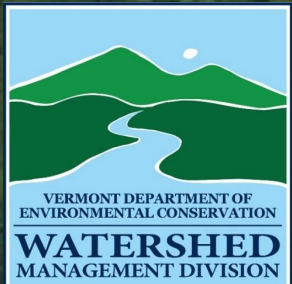
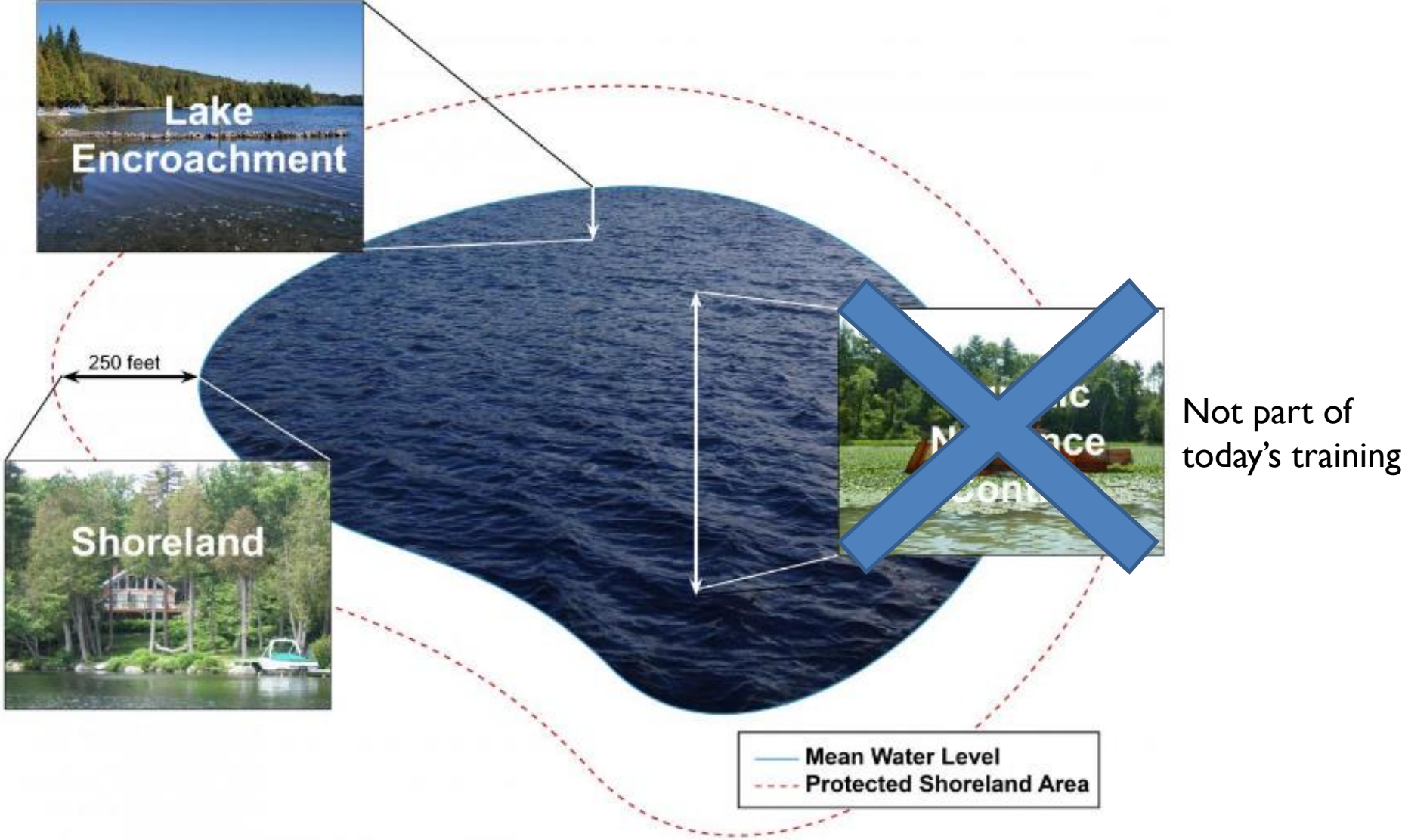


# Lake and Shoreland Permitting

VT DEC Lakes and Ponds Management and Protection Program



# Lakes & Ponds Permitting



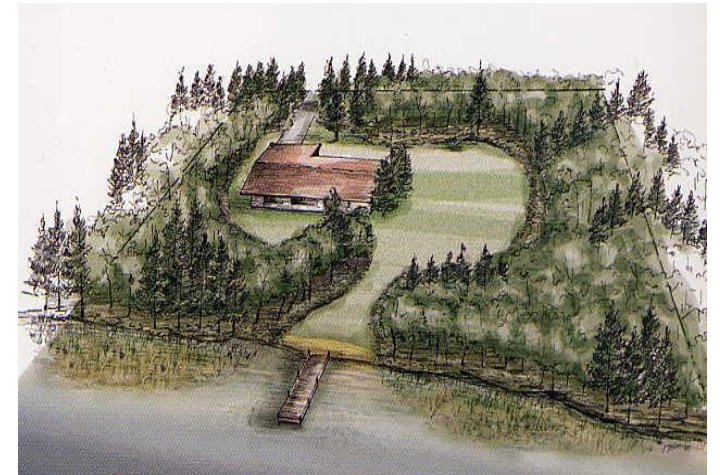
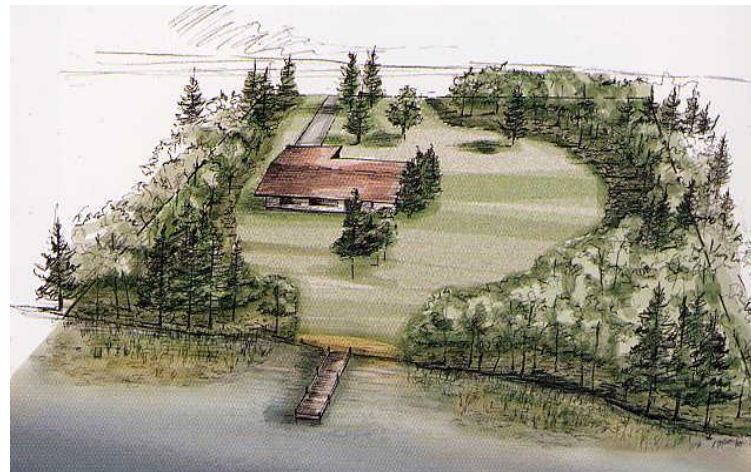
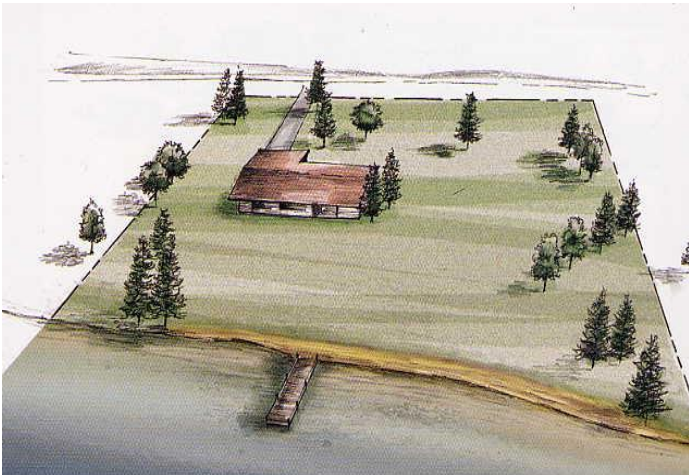
# Lakes & Ponds Permitting Programs

- **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?

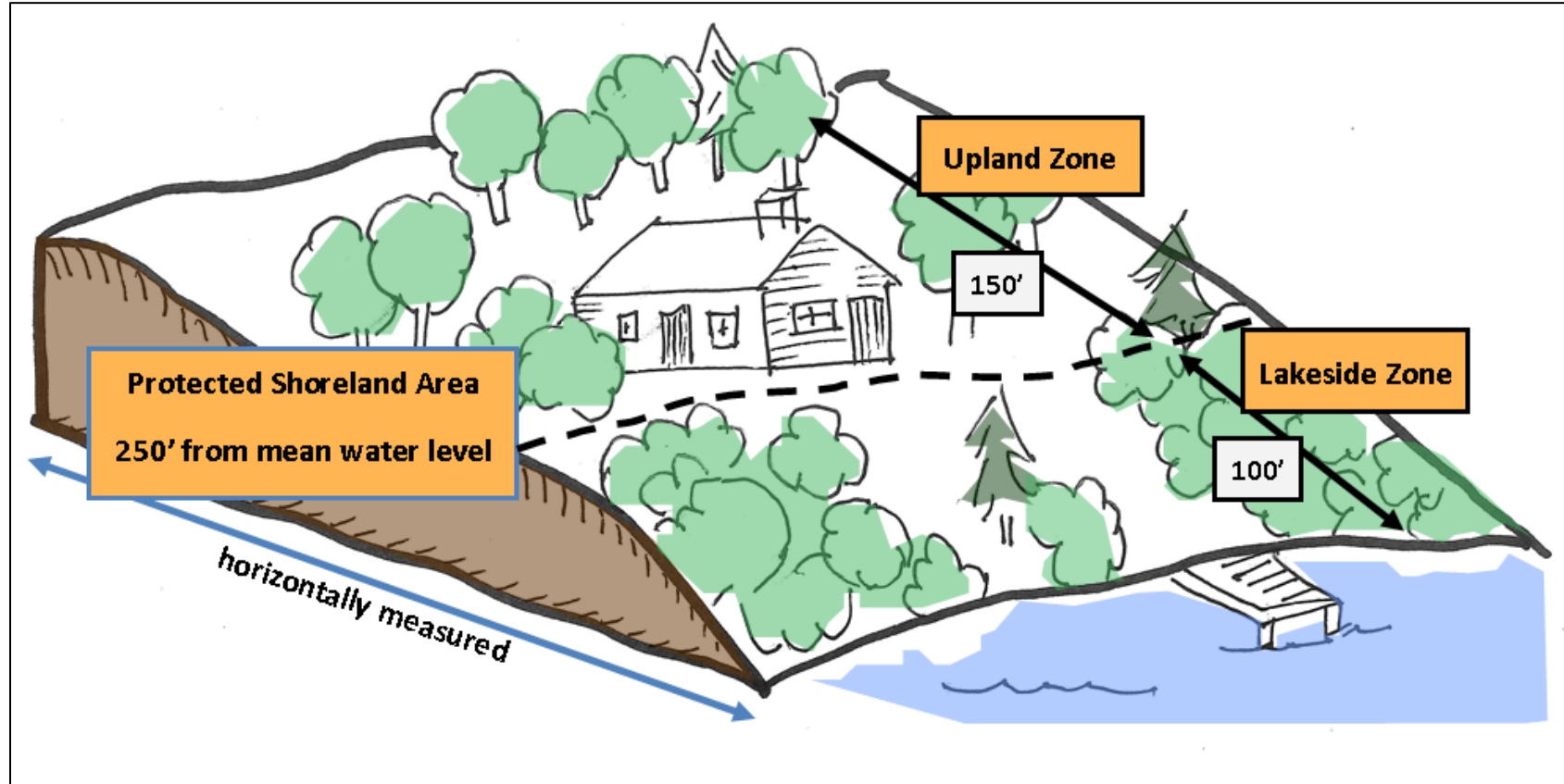
- Promote lake friendly development and redevelopment
- Reduce erosion and stormwater runoff
  - Loss of land
  - Water quality
- Protect fish & wildlife habitat associated with natural wooded lakeshores





...to this

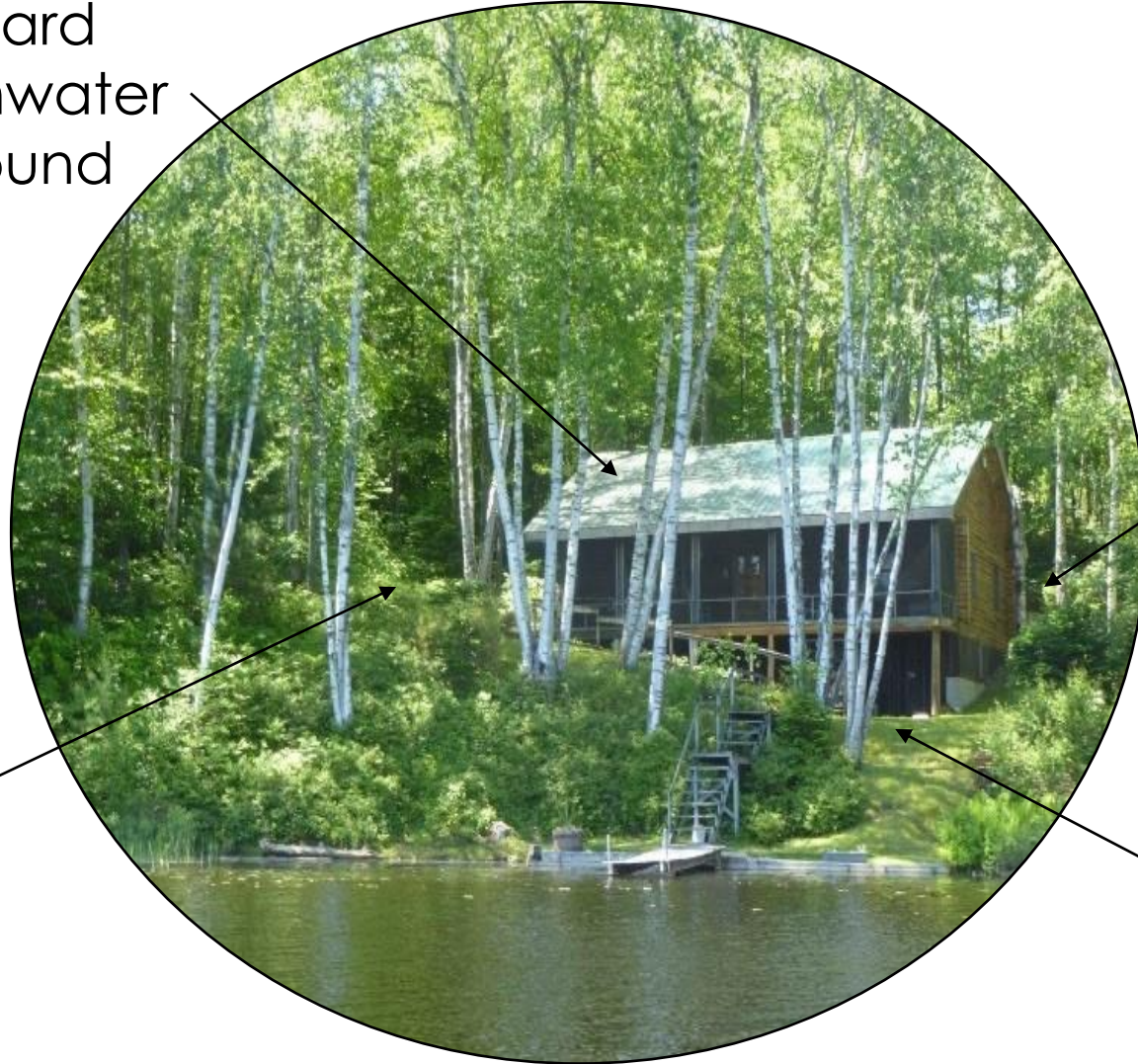
# What does the Act apply to?



**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

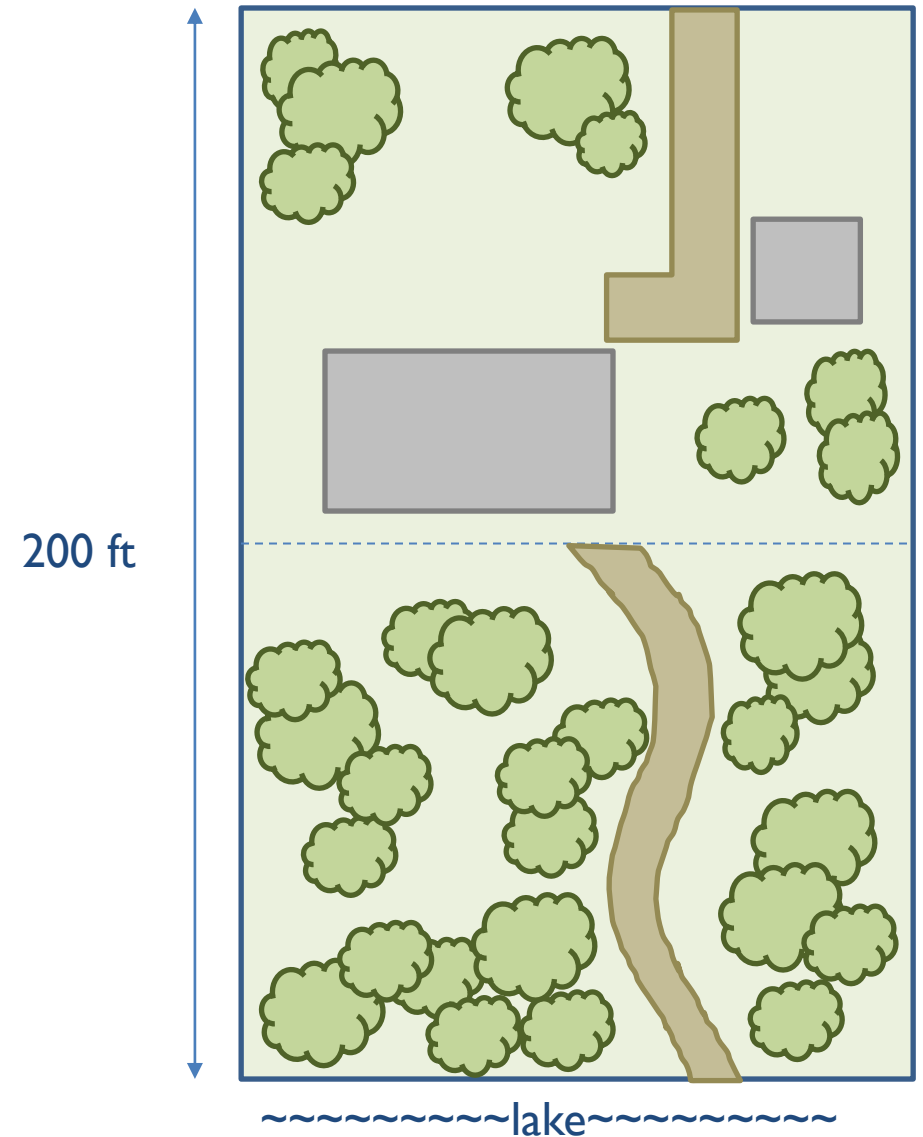
**Cleared area** – grass lawn does not provide wildlife habitat or any root structure to stabilize lakeshores

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%



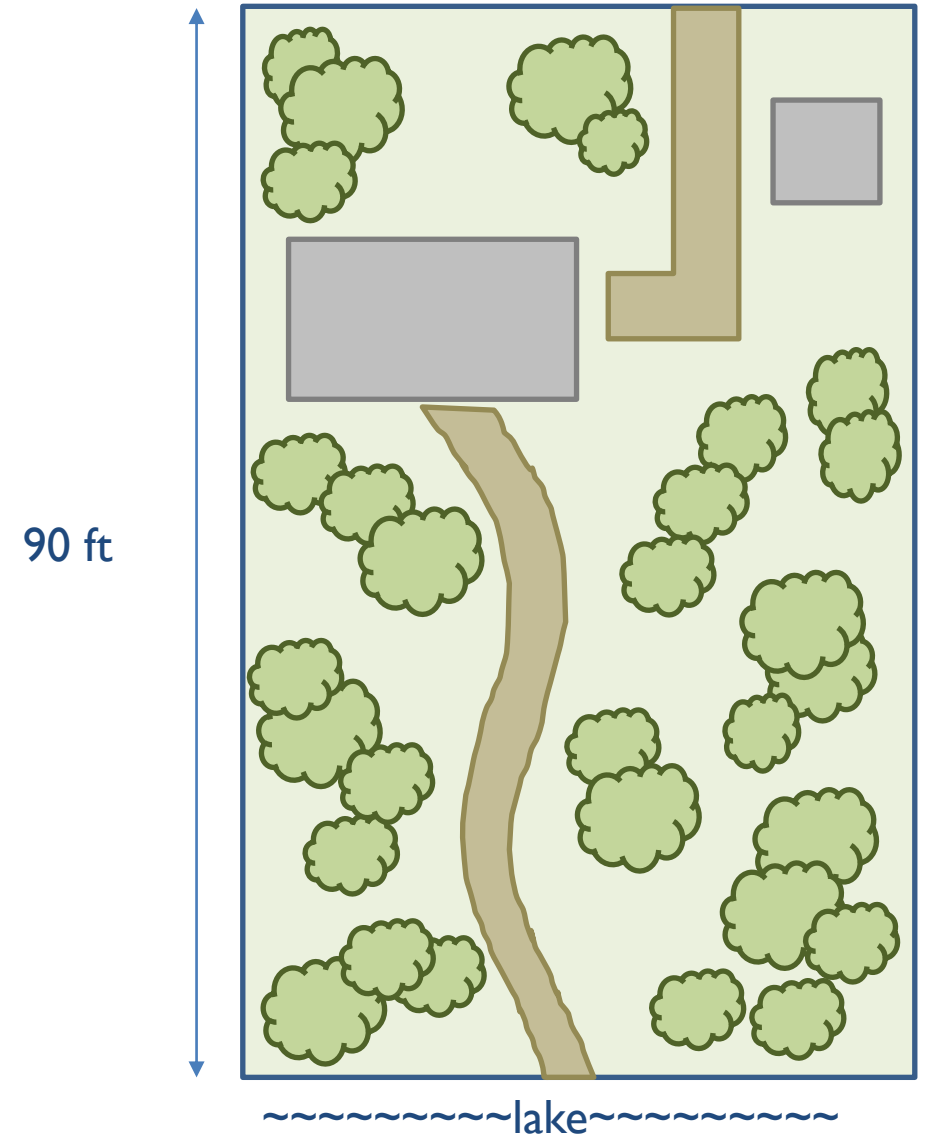
# Undeveloped Lot / Conforming Development

- 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%



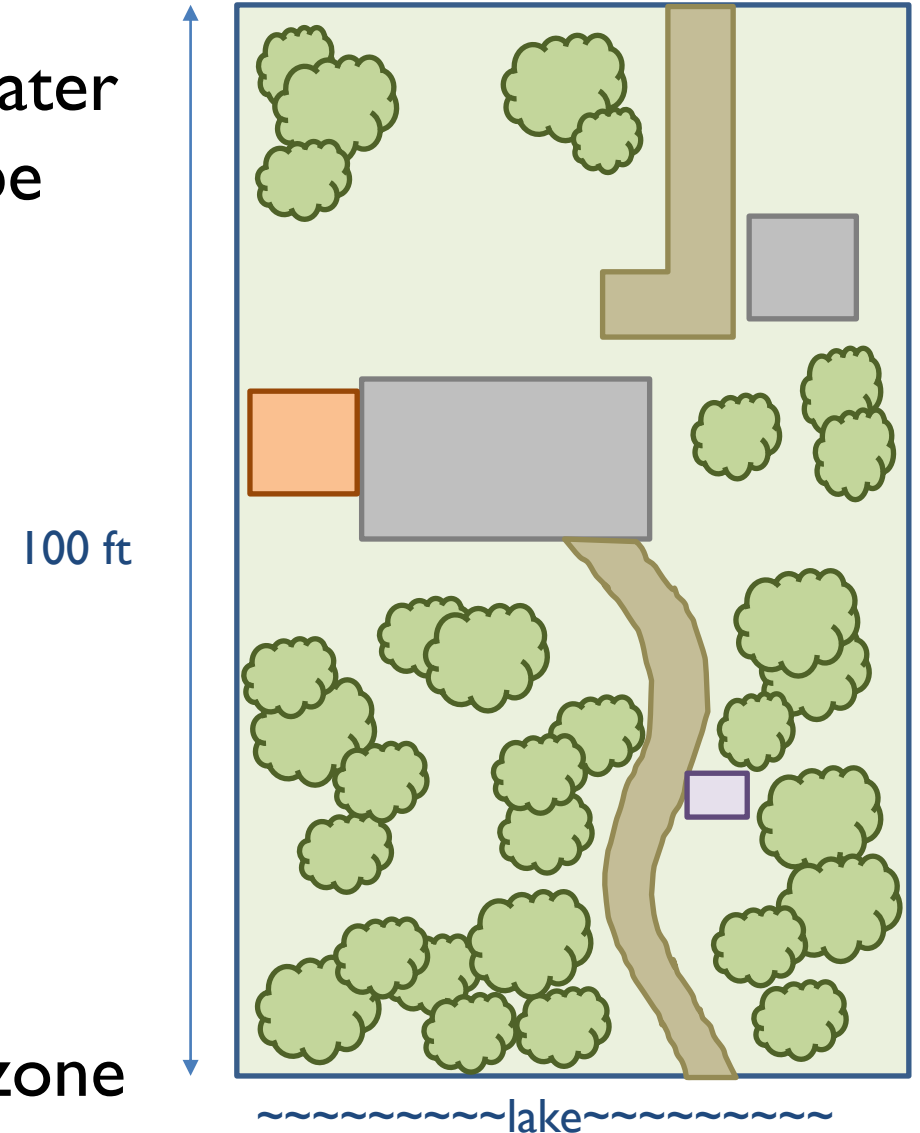
# New development on a “non-conforming” lot?

- 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
- Pervious structures constructed to 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



# Unsafe tree, dead tree





# 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



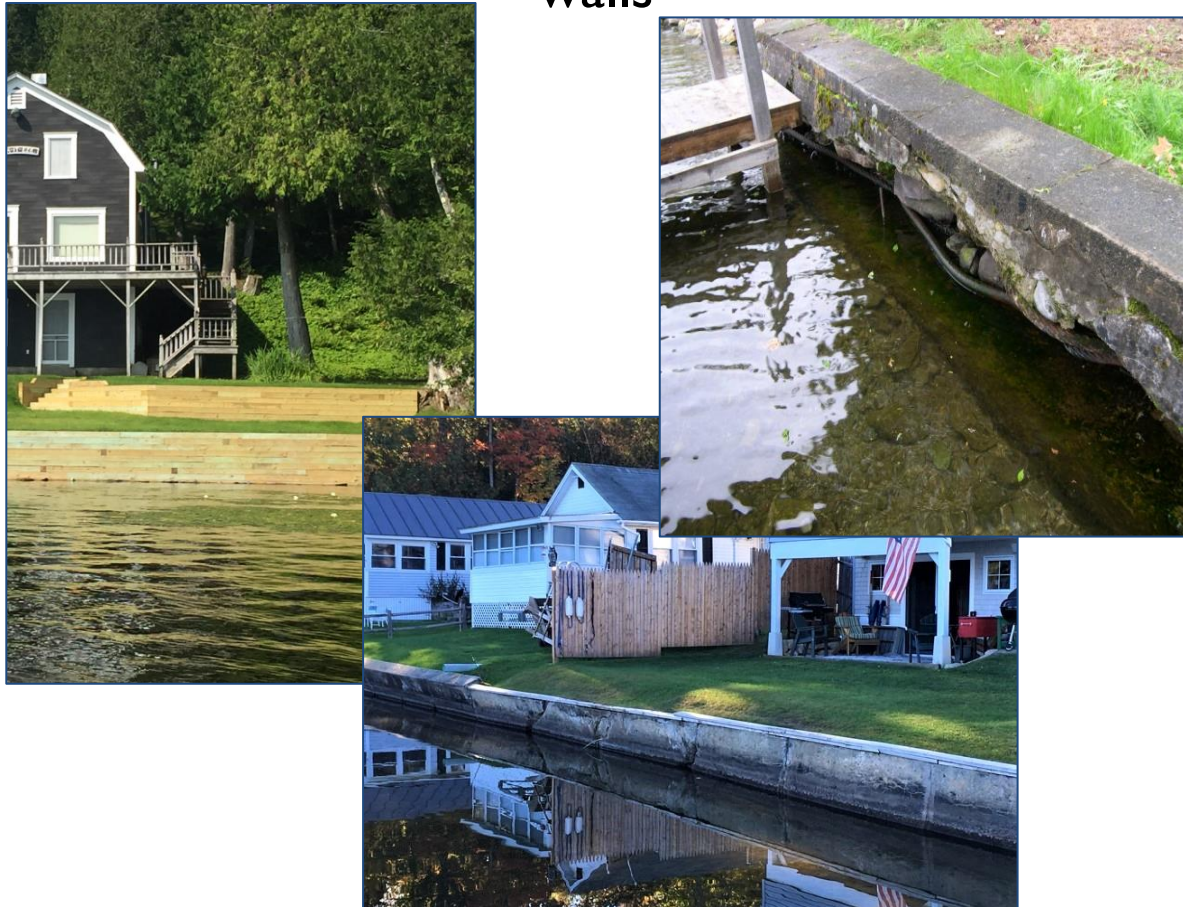


## How are Lake Encroachment Permit applications reviewed?

- 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 (on land) 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 beyond MWL?

**YES** (Lake Encroachment)

Installing materials at or beyond MWL ?

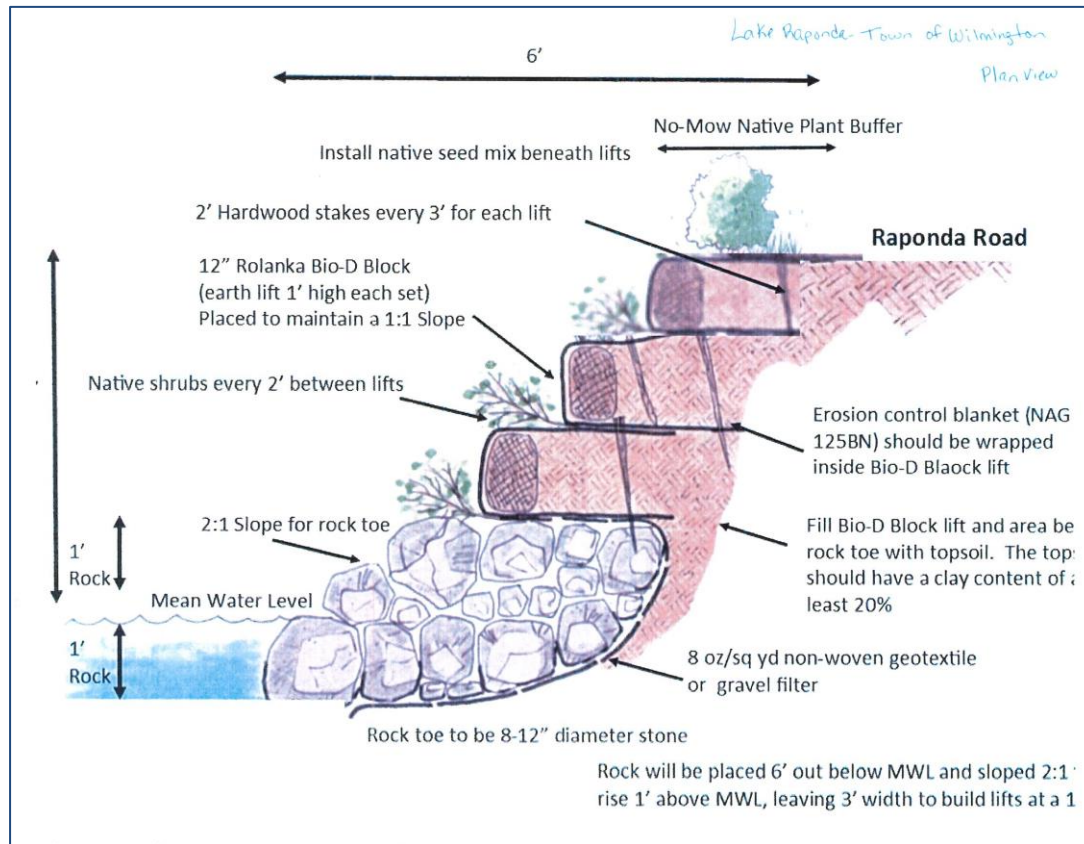
**YES** (Lake Encroachment)



# Stabilization: Does this need a permit?

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

**YES** (Lake Encroachment)



# Stabilization: Does this need a permit?

Installing or replacing a wall at or beyond MWL and vegetation removal (1-for-1 replacement required)

**YES** (Lake Encroachment AND Shoreland Protection)

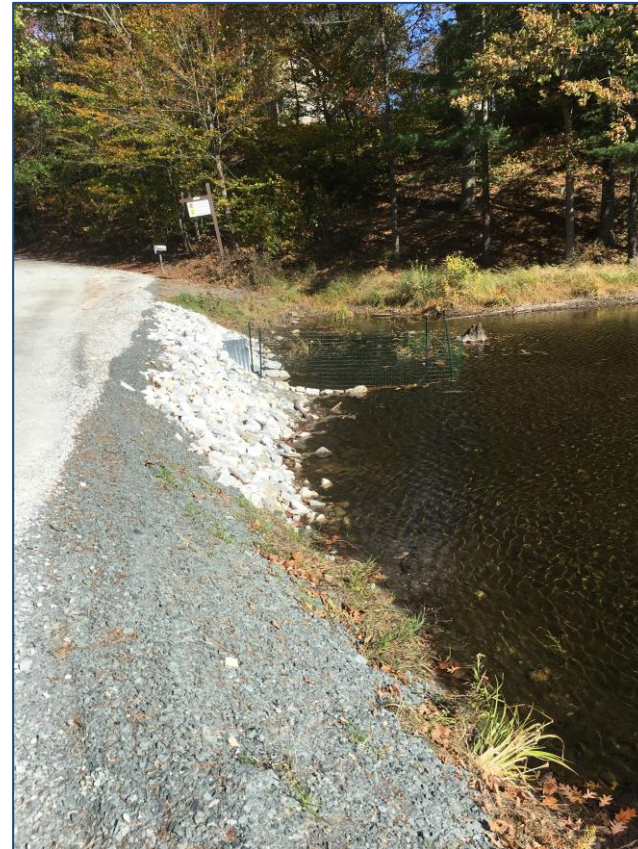




# Culvert replacement: Does this need a permit?

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

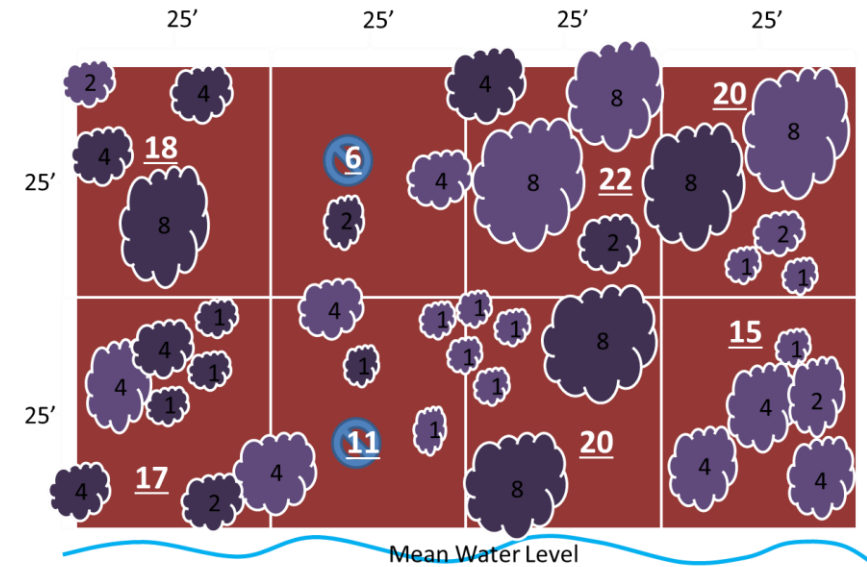


# Vegetation Management: Does this need a permit?

## 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**

# Regulations that may apply near lakes and ponds:

- Shoreland Protection Act
- Lake Encroachment
- Wetlands Regulations
- Stormwater Regulations (1/2 acre of disturbance)
- Wastewater Systems and Potable Water Supply (septic)
- Stream Alteration
- Army Corps of Engineers Permitting
- Act 250
- Local Zoning

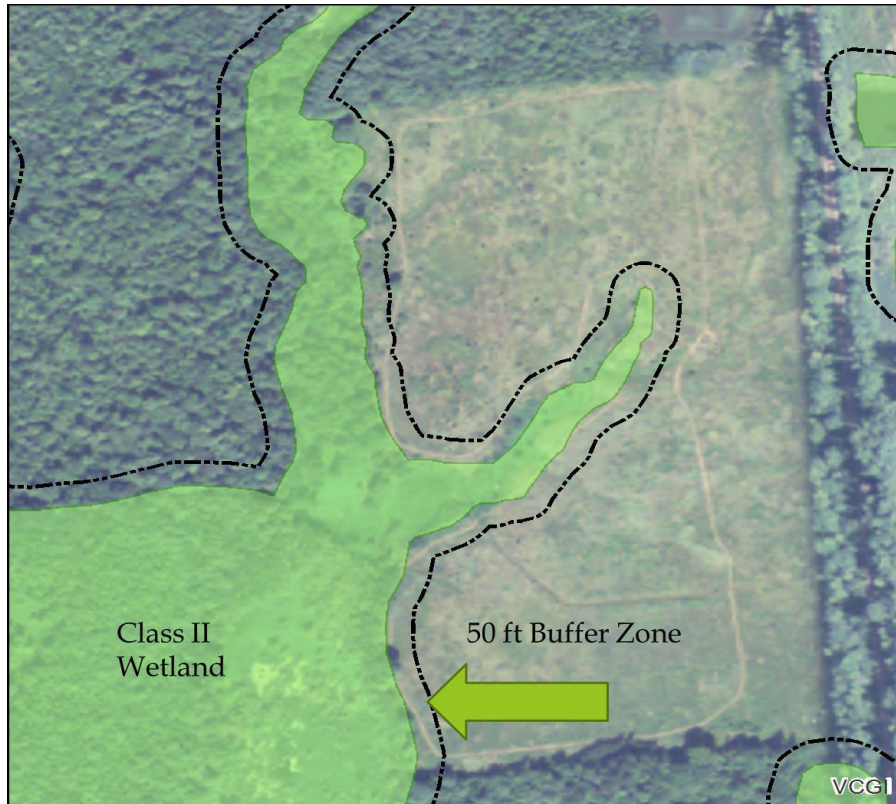
# Vermont Wetlands Program



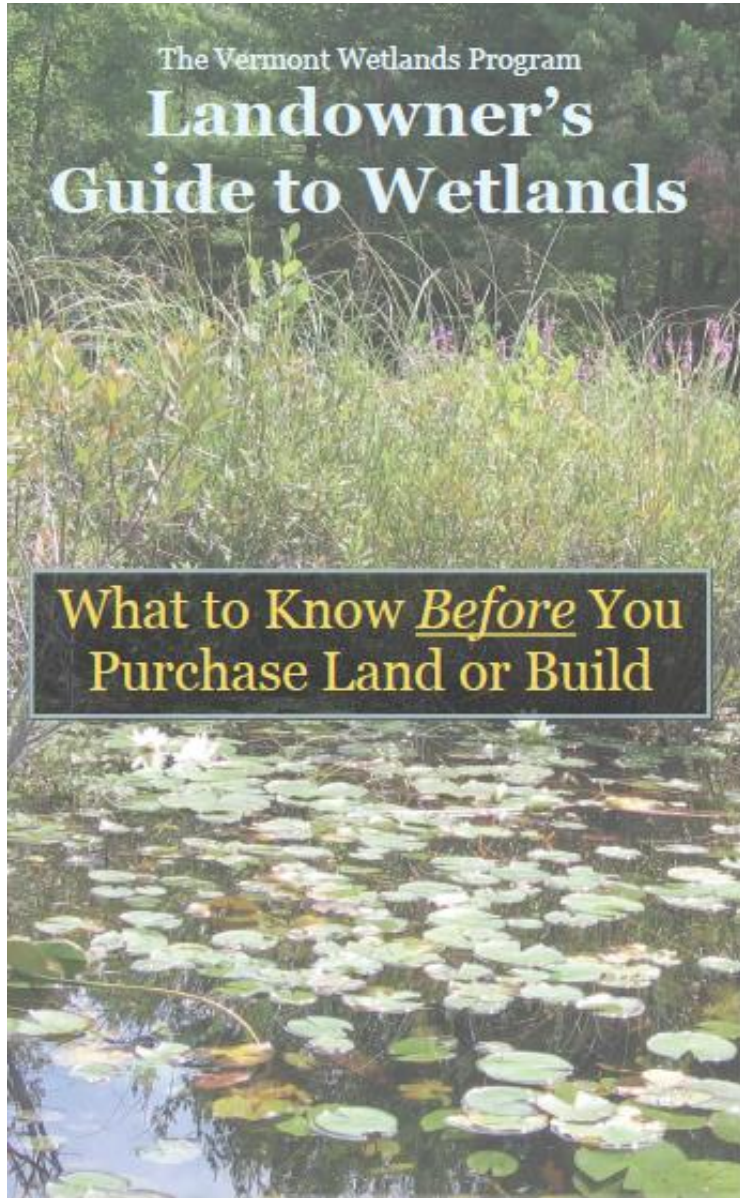
# Wetland Rules: what is included?

Class I: wetland + 100 ft buffer

Class II: wetland + 50 ft buffer



# Am I in a wetland?



- Does the ground feel soggy/wet underfoot?
  - Are there places you wouldn't drive over?
  - Do you hear frogs in the spring from that wet area?
- Do trees frequently tip over in the woods?
  - Do the trees still standing have shallow, spread out root systems?
- Dig a 20 inch deep hole in the soil – does water enter the hole after a few minutes?
- Does the vegetation in this area look different than the rest of the property?
  - Are cattails, sedges, or sphagnum moss present?
  - Are sensitive or cinnamon ferns present?



Layers

Atlas Layers

Filter Layers...

Filter

County Boundary

Watershed Boundary Dataset (WBD)

Elevation Data

Slope

<5%

5-15%

15-20%

20-25%

>25%

Elevation - Vermont DEM (10 meter)

Color Imagery by Year

Vermont Color Orthos (current vintage)

VT Ortho 2023 .15m (Select Areas)

VT Ortho 2022 .3m (Vermont)

VT Ortho 2021 .3m (NE Vermont)

Search...

Quick Tools...

Tools



0 50 100m



# Water Supply & Wastewater Permitting

1. For increases in design flows (bedrooms)
2. For conversions from seasonal to year-round use
3. For upgrades beyond minor repairs
4. For failed system replacements
5. For construction of new buildings or structures



The installation, maintenance, or repair of a state-approved water supply/wastewater system is exempt from needing an additional Shoreland Protection Permit

# Stormwater Rule

For work and development creating earth disturbance  $\geq 1$  acre

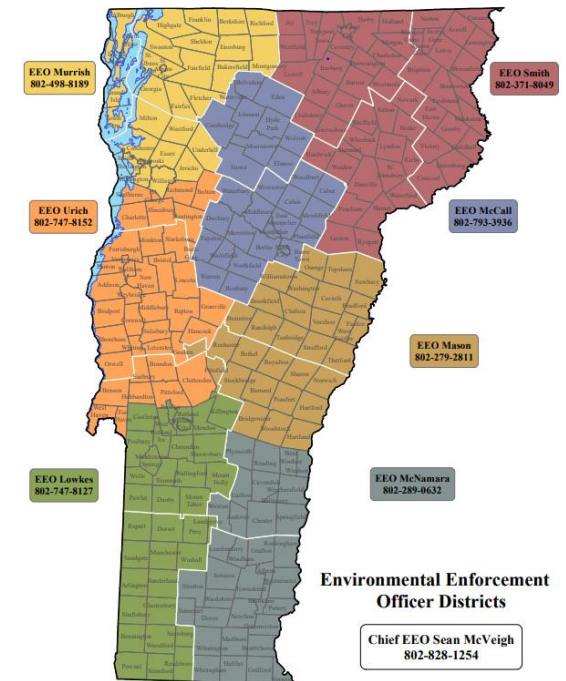


# What happens if I don't get a permit or don't comply with my permit conditions?

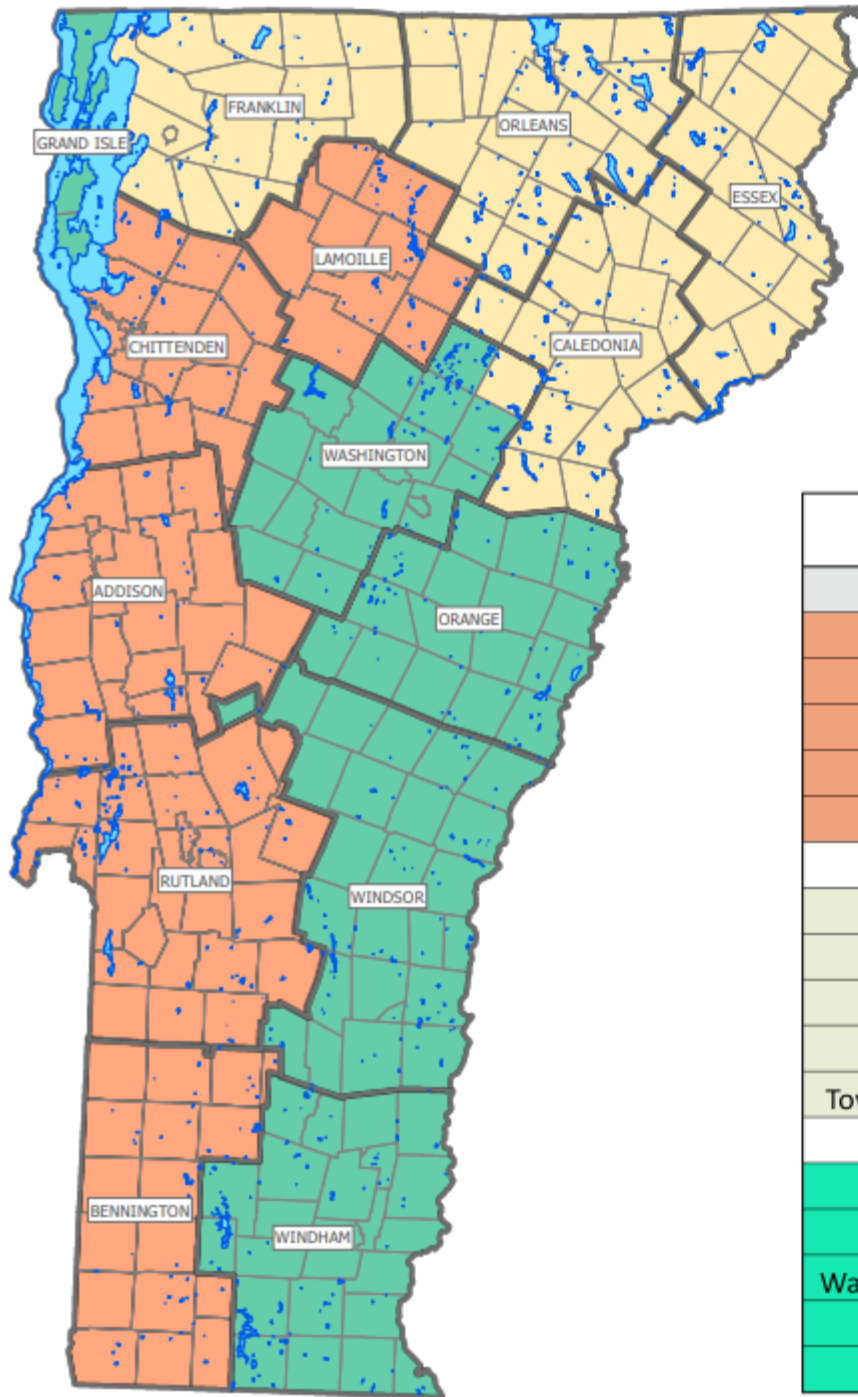
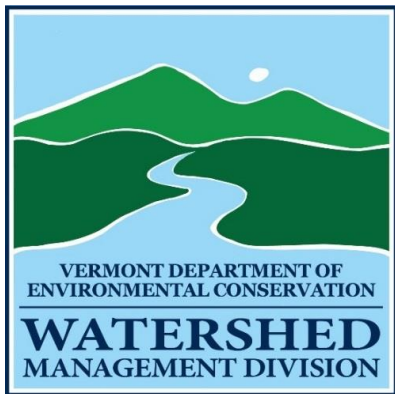
## Environmental Enforcement

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

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



# Lake Encroachment & Shoreland Permitting Regional Contact Information



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