

Moultonborough Basin Water Quality

Women's Club- May, 2019

Bill Gassman – Conservation Commission Member

Ossipee Mountains

Lake Winnepesaukee

Lees Pond

Garland Pond

Agenda

- ❖ Water quality
- ❖ Stewardship
- ❖ Nest Steps
- ❖ Discussion

Ossipee Mountain Range

Designed and Installed by:
8th Grade Service Learning Students
of Moultonborough Academy
2002-2003

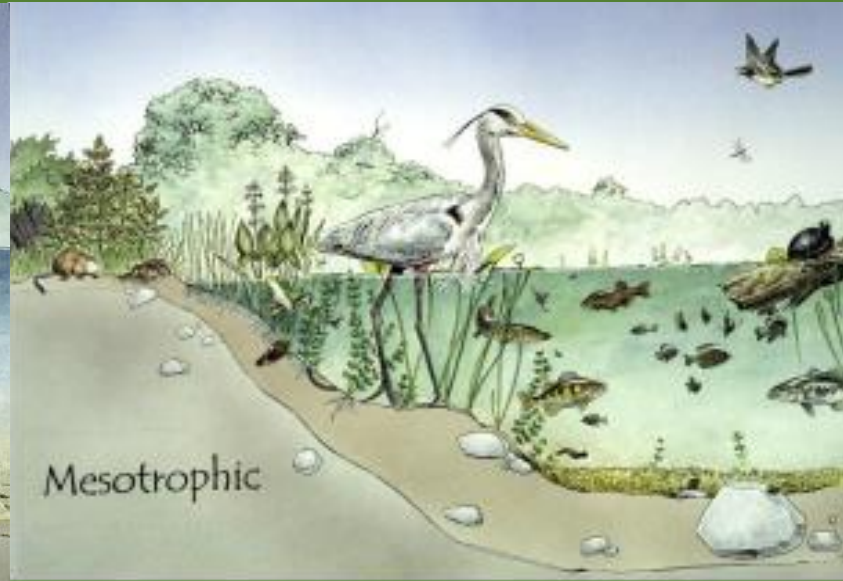
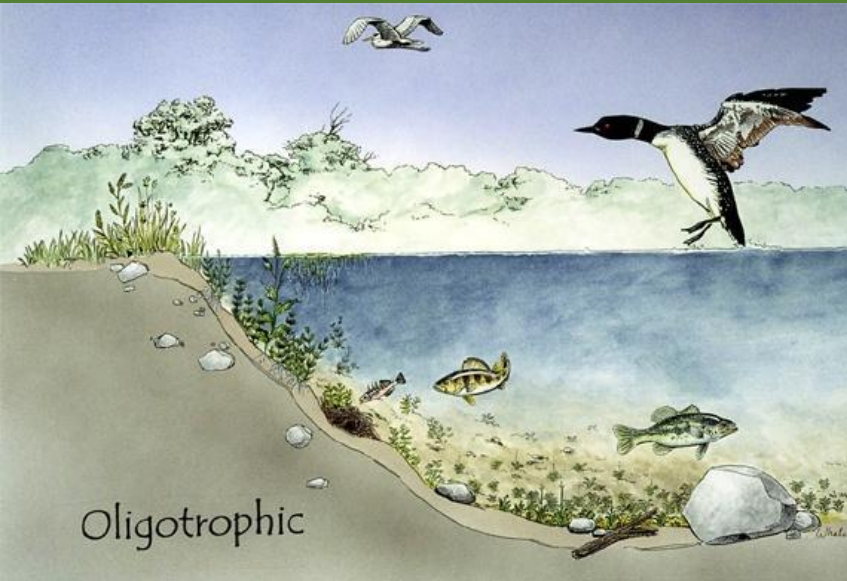
From Red Hill Overlook





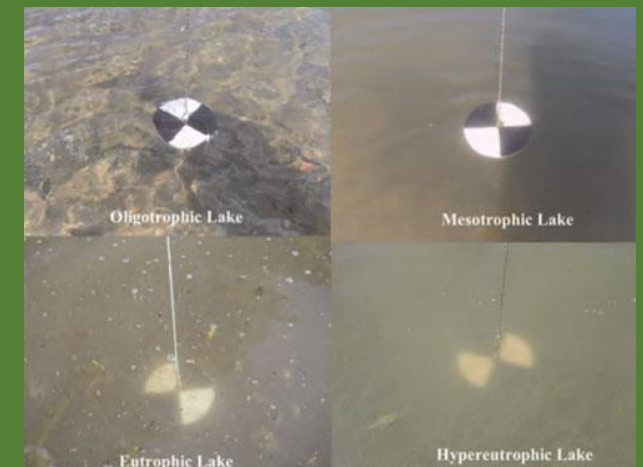


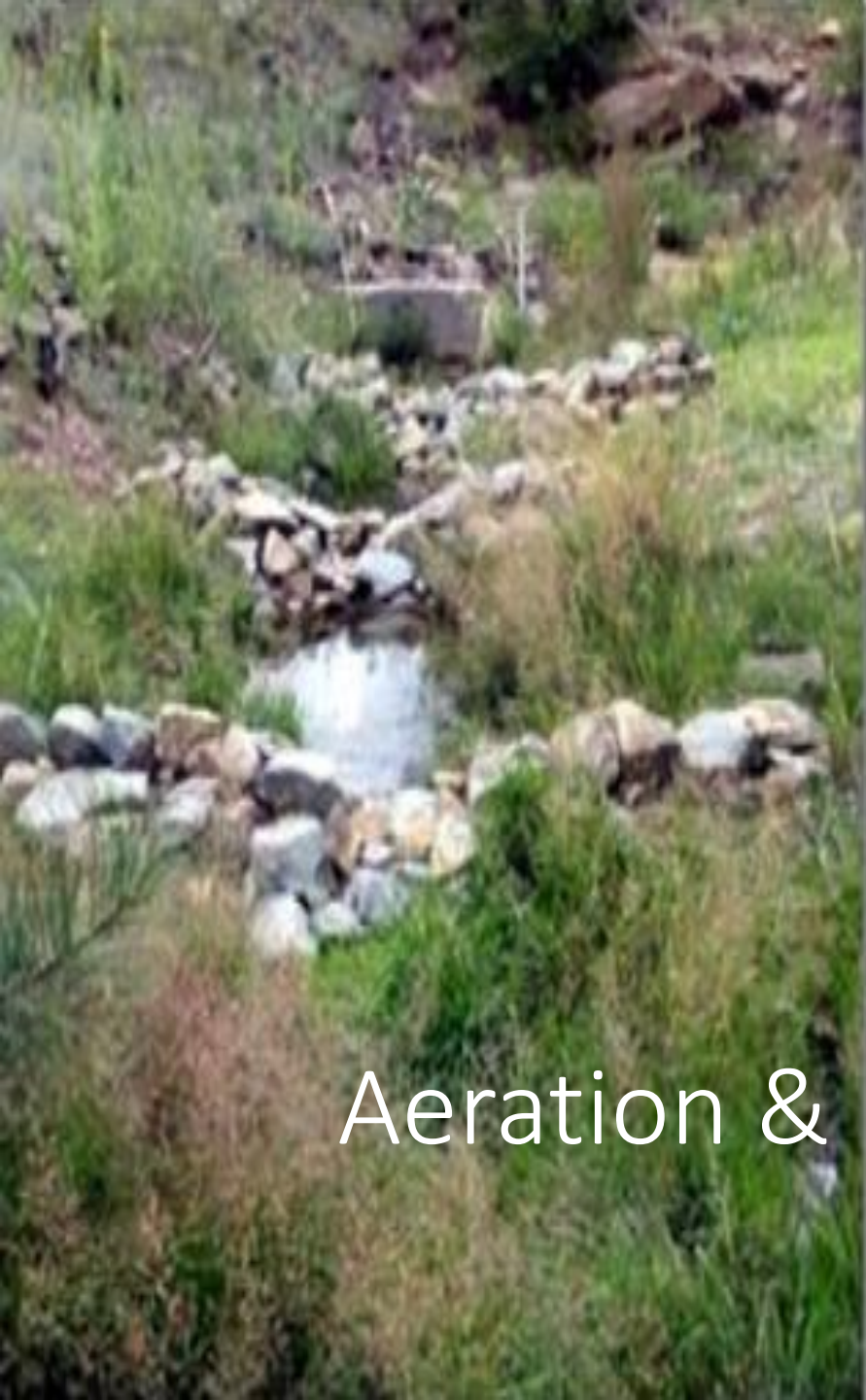
Lake Aging (Eutrophication)



Change in timescale:

- Millennium to Centuries
- Centuries to Decades





Aeration &



Infiltration

Absorption







Human Actions





Wetlands – Early 20th Century and Today



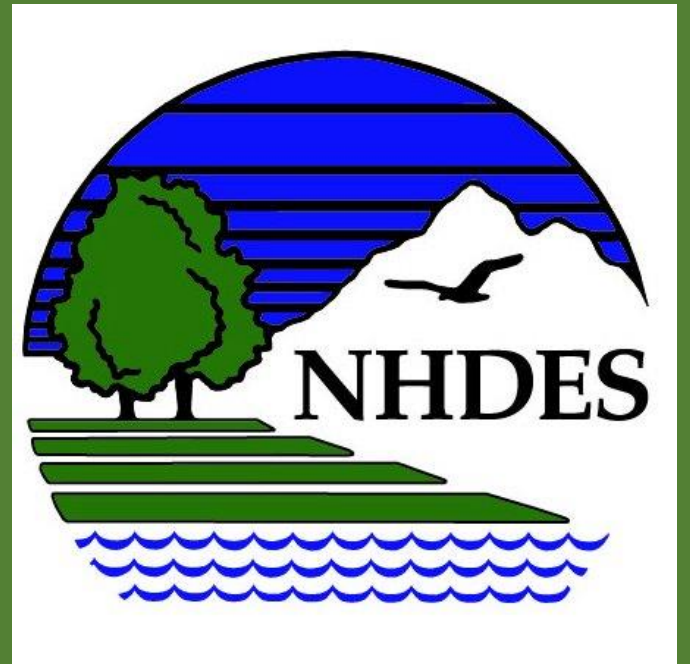
Impact



 169

AVERAGE DAYS ON
THE MARKET

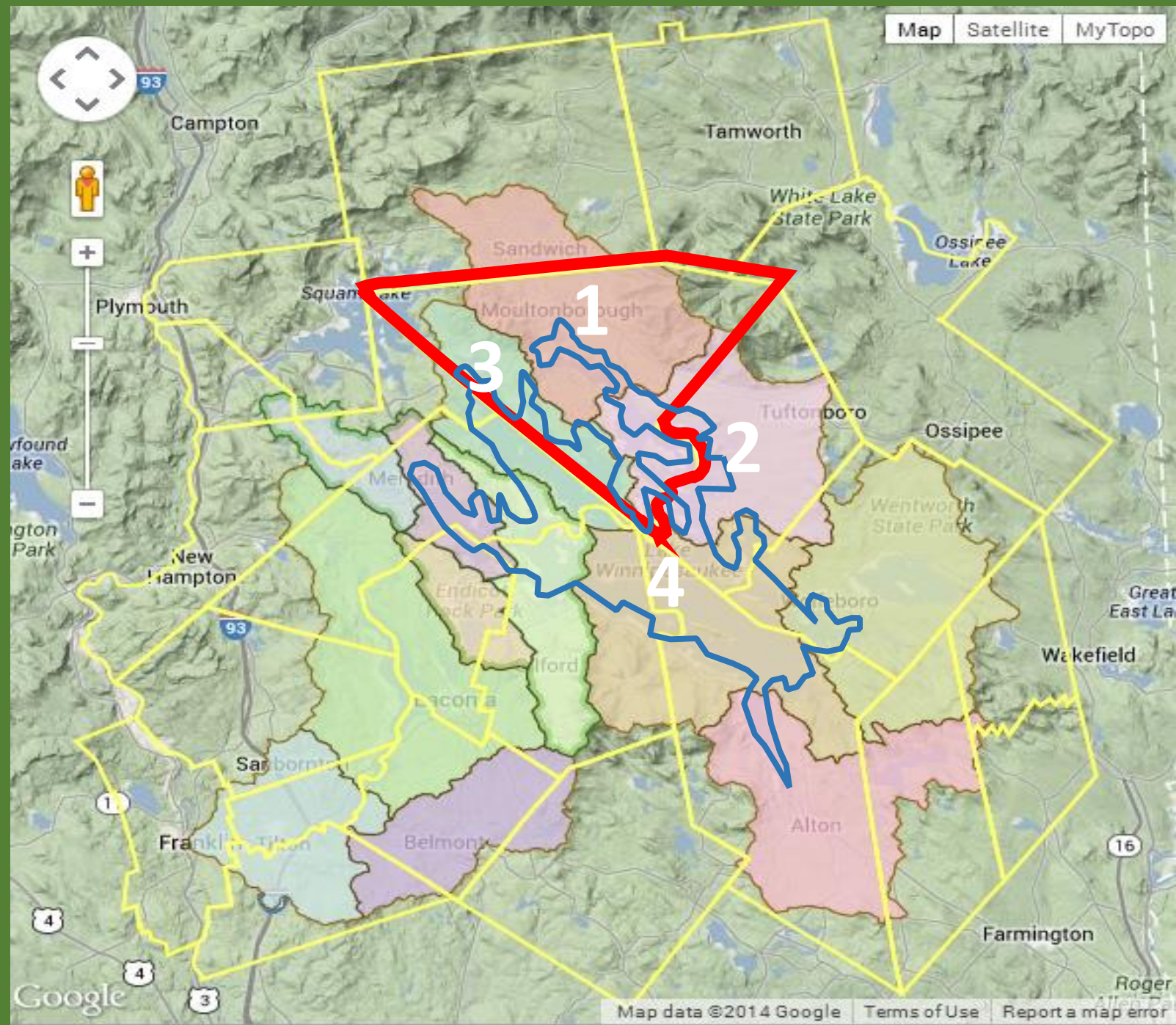
Stewardship

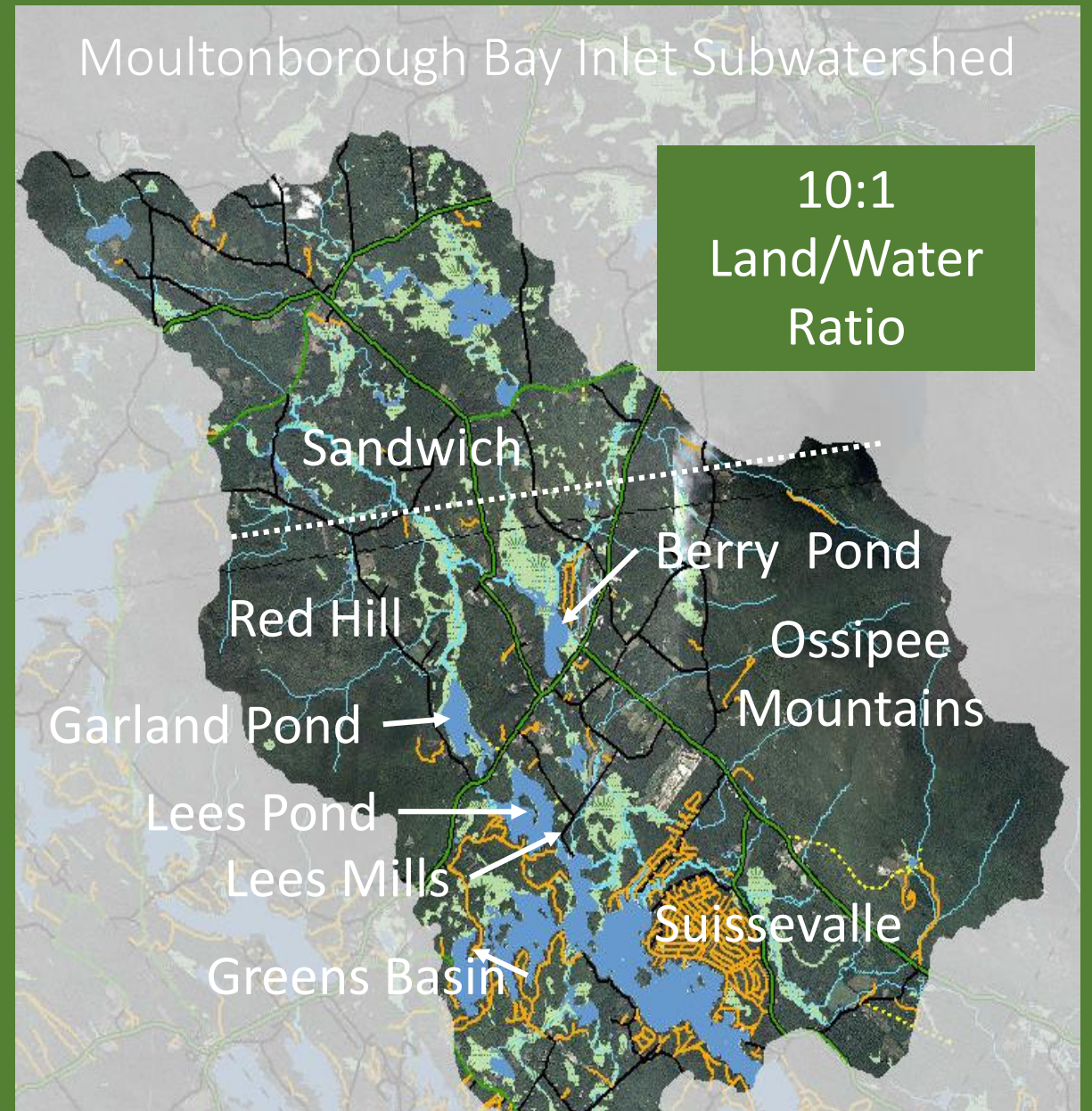
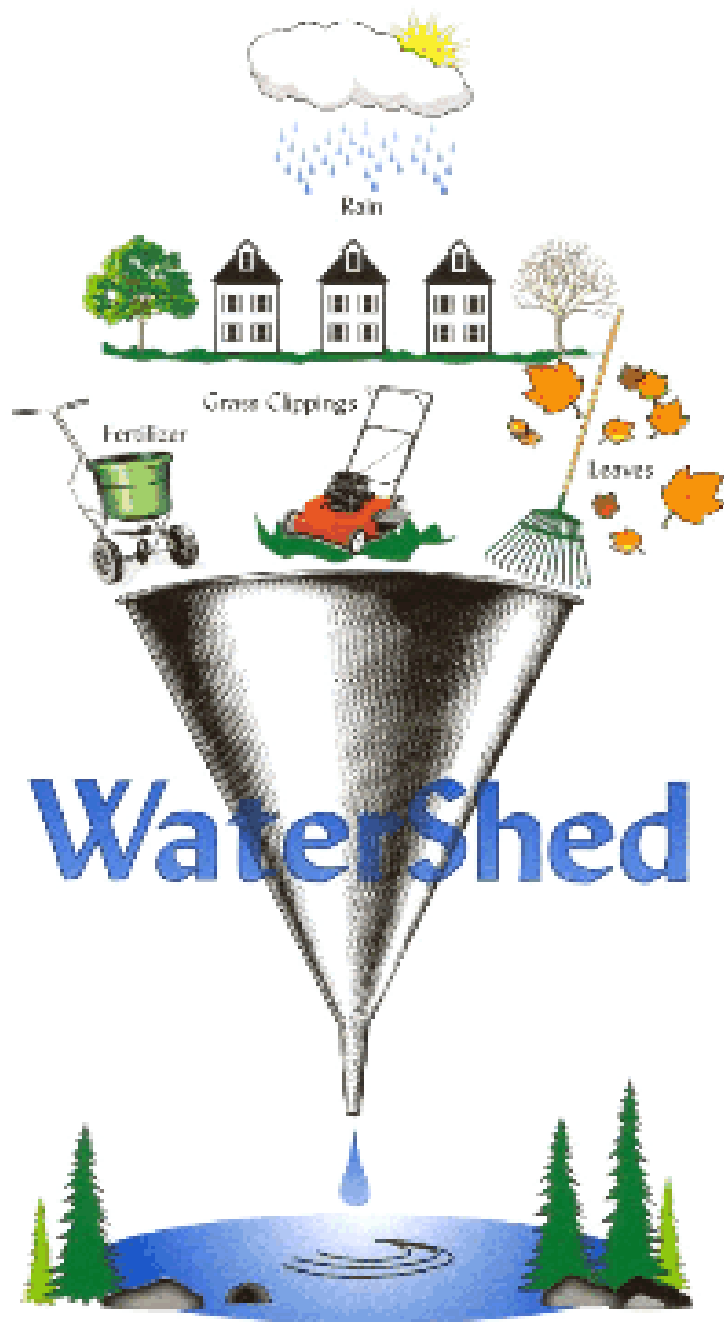


Winnipesaukee Watershed

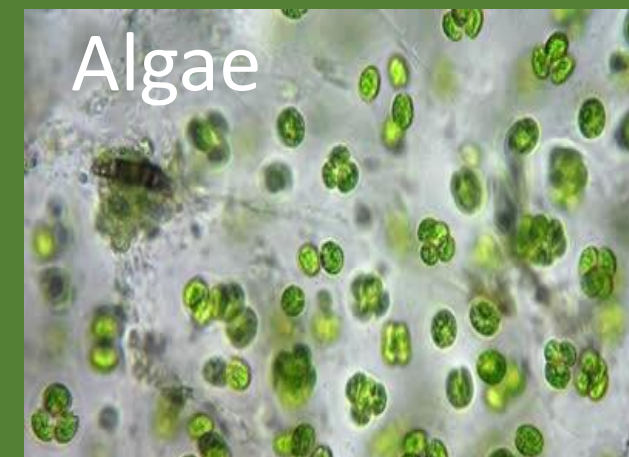
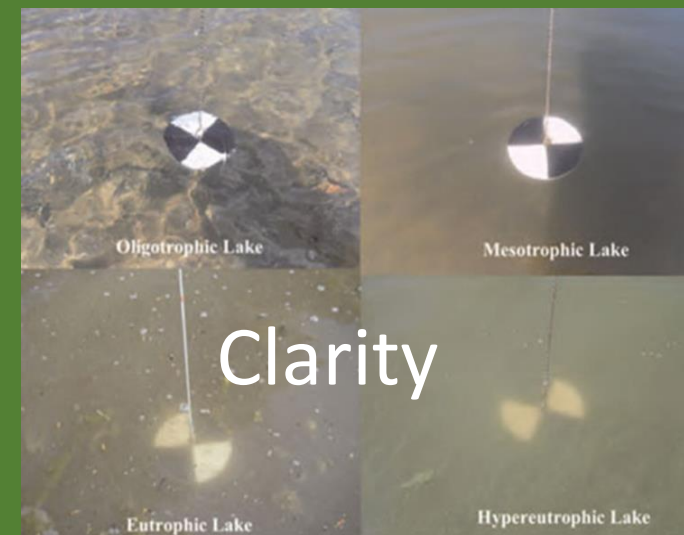
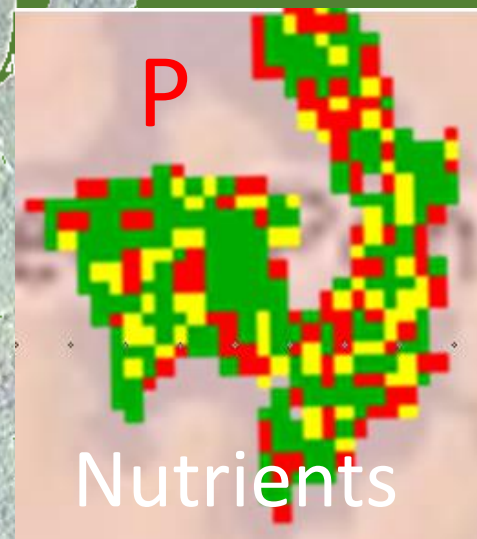
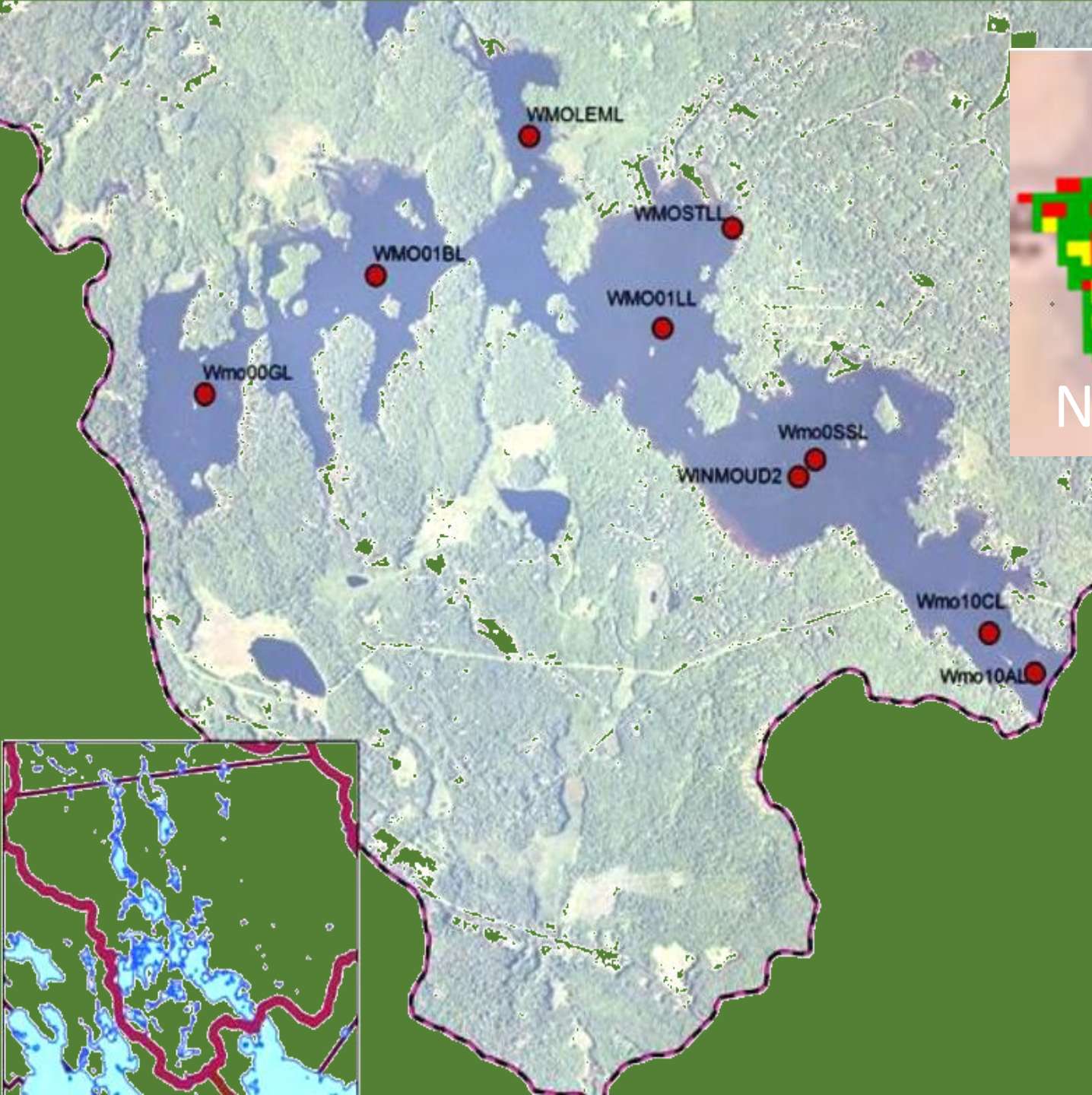
- 224,482 total acres
- 44,425 acres lake surface
- 5:1 ratio (land to water)
- 673 billion gallons of water
- 7 sub-watersheds

1. Moultonborough Bay Inlet
2. Moultonborough Bay
3. Center Harbor
4. The Broads





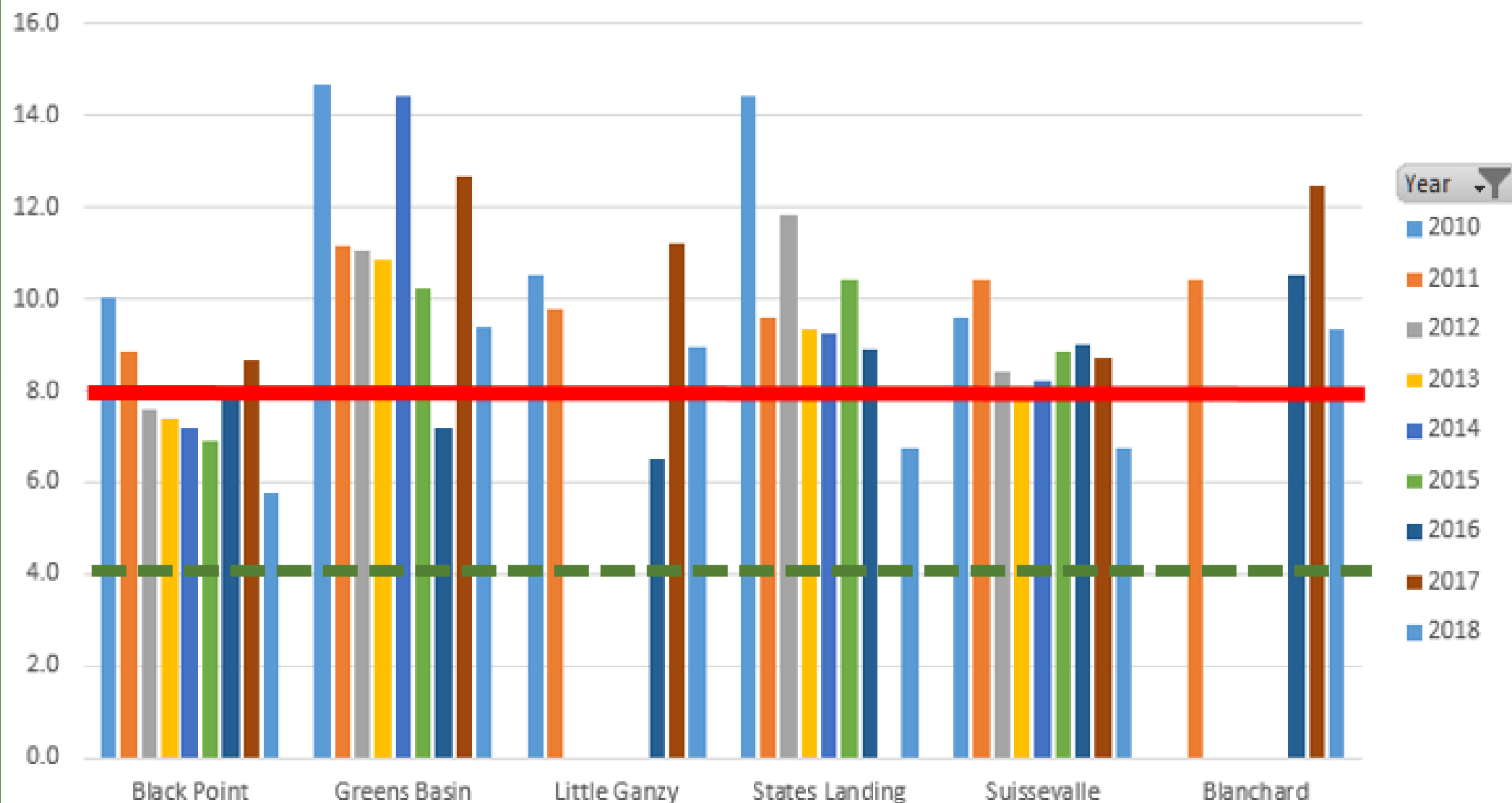
Monitoring



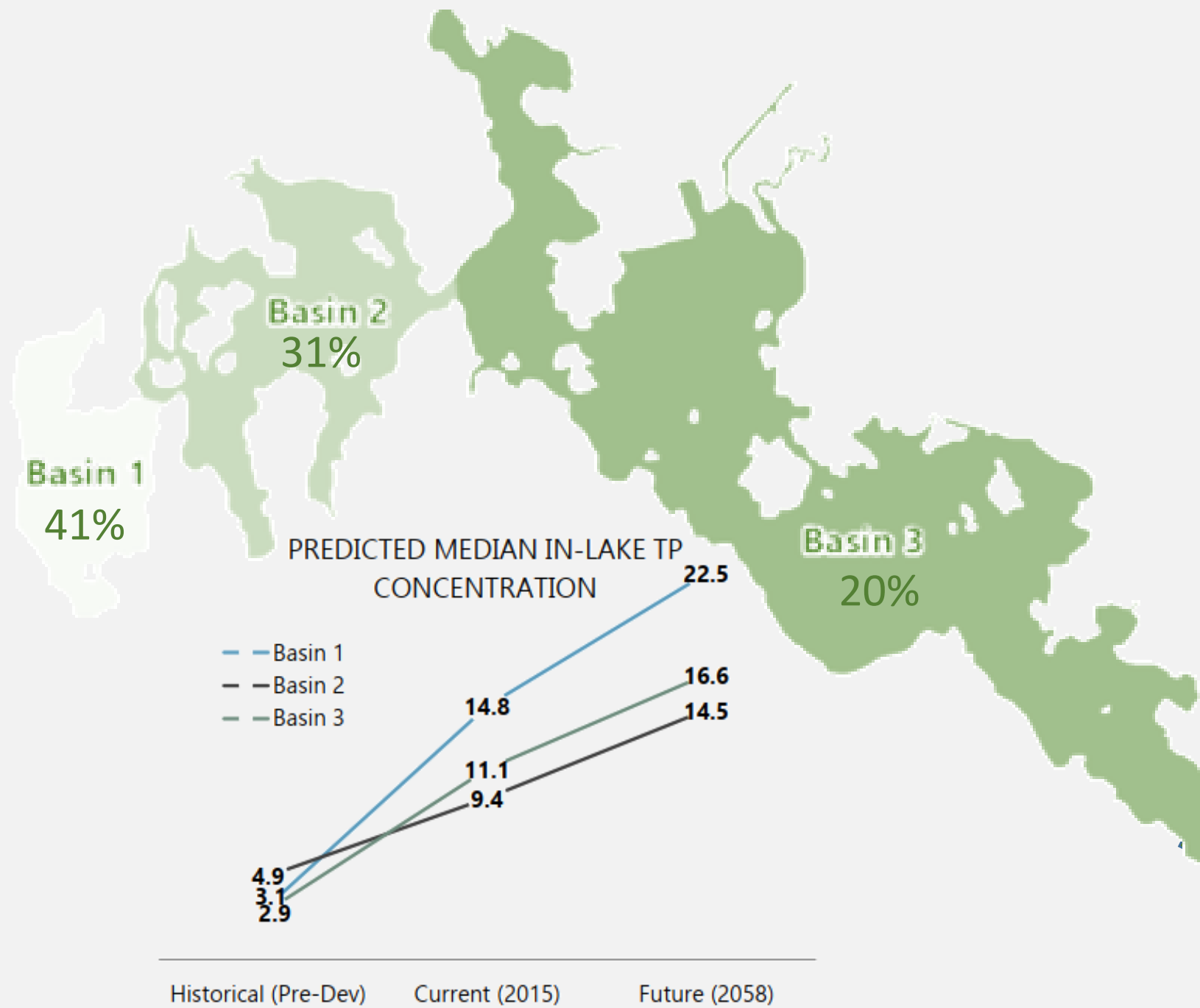
Average of Phosphorus (u g/l)

Moultonborough Bay Inlet Monitoring 2010-2018

Average Phosphorus (u g/l) by Site



Site

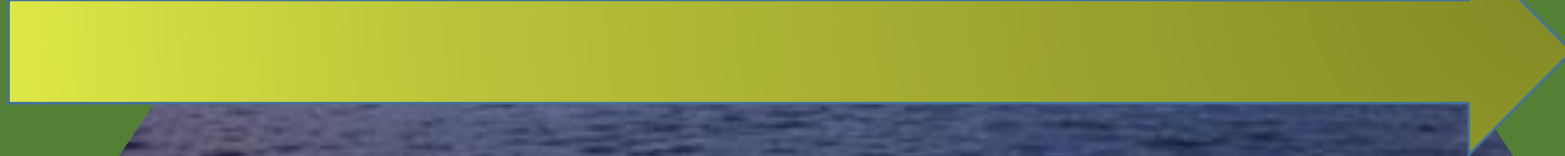


2000 pounds of
Phosphorus
per year

Water Quality Priorities

Educate

2019



2100

Protect

Repair

Education





use only phosphorus-free fertilizer



Choose only those fertilizers with a zero in the middle. Your lawn will grow strong and your nearby river or lake will appreciate it.

**PLEASE HELP US STOP THE SPREAD OF THESE NINE EXOTIC
AQUATIC PLANTS ALREADY IN NH WATERBODIES!**



Variable Milfoil
Myriophyllum heterophyllum



Fanwort
Cabomba caroliniana



Eurasian Water-Milfoil
Myriophyllum spicatum



Brazilian Elodea
Egeria densa



Curly-leaf Pondweed
Potamogeton crispus



European Naiad
Najas minor



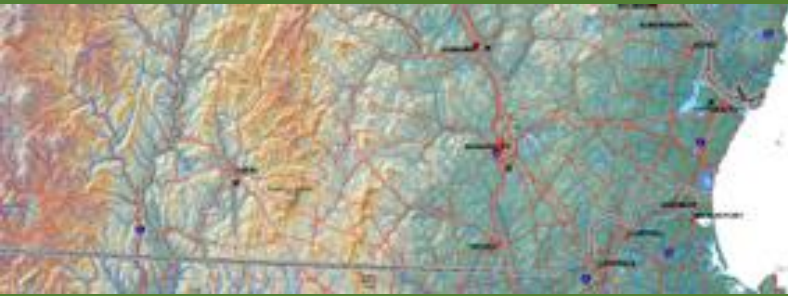
Water Chestnut
Trapa natans



Purple Loosestrife
Lythrum salicaria



Common Reed
Phragmites australis



WELCOME to NH GRANIT

NEW HAMPSHIRE'S STATEWIDE GIS CLEARINGHOUSE



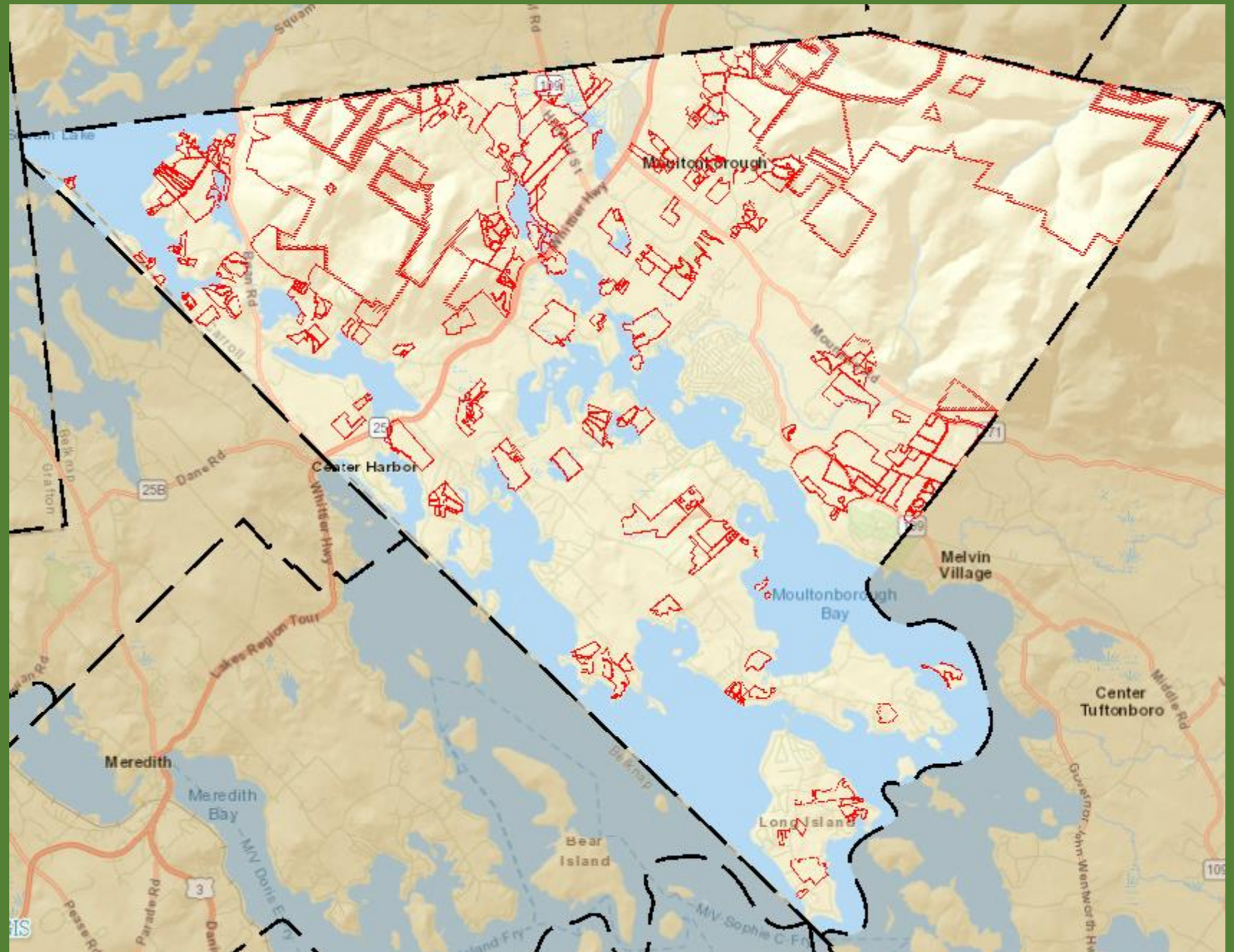
- ☐ Cultural Society and Demographic
- ☒ Environment and Conservation
 - ☒ Conservation and Public Lands
- ☐ Wildlife
- ☐ Invasive Plant Management Priority Areas



Protection



Current Use Land



Winnepesaukee River Basin Program (WRBP)

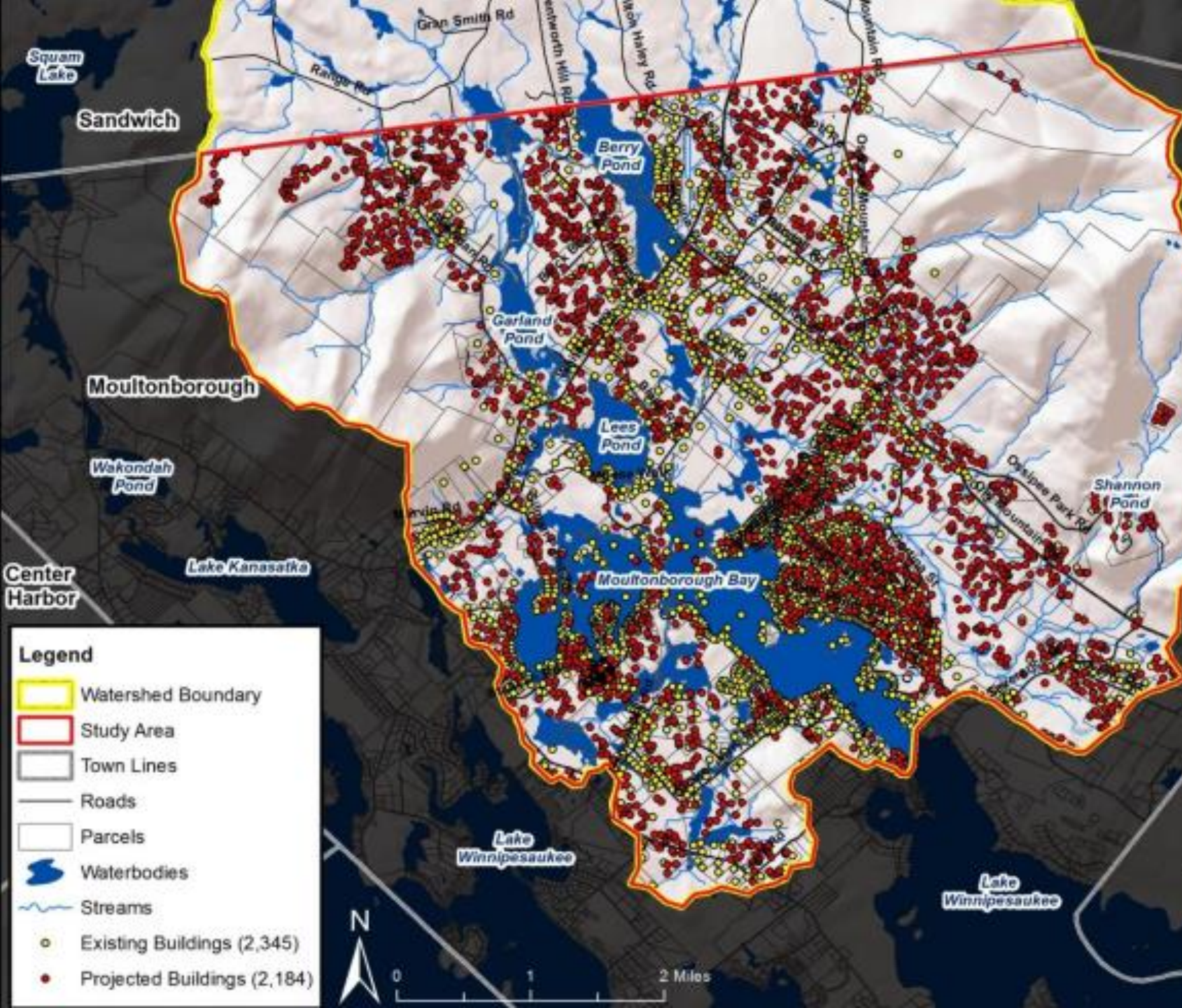


Franklin wastewater treatment plant



Shoreland Protection Act





MOULTONBOROUGH ZONING ORDINANCE

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Article III: General Provisions

A. Minimum Lot Size

Table I: Minimum Lot Size Based on Soils

B. Minimum Setbacks

C. Use Prohibitions

D. Hazardous Materials

E. Off-street loading and parking

F. Uses Per Lot

G. Toxic Uses

H. Minimize Impact

I. Height of Buildings

J. Lot dimensions and standards

K. Minimum shore frontage

L. Driveway Slope Requirements

M. Accessory Dwelling Unit

Article IV: Waterfront Property

A. Minimum lot size

B. Additional Units

C. Minimum lot dimensions

D. Water Access and Parking Requirements

E. Boating and Swimming Areas

F. Restriction "Dug-in Boathouses"

G. Comprehensive Shoreland Protection

Water Runoff Retention Ponds

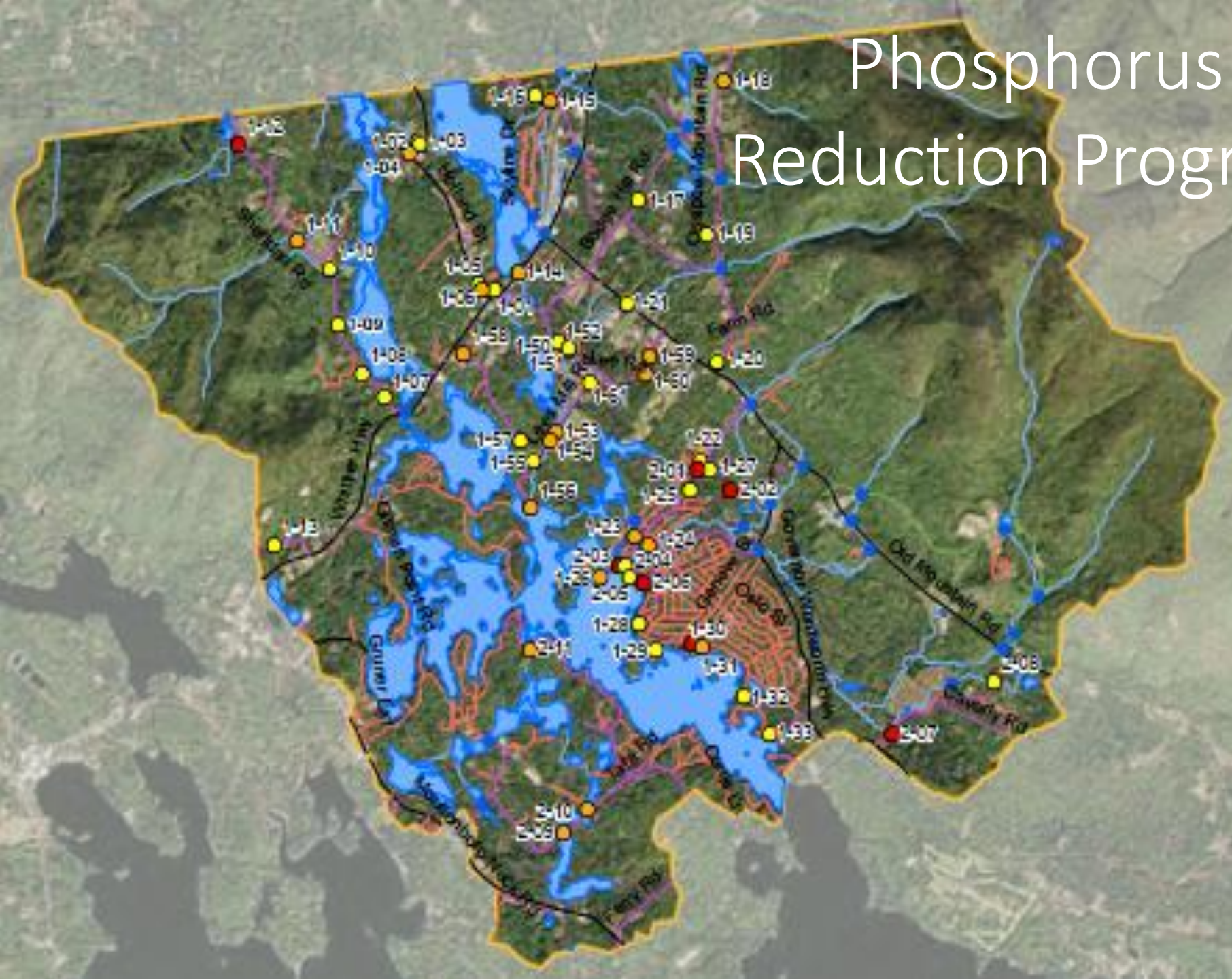


Repair



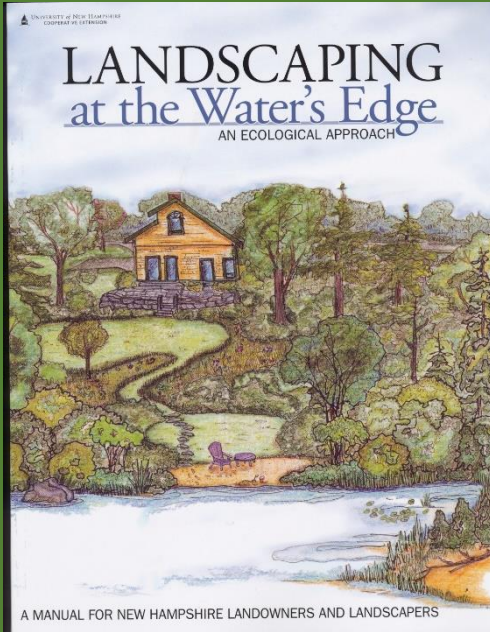


Phosphorus Reduction Program

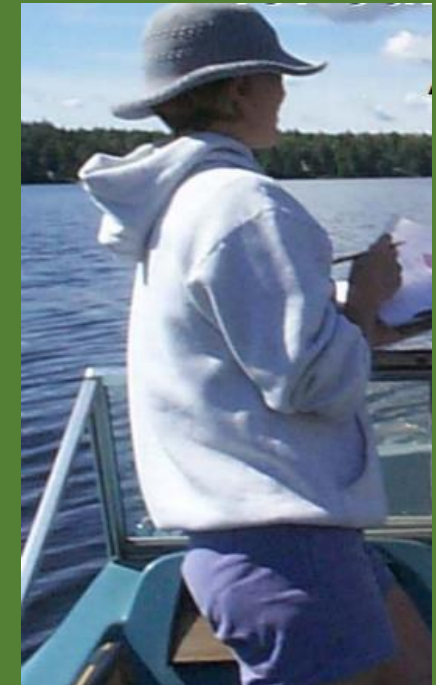
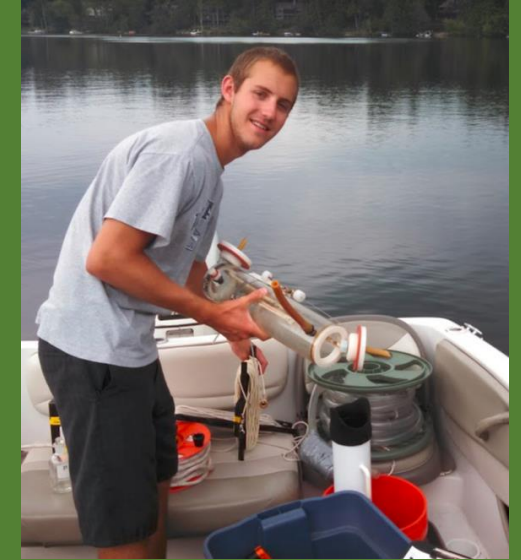
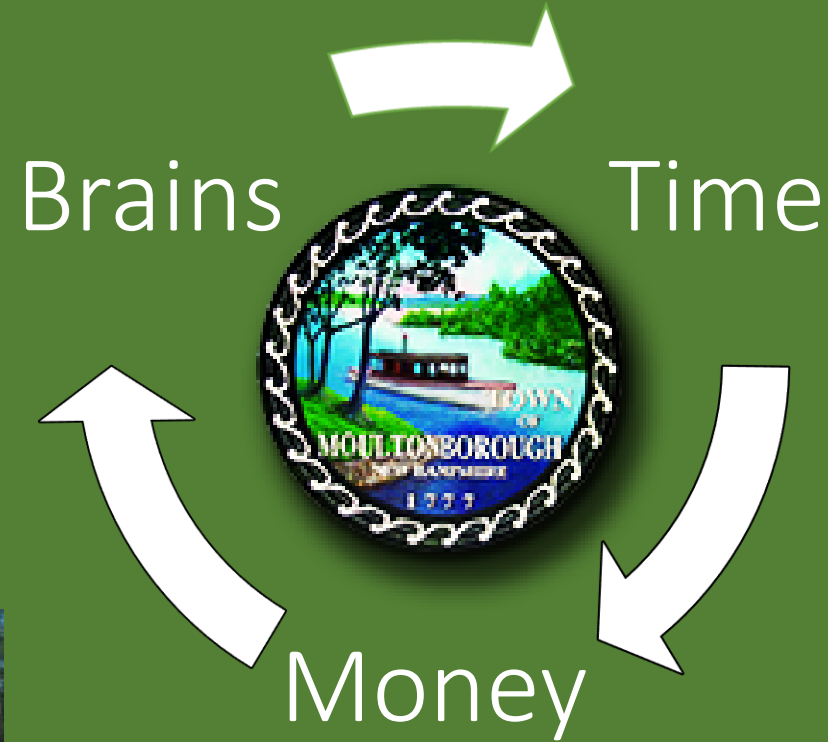


Loon Repopulation





Next Steps



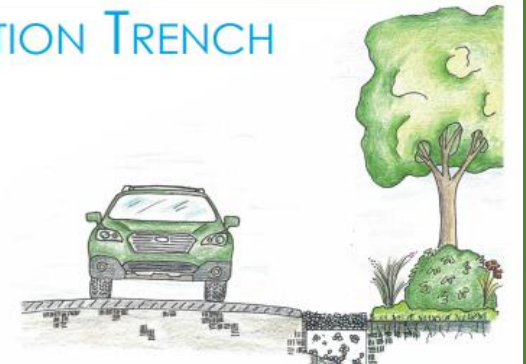
RAIN BARREL

A rain barrel captures rainwater from your roof to reduce runoff from your property and provide you with water for lawns, gardens, and indoor plants to use in dry weather.



DRIVEWAY INFILTRATION TRENCH

A driveway infiltration trench collects and infiltrates stormwater from your driveway allowing it to soak into the ground. It helps reduce stormwater runoff.



WATER BAR

A water bar intercepts runoff traveling down moderately steep walkways, paths, gravel driveways, and other areas and diverts it into stable vegetated areas to reduce erosion.



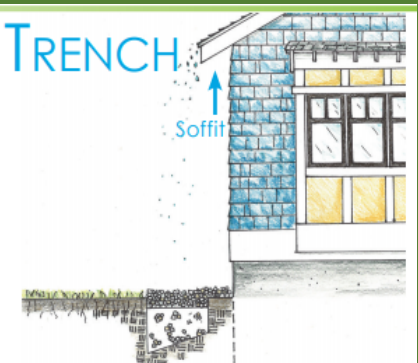
PERVIOUS WALKWAYS & PATIOS

Pervious pavers look like traditional pavers, but are able to absorb and store rain and snowmelt to reduce runoff from your property.



DRIPLINE INFILTRATION TRENCH

A dripline infiltration trench collects and infiltrates stormwater from your roof until it soaks into the ground. It helps control stormwater from running off of your property.



2016 Natural Resources
Inventory

A Guide To Planning
Successful Invasive Plant
Management Projects

Conservation Commission
Bylaws

Kick-Off Meeting
Presentation:
Development of a
Watershed Restoration
Plan

Managing Storm Water

Moultonborough Milfoil
Committee

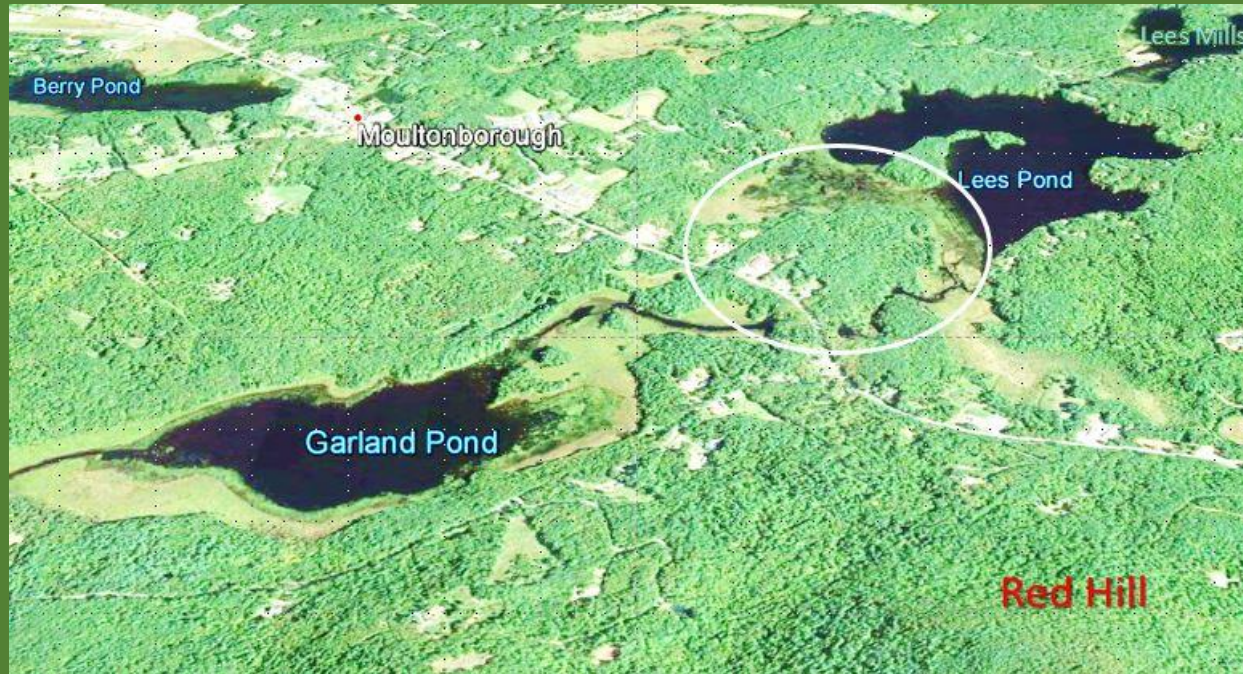
NH Endangered Wildlife

NH Fish and Game
Wildlife Habitat Types

Priority Wildlife Habitats in
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Yearly Water Quality
Measurements for
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Conservation Commission



V. Natural Resources

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Moultonborough Natural Resources Inventory

Conservation
Fund

www.moultonboroughnh.gov/conservation-commission

Moultonborough Basin Water Quality

Women's Club- May, 2019

Bill Gassman – Conservation Commission Member

Discussion...

Thanks to Pat Tarpey, Dr. Jeff Schloss,
DES, UNH and others for sharing
material for this presentation