



**PLEASE
SILENCE
YOUR PHONE**

NHDES Land Resources Management

Shoreland Protection Act Review



Agenda:

Shoreland Protection Act Purpose

Minimum Standards

Pervious Surfaces

Shoreland Permitting Process

Erosion Controls

Wetlands Rules Update

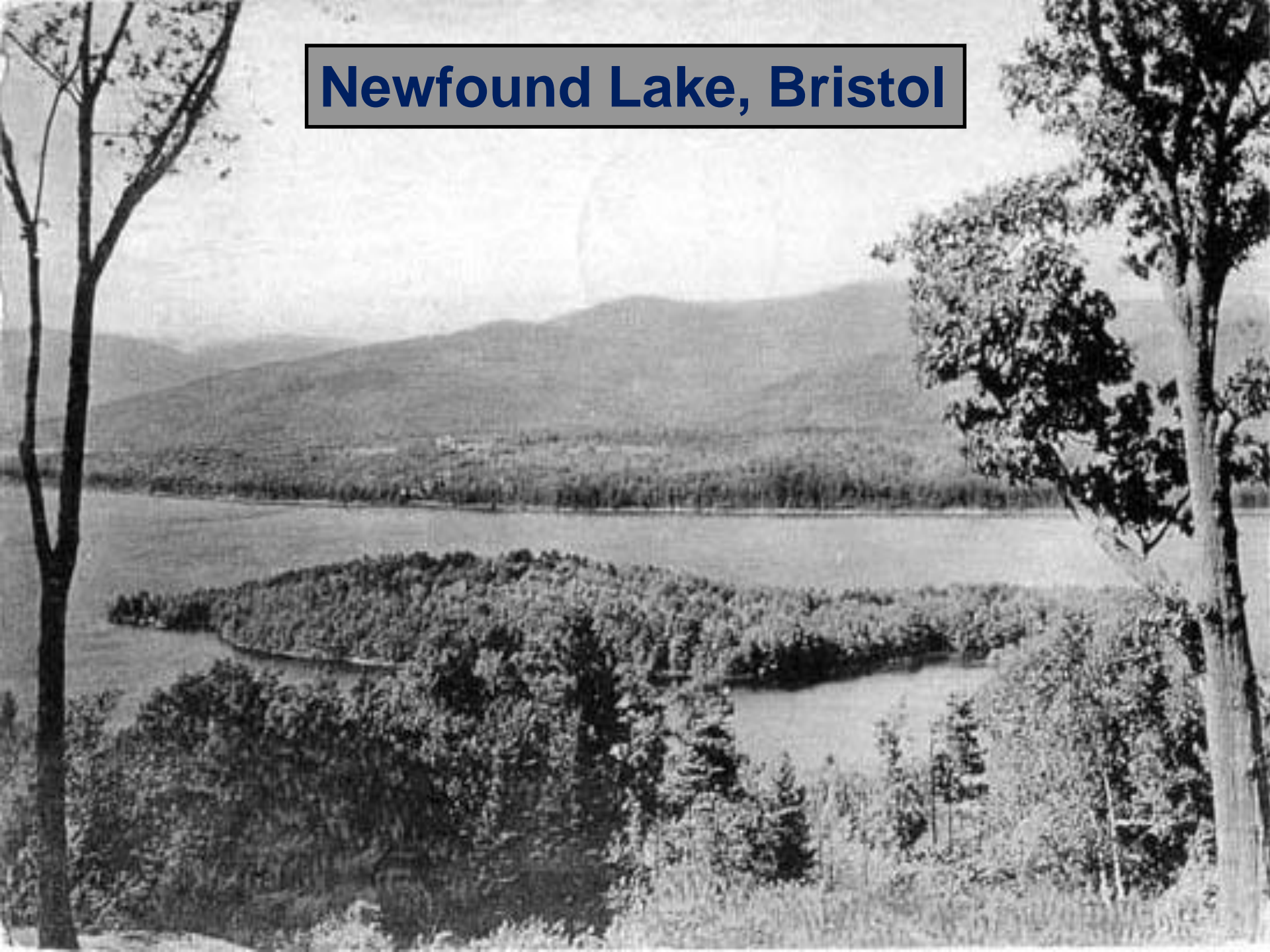
Shoreland Protection Act Purpose







Newfound Lake, Bristol



Lake Massasecum, Bradford



19 Mile Bay, Lake Winnepesaukee



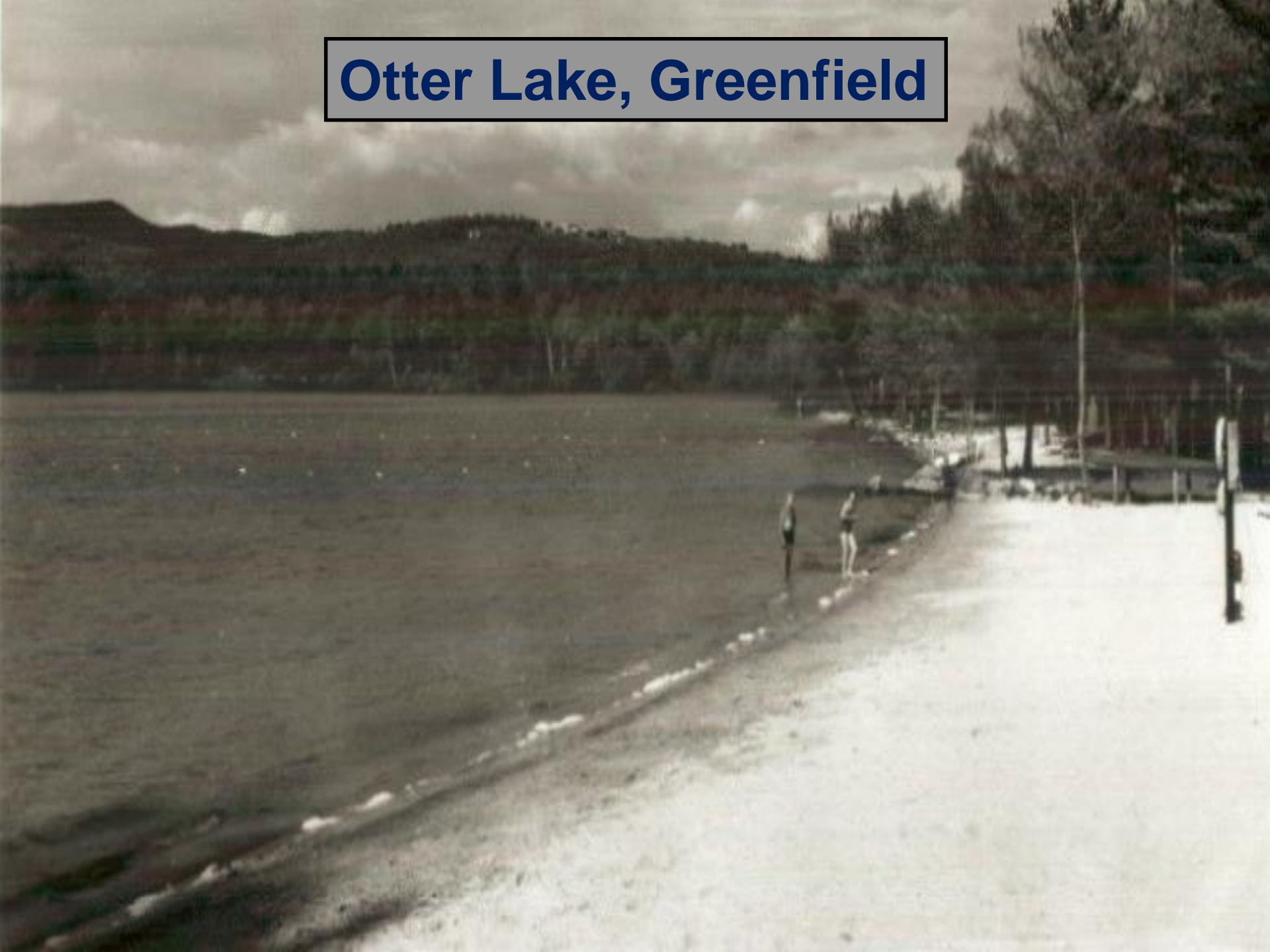
19 MILE BAY-LAKE WINNIPESAUKEE



Weirs beach, Laconia



Otter Lake, Greenfield



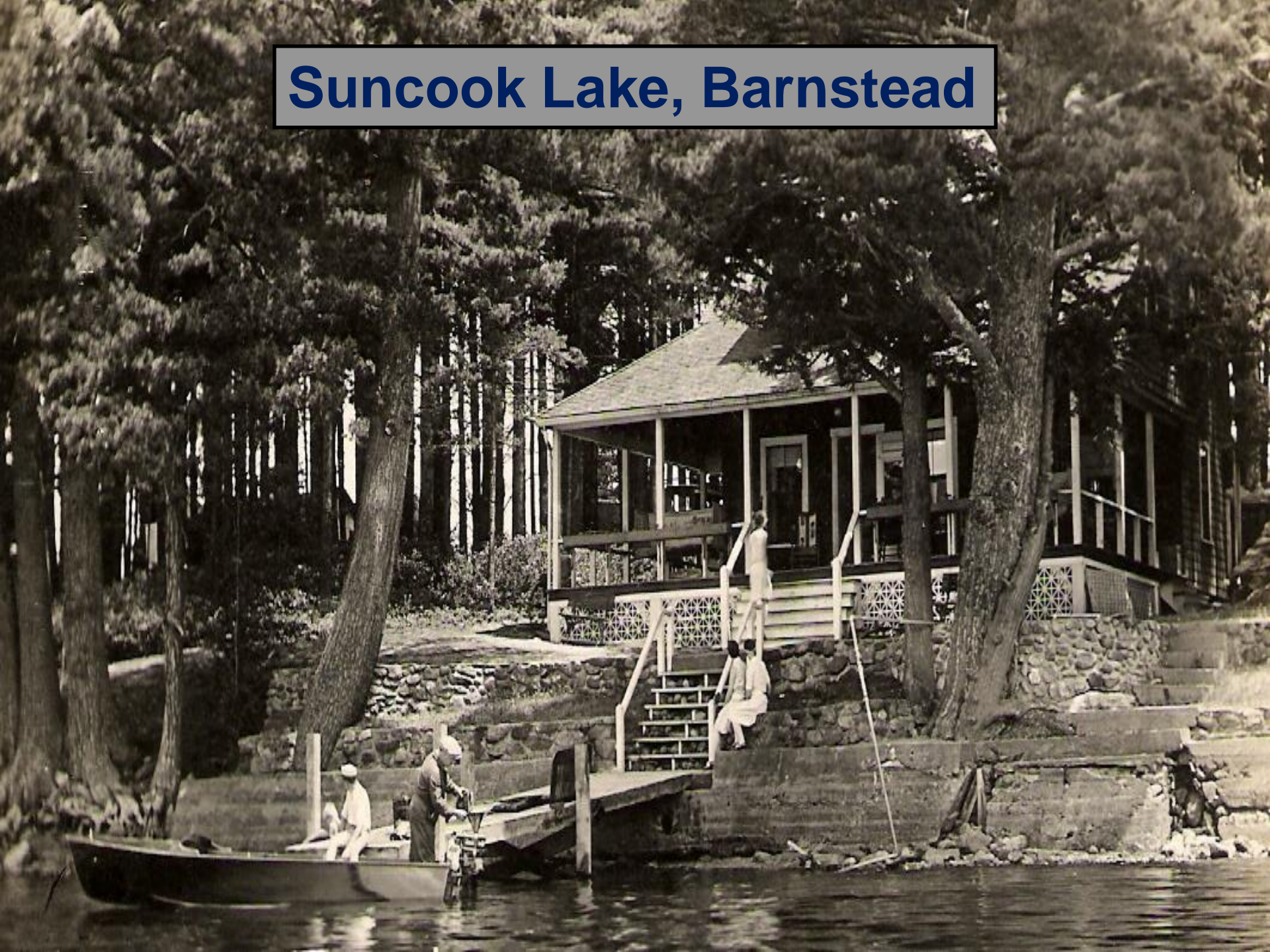


Lake Sunapee



Cottages at Blodgetts, Lake Sunapee, N. H.

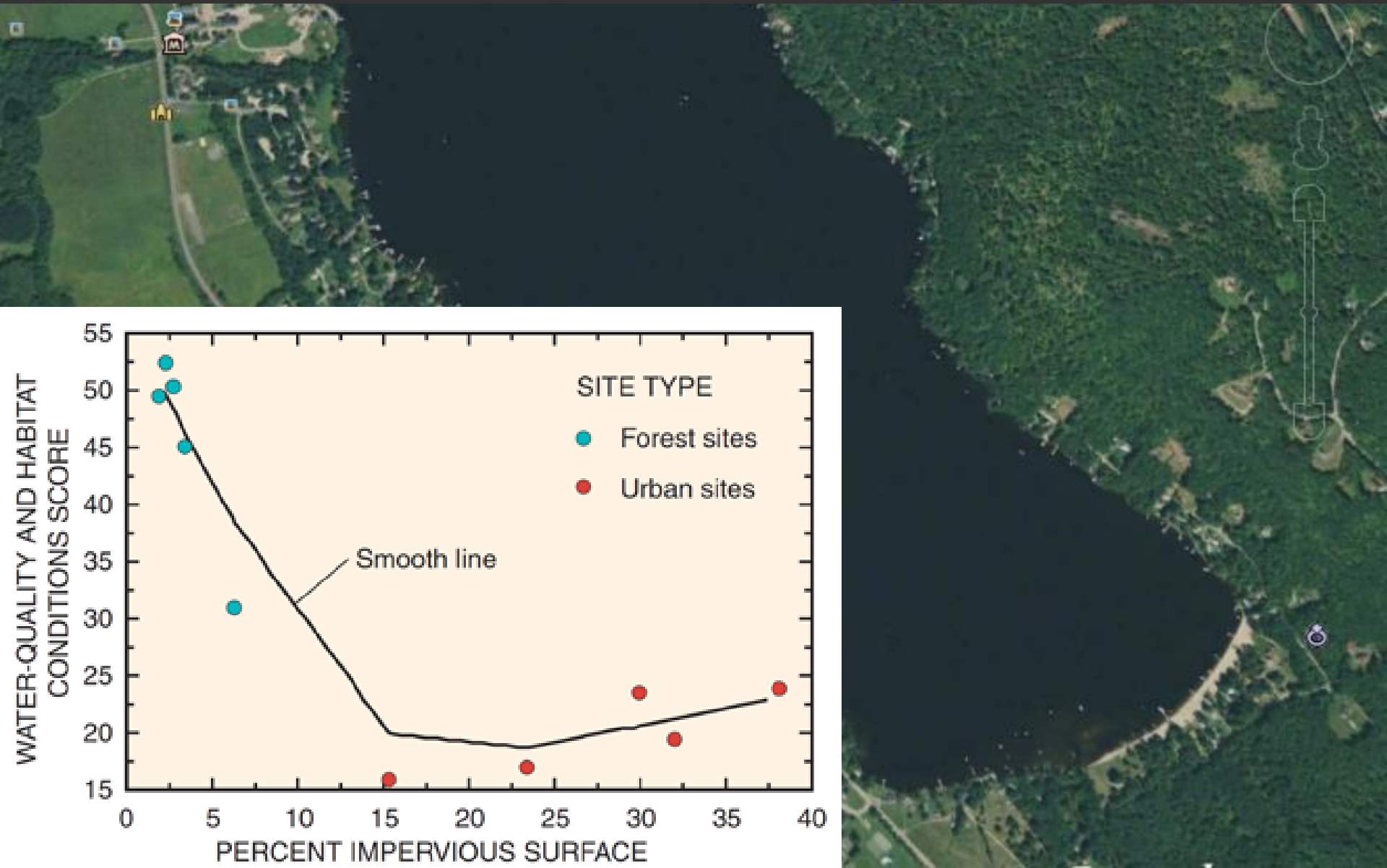
Suncook Lake, Barnstead







Impervious Area Negatively Impacts Water Quality







Impervious Area



Roofs

Gravel Driveways





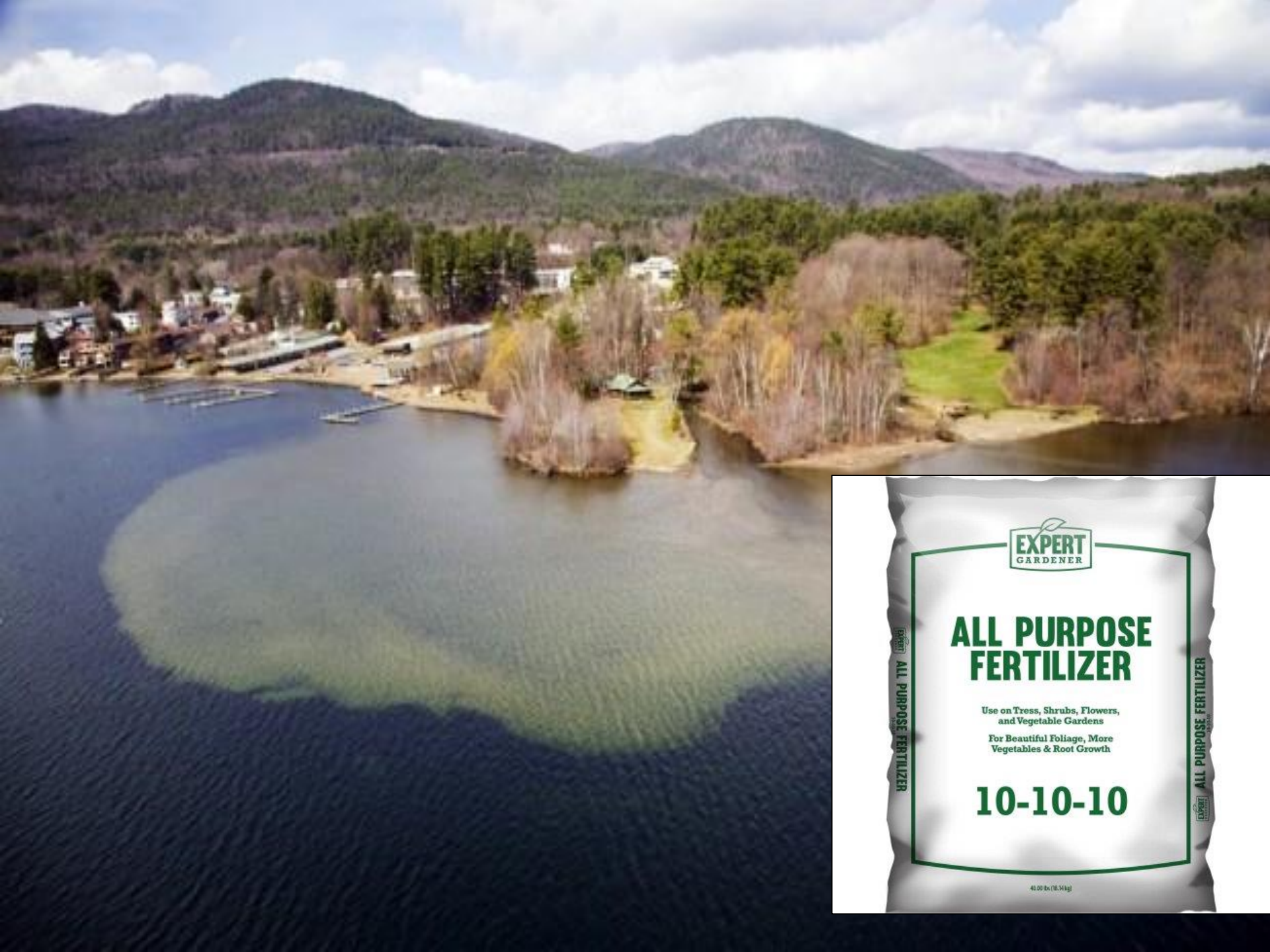


Flow Path of Stormwater



Natural Buffer Removed





Stormwater affects fish habitat:



Stormwater accelerates aquatic plant growth



increases the frequency of cyanobacteria algae blooms





Vegetated buffers help prevent invasive milfoil from establishing itself



Shade over the water inhibits milfoil from becoming established







The Shoreland Water Quality Protection Act Purpose:

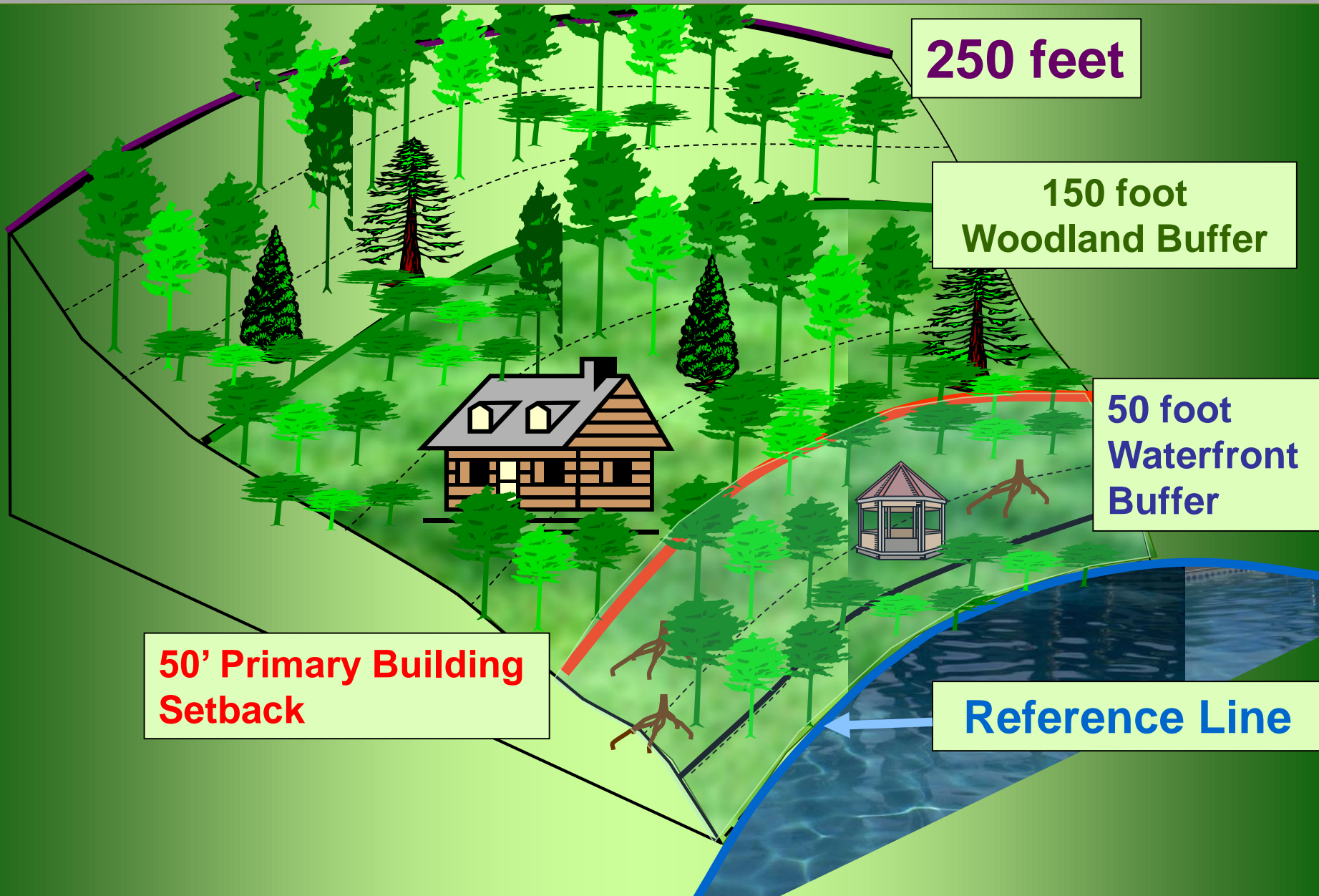


**Maintain and Restore Vegetated Buffers
Better Manage Stormwater Runoff
Provide Critical Wildlife Habitat**

Shoreland Protection Act Minimum Standards



The Protected Shoreland



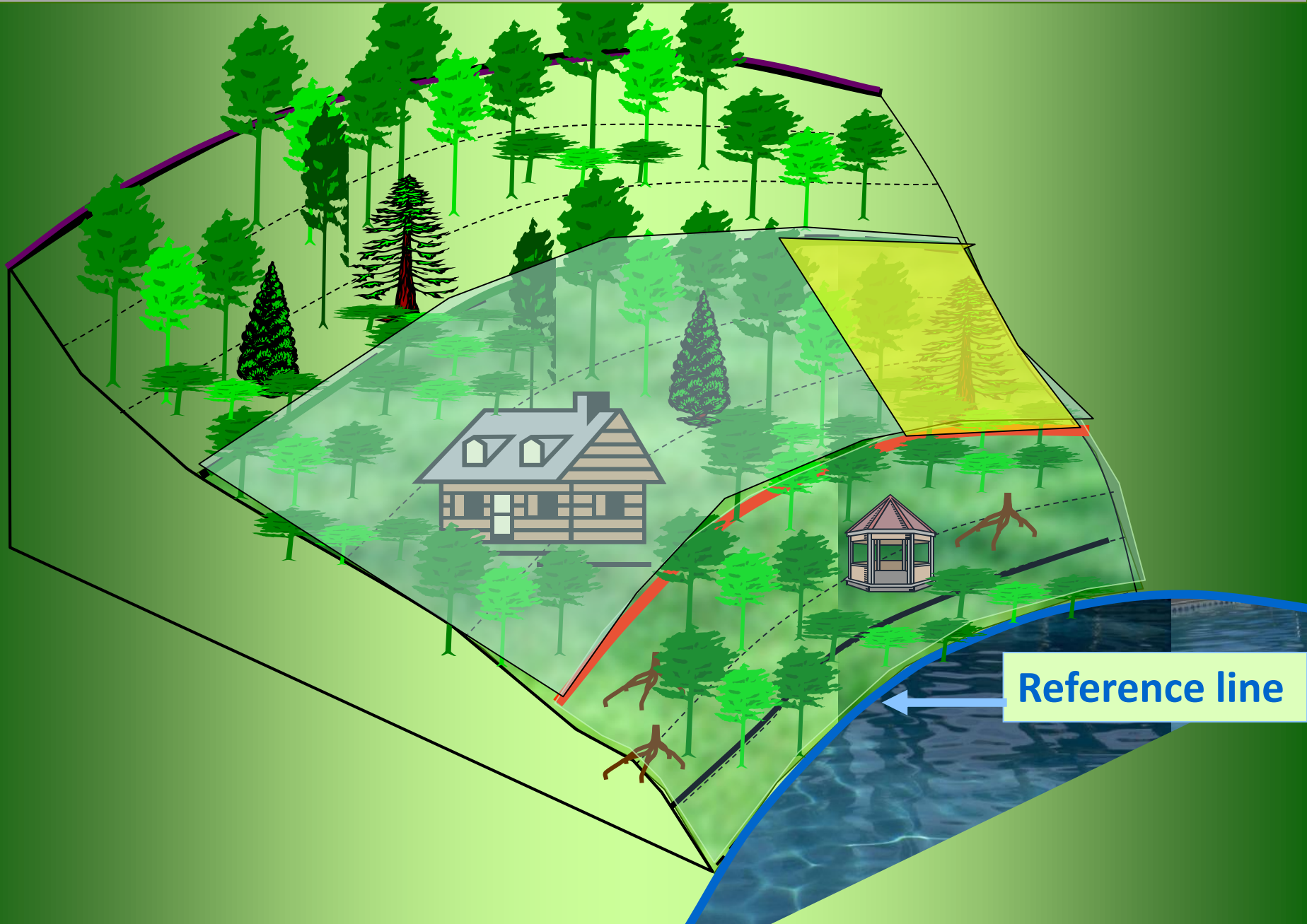
The Woodland Buffer Area

At least 25 percent of the woodland buffer area located between 50 feet and 150 feet from the reference line shall be maintained as **natural woodland**

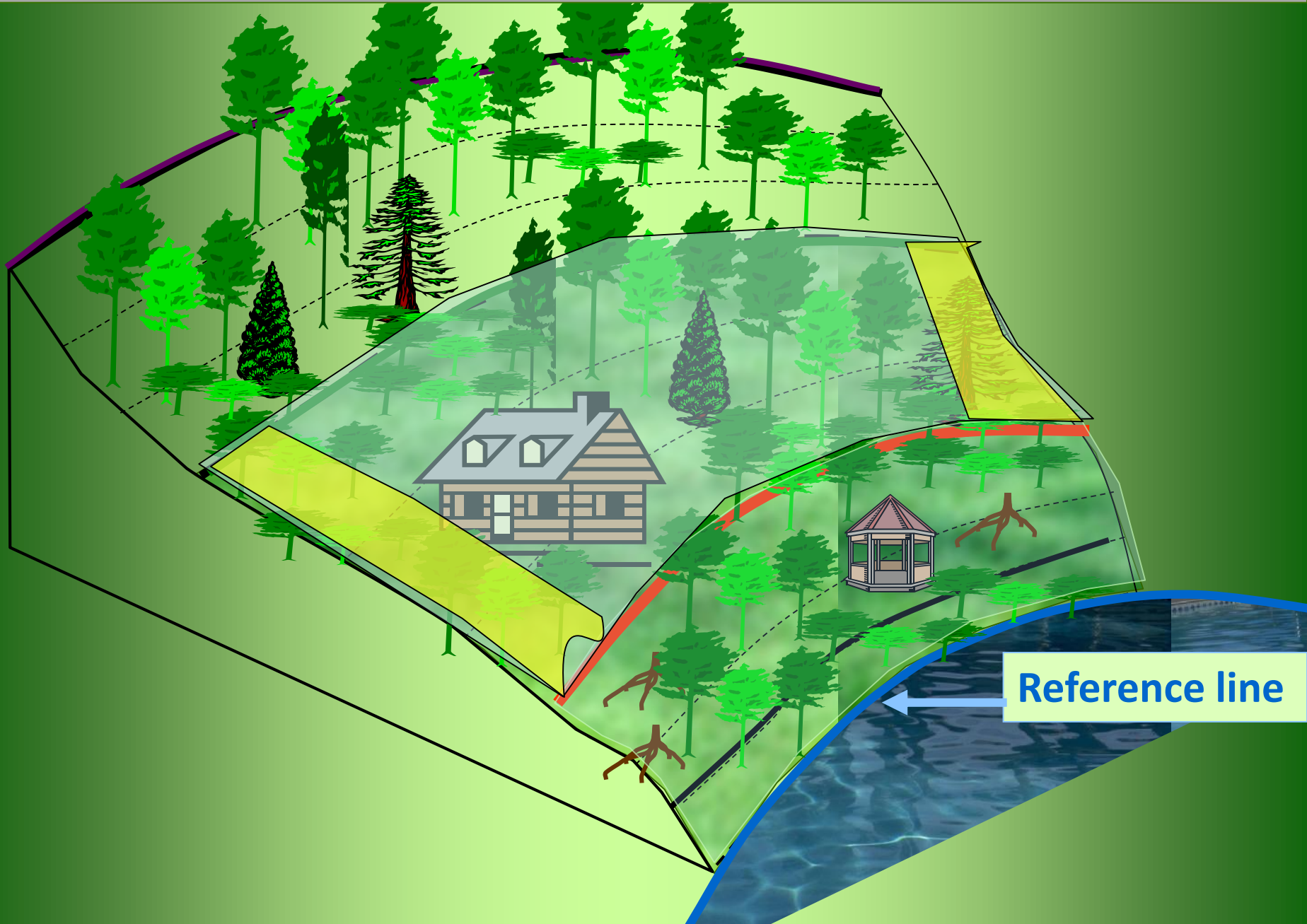
The Woodland Buffer Area

“Natural woodland” means a forested area consisting of various species of trees, saplings, shrubs, and ground covers **in any combination** and at ***any stage of growth.***

The Woodland Buffer



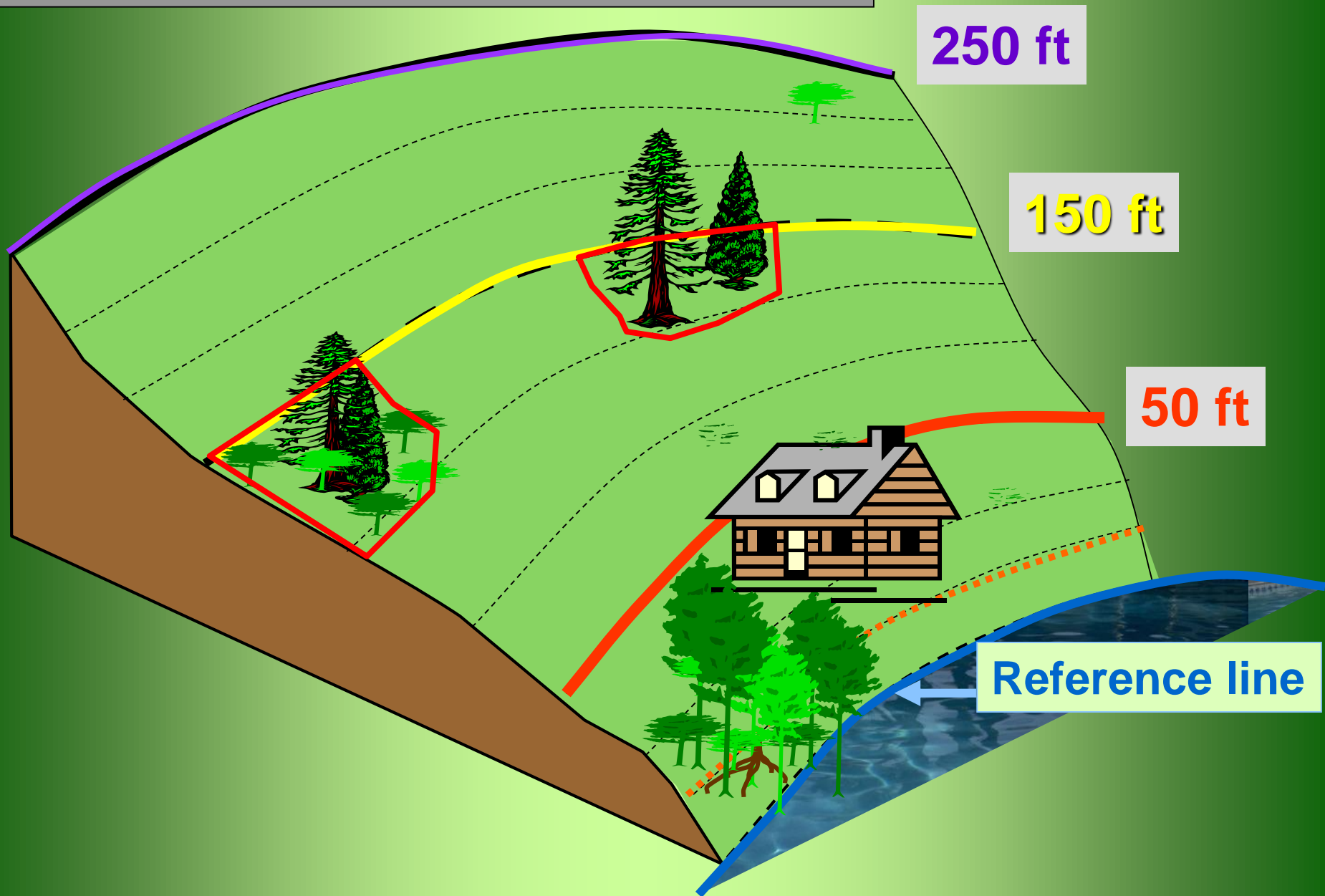
The Woodland Buffer



Existing Lawns Can be Maintained. Lawn is Altered Area.



Can't reduce below what exists today

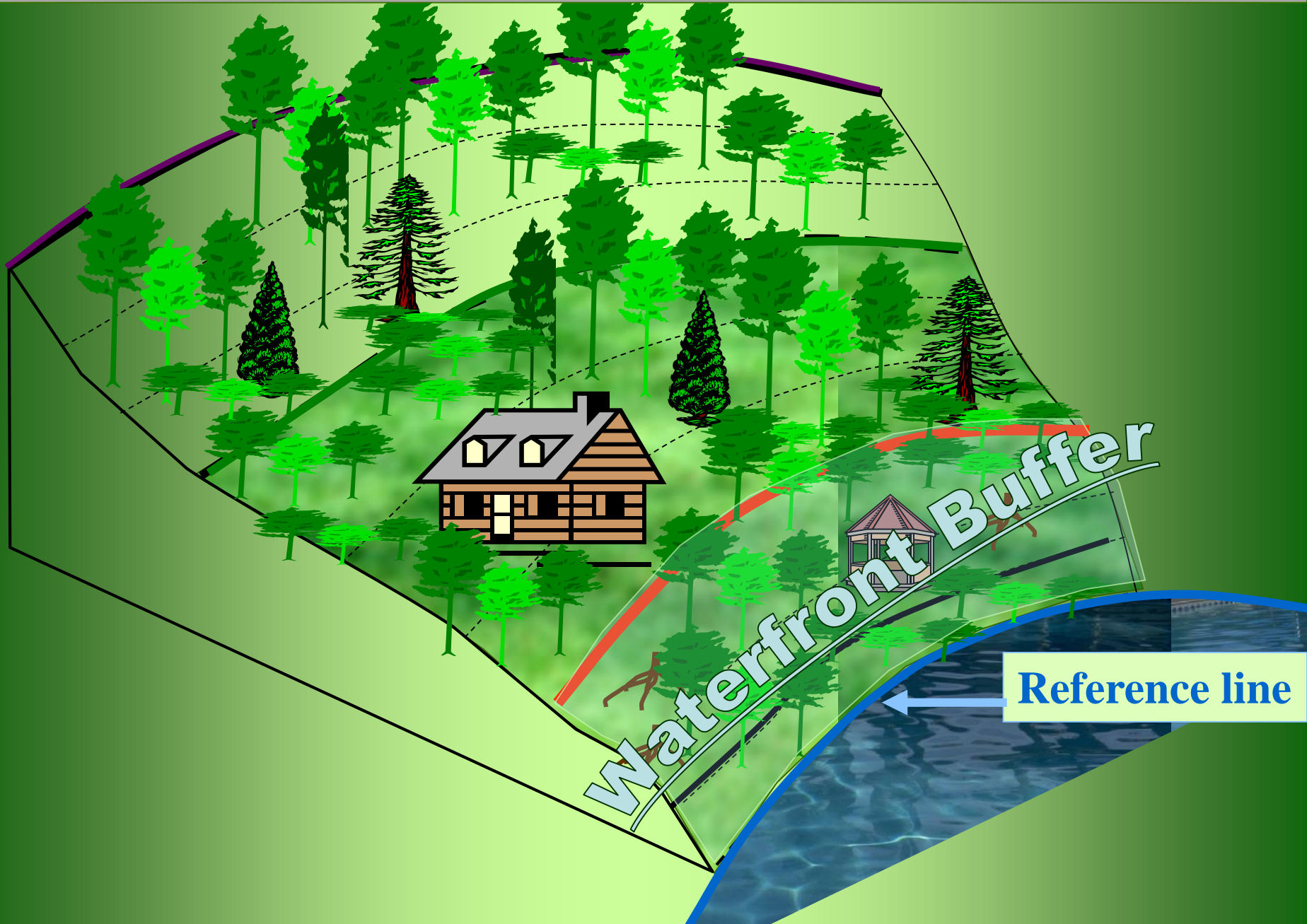


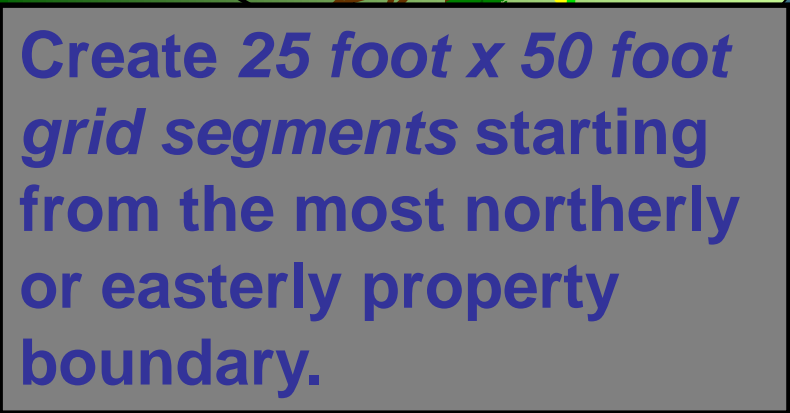
The Waterfront Buffer Area



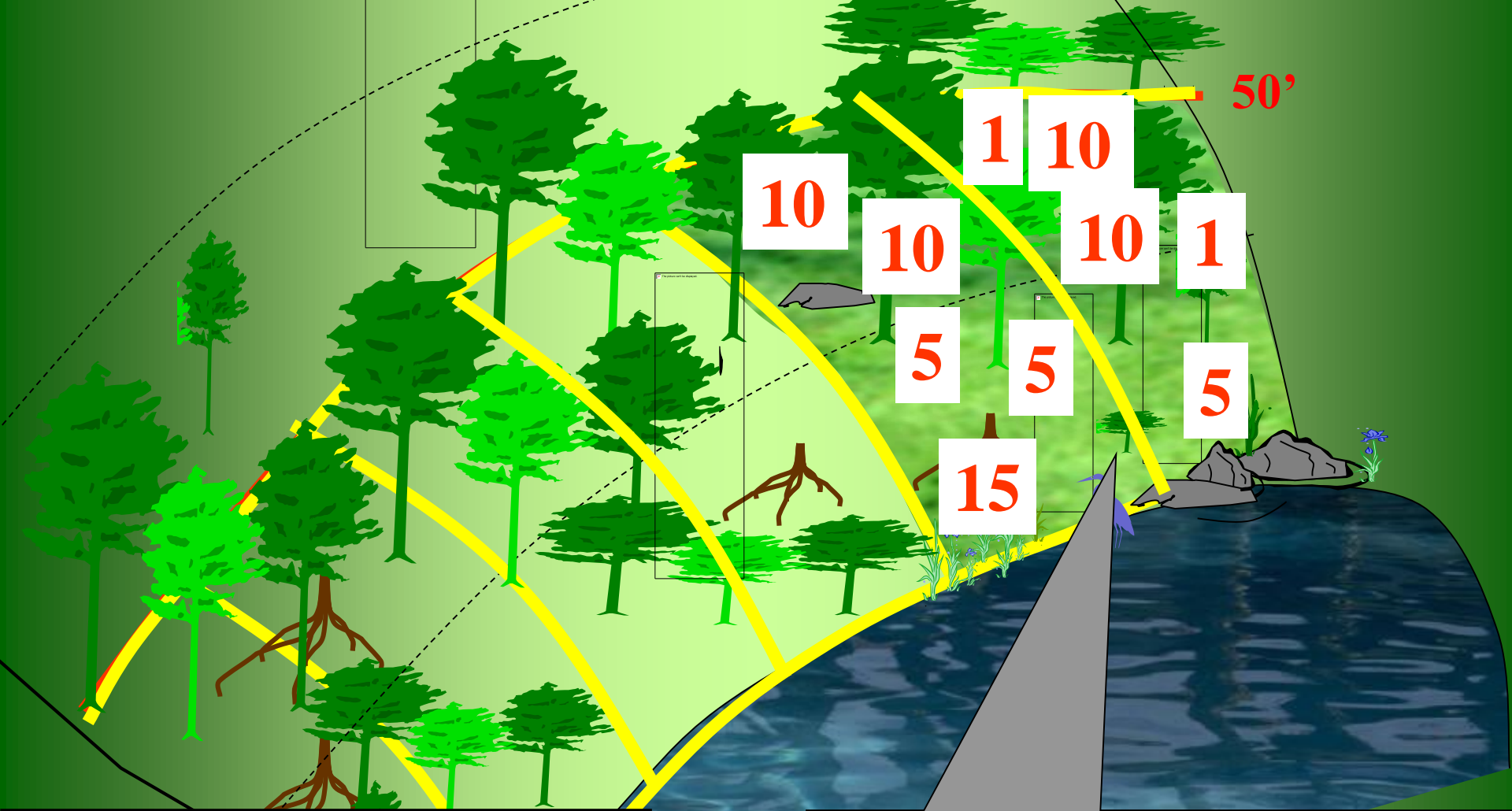
**The Waterfront Buffer Extends 50 Feet
Landward from the Reference Line**

The Waterfront Buffer





Create *25 foot x 50 foot grid segments* starting from the most northerly or easterly property boundary.



Tree Diameter:

1-3"	= 1 pt
> 3-6"	= 5 pts
> 6-12"	= 10 pts
> 12"	= 15 pts

Remove trees but, allow at least 25 points of trees and saplings to remain within each grid segment.



10/07/2008

ENVIRONMENTAL Fact Sheet



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WD-SP-5

2017

Vegetation Management for Water Quality

New Hampshire's waterbodies provide benefits and uses we all enjoy: fishing, boating and natural beauty to name a few. As communities grow and New Hampshire's landscape changes, the quality of our public waters depends on each of us managing the trees, shrubs and low-growing plants on our property. Nature's most economical and efficient stormwater purification system is a combination of [native shoreland plants](#).

The best vegetation for healthy waterbodies are trees and plants such as oaks, pines, willows and blueberry bushes; they slow down, absorb and purify much more stormwater than low-growing plants with shallow roots such as lawns and mulched garden beds. Trees and plants help remove the oils, salt, heavy metals, fertilizers, and other contaminants from stormwater runoff and spring snowmelt before they enter our lakes and rivers. Even the dense mat of leaves and needles under our trees plays a unique role in purifying our water. Plus, birds, fish and insects rely on the shade, protection and fruits provided by native shoreland plants.



Figure 1: The Waterfront Buffer and the Woodland Buffer located within the Protected Shoreland.

Impervious Surface Limitations



Definition: “Impervious surface”

Any modified surface that cannot effectively absorb or infiltrate water.

Impervious Surface Limitations

Examples of impervious surfaces include:

- **Roofs**
- **Decks**
- **Patios**
- **Walkways**
- **Paved-gravel-crushed stone driveways**





Impervious Area Thresholds

When the **post-construction** impervious area exceeds:

a. 20%

b. 30%

Impervious Area Thresholds

When a project proposes *greater than 20%* impervious area:

1.) A stormwater management plan must be implemented to infiltrate increased stormwater from development.

Rain Garden



Rain Garden



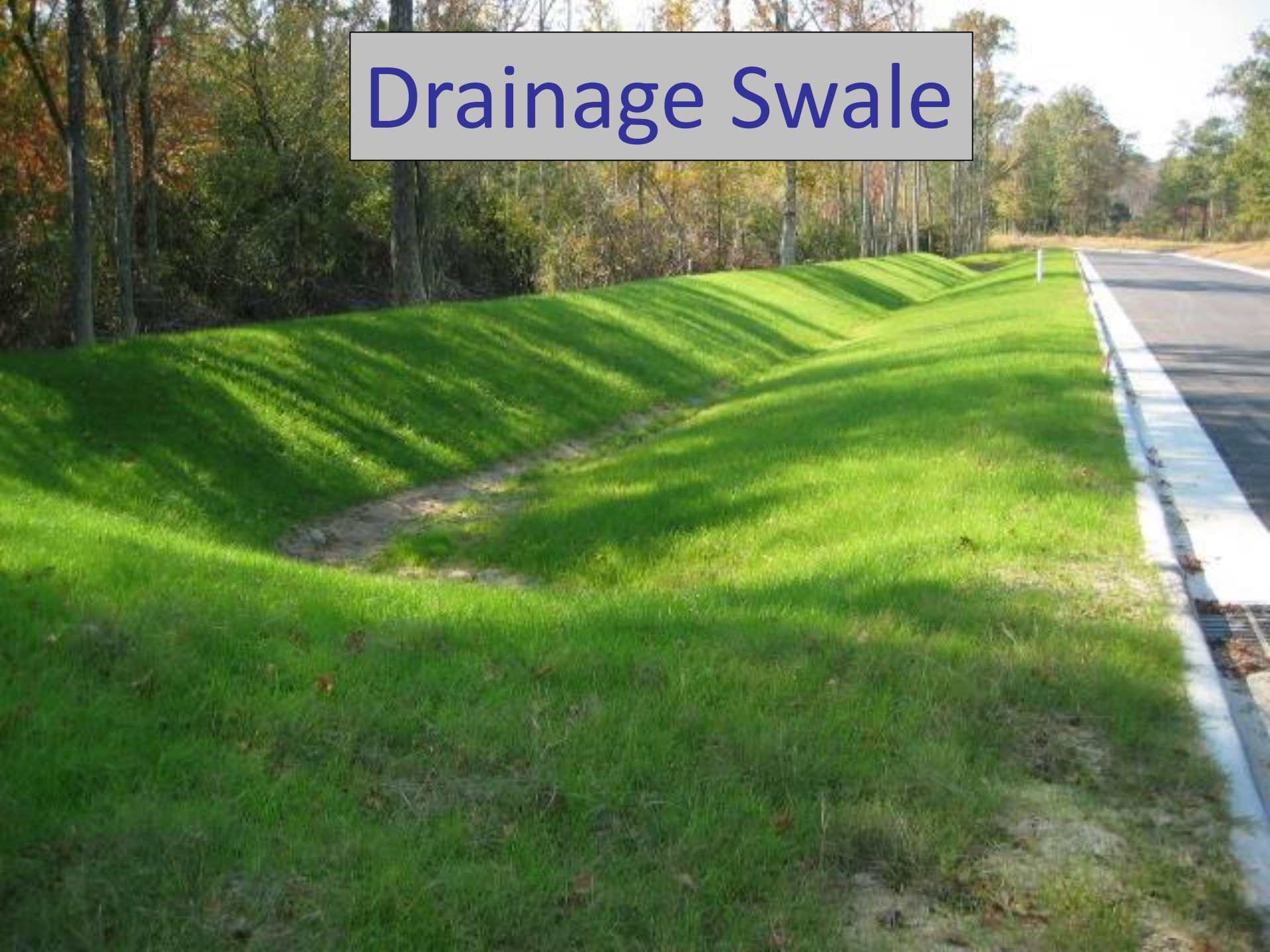
Dry Well



Dry Well



Drainage Swale



Drainage Swale



Infiltration Trench









NEW HAMPSHIRE HOMEOWNER'S GUIDE TO STORMWATER MANAGEMENT

DO-IT-YOURSELF STORMWATER SOLUTIONS
FOR YOUR HOME

Soak
UP the
Rain.
New Hampshire



MARCH 2016

UNIVERSITY OF NEW HAMPSHIRE
SCHOOL OF FORESTRY

LANDSCAPING at the Water's Edge

AN ECOLOGICAL APPROACH



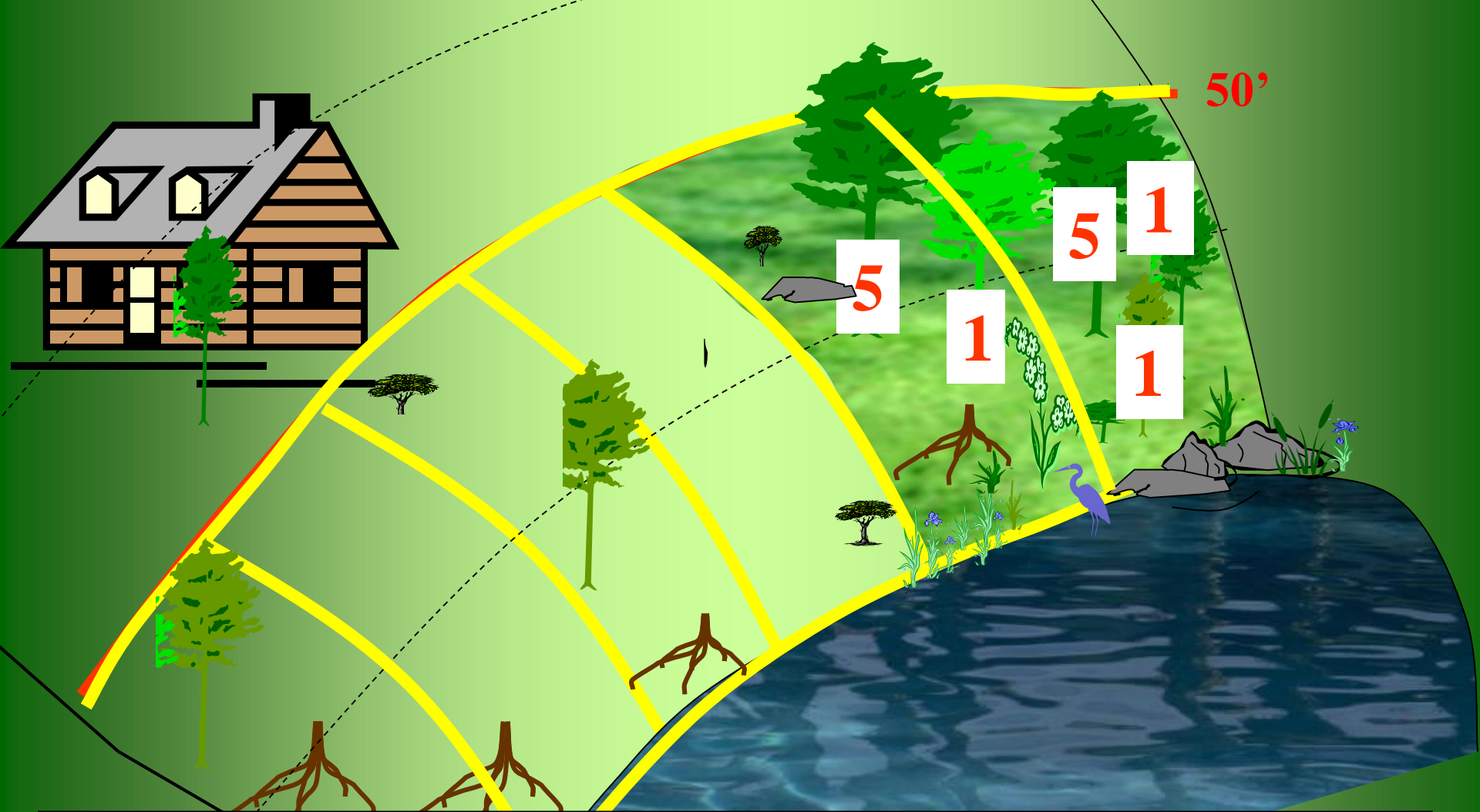
A MANUAL FOR NEW HAMPSHIRE LANDOWNERS AND LANDSCAPERS

Impervious Surface Thresholds

When a project proposes ***greater than 30%*** impervious area:

1.) If any grid segment does not meet the minimum required grid score (25 pts), an equivalent level of protection must be planted to at least meet the minimum required grid score.

2.) A stormwater management plan must be designed and installed by a **licensed engineer**.



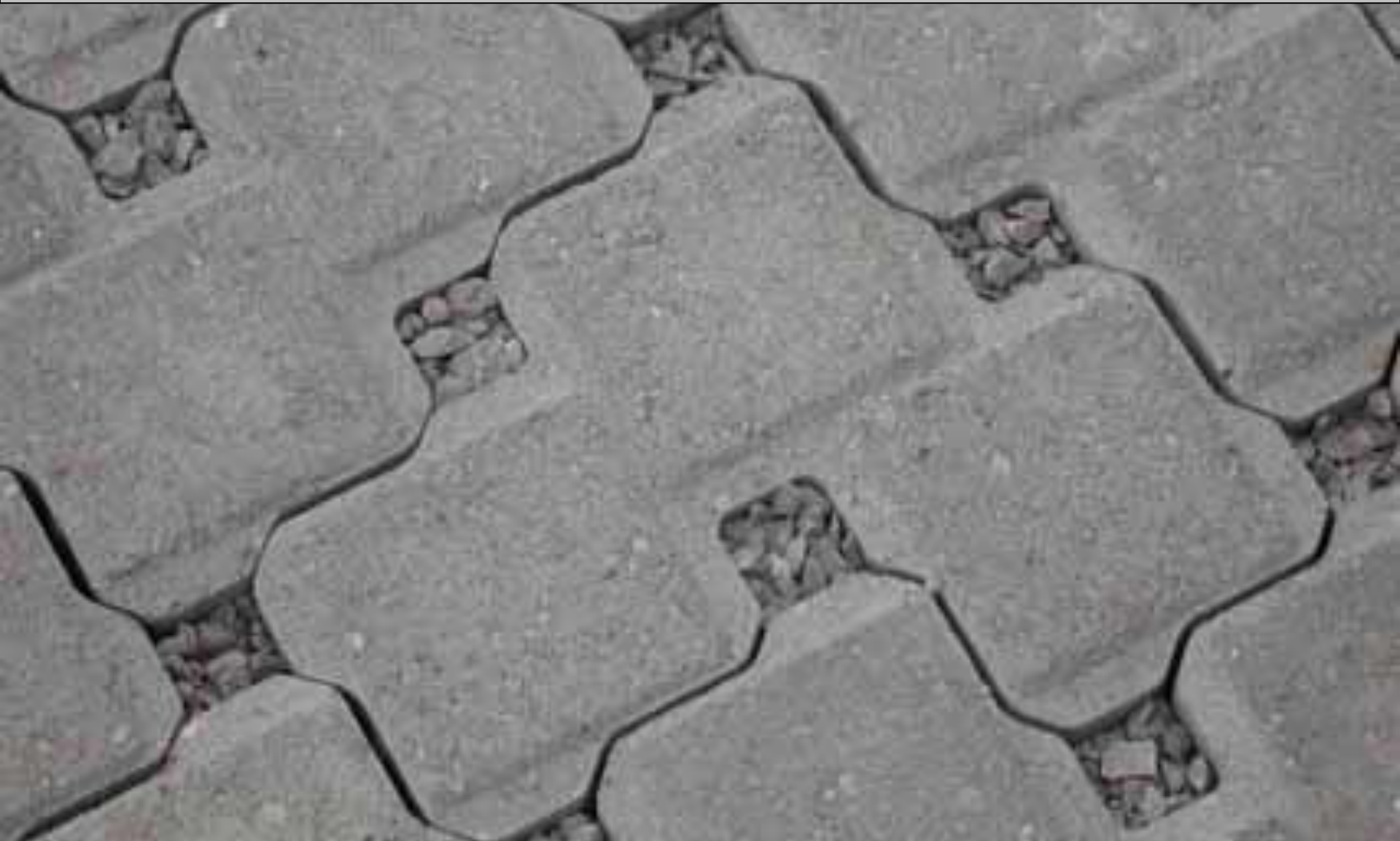
Provide additional plantings within each grid segment so that each grid segments meets the minimum required point 25 point score.



Pervious Surfaces



Pervious materials are not considered when quantifying the total impervious area of the lot within the protected shoreland.



Pervious Materials








Shoreland Permitting Process



Shoreland Permits

- 
- 1.) Excavation with mechanized equipment
 - 2.) Filling that changes the contour of the land
 - 3.) Constructing new structures

















Existing Walkways





Existing Patios





Existing Retaining Walls





Shoreland/ Wetlands Permits

Visit the Shoreland Program Web Page!



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Drinking Water Advisory



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Shoreland Program



The Shoreland Water Quality Protection Act was originally named the Comprehensive Shoreland Protection Act (CSPA) and was enacted into law in the 1991 session of the Legislature. The act establishes minimum standards for the subdivision, use and development of shorelands adjacent to the state's public water bodies. [more ...](#)

→ Hot Topics ([Complete List](#))

- [Determine if a Shoreland Permit is Required](#)
- **NEW!** [Important Notice Regarding Senate Bill 30](#)

→ Publications ([Complete List](#))

- [Vegetation Management for Water Quality](#)
- [NH Homeowner's Guide to Stormwater Management](#)
- [Summary of the Minimum Standards](#)
- [Frequently Asked Questions](#)

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➡ **Hot Topics** ([Complete List](#))

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- [Frequently Asked Questions](#)

➡ Rules/Regulatory

- [RSA 483-B](#)
- [Env-Wq 1400 Shoreland Protection](#)

➡ Education/Outreach

- **NEW!** [Landscaping for Water Quality Training in the Sunapee Area](#)
- **NEW!** [Spring Landscape Conference](#)

➡ Permits ([Complete List](#))

- [Shoreland Impact Permit](#)
- [Shoreland Permit by Notification \(PBN\)](#)
- [Permit Application Status Check](#)

Copies of Shoreland Impact Permits issued on and after October 10, 2011 are available online through One-Stop by clicking the link above

- Waste Management Div.
- Water Division
- Boards and Committees

NHDES Calendar						
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	

Erosion Controls























Wetlands Rules Update



Wetlands Program Rulemaking & Process Improvement Effort

GOALS

- Enhance predictability and transparency
- Increase consistency and standardization
- Ensure scientifically-based decisions that are protective of New Hampshire's important natural resources

Key *New* definitions


- 102.12 “Avoidance”
- 103.05 “Minimization”
- 103.06 “Minimization measures”
- 103.10 “Need” (Also see Env-Wt 313)
- 103.54 “Special resource area”
- 103.68 “Top of bank”

Wetlands

Best Management Practice Techniques For Avoidance and Minimization




DRAFT Best Management Practices (BMP) Manuals























- [DRAFT Wetlands Best Management Practice Techniques for Avoidance and Minimization](#)
- [DRAFT Utility Maintenance in and Adjacent to Wetlands and Waterbodies in NH](#) 
- [DRAFT Best Management Practices for Routine Roadway Maintenance Activities in NH](#) 
- [DRAFT Best Management Practices for Agriculture in NH](#) 

Frequently Asked Questions

- [FAQs about the DRAFT Wetlands Rules](#)

 Adobe Acrobat Reader format. Download a free reader from [Adobe](#).

DRAFT Wetlands Administrative Rules

- [Summary of the Wetlands Rule Changes](#) 
- [Corrections & Comments](#)  Last updated 3-02-18
This document identifies editorial and obvious technical corrections, and identifies additional areas NHDES is seeking stakeholder input. This list will be updated if/when additional items are identified.
- [Revisions to Env-Wt 306 & Env-Wt 309 relative to PBNs](#) 
- [Levels of Review Chart](#) 
- **Env-Wt 100** - [Table of contents](#)  [Draft rule text](#) 
- **Env-Wt 200** - [Table of contents](#)  [Draft rule text](#) 
- **Env-Wt 300** - [Table of contents](#)  [Draft rule text](#) 
- **Env-Wt 400** - [Table of contents](#)  [Draft rule text](#) 
- **Env-Wt 500** - [Table of contents](#)  [Draft rule text](#) 
- **Env-Wt 600** - [Table of contents](#)  [Draft rule text](#) 
- **Env-Wt 700** - [Table of contents](#)  [Draft rule text](#) 
- **Env-Wt 800** - [Table of contents](#)  [Draft rule text](#) 
- **Env-Wt 900** - [Table of contents](#)  [Draft rule text](#) 

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- Use our web-based tool to submit a comment directly to NHDES: [Submit a Comment or Suggestion to NHDES](#)



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