



PRESERVING LAKES & RIVERS OF NORTHERN WISCONSIN: A proactive approach for long term sustainability

The roles of Governance, Lake
Districts/Associations, lake front property
owners, and public users

OUR LOCAL WATERS: the Pot of Gold at the end....



THE CHALLENGES FOR TODAY AND TOMORROW!

- **Climatic change & impact**
- **Tourist Rooming Housing (Airbnb)**
- **Violations Shoreland Zoning**
- **Buffer Zone Restoration/ Remediation**
- **Wake Enhanced/ Boating Safety**
- **Littoral Zone/AIS Protection**
- **Fishery Management**

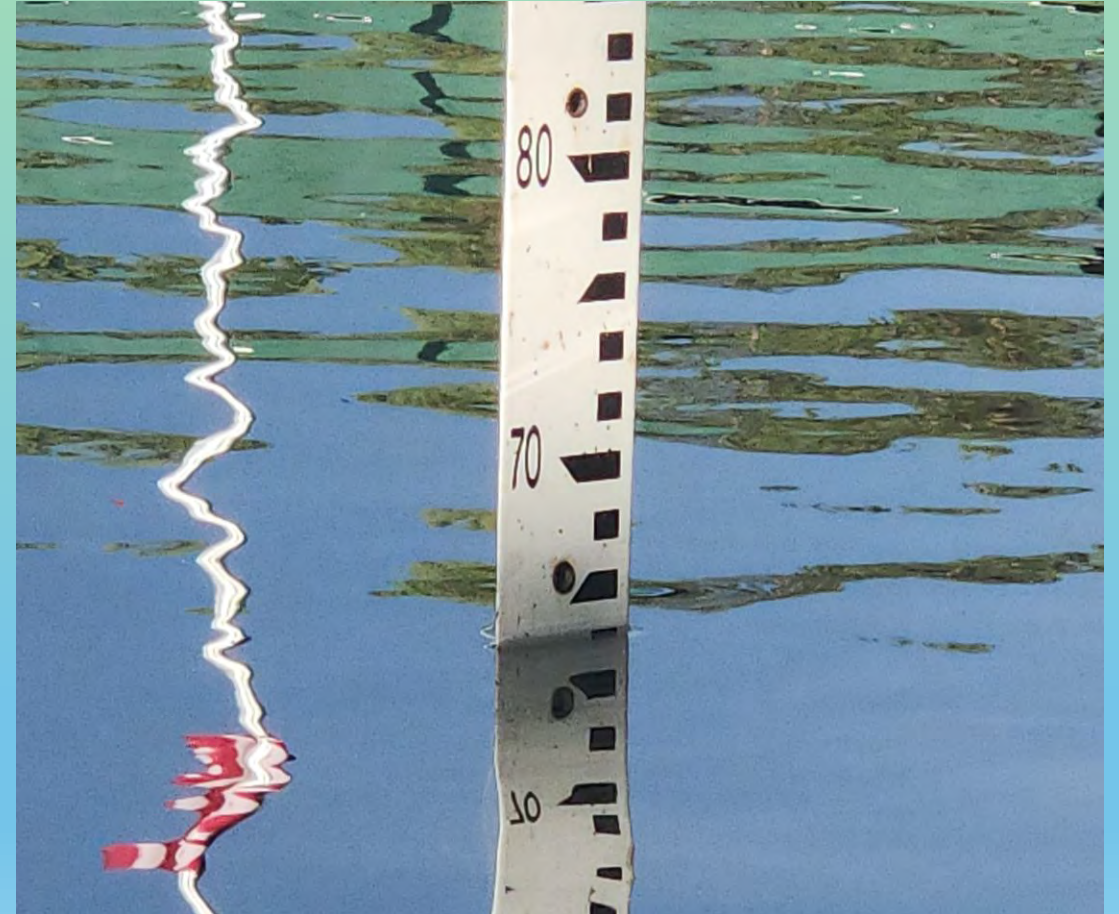
Impact from Climatic Change

- A. Water Level/Temp Fluctuations
- B. Tamarack demise
- C. Fish species change
- D. Invasive species growth [\$\$\$]
- E. Loons and habitat at risk
- F. Algae Bloom [Moon Lake]

CLIMATIC IMPACT



CLIMATIC IMPACT



LOONS AT RISK

Nesting Habitat

Water Fluctuations

Human Interference

Murky waters

Lead Poisoning



Tourist Rooming House (Airbnb) Impact

1,000 permits in Vilas County

THE PROS:

- **Allows vacationers direct access to our pristine forests, lakes and rivers**
- **Hundreds are able to experience the tranquility and beauty of lake and river experiences**
- **Creates the next generation of outdoor enthusiasts**
- **Can be a significant economic boost to a local area**

Tourist Rooming Housing (Airbnb)

25% of All RE Sales

POSSIBLE CONCERNS

3- Bedroom/2 bath: Sleeps 18 (Pre TRH)

- A. Over capacity of septic systems: [ground & surface water]**
- B. Neighbor/Lake Disturbance Issue**
- C. Buffer & Littoral Zone Overdevelopment**
- D. Possibility of devaluing neighboring property**
- E. Boating Safety/Invasive Spread**

LET'S BE PROACTIVE NEIGHBORS!

- **ALL RENTALS MUST HAVE A LOCAL RENTAL AGENCY**
- **EDUCATE YOURSELF ON THE AGENCY RENTAL CONDITIONS
(No Fireworks)**
- **DEVELOP A WORKING RELATIONSHIP WITH
AGENCY/OWNER/ZONING**
- **BE A GOOD NEIGHBOR! EDUCATE RENTAL GROUPS ON YOUR
SPECIFIC WATER RESOURCE**

Vilas County TRH Ordinance

Availability

Sun, Oct 13 — Sun, Oct 20 2 adults · 0 children · 1 r

Accommodation Type	Number of guests	Price for 1 week
<u>Six-Bedroom House</u> Bedroom 1: 1 king bed Bedroom 2: 1 king bed Bedroom 3: 1 queen bed Bedroom 4: 2 queen beds Bedroom 5: 2 queen beds Bedroom 6: 2 queen beds Entire vacation home 10 3258 feet² Private kitchen Private Bathroom Lake view Air conditioning Patio Dishwasher Barbecue	18	\$2,579 Excluded: 10 % TAX, 9.9 % Destination fee, 19.8 % Property service charge

- **Limiting occupancy based on septic sizing:** Two people per bedroom based on recorded Vilas County Zoning Septic

Example: Six-bedroom Septic

- Capacity per TRH 12 person
- A rental for a term of less than seven (7) consecutive days are prohibited in the Single Family Residential

Shoreland Zoning Violations

HOUSING EXPLOSION

CONCERNS

- A. Aesthetics
- B. Hillside Erosion
- C. Impervious surface run off
- D. Loss of Natural Habitat
- E. Buffer/Littoral Zone damage

SUPPORT

- F. Shoreland Improvement Initiative**
- G. Shoreland Assessment/Critical Habitat**
- H. Vilas County Shoreland Zoning**

Vilas County Shoreland Zoning Regulations & Requirements

Land Disturbance Activities Requiring a Shoreland Zoning Alteration Permit

- Filling or grading
- Driveways & Building Site preparation
- Construction of structures within the Ordinary High-Water Mark
- Maintenance of existing beaches
- Paths/Steps
- Any Activity requiring an erosion control, storm water mitigation or cutting plan.
- Deposit and spreading of materials on-site.
- **NO LAND DISTURBANCE IS PERMITTED WITHIN 35 FEET OF THE (OHWM)**

2022 AMLD

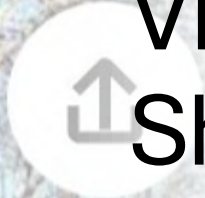
SHORE LAND IMPROVEMENT INITIATIVE

The number one priority of this initiative will be centered around a proactive approach of educating all lake property owners as to what is permissible regarding any, and all, lakeside improvements above and below the Ordinary High-Water Mark.

It is the goal of the Shore Land Improvement Initiative to encourage all lake property owners to work in a collaborative manner with our local regulatory agencies which include Vilas County Zoning, WDNR, Town of St. Germain

VILAS ZONING NON-COMPLIANCE





Vilas County Shoreland Improvement

- Vilas County Shoreline Ordinance
- **A 75' setback from the OHWM is required for all new structures.**
- A hot tub deck and small structure were built on your property and after reviewing your file NO permits were filed.
- **Non-compliant: Removal Required**

PROTECTING BUFFER ZONE & HILLSIDE EROSION (We are vulnerable)

Natural Vegetation



Too Much Vegetation Removed





SHORELINE NATIVE PLANTINGS

Natural Littoral Zone: 40 feet from OHWM

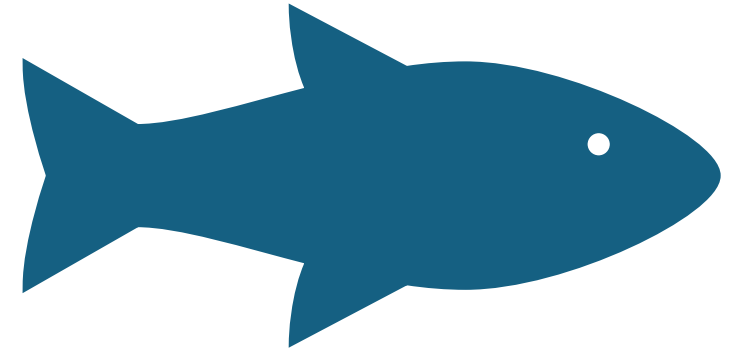


Fishery/Concerns

- A. Overharvest (10-10-5)
- B. Degradation of littoral zone [40' from OHWM]
- C. Climatic change (Spring 2024 walleye spawn)
- D. Spiny Water Flea/ Invasive Aquatic Plants
- E. **Best practice: Catch and Release**

Littoral Zone/ Fish Stocking

- **21 Cribs brushed in 2022**
- **Active Yearly Stocking**
- **Volunteer Catch and Release**
- **Tree Drops**
- **Native Plantings/Natural shore**





**Alma/Moon Lake
Encouraging Volunteer
Catch & Release**

WAKE ENHANCED BOATS

LAKE CHALLENGES



- SHORELINE EROSION
- LITTORAL ZONE DEVASTATION
- **INVASIVE SPECIES**
- NON-REGULATED **[REGULATE]**

OUR GOAL: LONG TERM PRESERVATION!!!

NORTHWOODS LAND TRUST

MOON BEACH CAMP

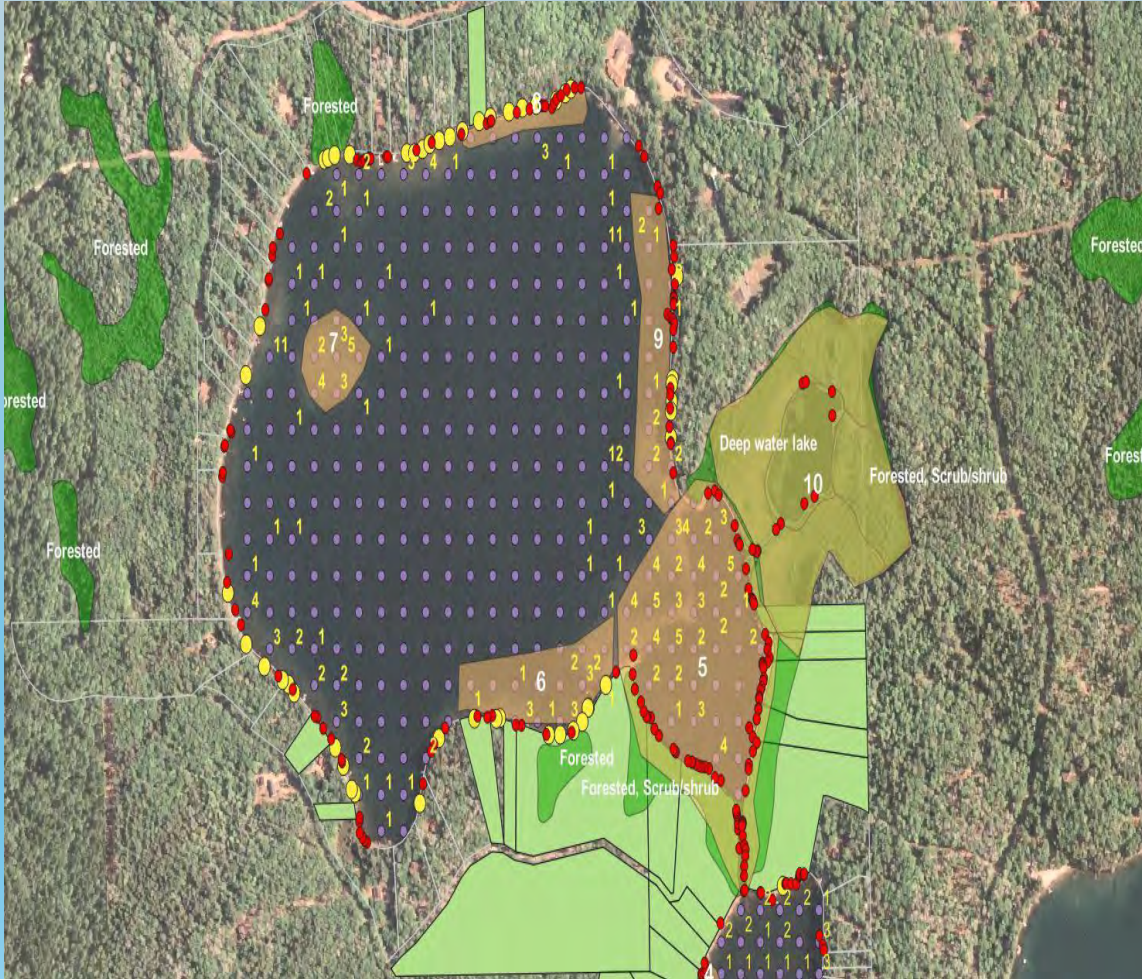


LAKE FOREST GOLF/RECREATION



Our Guide to a Preserved Future!!!

NOVA Study





Shoreland Assessments and Critical Habitat Mapping of Alma and Moon Lakes,
NOVA Ecological Services almamoonlake.org

NOVA ECOLOGICAL SERVICES

Michael Meyer Wildlife Research Scientist/WDNR 25years

novaecologicalservices@outlook.com

Jim Kreitlow Lake Biologist/WDNR 30+ years

j.kreitlow@icloud.com

Their goal is to provide lake property owners with the tools and recommendations to best manage their lakeshores to protect lake quality.

The goal of this project is to **inform** the Alma-Moon Lake District and lake neighbors of the important ecological features of the Alma and Moon Lakes (e.g., Critical Habitat Sites, shoreline buffer zones, etc.)

- **Inform** the Alma-Moon Lake P&R District and lake neighbors of the **existing critical habitat features and shoreland conditions** on Alma and Moon Lakes.
- **Educate** property owners on **best management practices** to improve the water quality, fisheries, wildlife, wetlands, and natural scenic beauty of the lakes.
- **Promote** projects that demonstrate best management practices which **improve shoreland and aquatic habitat**.
- **Identify** shoreland areas which would lend themselves to neighbor-to-neighbor shoreland restoration discussions – with a goal of focusing property owners on the Healthy Lakes Program of Wisconsin for a discussion of management practices and potential project funding. **Let's make Healthy Lakes together! - Wisconsin's Healthy Lakes Program (healthylakeswi.com)**

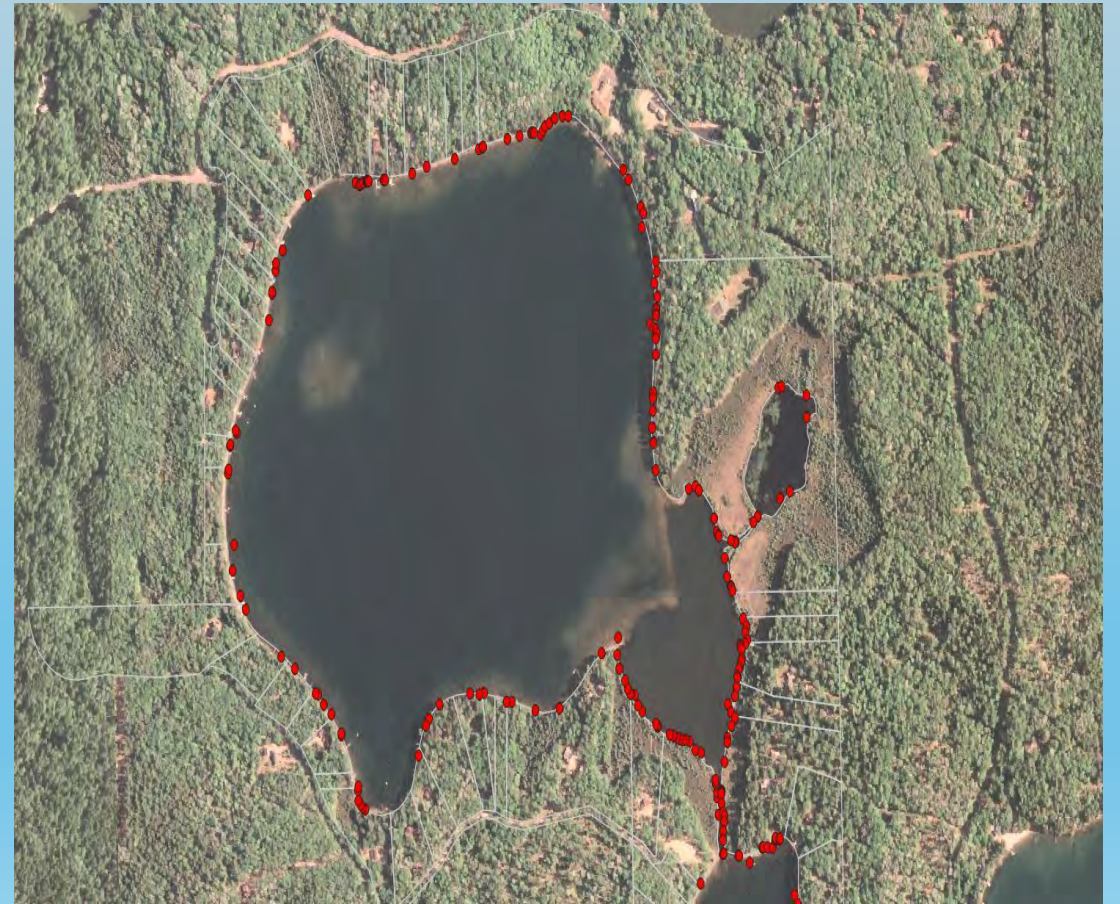
SHORELAND & CRITICAL HABITAT ASSESSMENT

RESULTS: 15 ACTION ITEMS

GRAVEL DEPOSITS



WOODY DEBRIS



Protect Critical Habitat

- **Attributes of Water Quality**

Nutrient buffer zone

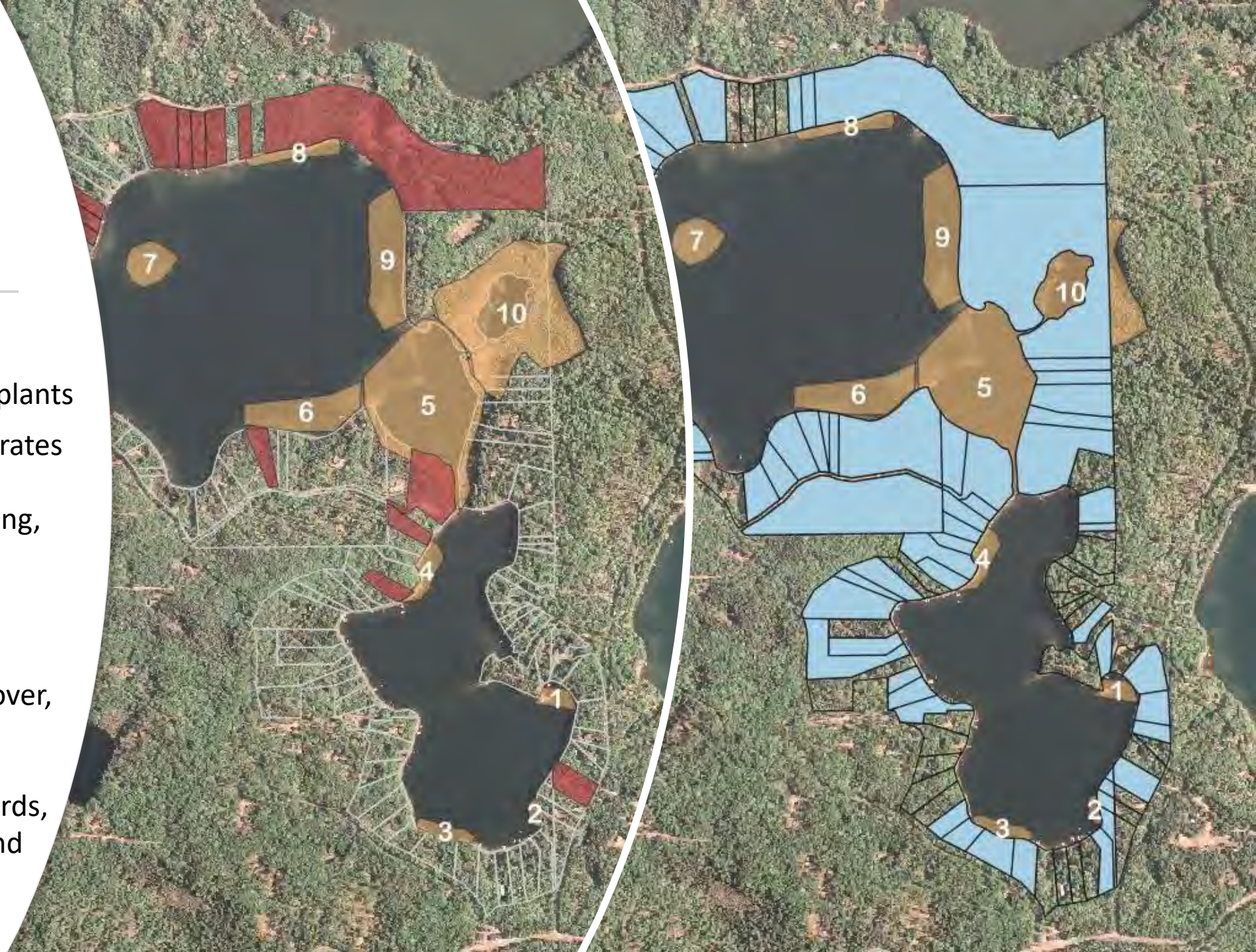
Physical buffer zone

~~Sediment stabilization zone.~~

- **Fish Habitat:** Coarse wood, plants

Excellent habitat for invertebrates and the functional needs (spawning, nursery area, feeding, shade and protective cover)

- **Wildlife Habitat:** Provides functional needs (shelter/cover, nesting area, feeding) for a variety of wildlife. Upland wildlife, waterfowl, shore birds, marsh birds, amphibians, and reptiles



PROTECTING CRITICAL HABITAT

SE Bay Moon Lake



PROTECTING CRITICAL HABITAT: ENGLE





PERMANENT SHORELINE PRESERVATION: 3000' & Engle

PROTECT ENGLE ECOSYSTEM!!

26 ACRES OF VERY HOLY GROUND



North Shoreline Hillside Erosion/Plantings





Littoral Zone Development/Fishery




**Healthy Lakes & Rivers**

FACT SHEET SERIES:
FISH STICKS

Bogert Lake, Highland County, Pennsylvania


**MAINTENANCE**

**COSTS**

- Range: \$50 – \$1300 per cluster of 3-5 trees, installed (average = \$890)
- Healthy Lakes & Rivers grant funding available: \$1000 per Fish Sticks Cluster

**MATERIALS**

- Whole, live trees from outside shoreland vegetation protection area
- Cables/cabling gear
- Heavy equipment including snowplow and chainsaw
- Safety gear

**REQUIRED**

PURPOSE
This fish and wildlife habitat best practice creates food, shelter, and breeding areas for all sorts of creatures from small aquatic insects, to fish, to turtles, ducks, and songbirds. Fish Sticks can also help prevent bank erosion – protecting lakeshore properties and your lake.

HOW TO BUILD
It may be necessary to work with your local DNR fisheries biologist, county land and water conservation department, or landscaper to design and/or construct this practice. Logging companies may assist with tree supply, cutting, and transportation. Check with your local zoning department to determine if any permits are necessary.

Detailed guidance is found here: <http://dnr.wi.gov/topic/fishing/outreach/fishsticks.html>.

1. Find a location
Ideal Fish Sticks sites have low ice energy – places like protected bays and shorelines leading to and from bays. High ice energy areas on lakes greater than 250 acres require alternate methods that ensure they remain in place.

Typically a single Fish Sticks cluster occupies 50 linear feet of shoreline, so it should be placed on an area of your lakeshore that is not used for pier(s) or swimming. If you have a lot of frontage, you may choose to add more than a single Fish Sticks cluster.

PROJECT TIMELINE		
SITE PREP 2 MONTHS winter ice road	INSTALLATION < 1 DAY	MAINTENANCE Spring safety check
		PROJECT END 3 YEARS cable removal



ENJOY THE VIEWS!!!



OUR LOCAL PROFESSIONALS EMPOWERING the FUTURE of OUR WATER ECOSYSTEM

VILAS COUNTY LAND & WATER: [BUFFER ZONE/SHORELINE]

Quita Sheenan **Conservation Specialist**

Cathy Higley **Lake Conservation Specialist**

Vilas County Zoning: [SHORELAND ZONING]

David Sadenwasser **Vilas County Zoning Administrator**

Tammy Warwick **Vilas County Zoning [St. Germain]**

Local/Regional Professionals

WDNR [Littoral Zone: Fishery Stocking/Fish Sticks/Fish Cribs]

Eric Wegleitner: Fish Biologist

Eric.wegleitner@wisconsin.gov

WDNR [Critical Habitat/Shoreline Designation]

Kevin Gauthier: Water Resource Management

Kevin.gauthiersr@wisconsin.gov

Local/Regional Professionals

WDNR **Water Safety/No Wake Zone**

Robin Miller Recreation Warden

Robin.Miller@wisconsin.gov

WDNR

Christopher J. Bartlet: **Warden Supervisor**

Christopher.Batelt@wisconsin.gov

Onterra Lake Management Plan **[Invasive Species]**

info@onterra-eco.com

Local Professionals

NORTHWOODS LAND TRUST

Kari Kirschbaum: **Land Protection Specialist**

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