

# Vermont Shoreland Protection Act

Vermont Society of Land Surveyors

April 8, 2016



VERMONT DEPARTMENT OF  
ENVIRONMENTAL CONSERVATION  
**WATERSHED**  
MANAGEMENT DIVISION  
LAKES & PONDS PROGRAM

# Outline

## Shoreland Protection Act

- Jurisdiction
- Purpose
- Registrations/Permits
- Exemptions
- Standards

## Vegetation Protection Standards

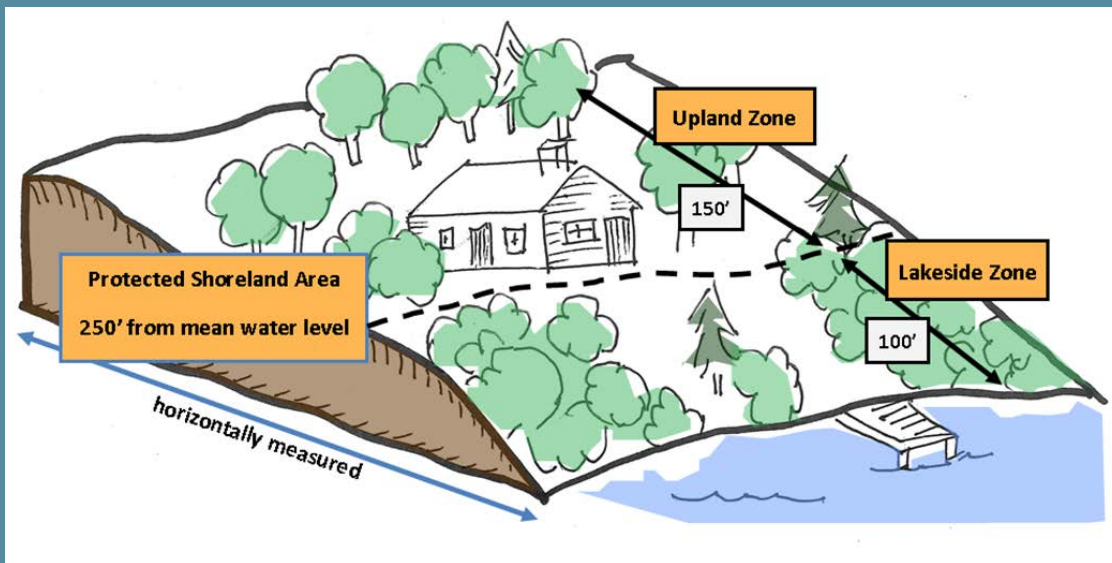
- Vegetative Cover
- Point & Grid System
- Management of Vegetation
- Forest Health

## Lake Encroachment Permitting

## Municipal Delegation



# Shoreland Protection Act: *Jurisdiction*



Within the **Protected Shoreland Area**, the creation of cleared area and impervious surface is now regulated.

The **Protected Shoreland Area (PSA)** is the jurisdictional area established by the Shoreland Protection Act, which became effective July 1, 2014. This area surrounds lakes, ponds, and reservoirs greater than 10 acres in size.

# Shoreland Protection Act:

## *Jurisdiction*

Identifying the mean water level (MWL)

### Established MWL

- Lake Champlain 95.5'
- Memphremagog 682.0'
- Bomoseen 409.9'
- Burr 498.0'
- Carmi 435.5'
- Coles 2,191.9'
- Crystal 944.8'
- Eden N/A 14" below spillway crest
- Great Hosmer N/A No rules adopted, maintained at 1.1' below east abutment of dam since 1954.
- Groton 1,077.1'
- Harveys 892.3' No rules adopted, trial period MWL.
- Hortonia 487.5' Water level not to exceed 2.5'.
- Keiser 94.0'
- Little Hosmer 1,065.7'
- Miles 98.5'
- Morey 415.7' No rules adopted, 32" above floor of main outlet.
- Parker 97.4'
- Perch 99.4'
- Sadawga 96.2'
- Silver 1,307.5' Top SE corner of drop inlet of principal spillway.
- Willoughby 1,168.7'
- Wolcott 100.0'

# Shoreland Protection Act: *Jurisdiction*

Identifying the mean water level (MWL)

## Estimating MWL

MWL may be estimated using observations along the lake edge between June 1 and September 15. Typically the extent of the terrestrial plant growth along the shoreline during the summer season marks the MWL.





# Shoreland Protection Act: *Purpose*

- Protect existing vegetated shores
- Reduce erosion and runoff
- Protect water quality, habitat, and bank stability



Waterbody Size (acres)		Total Shoreline in VT (miles)	Total Undeveloped Shoreline in VT (miles)	Percent Undeveloped Shoreline
Inland Lakes (all lakes except Lake Champlain)	10-20	123	96	78%
	20-200	494	328	66%
	200+	421	215	51%
	All Inland	1,038	639	62%
Lake Champlain		441	169	38%
<b>All VT Lakes (10+ acres)</b>		<b>1,479</b>	<b>808</b>	<b>55%</b>

# Shoreland Protection Act: *Registrations/Permits*

Project involve new cleared area or impervious surface within the PSA?

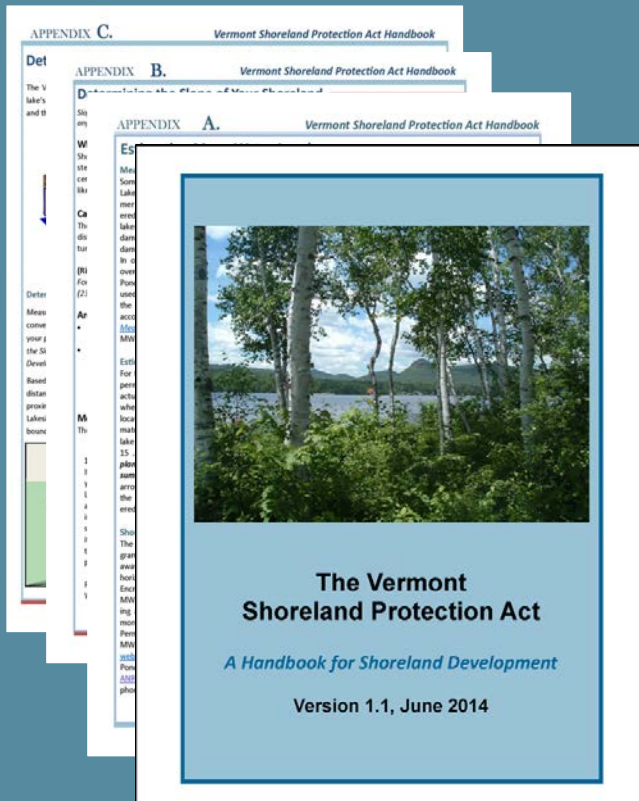
## **Registrations:**

- **A:** up to **100ft<sup>2</sup>** of new cleared area or impervious surface **between 25' and 100'** from the mean water level
- **B:** up to **500ft<sup>2</sup>** of new cleared area or impervious surface **between 100' and 250'** from the mean water level
  - The parcel within the PSA must meet the Standards of the Act. If not, a permit is required.
- Cost: \$100
- Review Time: 15 days

## **Permits:**

- If your project exceeds what can be registered, a permit application may be filed
- Standards of the Act must be met
- Cost: \$125
- New Impervious Surface Fee:
  - \$0.50/square foot
- Review Time: ~40 days

# Shoreland Protection Act: Registrations/Permits



## Guidance Materials

Found at:  
[watershedmanagement.vt.gov/permits/htm/pm\\_shoreland.htm](http://watershedmanagement.vt.gov/permits/htm/pm_shoreland.htm)

Version 2.20.15

### The Vermont Shoreland Protection Act Project Worksheet

This worksheet assists in determining whether or not a registration or permit is required for a shoreland project. Guidance materials to answer the questions below are available on Shoreland Permitting's webpage: [http://www.anr.state.vt.us/dec/water/permits/htm/pm\\_shoreland.htm](http://www.anr.state.vt.us/dec/water/permits/htm/pm_shoreland.htm). Please contact Shoreland Permitting at [ANR.WSMD@shoreland@state.vt.us](mailto:ANR.WSMD@shoreland@state.vt.us) with any questions.

Yes, I have a project involving the creation of new cleared area or impervious surface on a shoreland property.

1. Is your property on a lake greater than 10 acres in size ([list of lakes greater than 10 acres](#))?  
☐ If yes, PROCEED to question 2.  
☐ If no, STOP: You do not need a shoreland permit.
2. Is your project located within 250 feet of the lake's mean water level (MWL)?  
☐ If yes, PROCEED to question 3.  
☐ If no, STOP: You do not need a shoreland permit.
3. Are you conducting any of the following activities?
  - ❖ Maintaining existing buildings, gardens, and lawns without enlarging them.
  - ❖ Creating a single six foot wide footpath to access the lake.
  - ❖ Reconstructing existing impervious areas without increasing or changing the current footprint, such as rebuilding a house, deck, or driveway in exactly the same location.
  - ❖ Removing 250 square feet of vegetation under three feet in height, 25 feet from the MWL, in accordance with the Vegetation Protection Standards.
  - ❖ Pruning and/or removing trees within 100 feet of the MWL in accordance with the Vegetation Protection Standards.
  - ❖ Installing or repairing a wastewater system or potable water supply.

Note: A wastewater/water supply permit may be required from the [Drinking Water and Groundwater Protection Division](#). For licensed designers and installers, a factsheet on the Shoreland Permit Program is available here: <http://drinkingwater.vt.gov/ro/pdf/shorelandprotectionact.fs.2014.06.13.pdf>

☐ If yes, STOP: You do not need a shoreland permit.  
☐ If no, PROCEED to question 4.
4. Is your property intersected by a public highway?  
☐ If yes, PROCEED to question 5.  
☐ If no, SKIP to question 6.
5. Is your project located on the non-lake side of a public highway?  
☐ If yes, STOP: you do not need a shoreland permit.  
☐ If no, PROCEED to question 6.
6. Is your property at least 100 feet in depth from MWL?  
☐ If yes, SKIP to question 8.  
☐ If no, PROCEED to question 7.
7. Does your project involve the creation of more than 100 square feet of new cleared area or impervious surface within 100 feet, but at least 25 feet away from MWL for the first time since July 1, 2014?  
☐ If yes, you need to apply for a shoreland permit ([Application form](#)), PROCEED to question 8.  
☐ If no, you need to register the project ([Registration form](#)), and PROCEED to question 8.



# Shoreland Protection Act:

## *Exemptions*

Activities exempt from Shoreland Permitting:

- Repair, maintenance, and reconstruction within existing footprint
- Removal of dead, diseased or unsafe trees
- Vegetation maintenance according to Vegetation Protection Standards
- Creation of a footpath to access the water (6' maximum width)
- Parcels intersected by a public highway (projects on the portion of the parcel on the side of the highway away from the mean water level)
- Wastewater/potable water supply systems installation/repair
- Act 250 and Section 248 projects
- Forestry with an approved forest management plan in and in accordance with AMPs
- Existing agriculture in accordance with AAPs

## Shoreland Protection Act: *Standards – 20, 20, 40, 100, VPS*

Standards within the Protected Shoreland Area:

- Project site must be located on an area with a **slope less than 20%**
- **No more than 20%** of the parcel within the PSA consists of **impervious surface**
- **No more than 40%** of the parcel within the PSA consists of **cleared area**
- **100'** new development **setback** from mean water level (MWL)
- **Vegetation Protection Standards** apply to all non-cleared areas

## Shoreland Protection Act: *Standards – 20, 20, 40, 100, VPS*

Project site must be located on an area with a **slope less than 20%**



Steeper slopes are more prone to erosion and instability



## Shoreland Protection Act: *Standards – 20, **20**, 40, 100, VPS*

**No more than 20%** of the parcel within the Protected Shoreland Area shall consist of **impervious surface**



Hard surfaces (roofs, driveways, decks, etc.) result in increased runoff during storms events which can result in erosion and reduce the absorption and filtration functions of natural vegetation.

## Shoreland Protection Act: *Standards – 20, 20, **40**, 100, VPS*

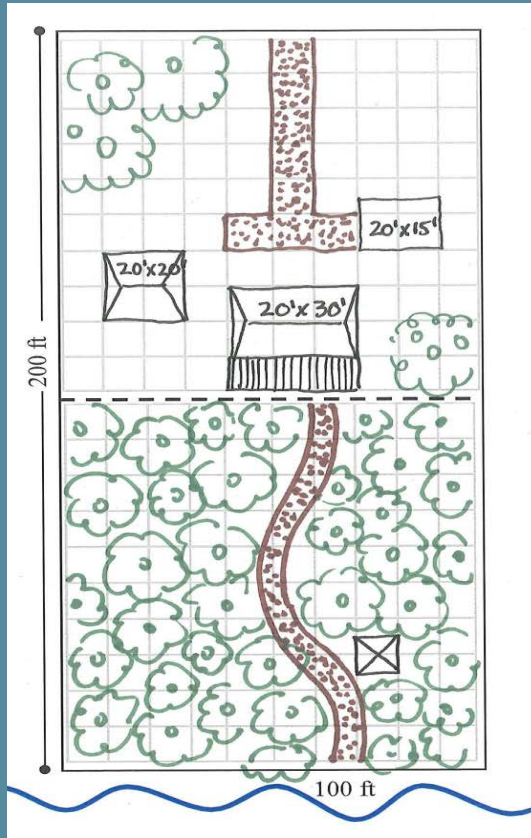
**No more than 40%** of the parcel within the Protected Shoreland Area shall consist of **cleared area**



Clearing the shoreland of its natural vegetation increases stormwater runoff and reduces the lake's natural defense in protecting itself from pollution and eroding banks.



## Shoreland Protection Act: Standards – 20, 20, 40, **100**, VPS



### Conforming Development

Required 100' setback from mean water level for new development.

Parcel in existence before July 1, 2014  
and is too small to meet the setback?  
Already developed within 100'? →

## Shoreland Protection Act: *Standards – 20, 20, 40, **100**, VPS*

### **Nonconforming Development – Development within 100'**

For undeveloped small parcels  
(\*in existence prior to July 1, 2014\*):

- New cleared area and impervious surface must be as far from MWL as possible and no closer than 25' from MWL

Redevelopment within 100':

- No expansion closer to the water allowed
- May rebuild within a footprint that was in existence prior to July 1, 2014

20, 20 , 40 still apply for both



# Shoreland Protection Act: *Standards – 20, 20, 40, 100, VPS*

Exceed a 20, 20, 40 standard?  
A best management practice (BMPs) is required.

BMP examples:

- Infiltration trench
- Vegetated swale
- Waterbar
- Drywell
- No mow zone
- Planting vegetation





# Shoreland Protection Act: *Standards – 20, 20, 40, 100, VPS*

## **Vegetation Protection Standards**

Establishes vegetation benchmarks to maintain vegetative cover in order to promote:

- Bank stability
- Shallow water shading
- Intact duff layer
- Improved habitat
- Improved water quality



## Vegetation Protection Standards: *Vegetative Cover*



Vegetative cover consists of a mix of naturally occurring:

- Trees (DBH  $\geq 2''$ )
- Saplings (DBH  $< 2''$ )
- Groundcover (vegetation 3' tall and lower)
- Duff (leaf litter forest floor layer)

Areas of vegetative cover are not counted towards a parcel's cleared area.



## Vegetation Protection Standards: *Point & Grid System*

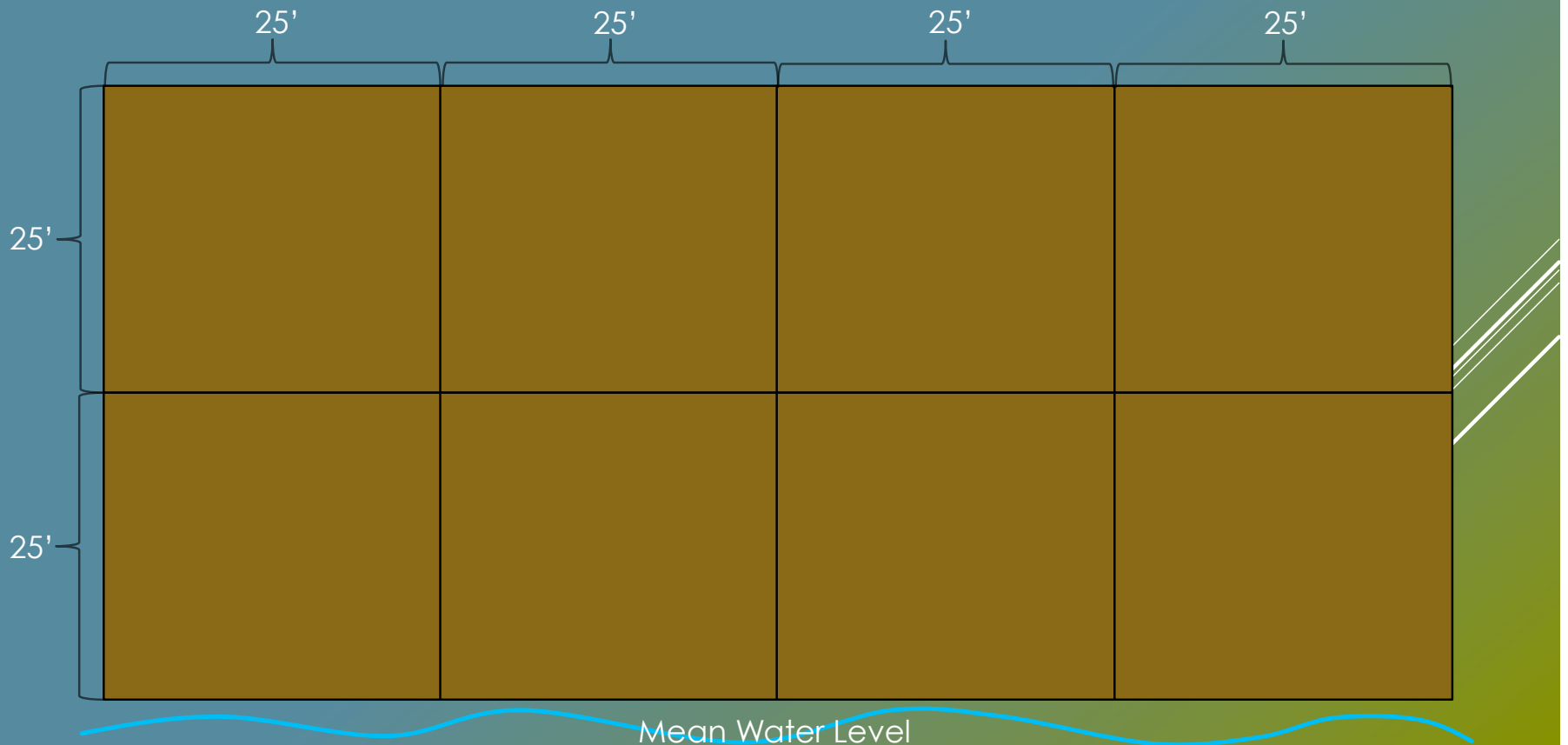
Want to manage vegetative cover? Under the VPS, the following must be present in an area 25' x 25':

- A minimum of 12 points worth of trees
- A minimum of 5 saplings (< 2"DBH)
- All vegetation 3' and below must remain
- The duff and soil layer must not be disturbed

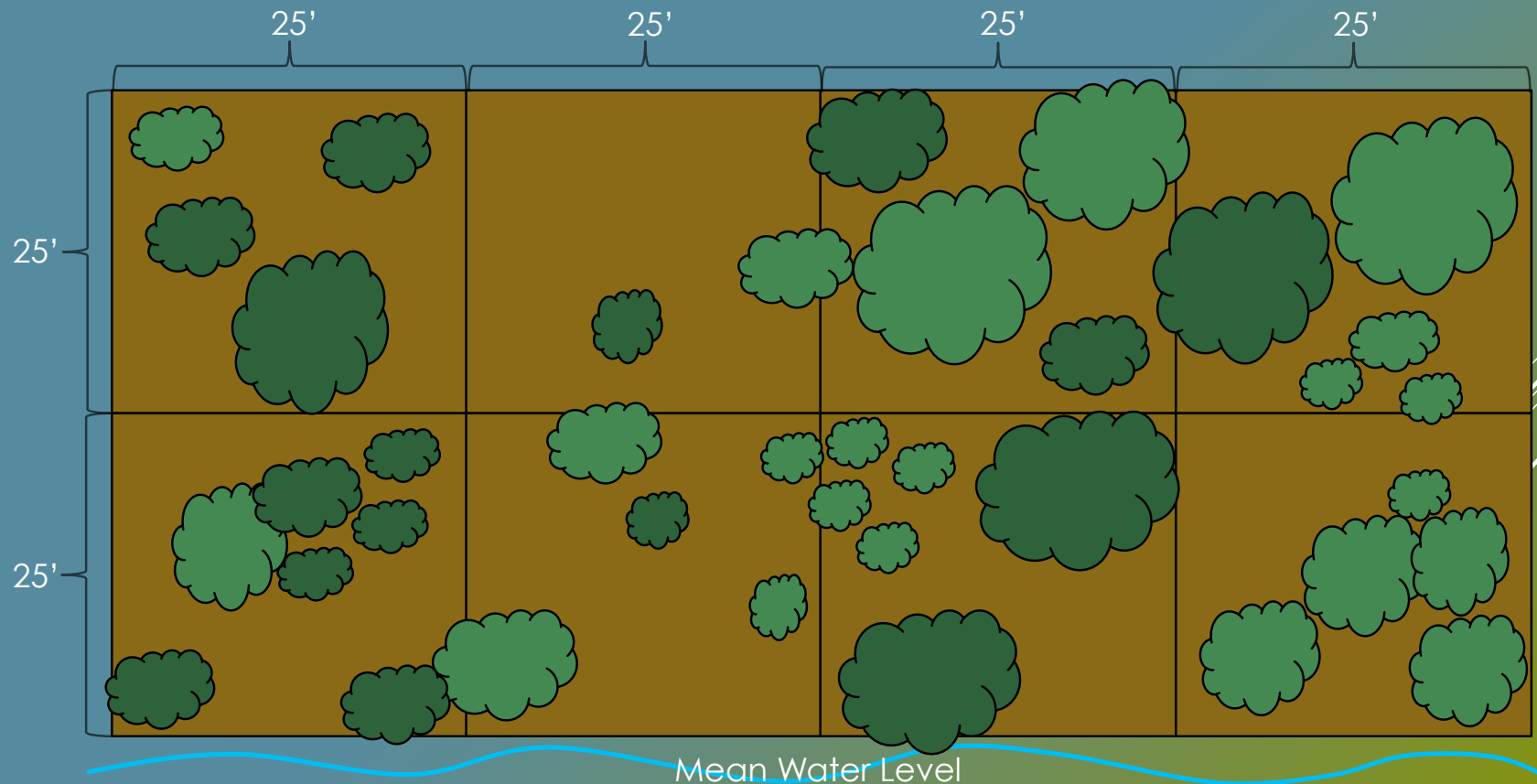
Diameter	Points
Under 2"	0
2" to < 4"	1
4" to < 8"	2
8" to < 12"	4
12" or greater	8

Any trees or saplings must remain if the minimum point or sapling values are not met.

## Vegetation Protection Standards: *Point & Grid System*

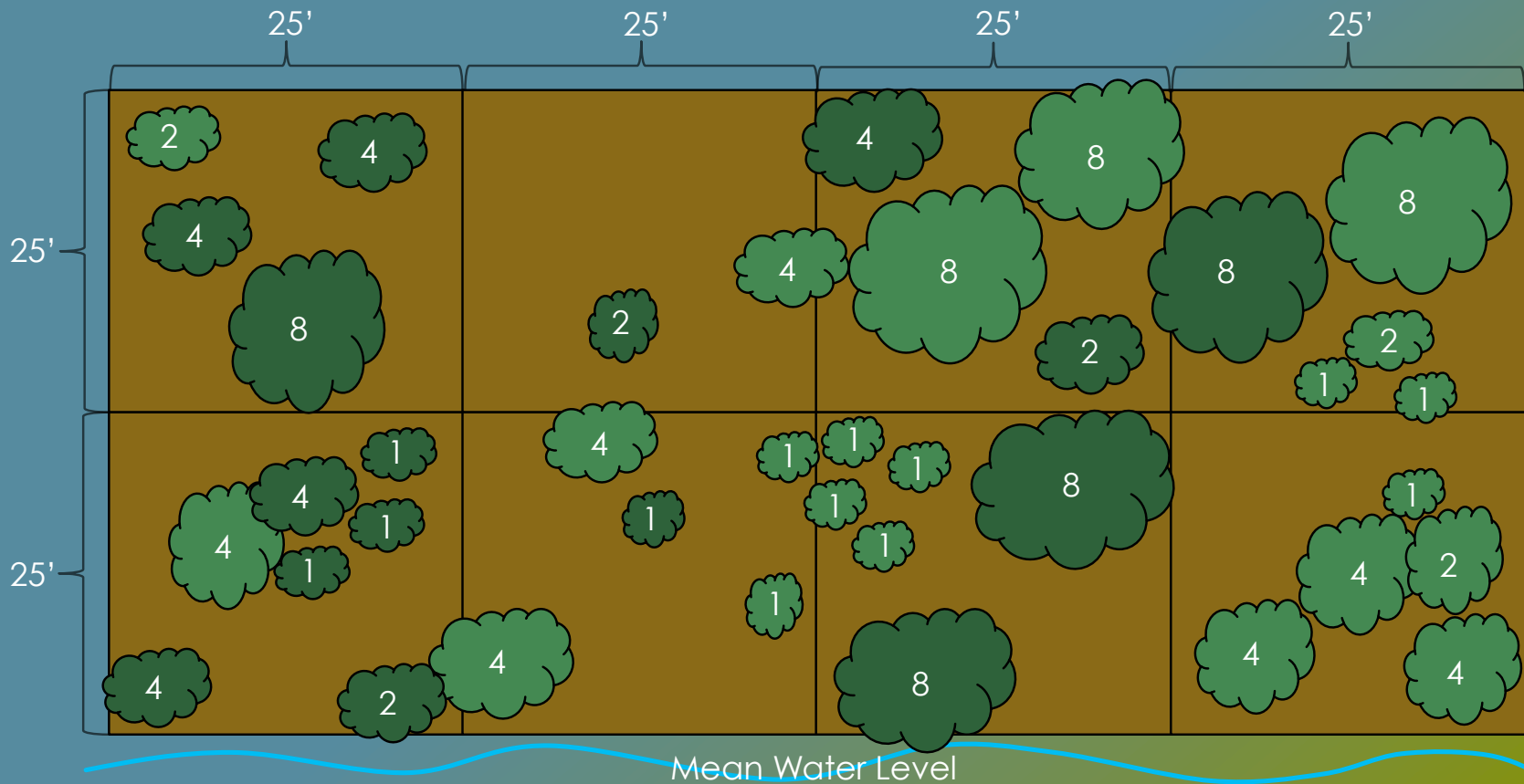


# Vegetation Protection Standards: *Point & Grid System*



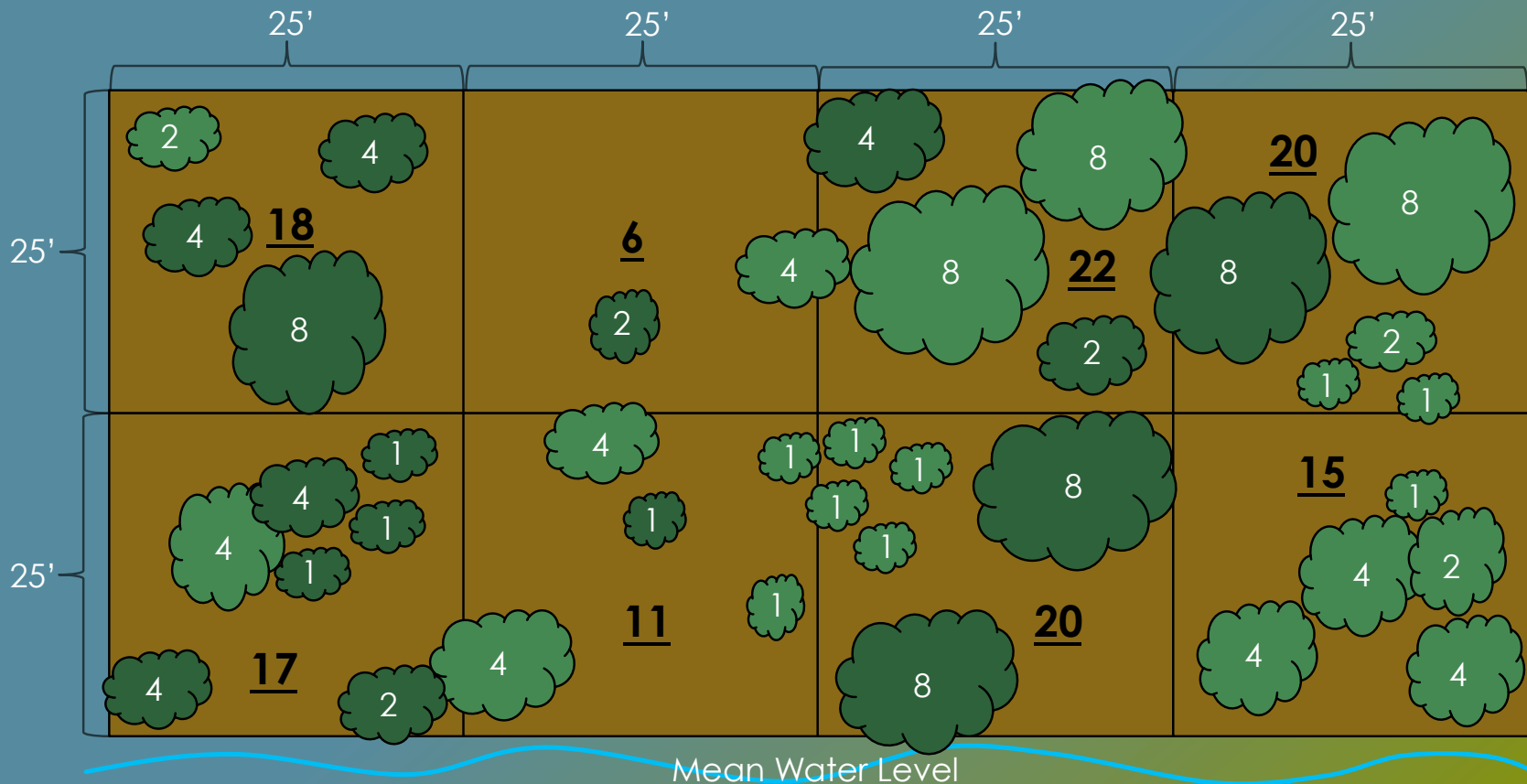
# Vegetation Protection Standards: *Point & Grid System*

Key:  
4 – DBH Point Value



# Vegetation Protection Standards: *Point & Grid System*

Key:  
4 – DBH Point Value  
12 – Total Point Value





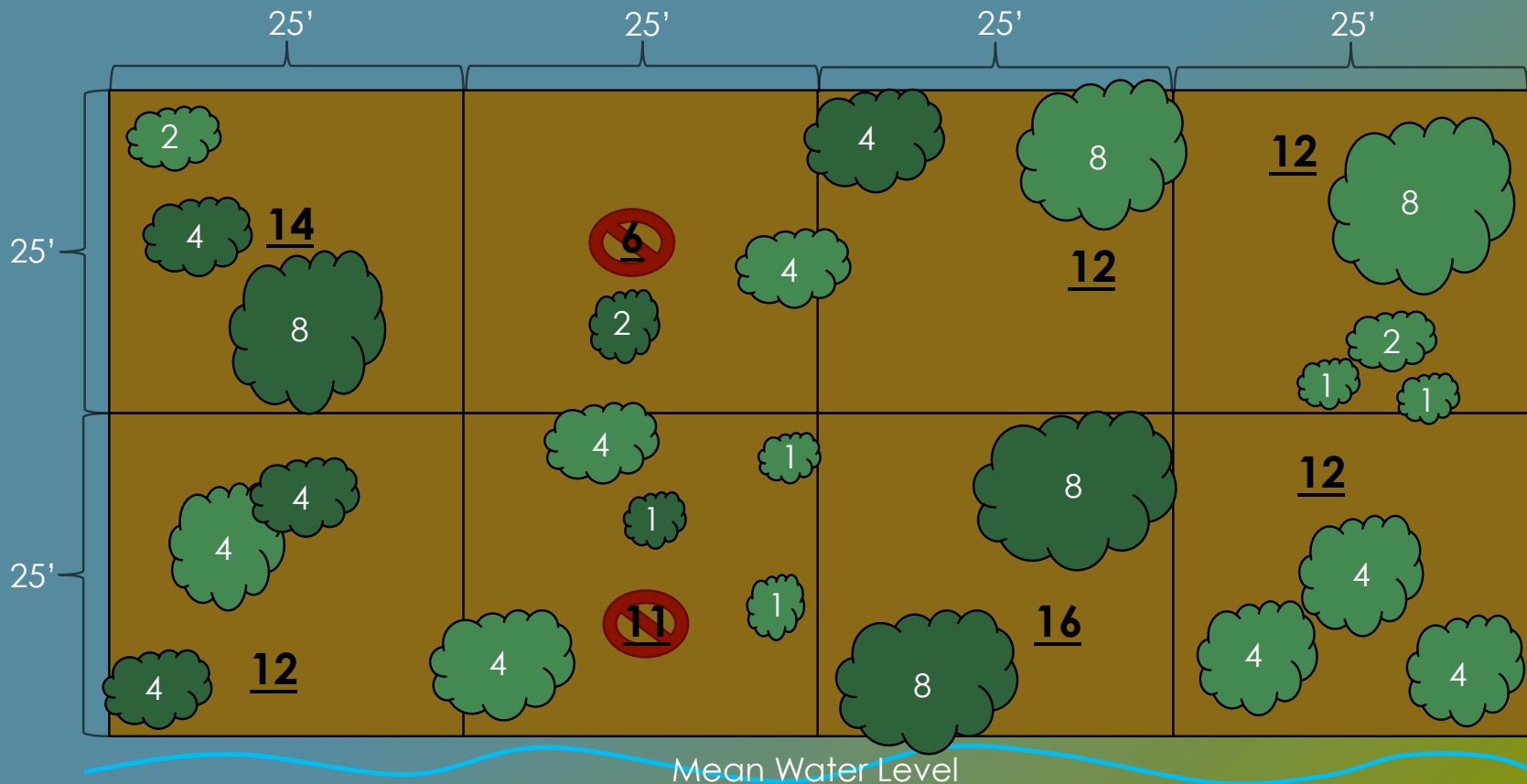
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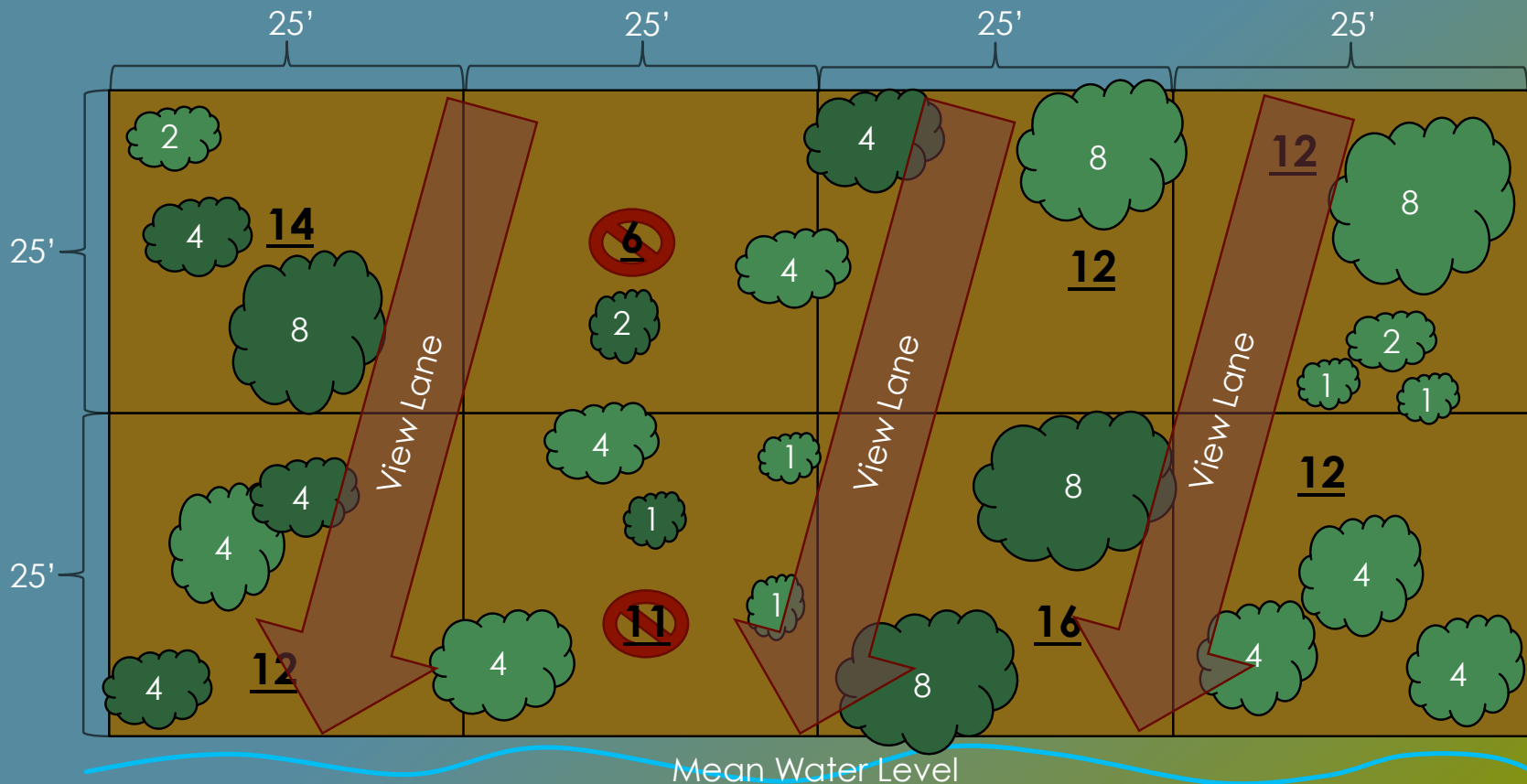
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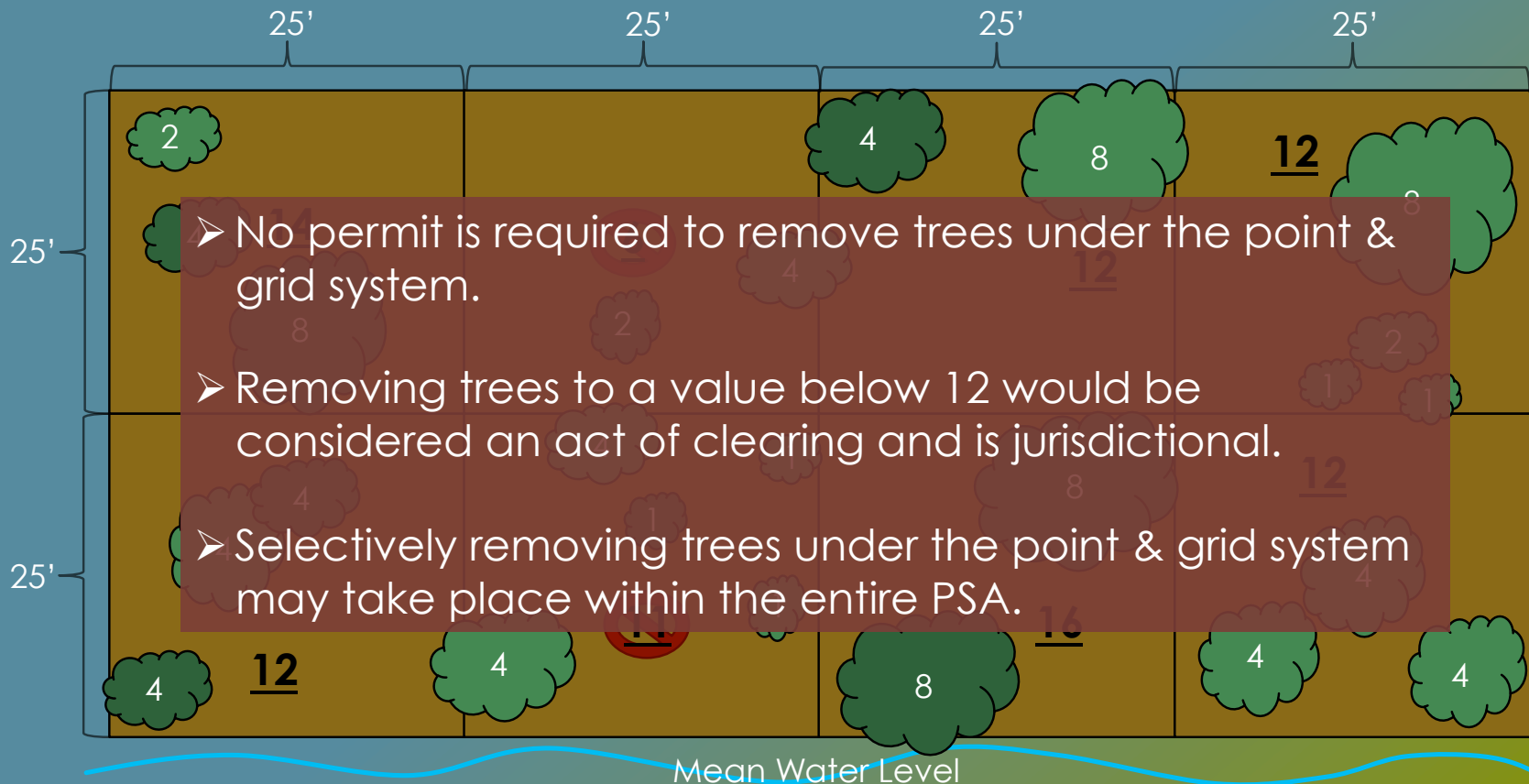
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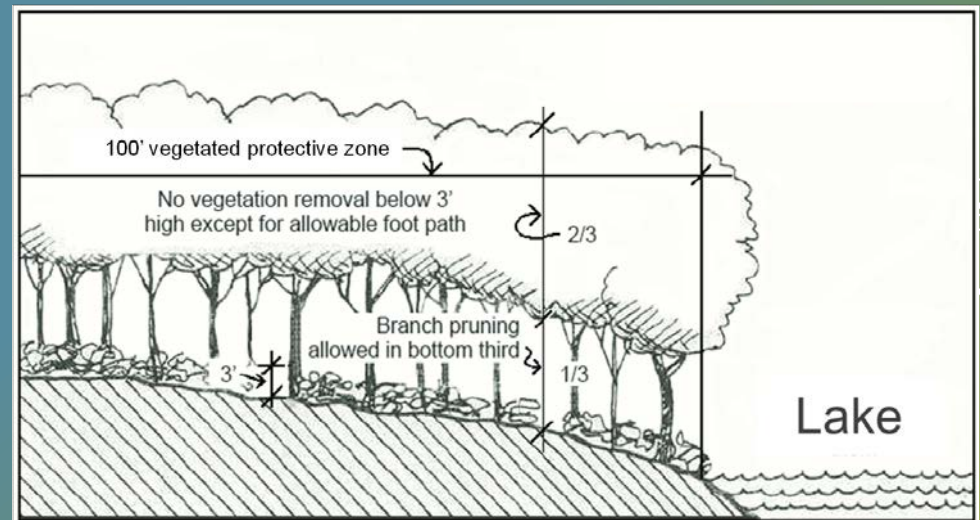




# Vegetation Protection Standards: *Management of Vegetation*

In addition to the point and grid system, the following vegetation management may occur without requiring a permit:

- Removal of up to 250ft<sup>2</sup> of vegetation under 3' between 25' and 100' from MWL so long as the duff layer is not removed
- Pruning of tree branches on the bottom third of a tree's height



# Vegetation Protection Standards: Management of Vegetation

## Dead, Diseased, or Unsafe Trees

Regardless of points or the location of a tree, removal of a dead, diseased, or unsafe trees does not require a permit.

Only the removal of the target tree is allowed. This is not an exemption to create cleared area.

This is the landowners decision and may proceed without approval from Shoreland Permitting.



### The Vermont Shoreland Protection Act Dead, Diseased, or Unsafe Trees

The [Vegetation Protection Standards](#), established by the Shoreland Protection Act, guide the management of vegetation on shoreland parcels. These standards apply to all existing vegetation within the Protected Shoreland Area (250 feet from mean water level). In most instances, removal of vegetation requires a Shoreland Permit or Registration. However, no Shoreland Permit or Registration is required for the removal of dead, diseased, or unsafe trees (10 V.S.A. Chapter 49A § 1447(b)(2)(G)). This exemption is only applicable to tree(s) identified as dead, diseased, or unsafe and does not apply to surrounding vegetation.

#### Identifying a Tree as Unsafe

It is up to the landowner to determine whether a tree may be removed under the dead, diseased, or unsafe exemption. Generally, an unsafe tree has a target, such as a home or power lines, which would be harmed in the event of any tree failure. Resources for unsafe tree determination guidance are on the opposite page.



A storm damaged white oak in in close proximity to a target (house). This tree could be identified as unsafe and removed.



Tree removal should be a last resort option. It is possible to reduce the risk of an unsafe tree by removing the part(s) of the tree that is at risk of failing and damaging a target. In all cases, it may be helpful for a landowner to document any tree they wish to remove and the reason for removal. As long as a landowner feels confident that they have identified a tree as dead, diseased, or unsafe, they do not need to seek permission from Shoreland Permitting to remove the tree. Whenever removing a tree, Shoreland Permitting encourages leaving the root mass in place, as that system provides beneficial bank and soil stability.

For additional assistance in determining whether a tree is dead, diseased, or unsafe, either contact a professional arborist, forester, or a regional Lake Encroachment & Shoreland Permitting analyst (see opposite page for contact information).

#### The Benefits of a Dead Tree

Although a dead tree may be removed under the dead, diseased, or unsafe exemption, oftentimes dead trees pose no hazard and create a unique and desirable habitat for many species. Additionally, allowing a tree to naturally come down and decompose can be less damaging to surrounding trees, be less expensive than removal with heavy equipment, and help recycle nutrients back into the soil.

Kingfishers and Flycatchers often use dead standing trees along a shoreline as a perch while foraging.

# Vegetation Protection Standards: Management of Vegetation

## Noxious & Nuisance Species

Regardless of points or the location of a noxious or nuisance plant, removal of that plant does not require a permit.

Only the removal of the target plant is allowed. This is not an exemption to create cleared area.

This is the landowners decision and may proceed without approval from Shoreland Permitting.



### The Vermont Shoreland Protection Act

#### Noxious and Nuisance Plants

Under the Shoreland Protection Act, noxious and nuisance plant species may be removed from the Protected Shoreland Area (the first 250 feet from the mean water level of lakes and ponds greater than 10 acres) without requiring a Shoreland Permit or Registration. The following is a combination of plant species designated as noxious weeds by the Secretary of Agriculture, Food and Markets under 6 V.S.A. Chapter 84 and nuisance plants designated by the Secretary of Natural Resources. Only the species listed below may be removed without requiring a Shoreland Permit or Registration. Additional removal of vegetation containing species which are not on this list may require a Shoreland Permit or Registration.

#### Noxious and Nuisance Plant Species List

- *Acer ginnala* (Amur maple)
- *Acer platanoides* (Norway maple)
- *Aegopodium podagraria* (bishopsweed)
- *Allanthus altissima* (tree-of-heaven)
- *Alliaria petiolata* (garlic mustard)
- *Anthriscus sylvestris* (wild chervil)
- *Berberis thunbergii* (Japanese barberry)
- *Berberis vulgaris* (common barberry)
- *Butomus umbellatus* (flowering rush)
- *Celastrus orbiculatus* (oriental bittersweet)
- *Euonymus alatus* (burningbush)
- *Fallugia japonica* (Japanese knotweed)
- *Heracleum mantegazzianum* (giant hogweed)
- *Heracleum maximum* (American cow-parsnip)
- *Heracleum sphondylium* (European cow-parsnip)
- *Iris pseudacorus* (yellow flag iris)
- *Laportea canadensis* (wood nettle)
- *Lonicera japonica* (Japanese honeysuckle)
- *Lonicera maackii* (Amur honeysuckle)
- *Lonicera morrowii* (Morrow's honeysuckle)
- *Lonicera tatarica* (Tatarian honeysuckle)
- *Lonicera x bella* (bell honeysuckle)
- *Lythrum salicaria* (purple loosestrife)
- *Pastinaca sativa* (poison parsnip)
- *Phragmites australis* ssp. *australis* (common reed)
- *Rhamnus cathartica* (common buckthorn)
- *Rhamnus frangula* (glossy buckthorn)
- *Toxicodendron radicans* (poison ivy)
- *Toxicodendron rydbergii* (poison ivy)
- *Toxicodendron vernix* (poison sumac)
- *Urtica dioica* (stinging nettle)
- *Vincetoxicum nigrum* (black swallow-wort)



Japanese knotweed is one of the most successful invasive species worldwide due to its aggressive growth and resilience. No Shoreland Permit or Registration is required to remove Japanese knotweed.



Although poison ivy is a native species, unknowingly coming into contact with this plant often creates an irritable skin reaction. No Shoreland Permit or Registration is required to remove poison ivy.

# Vegetation Protection Standards: *Management of Vegetation*

## **Silvicultural Activities**

No Shoreland Permit is required for a silvicultural activity so long as:

- The parcel is enrolled in the UVA (Current Use) Program; OR
- The activity has a Forestry Management Plan approved by VT Dept. of Forests, Parks & Recreation.

ACCEPTABLE MANAGEMENT  
PRACTICES FOR MAINTAINING

## **Water Quality**

ON LOGGING JOBS  
IN VERMONT

*11th Printing 2011*

Contact a county forester for question regarding UVA, AMPs, or a forestry management plan.



# Vegetation Protection Standards: *Forest Health*

Managing and controlling forests pests:

In the event of a forest pest outbreak or the potential for one, the VT Dept. of Forests, Parks & Recreation has the authority to implement an activity managing the situation within the Protected Shoreland Area.



# Lake Encroachment Permitting:

Activities that occur beyond mean water level on **all lakes that are public waters**, including lake and ponds < 10 acres

- Docks
- Shoreline stabilization beyond mean water level
- Dredge/Fill activity
- Utility infrastructure
- Marina infrastructure, including docks
- *Private docks not involving concrete, sheet piling or fill may be exempt*



# Municipal Delegation:

Municipalities may seek delegation so long as they:

- Adopt a functionally equivalent bylaw or ordinance
- Have adequate resources to administer and enforce upon the adopted bylaw or ordinance

Delegated Municipalities:

- ▶ Colchester
- ▶ Greensboro
- ▶ Burlington
- ▶ Elmore

# Voluntary Natural Shoreland Erosion Control Certification:

Workshops offered by the VTDEC:

- To demonstrate lake friendly landscaping techniques for erosion control and habitat protection.
- To connect landscapers, site workers, and contractors with the tools and techniques needed to manage lakeshores in ways that protect water quality and habitat.
- To communicate development rules under shoreland permitting programs.
- To foster partnerships for re-naturalizing shorelands.

Contact:

Amy Picotte

[Amy.Picotte@Vermont.gov](mailto:Amy.Picotte@Vermont.gov)







County	Contact
Addison	<b>Region 1</b> Laura Dlugolecki laura.dlugolecki@vermont.gov 802-490-6133
Bennington	
Rutland	
Windham	
Windsor	
Chittenden	<b>Region 2</b> Michaela Stickney michaela.stickney@vermont.gov 802-490-6117
Franklin	
Grand Isle	
Lamoille	
Washington	
Caledonia	<b>Region 3</b> Mark Mitchell mark.mitchell@vermont.gov 802-490-6200
Essex	
Orange	
Orleans	

Vermont Shoreland Permitting  
[ANR.WSMDShoreland@vermont.gov](mailto:ANR.WSMDShoreland@vermont.gov)



VERMONT DEPARTMENT OF  
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**WATERSHED**  
 MANAGEMENT DIVISION  
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