

# The Critical Edge

News about the CSPA from the DES Shoreland Program



## Shoreland Workshop at Church Landing Huge Success — To be Repeated in August!

At the end of May, DES held a shoreland workshop at the Church Landing Inn at Mills Falls in Meredith. The program was presented by the professionals who do the actual “on-the-ground” work. Landscapers, builders, wildlife consultants, pervious paving systems representatives, and erosion control specialists presented a variety of ways to develop property within the protected shoreland, while at the same time protect water quality and wildlife habitat.

Representatives from state agencies also contributed with sessions on “Landscaping at the Water’s

Edge,” “Navigating the New CSPA Permitting System,” and “Hands-On Buffer Mapping.” At the end of the day, a special two-hour session was reserved for participants to meet one-on-one with the DES Shoreland staff.

The feedback from the people who attended the workshop was overwhelmingly positive, prompting DES to schedule another workshop on **August 11** at Church Landing. If you are interested in attending, please visit the Shoreland web page at [www.des.-nh.gov/cspa](http://www.des.-nh.gov/cspa). Online registration will be available after July 1. This is a great opportunity



Ray Reimold, (right) of the Shoreland staff, in a one-on-one question and answer session with shorefront property owner Ben LaRoche.

get your questions answered and learn about what you can do to manage development in the protected shoreland and protect water quality.



The outdoor, hands-on buffer mapping session allowed everyone to see how easy the new rules were to apply.

**Save the Date: Aug. 11—Next Shoreland Workshop!**

### Bits and Pieces

- Shoreland application, waiver and variance request forms are available at [www.des.nh.gov/cspa](http://www.des.nh.gov/cspa).

- Check out the DES “Consolidated List of CSPA Water Bodies by Town” at [www.des.nh.gov/cspa](http://www.des.nh.gov/cspa).

#### Coming soon:

- Maps, by town, of waterbodies subject to the CSPA. The maps will show the 250’ Protected Shoreland and be distributed to each town.

- Shoreland Color Brochure

# Working with the Grid and Points System in the Waterfront Buffer

Forested buffers play a critical role in protecting water quality and are one of the primary provisions of the CSPA. Effective July 1, 2008, the CSPA establishes a waterfront buffer (WB) that extends 50 feet from the reference line. Within the WB, native ground cover may not be removed, except for a 6-foot wide access path to the water. Ground cover may be pruned down to three feet to maintain views. Trees and saplings within the waterfront buffer are managed with a grid and points system.

The waterfront buffer is divided into 50' x 50' grid segments. Trees and saplings within each segment are

| Tree Diameter Size | Points |
|--------------------|--------|
| 1"-6"              | 1      |
| >6"-12"            | 5      |
| >12"               | 10     |

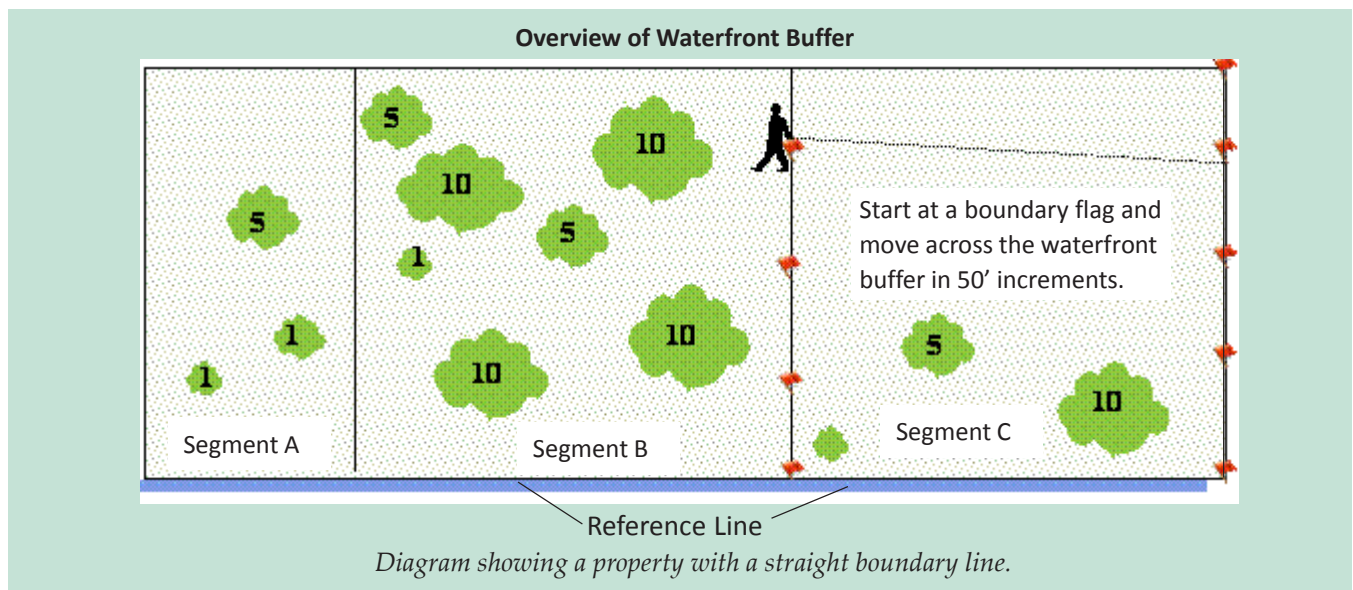
given points according to their diameter size at a distance 4 1/2 feet from the ground.

Fifty tree and sapling points must be maintained in each grid segment. Trees and saplings may be cut as long as the sum of the points of the remaining trees for that segment is at least 50 points. If any trees or saplings are cut, the stump and root system must remain, although the stump may be ground down to the soil surface. Tree diameter may be measured using a tape measure and obtaining the circumference, using a diameter tape, or using the DES "tree tool."

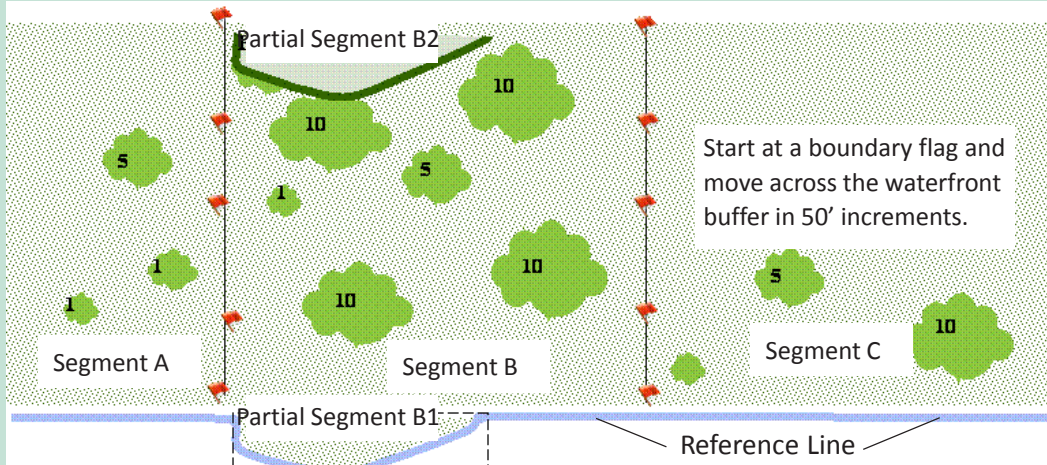
## Marking the Grid Segments

*Please note: This method can not be used to establish the 50' primary building setback*

- You will need a tape measure and flagging or string. Stones may be substituted for flags. Two people working together is preferable so that one person can hold one end of the tape measure; it can, however, be done with one person.
- To mark the grid segments, start at the north or east property boundary line. Place flags or string along the property boundary going a maximum distance of 50 feet from the high water mark. If your property line is straight, you may only need to flag or mark the four corners of the grid segment. For property boundaries that are not straight or square, you may need four to six flags. If you are using string, put a piece of tape on the string at 10-foot intervals.
- With tape measure in hand, and moving across the waterfront buffer, measure 50' from *each* boundary flag or piece of tape. Mark the 50' distance with another flag or if you are using string mark the 50' distance with a stone. This will give you a 50' x 50' grid segment that roughly conforms to the shape of the property boundary.
- Continue this process until the waterfront buffer is entirely covered with grid segments. You may end up with a partial segment. Tree points in partial segments are proportional to the size of the segment. For example, if you end up with a half segment, then only 25 points are required to be maintained in that segment.
- If you end up with a tiny segment, remember that for each 50 square feet within a grid segment, one tree



### Overview of Waterfront Buffer with an Uneven Shoreline



1) Make the bumpout along the shoreline a partial segment. Calculate the square footage of the partial segment and assign proportional points (1 point for each 50 square feet of area). 2) The points assigned to the bumpout can be subtracted from the points required by Segment B to account for the points assigned to the bumpout. If two points are required by Partial Segment B1, then two points can be subtracted from the 50 points required by Segment B.

point needs to be maintained.

- When the shoreline is uneven, it can be helpful to make small partial segments to square off the shoreline and account for the unevenness of the shoreline. Whatever points are scored for the partial segments can be subtracted from the associated full segment (see diagram above).

### Measuring Tree Diameter using a Tape Measure

Place the tape measure around the tree at a distance of  $4\frac{1}{2}$  feet from the ground. By placing the tape measure around the tree, you will obtain a circumference measurement. This measurement will need to be converted to obtain the diameter of the tree stem. To convert circumference to diameter, use the following calculation: **D (diameter) = Circumference  $\div$  3.1416.**

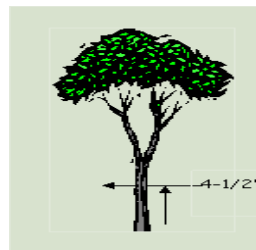
### Measuring Tree Diameter Using the DES "Tree Tool"

The tree tool is a laminated sheet of instructions designed with two cut out openings that mimic a tree caliper. The openings are 6" and 12". The cut out portion of the tree tool is placed on the stem of the tree  $4\frac{1}{2}$  feet from the ground. A sapling that fits into the 6" opening will equal one point, a tree that fits into the 12" opening will equal five points and a tree that is too large to fit into the 12" opening equals 10 points. Quick and easy!

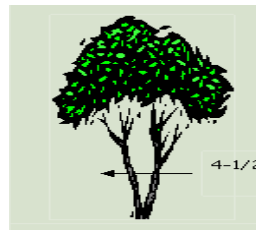
Email: [shoreland@des.nh.gov](mailto:shoreland@des.nh.gov)  
to request a "tree tool"!

### More about measuring trees – What if a tree has multiple stems?

If the multiple stems begin at a point higher than  $4\frac{1}{2}$  feet from the ground, the one stem is measured at  $4\frac{1}{2}$  feet and it counts as one tree. If the multiple stems start below  $4\frac{1}{2}$  feet, then measure each of the multiple stems at  $4\frac{1}{2}$  feet and count each stem in the total score for the grid segment.



If the two stems begin above  $4\frac{1}{2}$  feet, it counts as one stem.



If the two stems begin **below**  $4\frac{1}{2}$  feet, it counts as **two trees**. Measure each stem at  $4\frac{1}{2}$  from the ground

*In rare cases, a tree may branch out very close to the ground (common in some fruit trees). Branches are different than tree stems. If the branches begin below  $4\frac{1}{2}$  feet, then measure the diameter of the stem directly below the lowest branch.*

## New Rules Take Effect for the Subsurface Program

While the restriction on vertical expansion of primary structures has been removed from the CSPA, the DES Subsurface Bureau will still need to assess the site's capacity to support additional septic loading from expanded living facilities. As of February 9, 2008, *Env-Wq 1004.15 Relocation or Expansion of Existing Buildings; Replacement of Demolished or Burned Buildings* requires all new construction activities to submit a Subsurface application to the Subsurface Bureau **unless** the project meets the following criteria:

- There are no changes in footprint.
- No change in the ridgeline.
- No change in the usable interior space.
- No change in use.
- There *is* a valid operating approval for the existing sewage load.

This applies to any construction or expansion including but not limited to buildings that have burned, been demolished, or have been reconstructed. Expansion is defined as an increase in the design flow, based on *Env-Wq 1008.03*, over the existing design flow for an existing construction or an increase in the size of the footprint or ridgeline on a former structure. In addition, all projects within the protected shoreland must be in compliance with the CSPA. For additional information, please contact JoAnn McKinney in the Subsurface Bureau, (603) 271-2924.

## Changes Proposed for the Alteration of Terrain Rules

The Alteration of Terrain program is proposing significant changes to the AoT Administrative Rules. The AoT program permits large earth moving operations. If **any** of the earth work is within the protected shoreland, a permit is required for disturbing 50,000 sq. ft. or more. For projects that are not in the protected shoreland, a permit is required for disturbing 100,000 sq. ft. or more. The AoT program focuses on stormwater management, permanent stormwater treatment, and erosion and sediment control during construction. The revisions to the AoT rules are intended to clarify the existing rules, create categories of permits-by-rule, and clarify the information required for a permit application.

Additional changes involve soil mapping requirements, stormwater control and treatment practices for the protection of surface waters, more protective measures for stream channel protection, groundwater recharge measures, mitigation, and floodplain evaluations. The initial rule making proposal has been filed with the Joint Legislative Committee on Administrative Rules and a public hearing is scheduled for June 30 at DES. The AoT program anticipates final approval of the new rules by October 2008. For more information, contact: Amy Clark at amy.clark@des.nh.gov or (603) 271-2973.

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## Upcoming Shoreland PowerPoint Presentations

**July 20, 10 a.m., Canaan, NH**

**"CSPA—Investment in the Future"**

Arlene Allen, DES Shoreland Outreach Coord.  
Sponsored by Goose Pond Lake Assoc.  
RSVP to Dave Barney, (603) 632-4127  
dave.barney@valley.net

**July 26, 9:30 a.m., Enfield, NH**

**"CSPA—Investment in the Future"**

Arlene Allen, DES Shoreland Outreach Coord.  
RSVP to Casey Cantlin  
Cantlin Assoc. Realtors  
casey@cantlinrealtors.com  
(603) 632-7955; FAX (603) 632-9080

**The Shoreland Program outreach staff is available for PowerPoint presentations at your location. Since our resources are limited and we try very hard to maximize resources, it is always helpful when organizations can collaborate or partner with other groups to sponsor a presentation. This usually brings diverse interests and many more people to the event. To schedule a presentation, please contact Arlene Allen, Shoreland Protection outreach coordinator at arlene.allen@des.nh.gov or (603) 271-0862.**

NH Dept of Environmental Services

**Shoreland Program**

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