decline.
3. Prune 8" red maple.
4. Remove 17" red oak, dead top for 1/2 of tree.
5. Prune 6" red maple.
6. Prune 17" red oak.
7. Prune 15" red oak.
8. Remove 17" red oak, extensive interior decay, broken top, in decline.
9. Prune 10" red oak.
10. Remove 22" hemlock, extensive interior decay, broken top, less than 1/2 foliage.
11. Prune 11" red maple.
12. Remove 15" hemlock, large trunk wound, excessive top die back, less than 1/3 foliage.

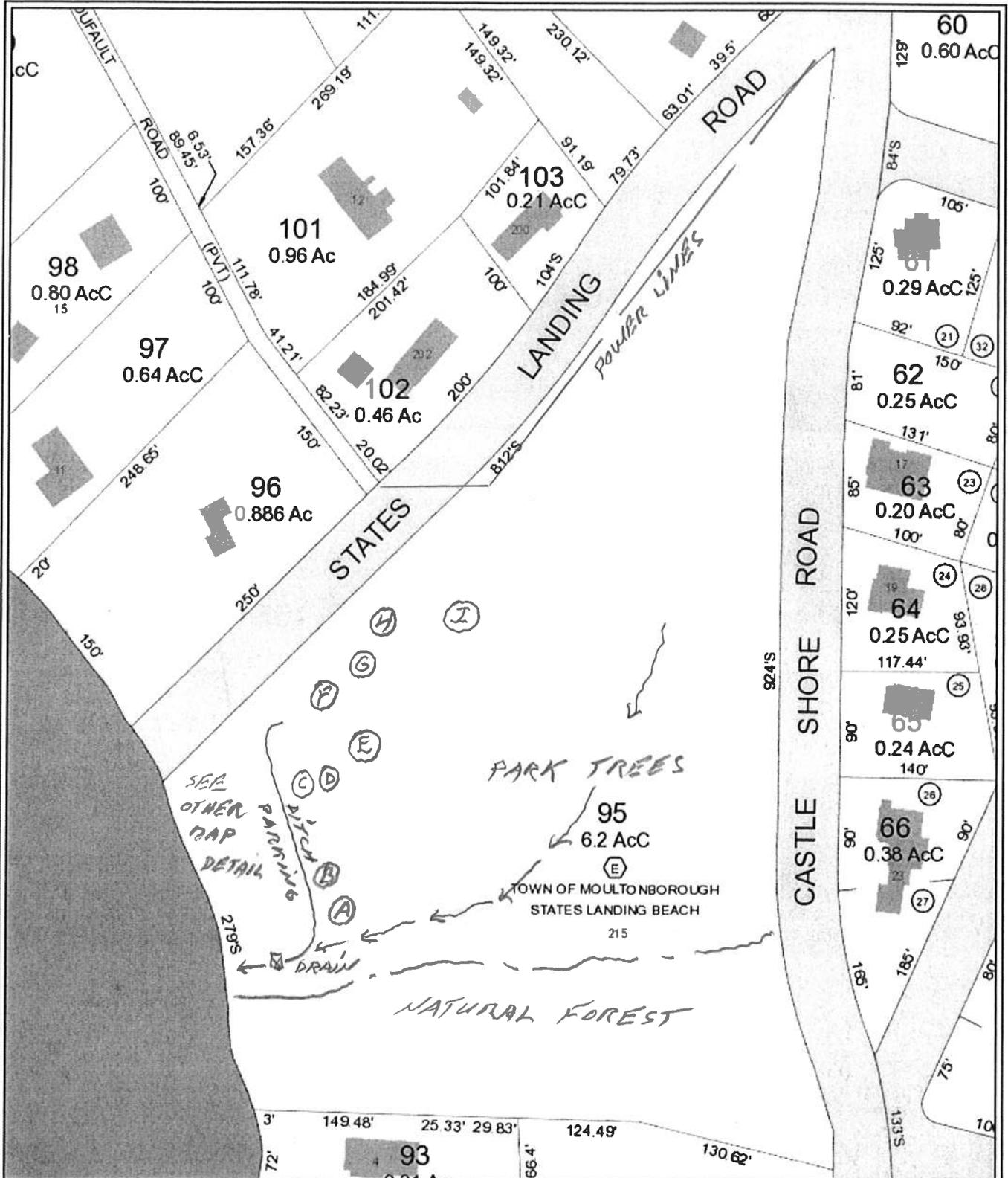
TREES ALONG PARKING AREA & STATES LANDING ROAD (see map attached)

All to be removed:

- A. 8" & 8" double red oaks with poor form, suppressed growth.
- B. 25" white pine, lightning strike length of tree, exposed roots at ditch.
- C. 13" white oak with excessive lean over parking, poor base attachment.
- D. 13" white oak with dead top and poor base attachment.
- E. 14" white birch with dead top and excessive lean toward parking.
- F. 35" white pine, dead, extensive root injury because of parking.
- G. 21" red oak, base decay, excessive lean, double top with split at fork.
- H. 11" red oak, long wound and decay with dead top.
- I. 7" red oak, dead.



TREES FOR REMOVAL ARE MARKED WITH ORANGE FLAGGING



States Landing Park
Moultonborough, NH

1 Inch = 109 Feet
April 04, 2013



Data shown on this map is provided for planning and informational purposes only. The Town of Moultonborough and Cartographic Associates, Inc. are not responsible for any use for other purposes or misuse or misrepresentation of this map.

www.cai-info.com

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NOTES ON CUTTING TREES WITHIN THE SHORELAND PROTECTION AREA

Cutting trees within 250' of a 4th order river or a larger than 10 acre public water body is regulated by the Shoreland Water Quality Protection Act (RSA 483-B). The SWQPA was revised in 2012. See WWW.des.nh.gov/organization/divisions/water/wetlands/cspa/index.htm.

Traditional forest management and agriculture are exempt from the changes, but the 50% basal area rule within 150' of the shore still applies (RSA 227-J:9).

For landscaping and development within the 50' waterfront buffer of the shore, a new "point" system takes effect whereby trees and shrubs are assigned "points" according to their size and these points are accumulated for each 50'x50' grid of land area, with a total of 50 points expected for each grid.

Trees greater than 24" diameter at 4.5' above the ground receive 25 points.

Trees 12" to 24" diameter at 4.5' above the ground receive 15 points.

Trees 6" to 12" diameter at 4.5' from the ground receive 10 points.

Trees 3" to 6" diameter at 4.5' from the ground receive 5 points.

Saplings 1" to 3" diameter at 4.5' from the ground receive 1 point.

Dead, diseased or unsafe trees or saplings are not included in the scoring. However, before these trees can be removed, the landowner must photograph them and then obtain written certification from a forester or arborist as to the tree's condition.

Before cutting trees or saplings allowed above the 50 points, the landowner should photograph the trees/saplings and prepare a sketch of the remaining trees/saplings and point calculations so this can be used by the owner if enforcement action is taken against them.

A "natural woodland buffer" shall be maintained within 100' inland from the back of the 50' "waterfront buffer" with at least 25% of the area maintained in an undisturbed state. Dead, diseased or unsafe trees that pose a hazard to structures or personal injury may be removed.

Specific information may be found on the NH Dept. of Environmental Services website mentioned above.

Be aware that tree cutting is prohibited within 100' of Prime Wetlands (RSA 482-A:15 and Wt 700) and that towns may also have specific shoreland or wetland protection zones. Inquire at the town offices for these additional restrictions.

Written July, 2008 by J.W. Nute, UNH Coop. Extension Forester in Hillsborough County
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Revised 2012

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RSA 483-B Shoreland Water Quality Protection Act (SWQPA) *A Summary of the Standards*

A **STATE SHORELAND PERMIT** is required for most new construction, excavation and filling activities within the Protected Shoreland. (See definitions below) Forest management not associated with shoreland development or land conversion and conducted in compliance with RSA 227-J:9 and agricultural activities and operations defined in RSA 21:34-a and governed by RSA 430 are exempt from the provisions of the SWQPA. Projects that receive a permit under RSA 482-A, e.g., beaches and retaining walls do not require a shoreland permit. A complete list of activities that **do not** require a shoreland permit can be found on the [Shoreland Program Page](#) by visiting www.des.nh.gov.

250 feet from Reference Line — THE PROTECTED SHORELAND:

Impervious Surface Area Limitation. If a homeowner or developer wishes to exceed 30% impervious surface coverage of the area of the lot within the protected shoreland, a stormwater management system designed and certified by a professional engineer that will not concentrate stormwater runoff or contribute to erosion must be implemented and if any grid segment within the waterfront buffer does not meet the minimum required 50 point tree, sapling, shrub and groundcover score, each deficient grid segment must be planted with additional vegetation to at least achieve the minimum required score. If a homeowner or developer wishes to exceed 20% impervious area, a [stormwater management plan](#) must be implemented to infiltrate increased stormwater from development.

Other Restrictions/ Notes:

- No establishment/expansion of salt storage yards, auto junk yards, solid waste and hazardous waste facilities.
- Setback requirements for all new septic systems are determined by soil characteristics.
 - 75 feet for rivers and areas where there is no restrictive layer within 18 inches and where the soil down gradient is not porous sand and gravel (perc > 2 min.).
 - 100 feet for soils with a restrictive layer within 18 inches of the natural soil surface.
 - 125 feet where the soil down gradient of the leachfield is porous sand and gravel (perc rate equal to or faster than 2min/in.).
- In accordance with RSA 485-A, when selling developed waterfront property, a *Site Assessment Study* is required for all properties with on-site septic that are contiguous to or within 200 feet of waterbodies jurisdiction under the SWQPA. For more information relative to site assessments, contact the NH [Subsurface Systems Bureau](#) at (603) 271-3711.
- In accordance with RSA 485-A:17, an Alteration of Terrain Permit is required for any project that proposes to disturb more than 50,000 sq ft of contiguous terrain if any portion of the project is within the protected shoreland or disturbs an area having a grade of 25% or greater within 50 feet of any surface water.

150 feet from Reference Line — NATURAL WOODLAND BUFFER LIMITATIONS:

- At least 25 percent of the area between 50 feet and 150 feet from the reference line must be maintained in an unaltered state.

50 feet from Reference Line — WATERFRONT BUFFER and PRIMARY BUILDING SETBACK:

- All primary structures must be set back at least 50 feet from the reference line. Towns may maintain or enact greater setbacks.
- Within 50 feet from the reference line, a waterfront buffer must be maintained. Within the waterfront buffer, tree coverage is managed with a 50 x 50 foot grid and point system. Trees and saplings may be removed provided the sum score of the remaining trees, saplings, shrubs and groundcover within the affected grid segment is at least 50 points. (see [Vegetation Maintenance within the Protected Shoreland FACT SHEET](#))
- No natural ground cover shall be removed except for a footpath to the water that does not exceed 6 feet in width and does not concentrate stormwater or contribute to erosion.
- Natural ground cover must remain intact. No cutting or removal of vegetation below 3 feet in height (excluding previously existing lawns and landscaped areas). Stumps, roots, and rocks must remain intact in and on the ground unless specifically approved by the department.
- Pesticide and herbicide applications can be applied by a licensed applicator only.
- Only low phosphorus, slow release nitrogen fertilizer can be used beyond 25 feet of the reference line. Only limestone may be used within 25 feet of the reference line.

“REFERENCE LINE”- The reference line is the point from which setbacks are determined. For *coastal waters* it is the highest observable tide line; for *rivers* it is the ordinary high water mark and for *lakes and ponds* it is the surface elevation listed on the [Consolidated List of Waterbodies subject to the SWQPA](#).

“CONSTRUCTION”- Erecting, reconstructing or altering any structure(s) that result in an increase in impervious area.

“EXCAVATION” - To dig, remove, or form a cavity or hole within the ground with mechanized equipment.

“FILL” - To place or deposit materials such as rocks, soil, gravel, sand or other such materials.

“UNALTERED STATE” - vegetation allowed to grow without cutting, limbing, trimming, pruning, mowing, or other similar activities except as needed for plant health, normal maintenance and renewal.

Graphic showing the Protected Shoreland with setbacks and areas of restricted use.

