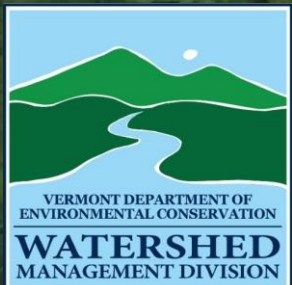
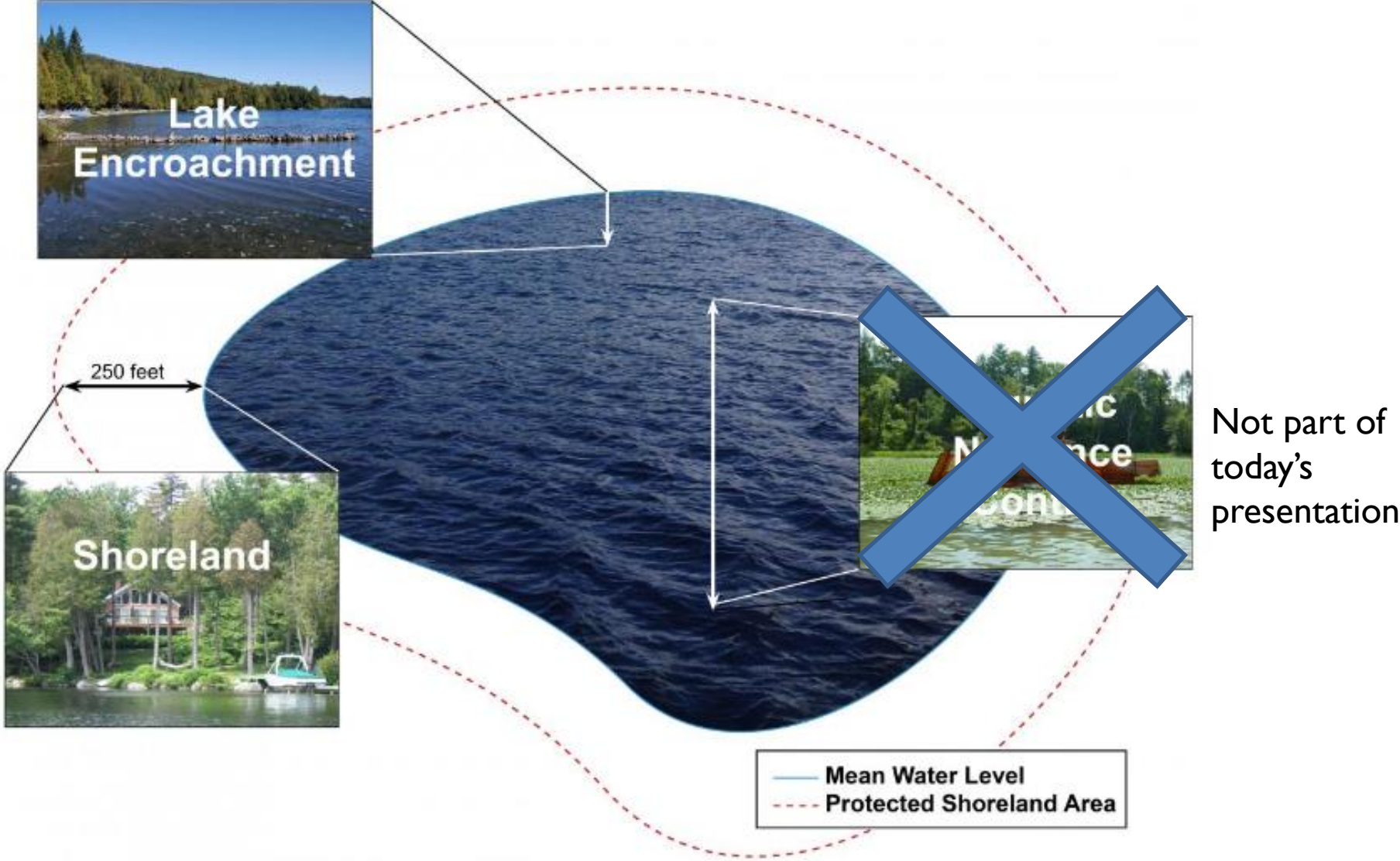


Lake and Shoreland Permitting

VT DEC Lakes and Ponds Management and Protection Program



Lakes & Ponds Permitting Programs



Not part of today's presentation

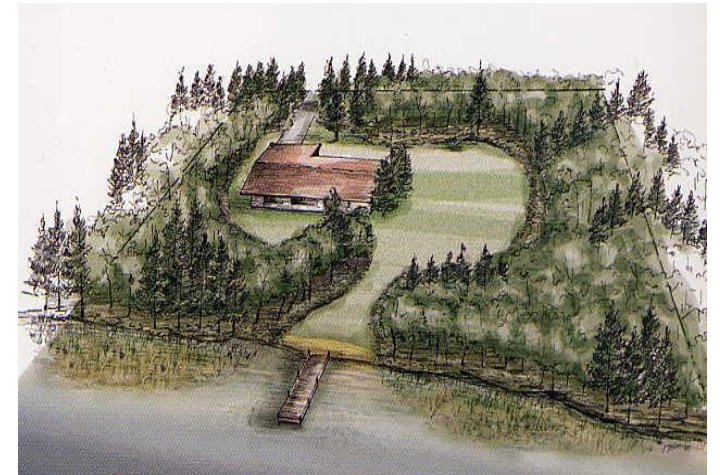
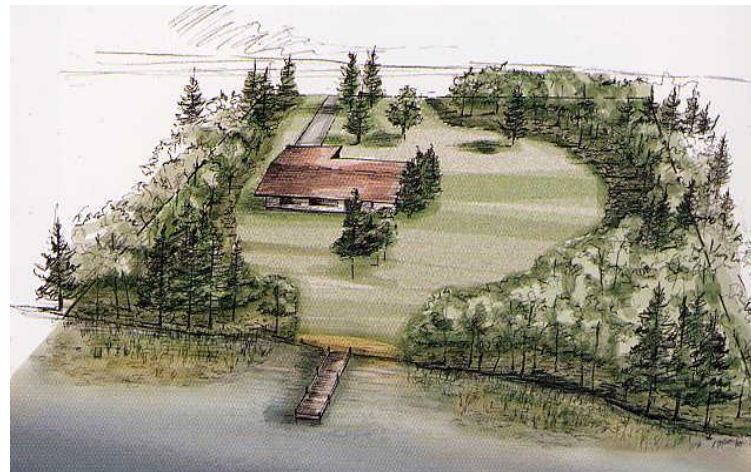
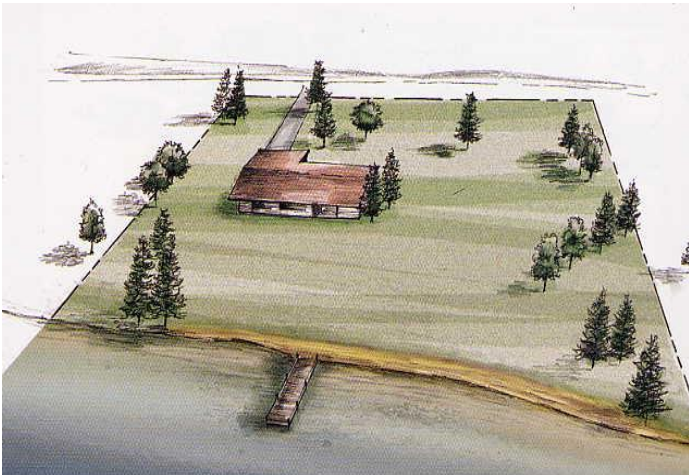
Lakes & Ponds Permitting Programs

- **Shoreland Protection**
 - Removal of vegetation
 - Creation of new impervious surface
- **Lake Encroachment**
 - Activities at or beyond MWL
 - Placement of fill, stabilization, culvert replacement
 - Alteration of the lake bottom



What is the purpose of the Shoreland Protection Act?

- Promote lake friendly development and redevelopment
- Reduce erosion and stormwater runoff
 - Loss of land
 - Water quality
- Protect fish & wildlife habitat associated with natural wooded lakeshores

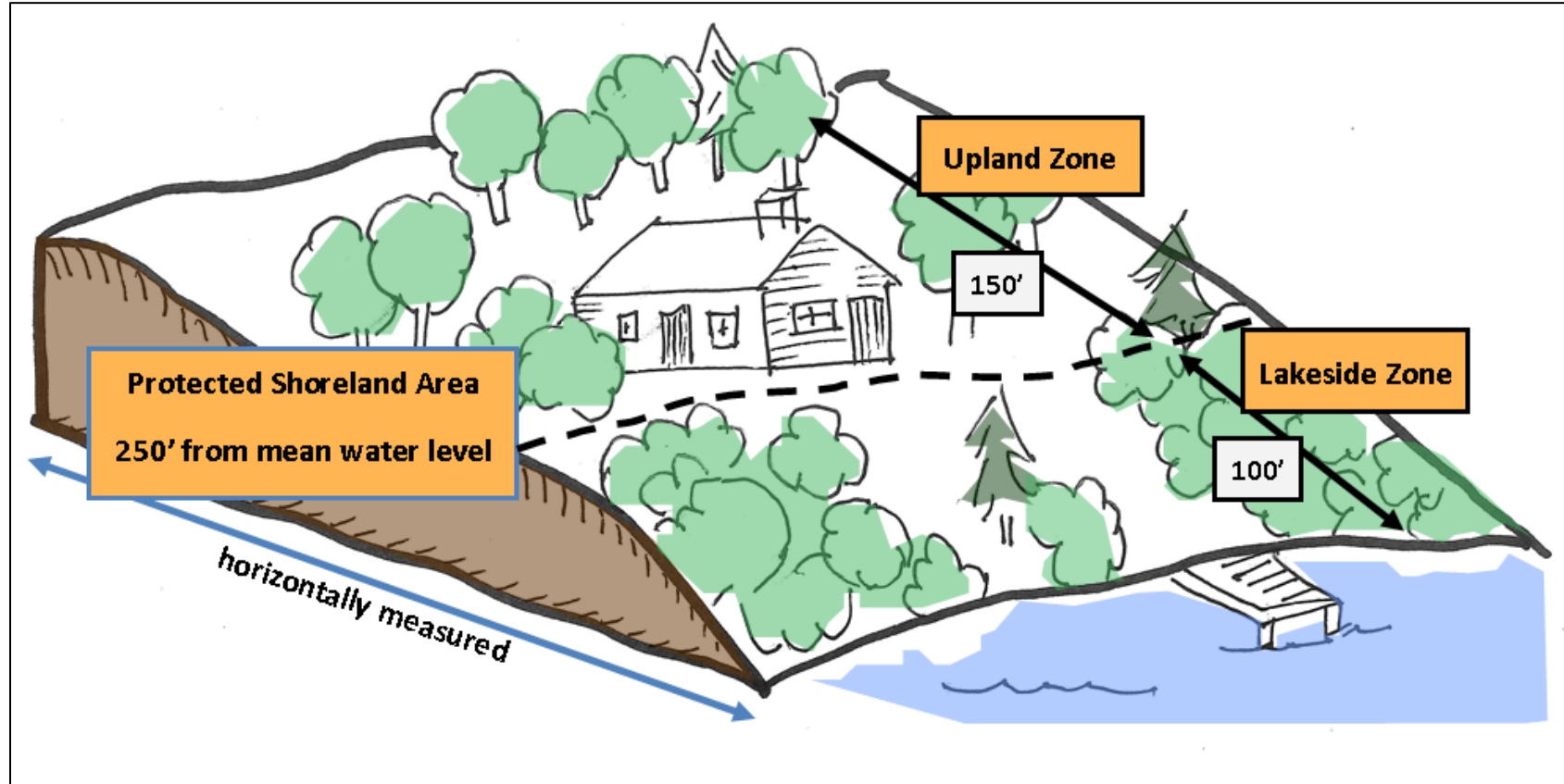


Shifting from this....

...to this



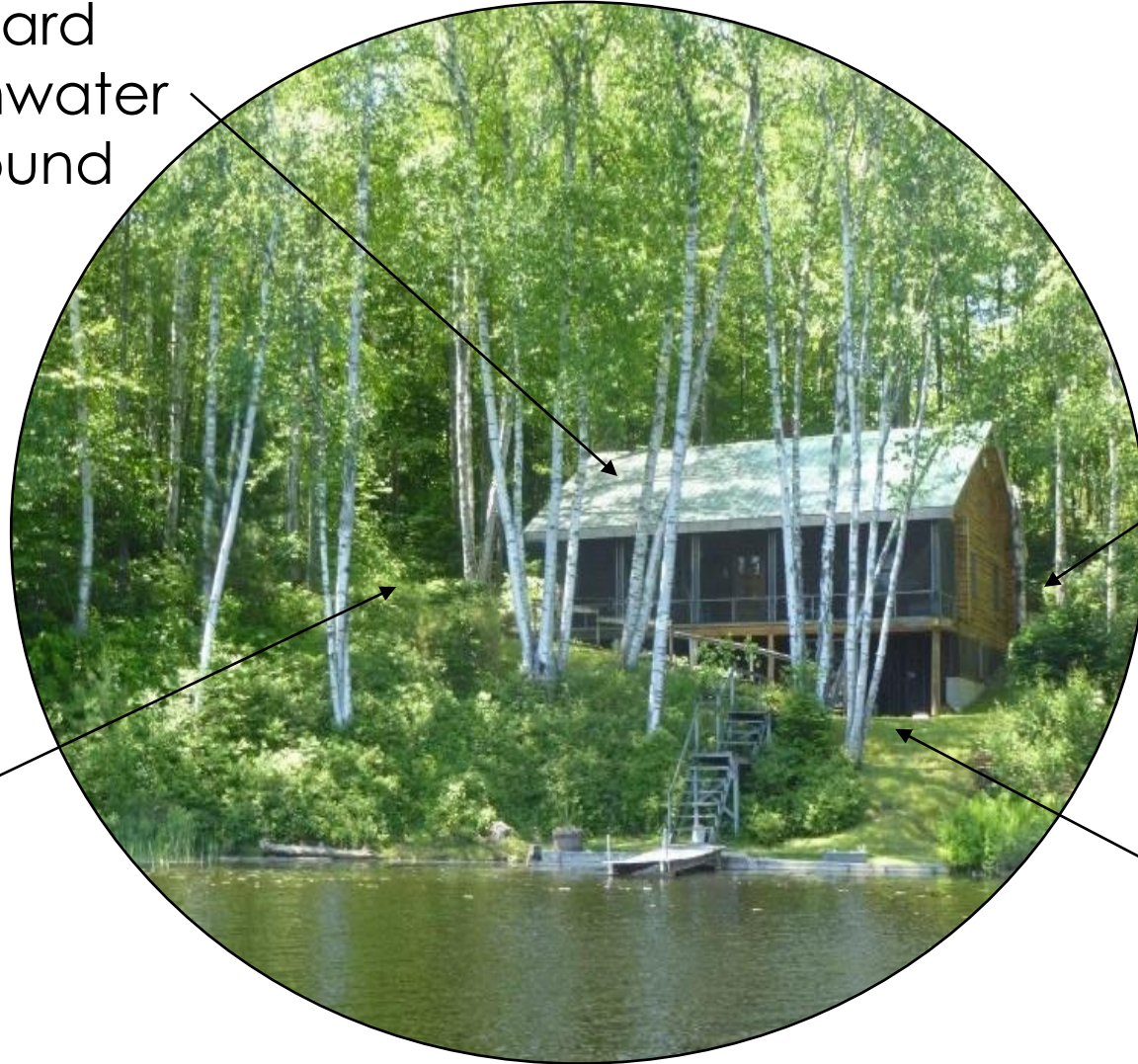
What does the Act apply to?



new cleared area or new impervious surface within 250 feet of mean water level on lakes 10 acres or larger

How does the Act protect Vermont lakes?

Impervious surface – hard surfaces prevent stormwater from infiltrating the ground



Setback – keeping major development set back maintains a lake's defense buffer

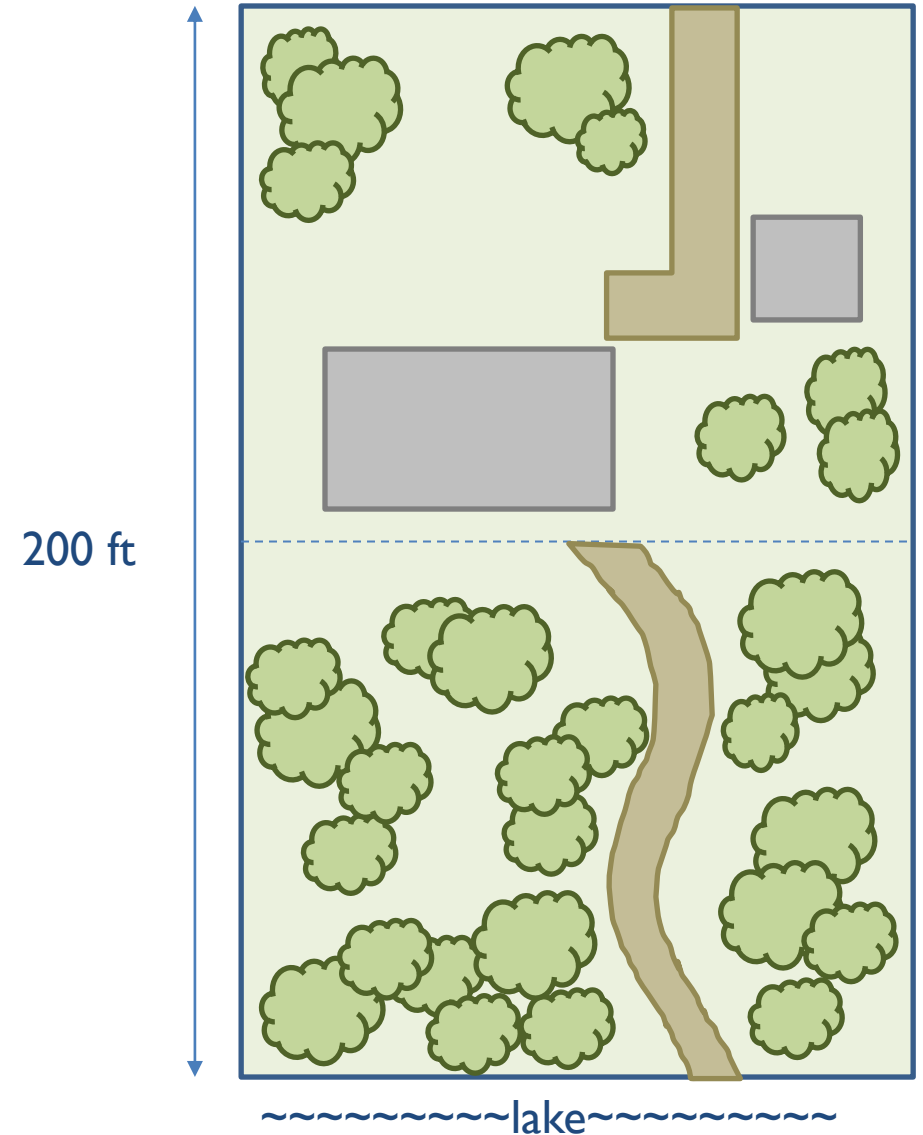
Slope – steep slopes are prone to erosion and soil loss

Cleared area – grass lawn does not provide wildlife habitat or any root structure to stabilize lakeshores

Within 250 feet of mean water level	Standard
Setback	100 feet (for conforming lots)
Slope	< 20%
Impervious surface (roof, paved/unpaved driveways, patios)	≤ 20%
Cleared area (lawn, maintained landscaping)	≤ 40%

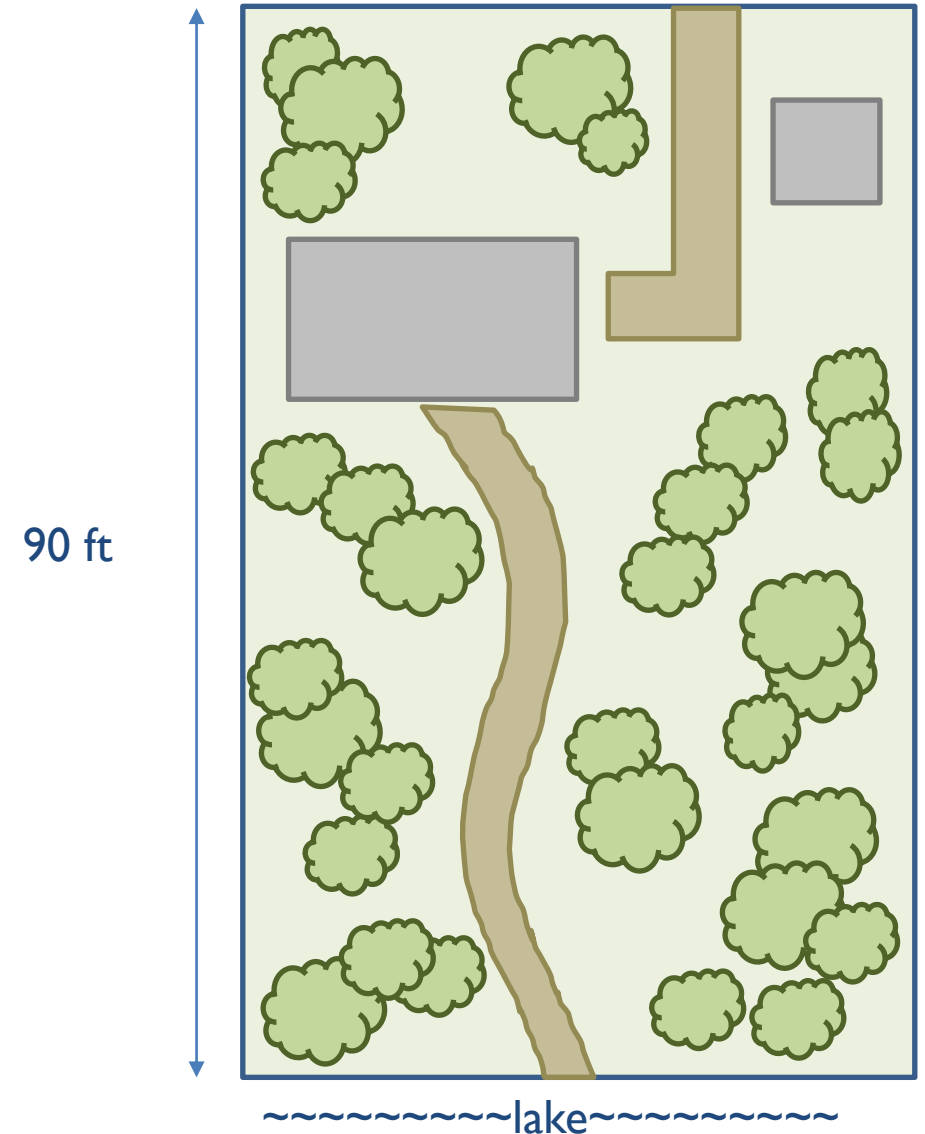
Undeveloped Lot / Conforming Development

- New development must be 100 feet from mean water level
- Slope needs to be <20%
- Impervious surface must be <20%
- Cleared area must be <40%



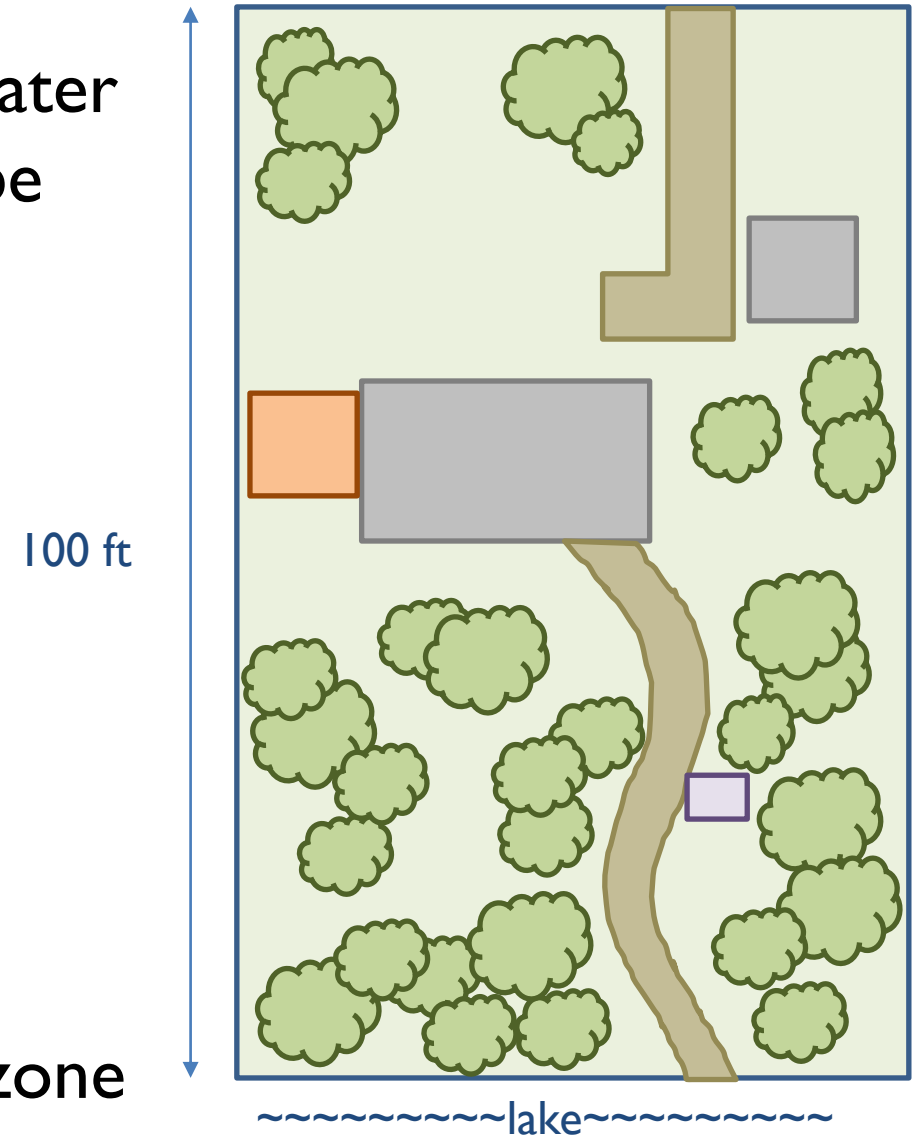
New development on a “non-conforming” lot?

- New development on an undeveloped lot must as far back from the lake as possible
- Slope needs to be <20%
- Impervious surface must be <20%
- Cleared area must be <40%



Redeveloping an already developed, non-conforming lot?

- New development must be no closer to mean water level than existing development (structures can be expanded to the side or rear)
- Slope needs to be $<20\%$
- Impervious surface must be $<20\%$
- Cleared area must be $<40\%$
- Shoreland Registration can be used for small projects (<100 square feet) in the 25-100 –foot zone



One or more **best management practices** (BMP) are required if:
The slope exceeds 20%, total impervious surface exceeds 20%, or total cleared area exceeds 40%



Waterbar ● Infiltration trench ● Drywells ● No-mow zone ● Planting vegetation ● Rain garden

Exemptions from Shoreland Permitting

- Reconstruction within an existing footprint
- Removal of dead, diseased or unsafe trees
- Projects on the non-lake side of a public road
- A single 6-foot wide footpath to access the lake
- Tree removal according to the Vegetation Protection Standards
- Installing or upgrading a state-permitted wastewater/septic system
- Parcels attached to an Act 250 permit
- Maintenance of existing lawns, landscaped areas
- Repair/maintenance of transportation infrastructure



Vegetation Protection Standards

A method to selectively thin out trees

For each 25'x 25' plot:

- A minimum of **12 points** worth of trees
- A minimum of **5 saplings** (< 2" DBH)
- The **duff/soil layer** and **vegetation < 3'** must remain

Tree Diameter (inches)	Points
< 2	0
2 – 4	1
4 – 8	2
8 – 12	4
12 +	8

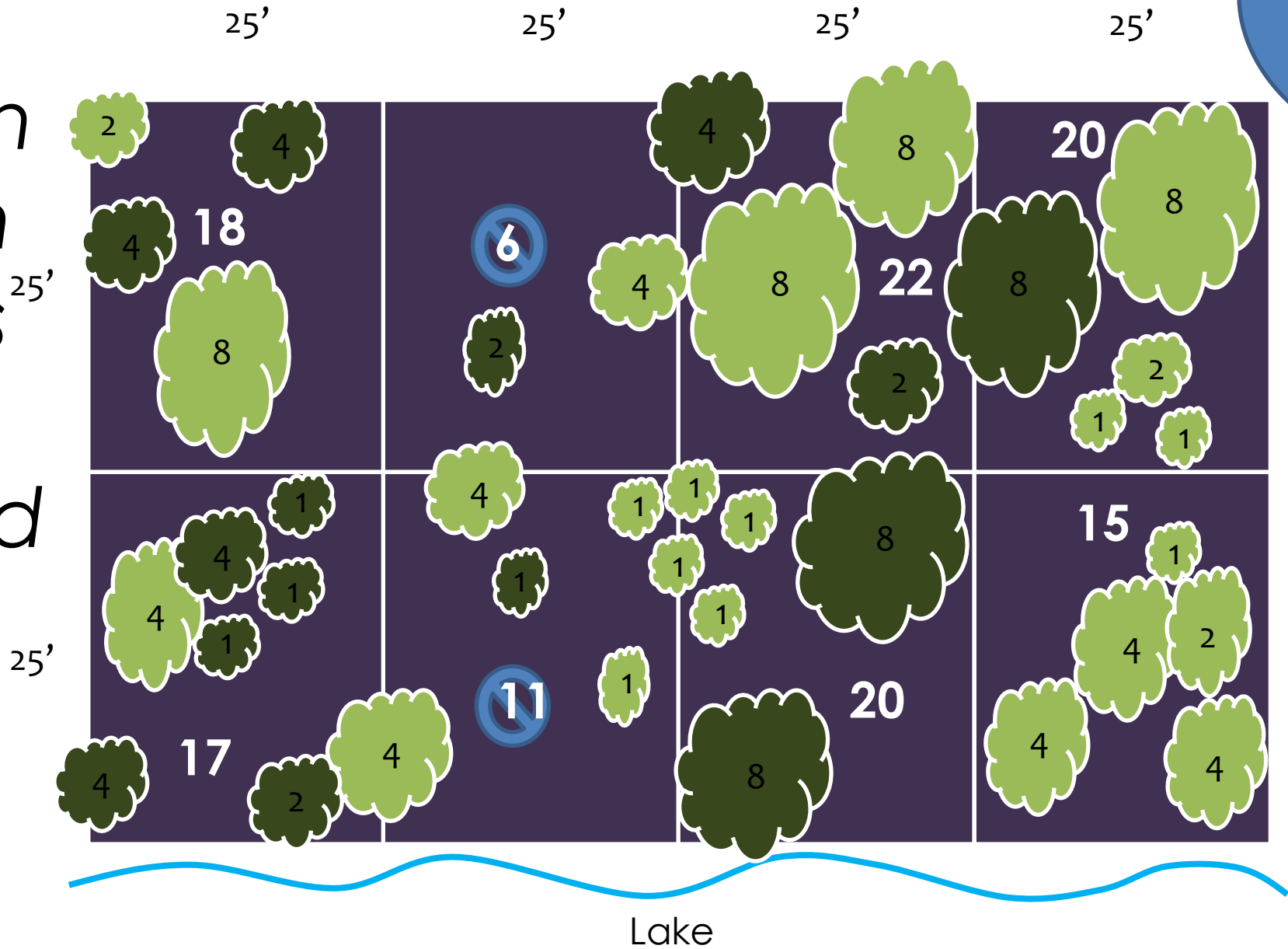


***This is not an exemption to create cleared area!
Cannot remove root system, cannot convert to grass lawn!**

BEFORE
THINNING

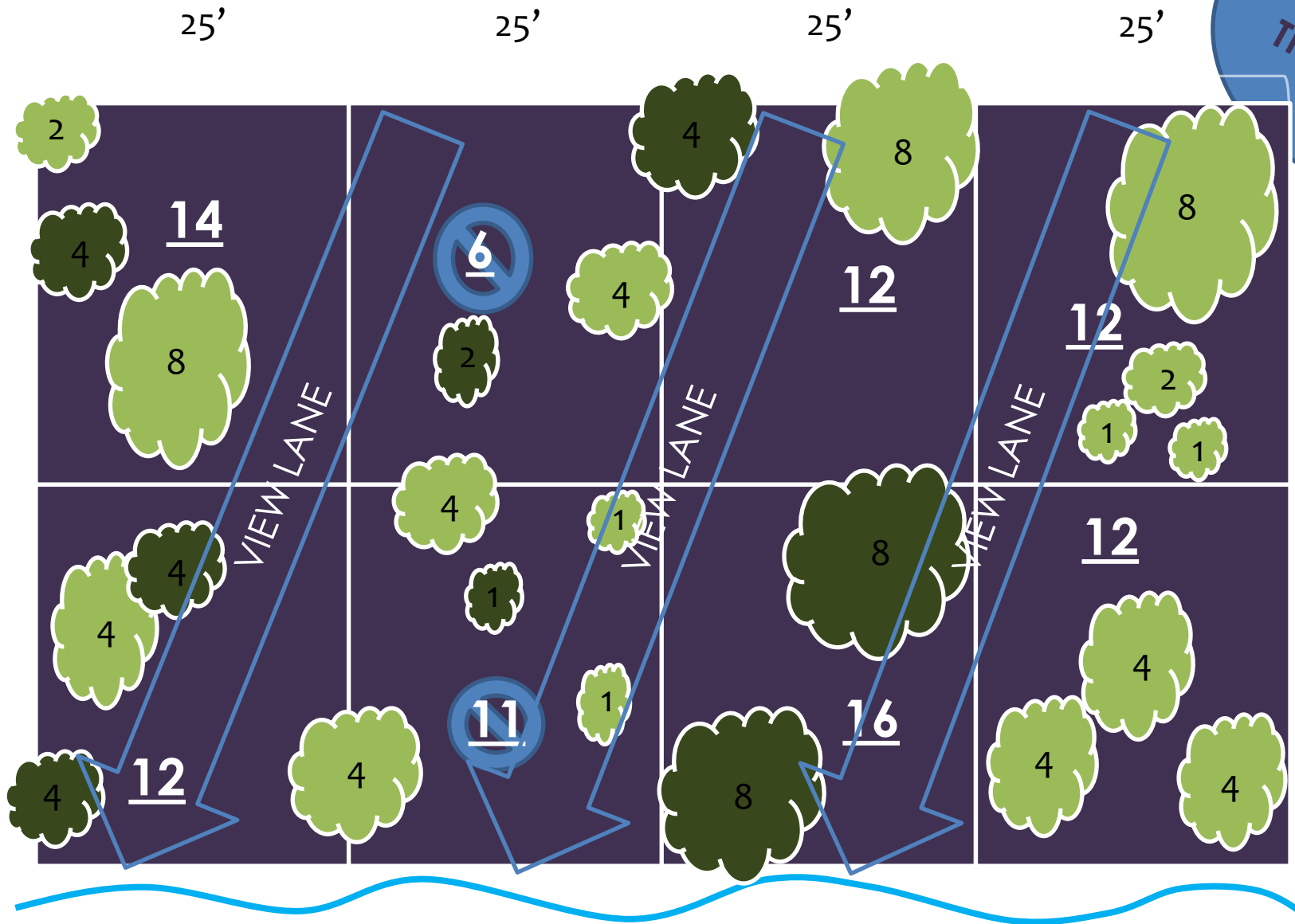
Vegetation Protection Standards^{25'}

Point & Grid System



Vegetation Protection Standards^{25'}

Point & Grid System



AFTER THINNING

Lake

REMINDER--- VPS are just to manage vegetation, not for the creation of permanently cleared area!



What does Lake Encroachment apply to?

Activities that occur **at or beyond** mean water level

Docks

Shoreline stabilization

Dredging

Boat ramp repair

Marina infrastructure

Boathouse repair

Water intake lines



Exemptions from Encroachment Permitting

Provided that navigation is not impeded:

- Docks are non-commercial (private)
 - Wooden, metal, composite material
 - Floating or mounted on posts (NO concrete or rock fill, no bulkheading)
 - < 50 feet in length
 - < 500 square feet in area
- Water intake pipes < 2 inches in (inner) diameter (dry hydrants need permits)
- Duck blinds, buoys, floats, rafts



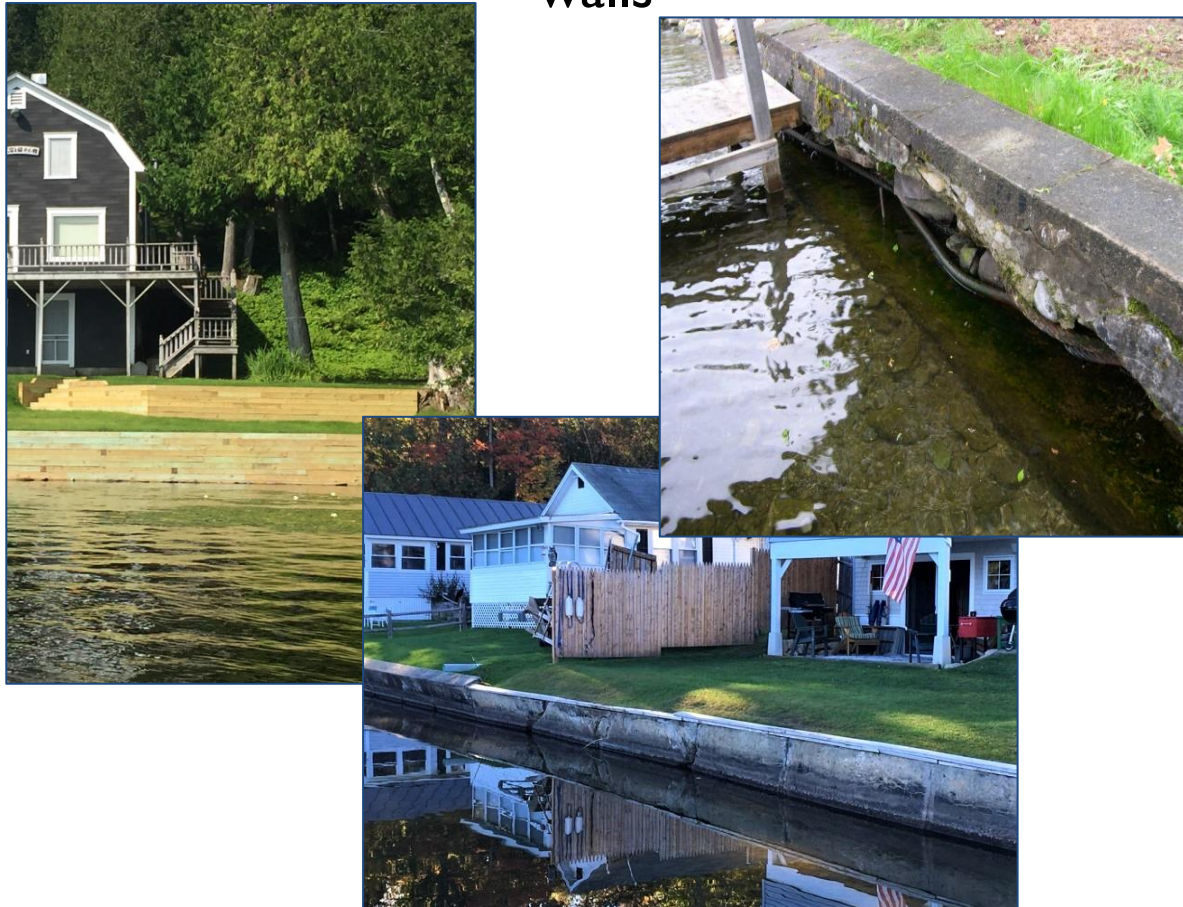


How are Lake Encroachment Permit applications reviewed?

- How can the encroachment be kept as minimal as possible?
- Are there less intrusive feasible alternatives?
- What are the impacts on...
 - Water quality?
 - Fish and wildlife habitat?
 - Aquatic and shoreline vegetation?
 - Navigation, recreational, and other public uses?

Shoreline Stabilization

Structural → Concrete, stacked blocks, stacked stone, railroad ties, bulkheads, vertical retaining walls



Non-structural → Natural stone rip rap, unconsolidated stone and vegetation, biodegradable materials, sloped designs



Do I need a permit?



Remember—its always best to ask first!



Other permits may apply (Wetlands, Army Corps, etc.)

Stabilization: Does this need a permit?

All work is above MWL and in an existing cleared area:

NO

- ✓ No removal of trees, shrubs, natural ground cover
- ✓ Entire shoreland stabilization project is above the mean water level



Stabilization: Does this need a permit?

Working with heavy machinery at or below MWL?

YES (Lake Encroachment)

Installing materials at or below MWL ?

YES (Lake Encroachment)



Stabilization: Does this need a permit?

Installing or replacing fill at or below MWL and vegetation removal (1-for-1 replacement required)

YES (Lake Encroachment AND Shoreland Protection)



Culvert replacement: Does this need a permit?

Working with heavy machinery at or below MWL, installing fill at or below MWL

YES (Lake Encroachment)



Shoreland Development: Does this need a permit?



Rebuilding in the exact footprint, without creating new cleared area?

NO

Constructing a new Deck or Patio?

YES (or other approval): Shoreland Protection

Rebuilding the house and constructing an addition to the existing footprint?

YES: Shoreland Protection

Rebuilding the same square footage house, but in a slightly different location

YES: Shoreland Protection

Rebuilding a boathouse in the same footprint?

YES: Lake Encroachment

BMP Installation within the Protected Shoreland Area: Does this need a permit?

Pervious designs (dripline infiltration trenches, pervious driveways, infiltration steps)

NO, provided they are created in an existing cleared area

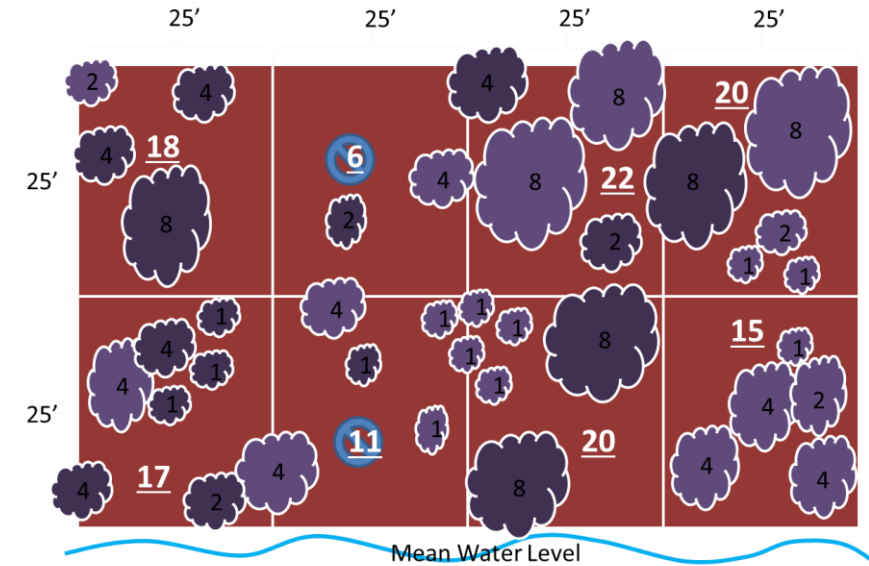


Vegetation Management: Does this need a permit?

It depends!

There are some exemptions:

- Dead, diseased, unsafe trees (leave the roots!)
- Nuisance species removal
- Installing a 6-foot wide footpath for lake access
- Thinning individual trees in a forested area by following the VPS



Tree Diameter (inches)	Points
< 2	0
2 > 4	1
4 > 8	2
8 > 12	4
≥ 12	8

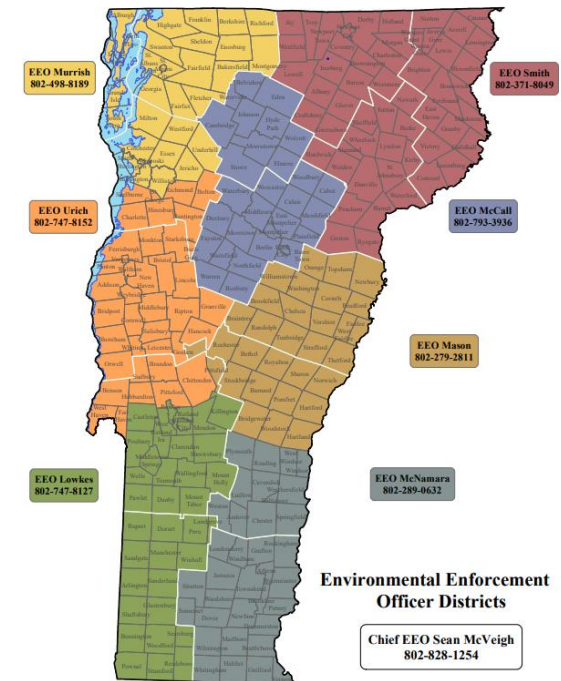
Removal of vegetation beyond this is considered clearing and requires a Shoreland Permit

What happens if I don't get a permit or don't comply with my permit conditions?

Environmental Enforcement

Step 1: Compliance (restoration, after-the-fact-permitting, removal/modification of project)

Step 2: Close case, ticket or penalty, environmental court



Report Suspected Environmental Violations

[Visit this website:](https://dec.vermont.gov/enforcement/reporting)

dec.vermont.gov/enforcement/reporting

- Can remain anonymous
- Can add pictures
- Describe your concerns
- An Environmental Enforcement officer will visit

ENVIRONMENTAL VIOLATION REPORT

You may make this complaint anonymously. If you wish to be anonymous, do not include your name or any contact information. If you include your name or any contact information it will become a part of the public record. Please be aware that complaints – including complainant identification - are public records and thus can be obtained by any member of the public.

Please complete this form and submit it, and/or use it as a guide and call us directly at 802-828-1254.

Whichever way you choose to report, it is important that you supply us with all the known facts to answer the questions on the form. Doing so allows us to respond in the most appropriate manner to minimize any harm to human health or the environment and, when appropriate, take enforcement actions against those responsible.

If you would like to know the outcome of a previously reported complaint, call us at 802-828-1254.

Please do not report the same complaint multiple times.

Date or time period violation first observed:

Date or time period violation last observed: *

Town where violation occurred: *

- Select -

Description of violation: *

Sharing the Edge: A Guide for Lakeshore Property Owners in Vermont

https://dec.vermont.gov/sites/dec/files/documents/lp_SharingTheEdge.pdf



SHARING THE EDGE



**A Guide for Lakeshore
Property Owners in Vermont**

VT Agency of Natural Resources Atlas

The screenshot displays the Vermont Agency of Natural Resources (ANR) Atlas web application. The browser address bar shows the URL <http://anrmaps.vermont.gov/websites/anra5/>. The application header includes the Vermont logo and the text "Natural Resources Atlas Vermont Agency of Natural Resources". A navigation menu contains links for WEATHER, Google Maps, DATABASE, ANR ATLAS, Shoreland Statute, Encroachment Statute, Grand List Search, DASHBOARD, Shoreland Permitting De..., Lake Encroachment Permi..., Downloadable Maps Age..., and BEAR.

The main interface features a "Layers" panel on the left with a "Filter Layers..." section and a "Quick Tools..." search bar. The "Filter Layers..." section lists various map layers with checkboxes and expandable arrows:

- Vernal Pools Unconfirmed - AE/VCE
- Wetland Projects
- 303(d) List of Impaired Streams and Rivers
- 303(d) List of Impaired Lakes and Ponds
- Priority Waters List (Streams and Rivers)
- Priority Waters List (Lakes and Ponds)
- Stressed Waters List (Streams and Rivers)
- Stressed Waters List (Lakes and Ponds)
- Outstanding Resource Waters
- VT Water Quality Classification
- Protected Shoreland Areas
 - Wetland - VSWI
 - Wetlands Advisory Layer
 - Environmental Conservation Managed Lands
 - Tactical Basin Planning
- Waterbody Identification Number (WBID)

The central map shows an aerial view of Lake Salem, Vermont, with a blue-shaded shoreline. The map includes road labels (e.g., 111, 105, 104, 103, 102, 101, 100, 99, 98, 97, 96, 95, 94, 93, 92, 91, 90, 89, 88, 87, 86, 85, 84, 83, 82, 81, 80, 79, 78, 77, 76, 75, 74, 73, 72, 71, 70, 69, 68, 67, 66, 65, 64, 63, 62, 61, 60, 59, 58, 57, 56, 55, 54, 53, 52, 51, 50, 49, 48, 47, 46, 45, 44, 43, 42, 41, 40, 39, 38, 37, 36, 35, 34, 33, 32, 31, 30, 29, 28, 27, 26, 25, 24, 23, 22, 21, 20, 19, 18, 17, 16, 15, 14, 13, 12, 11, 10, 9, 8, 7, 6, 5, 4, 3, 2, 1) and labels for "Lake Salem" and "Grady River". A scale bar at the bottom indicates distances of 0, 0.15, and 0.3 km. The bottom right corner of the map area contains copyright information: "© 2017 DigitalGlobe, ©CNES (2017) Distribution Airbus DS, © 2017 HERE, © 2017 Microsoft Corporation | VCGI | VTANRGIS | VTANR GIS".

The Windows taskbar at the bottom shows the system clock as 1:20 PM on 11/3/2017.

The Vermont Bioengineering Manual

Vermont Bioengineering Manual

A Technical Manual for Lakeshore Contractors and Homeowners

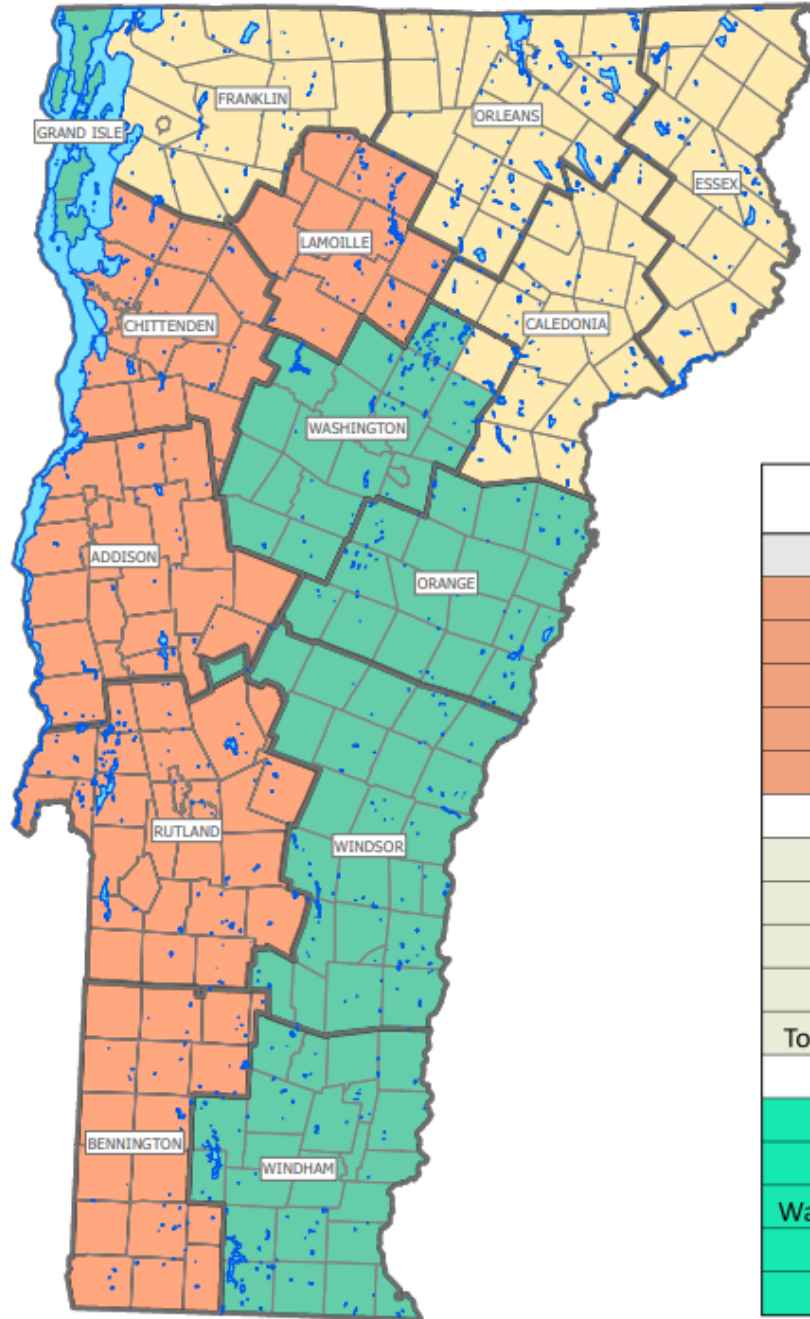
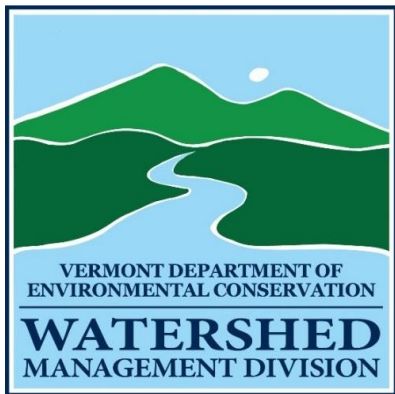


Vermont Agency of Natural Resources - January 2022



PHOTO: VT ANR, Lake Wise Program

Lake Encroachment & Shoreland Permitting Regional Contact Information



SHORELAND REGIONS	
County	Contact
Addison	REGION 1 Laura Dlugolecki Laura.Dlugolecki@vermont.gov 802-490-6133
Bennington	
Chittenden	
Lamoille	
Rutland	
Caledonia	REGION 2 Laura Woods Laura.Woods@vermont.gov 802-490-6100
Essex	
Franklin	
Orleans	
Town of Cabot (in Washington Co.)	
Grand Isle	REGION 3 Misha Cetner Misha.Cetner@vermont.gov 802-490-6199
Orange	
Washington (except Town of Cabot)	
Windham	
Windsor	