Best Management Practices for Lakeshore Vegetation

Adopted from Maine's shoreland zoning standards, which are proven to effectively protect their lakes

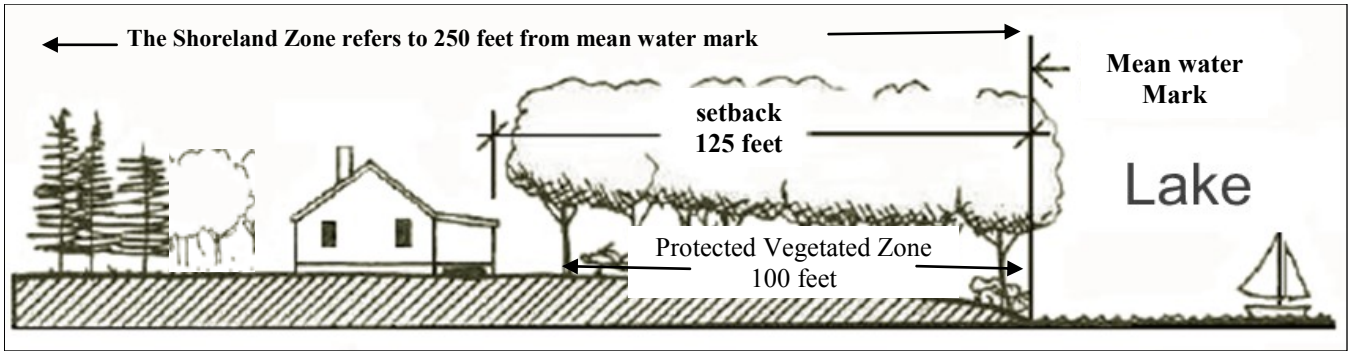
These guidelines are intended for the lakeshore owner to understand how to follow the Shoreland Best Management Practices, and not meant for a forester interested in timber harvesting.
(Timber harvesting standards are shown in the Accepted Management Practices for Forestry, found on the Vermont Dept of Forest and Parks web site at: http://www.vtfpr.org/watershed/ampprog.cfm)

1. Do Nothing. Leave the Woods Under Natural Conditions.

This is the best way to avoid "over managing" the shoreland, native plant species and putting at risk the important benefits they provide to the lake, such as bank stability; stormwater run-off filtration; aquatic habitat; shade; wildlife habitat; natural beauty; and mix of types, sizes, and ages of plants that compose a healthy woodlands.

2. Selective Pruning

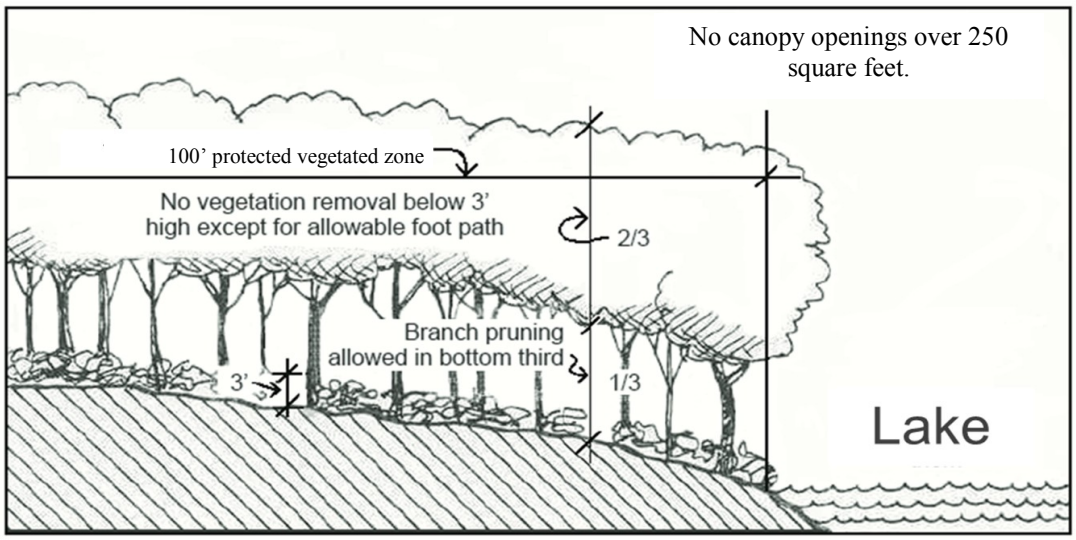
The graphic below shows the Protected Vegetated Zone extending 100 feet in width from the lake. Managing vegetation within this zone is best done according to a point system. Managing vegetation beyond 100 feet from the lake's mean water level (back from the Protected Vegetated Zone) is best explained by the Forty Percent Clearing Principle.



The Protected Vegetated Zone

This term refers to the 100 foot wide, naturally vegetated strip that surrounds the lakeshore. *•Vegetation less than three feet in height, including ground-cover and duff layer, should not be removed. •There should be no openings in tree cover greater than 250 square feet. •Pruning of branches on the lower one third of tree height is acceptable, as well as a six foot wide path down to the lake.* Following these standards provides the most effective protection for the lake.

The techniques and management practices described below are for a single 25 foot by 25 foot section of the waterfront, and should be maintained for each equivalent section (or scaled to fit) in a lakeshore property.



Managing Vegetation in the Protected Vegetated Zone

The management of shoreland vegetation is best based on a rating system that determines the minimum number of trees and shrubs needed to protect the lake. The rating system assigns scores to individual trees, based on the tree diameter at breast height (DBH). Within the protected vegetated zone, each 25 foot by 25 foot section should be maintained by the landowner with:

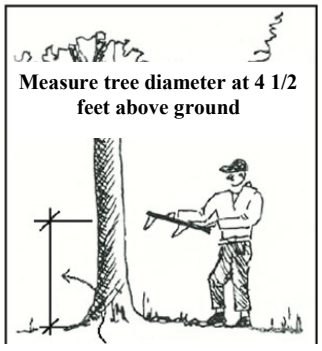
- a minimum number of 12 total "points" worth of trees
- at least five saplings (trees less than 2.5" DBH) in the same area.

Points are assigned to trees depending on their diameter at breast height (DBH). The table indicates how points are assigned.

Diameter (DBH)	Points
Under 2"	0
2" to < 4"	1
4" to < 8"	2
8" to < 12"	4
12" or greater	8

Diameter at Breast Height (DBH)

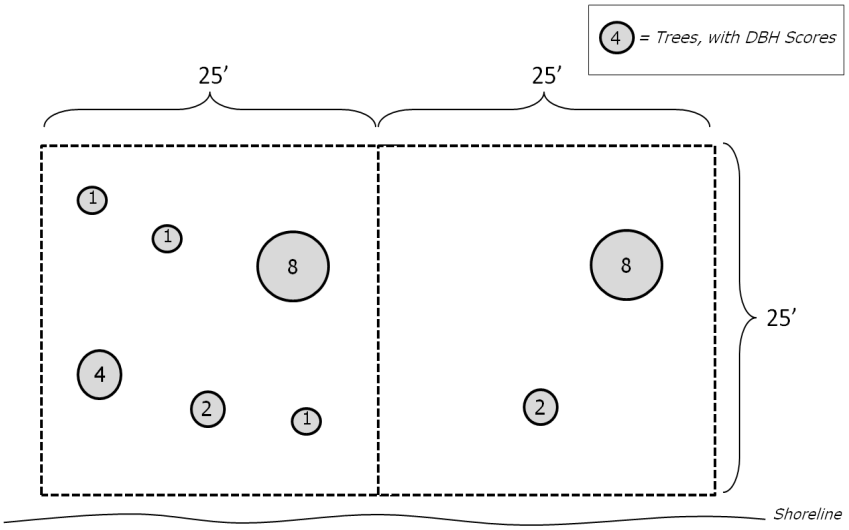
This measurement is used to evaluate the size of trees in a protected vegetated zone, and DBH refers to the diameter of a tree measured four and half feet above the ground. Larger trees have deeper root systems and are more effective at slowing and filtering stormwater runoff before it enters the lake. They are measured and counted as a critical component in establishing a shoreland protected vegetated zone.



Example of Property Owner Shoreland Vegetation Management

This diagram represents two adjacent 25 foot by 25 foot protected vegetated zones. The plot on the left meets the DBH Standard of 12 points minimum; the plot on the right does not. <u>All plots in a shoreline property</u> would need to have a minimum of 12 points for the property to be in compliance with the protected vegetated zone standards.

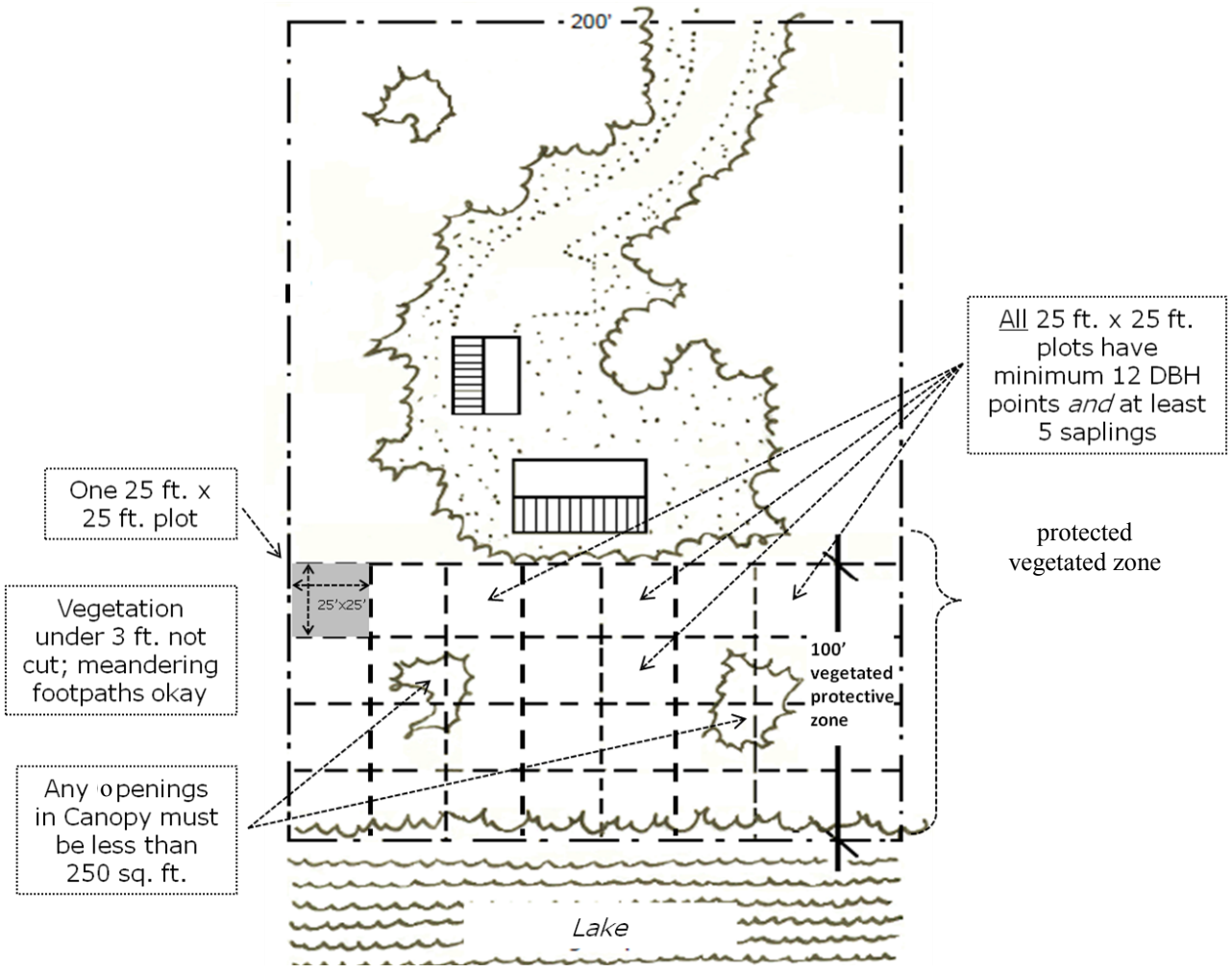
<u>NOTE</u>: It is not a good practice to prune out all of one species, as a healthy woodlands needs a variety of plant species. For example, some trees have shallow roots and grow well on bedrock, while others grow in acidic or wet soils, etc. A mix is best.



17 Points in 25'x25' area: <u>Meets</u> vegetated protective zone standard for DBH points

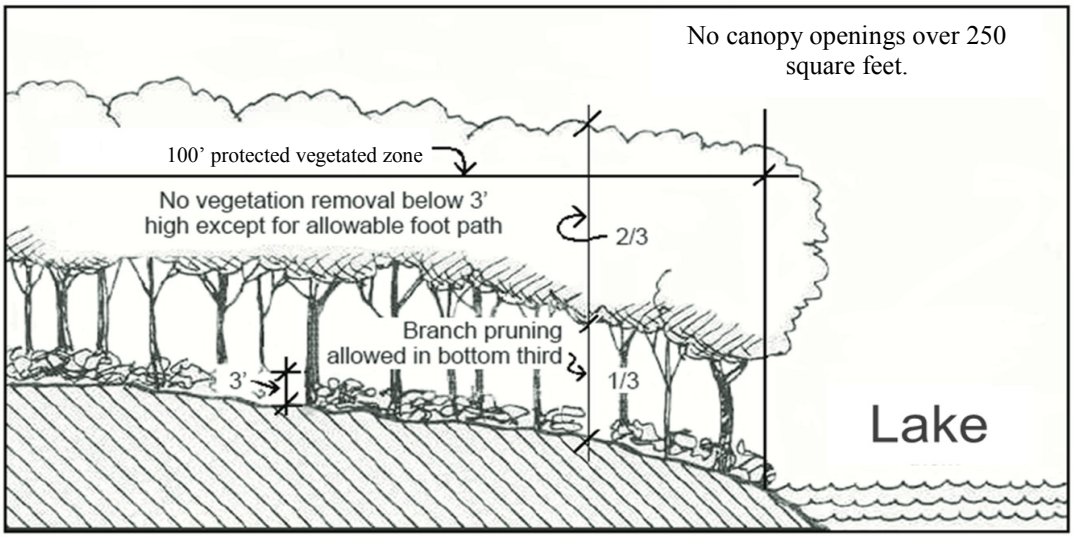
10 Points in 25'x25' area: <u>Does not meet</u> vegetated protective zone standard for DBH points

Vegetation Requirements for the Protected Vegetated Zone



Forty Percent Clearing Principle

There should be no more than 40 percent clearing outside of the protected vegetated zone, which means within 100 to 250 feet of shore there should not be more than 40 percent of cleared native vegetation. Again, this is based on the science-backed practices that are known to best protect the lake.



Measurements

Horizontal Measurement

All measurements are measured horizontally from the lake's mean water level, regardless of slope. This graphic shows a horizontal measurement.