

THE STORY OF GRANITE LAKE

Barron County

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Today's Presentation

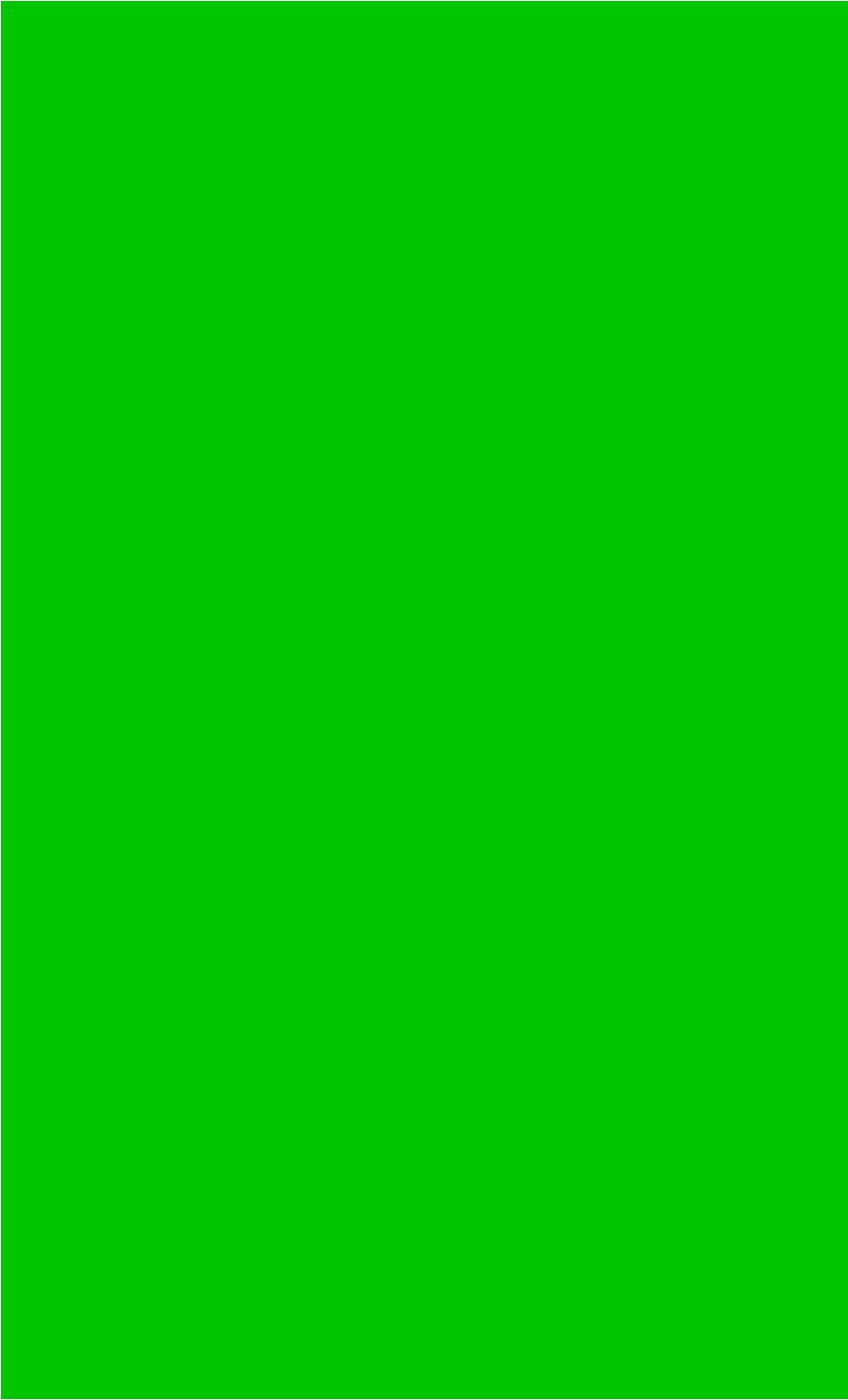
- Public trust doctrine
- The birth of Granite Lake
- Granite Lake's characteristics
- Threats and opportunities
- The future



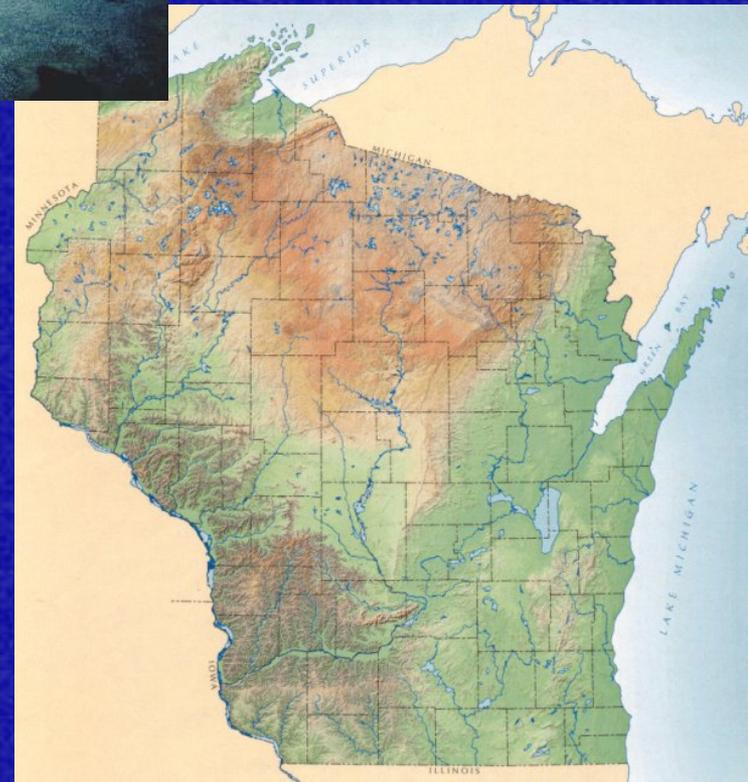
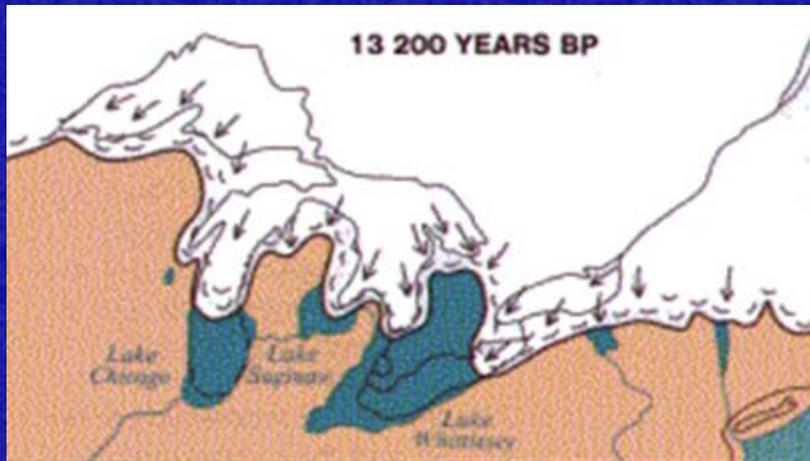
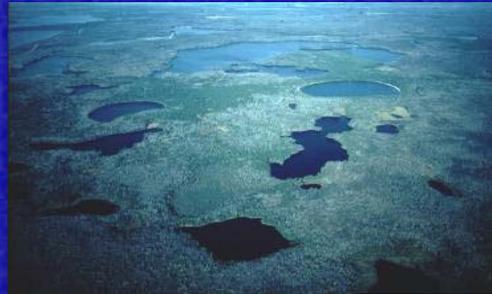
Wisconsin lakes and streams are held in trust for all citizens as “common highways and forever free.”

*Article IX, Section 1,
Wisconsin Constitution*

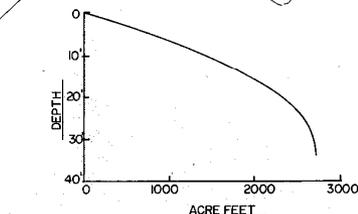
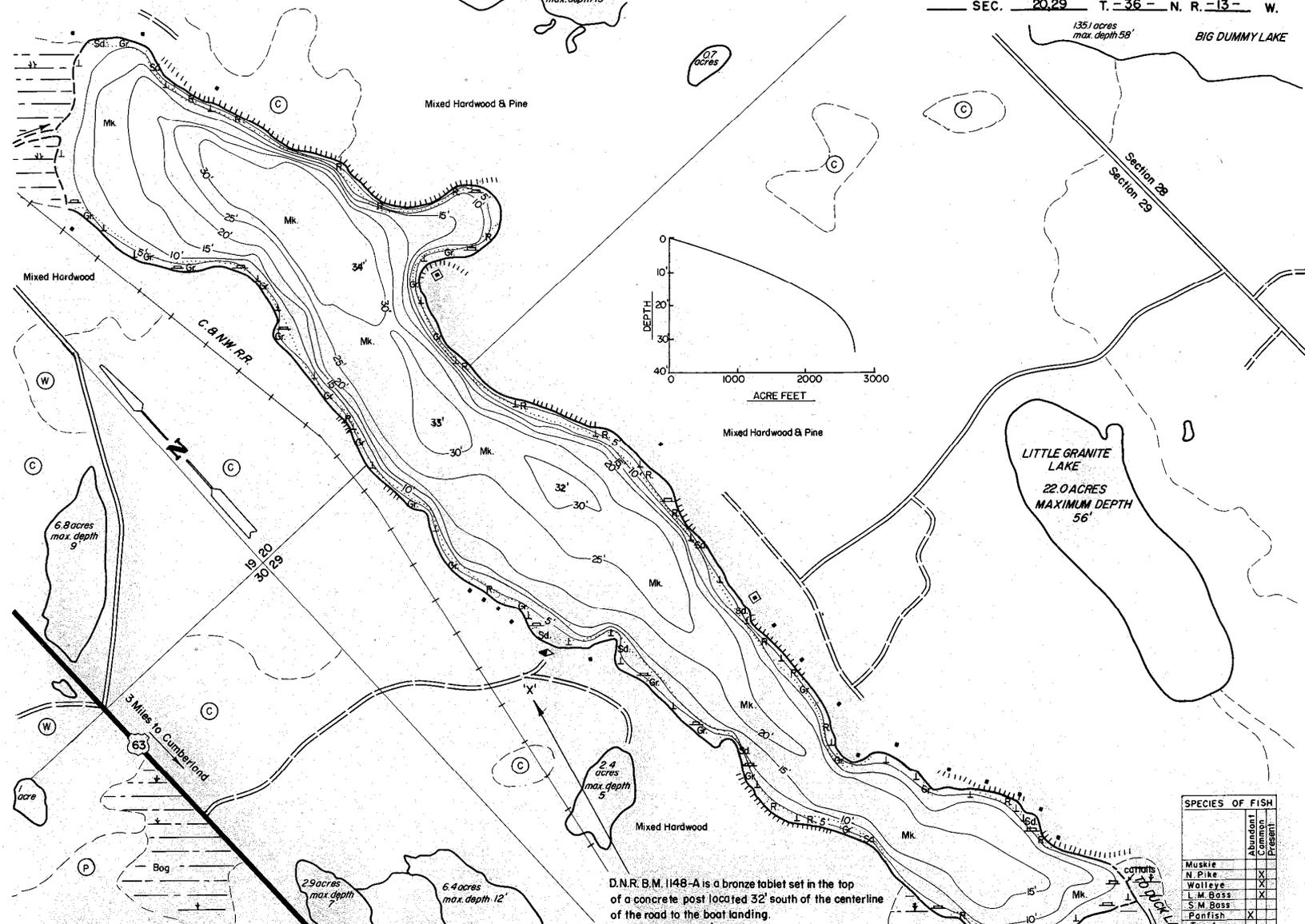




Retreating glaciers created Granite Lake about 10,000 years ago



LAKE SURVEY MAP



SPECIES OF FISH		
	Abundant	Common
	Present	Present
Muskie		
N Pike	X	
Walleye	X	
L.M. Bass	X	
S.M. Bass		
Panfish	X	
Trout		

D.N.R. B.M. 1148-A is a bronze tablet set in the top of a concrete post located 32' south of the centerline of the road to the boat landing.
Elevation 1,263.78'
Water elevation 1,233.49'

EQUIPMENT RECORDING SONAR MAPPED JUNE 1967
MO. YR.

- TOPOGRAPHIC SYMBOLS
- (B) Brush
 - (PW) Partly wooded
 - (W) Wooded
 - (C) Cleared
 - (P) Pastured
 - (A) Agricultural
 - B.M. Bench Mark
 - Dwelling
 - Resort

- WATER ELEV. 1,233.49'
- LAKE BOTTOM SYMBOLS
- P. Peat
 - Mk. Muck
 - C. Clay
 - M. Marl
 - Sd. Sand
 - St. Silt
 - Gr. Gravel
 - R. Rubble
 - Br. Bedrock
 - T. Submergent vegetation
 - L. Emergent vegetation
 - Floating vegetation



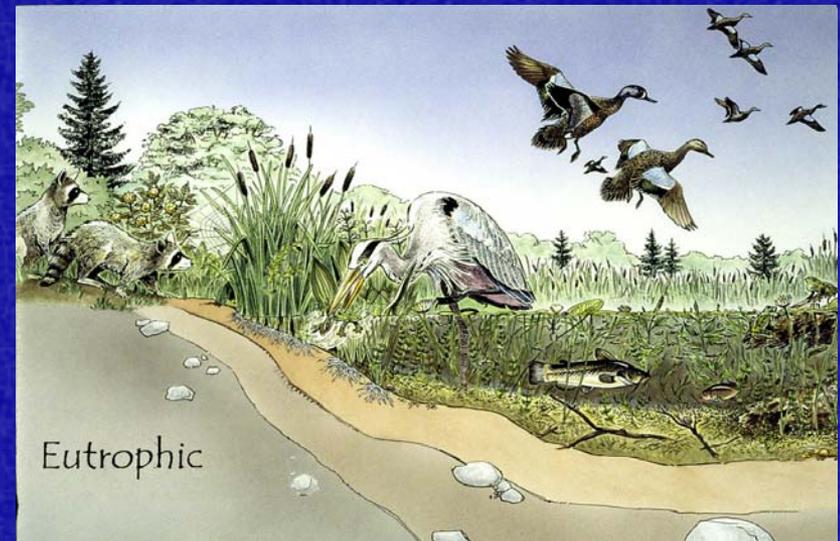
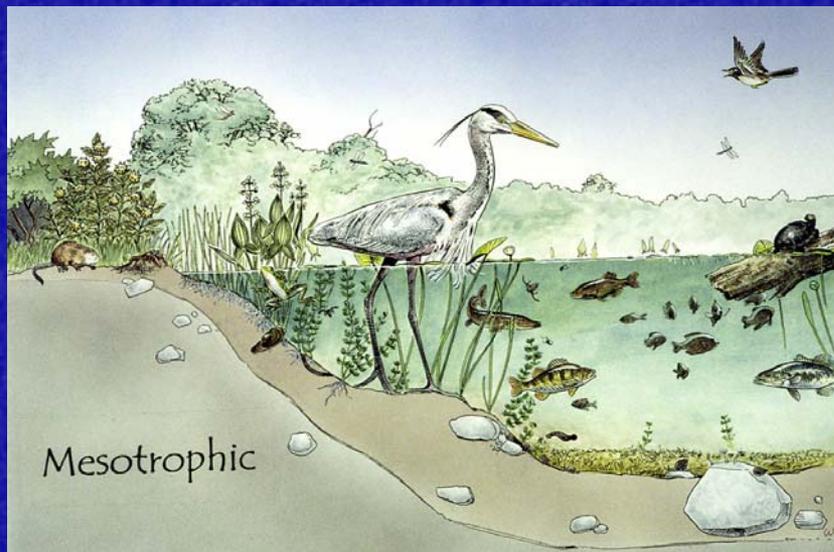
◇ Access ◀ Access with Parking ◆ Boat Livery
Field work by: C. Busch, G. Winter, L. Sather Drawn by: J. Roth

AREA 153.69 ACRES
UNDER 3 FT. 66 %
OVER 20 FT. 41 %
VOLUME 2,722.91 ACRE FT.
TOTAL ALK. 25 P.P.M.
SHORELINE 3.4 MILES
MAX. DEPTH 34 FEET

Trophic States Of Lakes



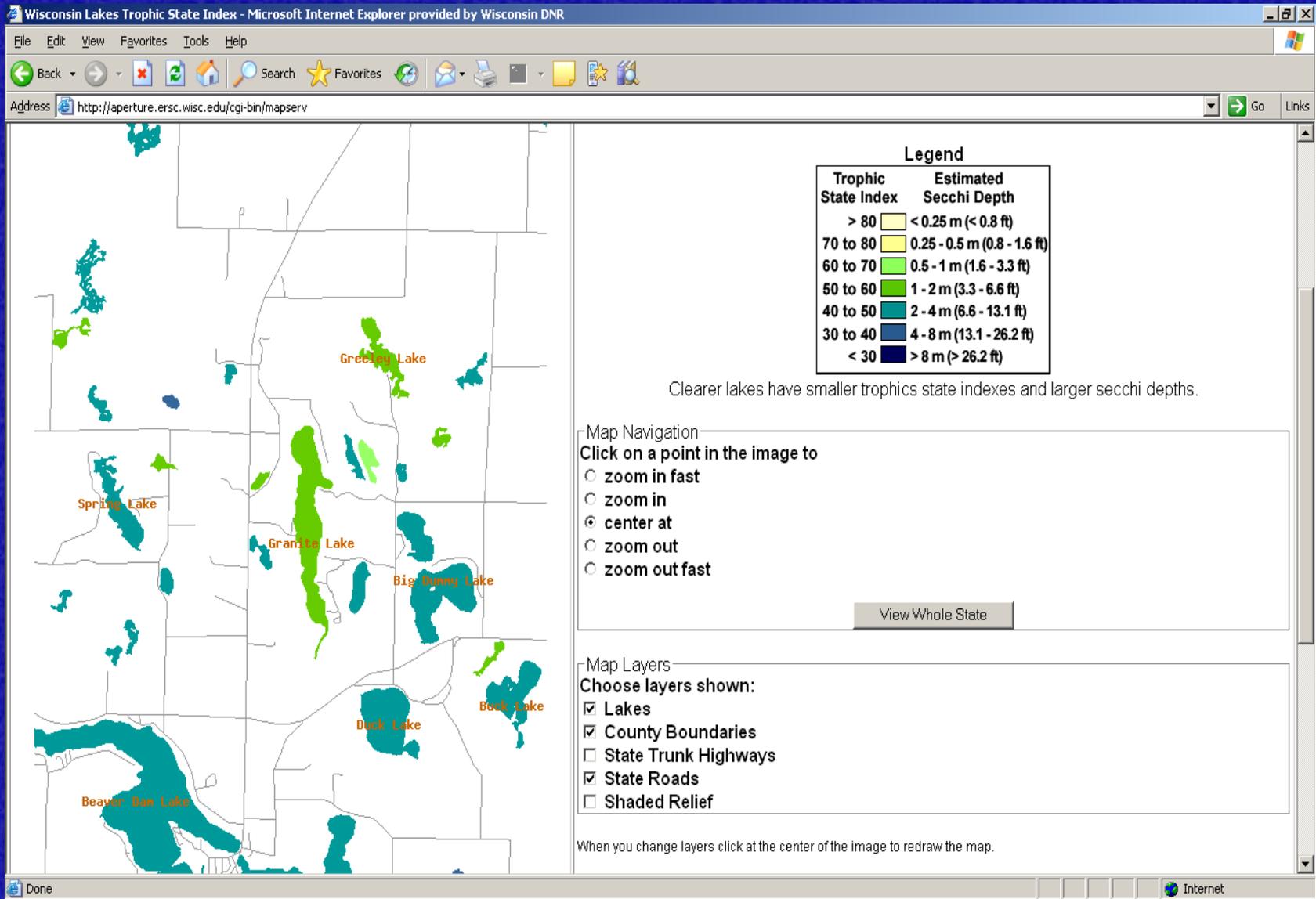
Cultural eutrophication speeds up natural aging process of lakes



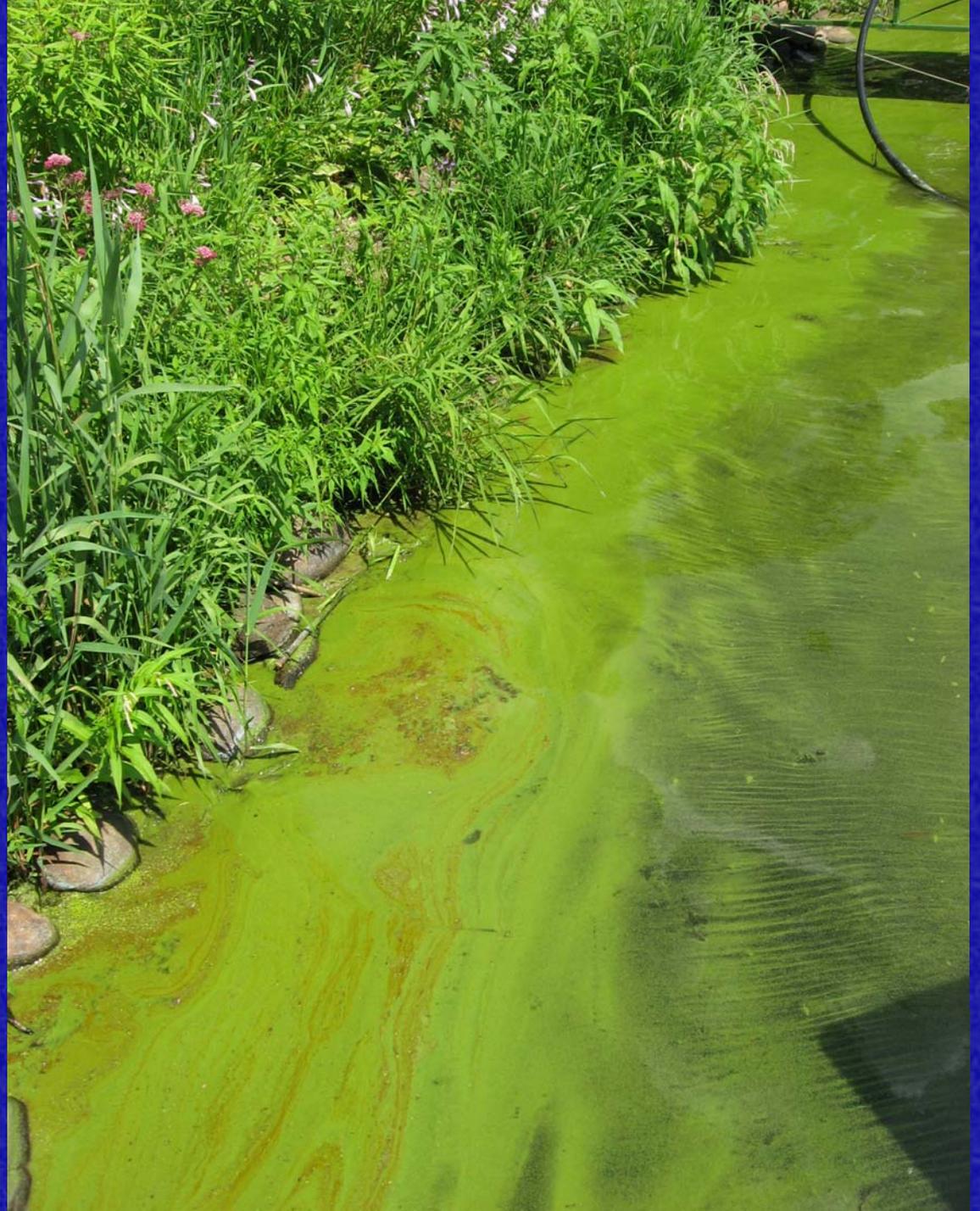
Paleo core – Paul Garrison

- Compares current conditions to pre-settlement conditions
- Lake was clearer with less nutrient and fewer plants before settlement
- But it was probably still relatively nutrient-rich

Water may be more clear (3.7 ft) now than it was in the 1960s (2.1 ft), but surrounding lakes are clearer.

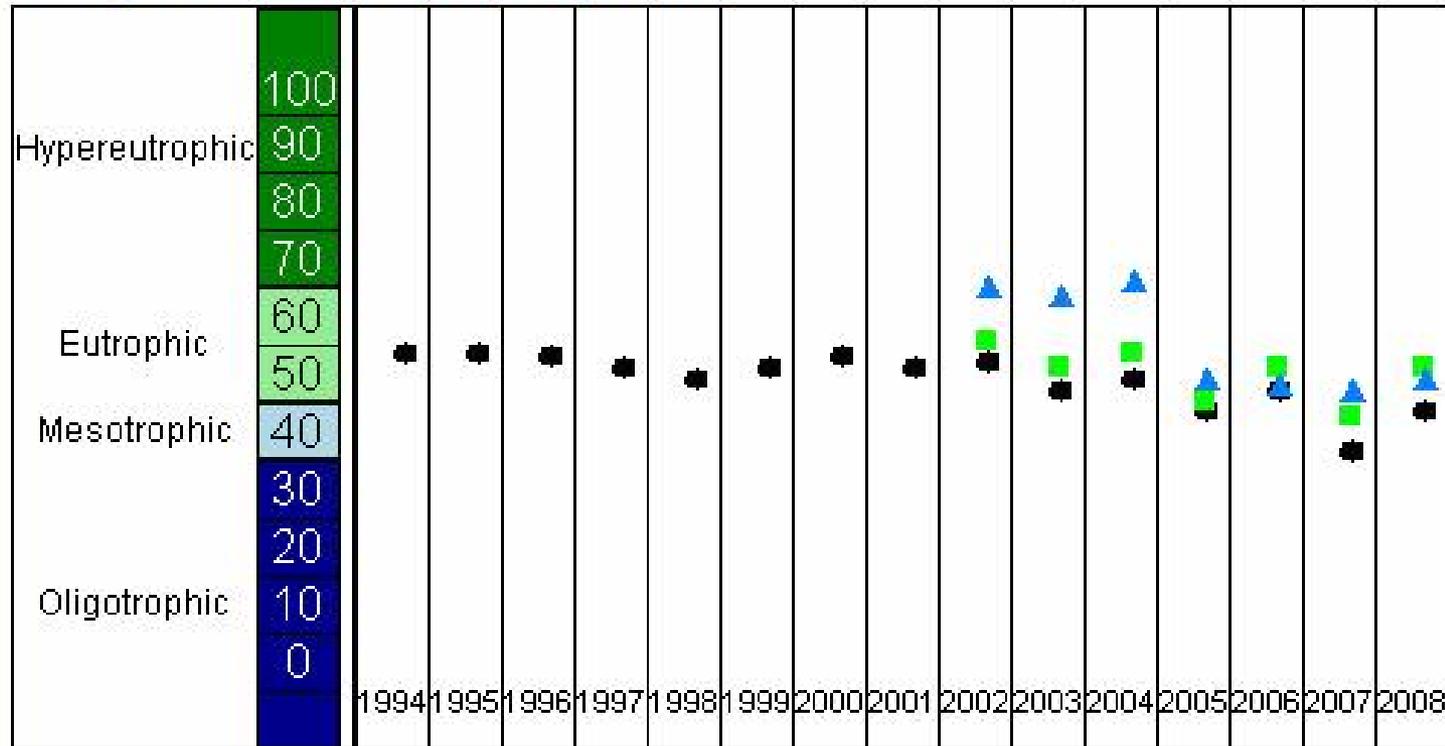


Blue-green algae bloom
along Granite Lake
shoreline in fall 2007



Productivity appears to be decreasing.

Trophic State Index Graph



Monitoring Station: Granite Lake at Deep Hole, Barron County

Past Summer (July-August) Trophic State Index (TSI) averages.

2008 inlet and outlet monitoring

- More phosphorous coming into than leaving the lake
- Nitrogen similar coming in and going out, except ammonium which was higher leaving



- Less suspended solids coming into than leaving the lake

Aquatic plant community will be surveyed in 2009.

- Confirm there are no Aquatic Invasive Species
- Create baseline to measure future plant community changes
- Identify rare species and index of plant community diversity



Fishery is good.

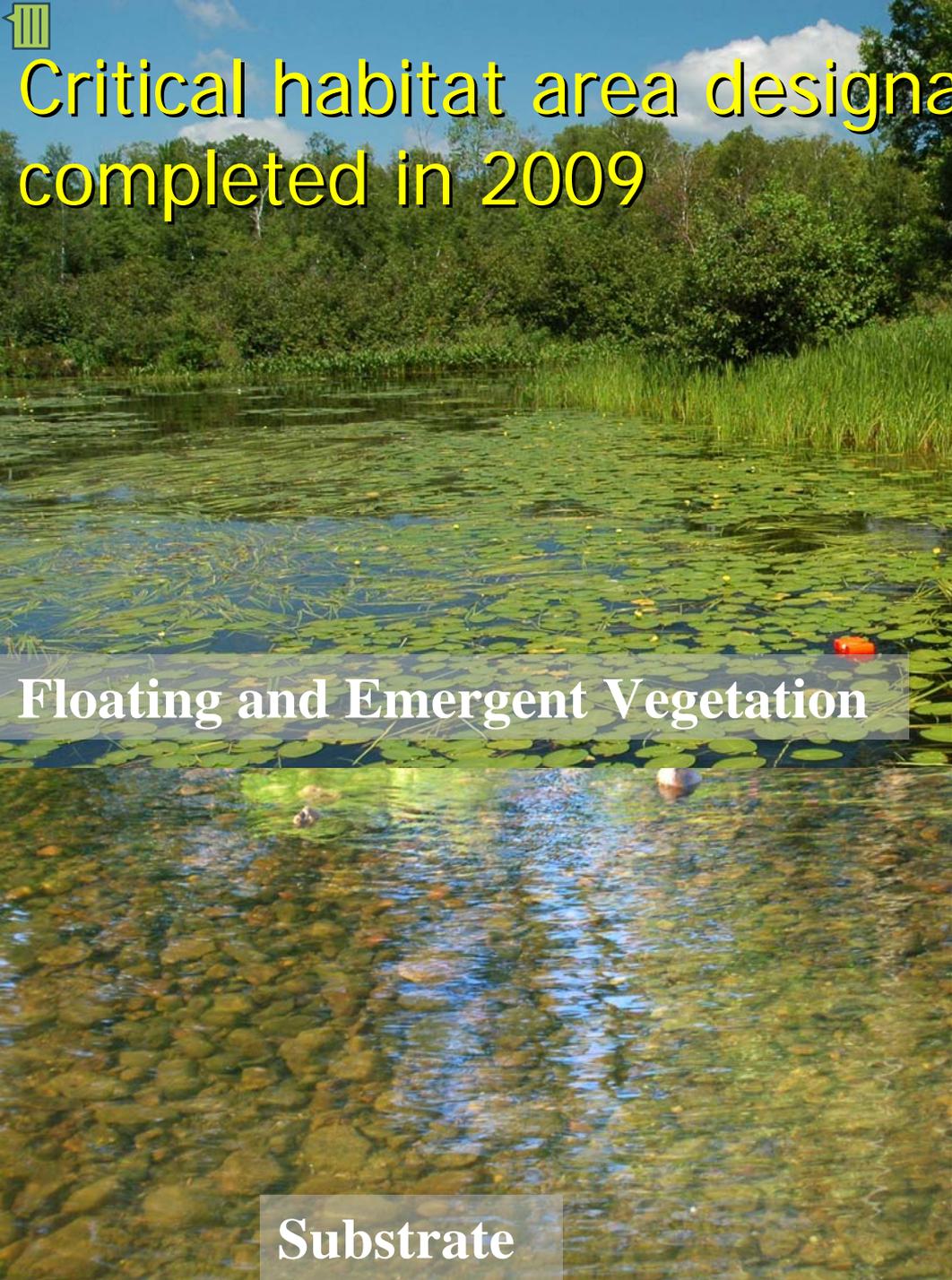
Walleye increasing and largemouth bass decreasing.



Let fallen trees stay in the water for it to get even better!



Critical habitat area designation/report to be completed in 2009

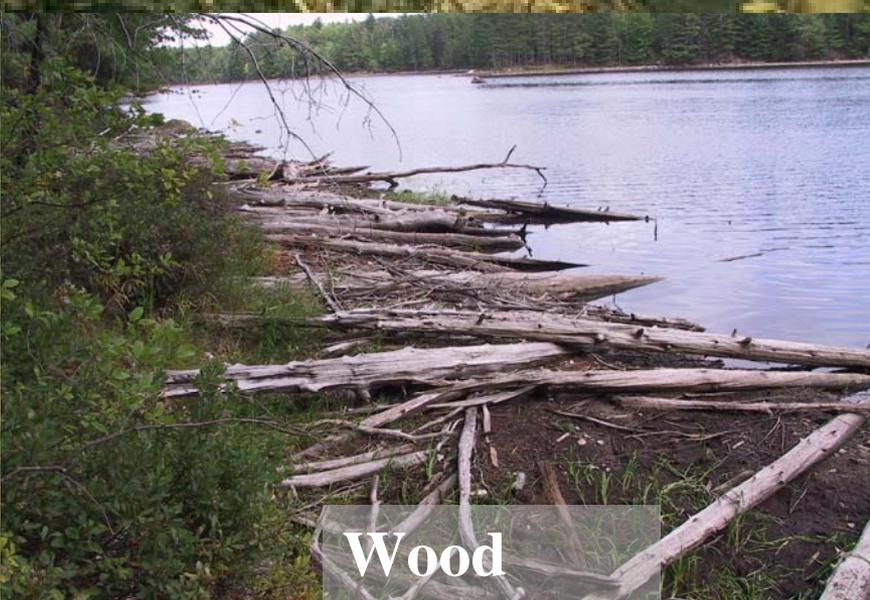


Floating and Emergent Vegetation

Substrate



Submersed Vegetation



Wood

Land use has changed.

- 1960s: 1 resort and 15 cottages
- 2000s: ??? more and bigger homes
- Agriculture decreasing in general



Granite Lake Management

Opportunities

- Active lake group
- Generally good condition
- Wild shorelines
- Good fish habitat



Threats

- Impervious surfaces
- Suburban lawns
- Fertilizer use
- (Toxic?) blue-green algae blooms
- Tree removal
- AIS sources



COUNTY
LAKE
LANDING
CAMPING

S T O P

EURASION MILFOIL

We Don't Have it!

We Don't Want it!

ALL AQUATIC VEGETATION MUST BE
REMOVED FROM ALL WATERCRAFT AND
TRAILERS BEFORE ENTERING LAKE!

Livewells Must Be Emptied and
Cleaned Back On Hilltop. Please
Use Garbage Cans.

THANK YOU
GRANITE LAKE ASSOCIATION



DIVERT & INFILTRATE



Granite Lake's future depends on you!

- Continue active lake association
- Carry on volunteer monitoring
- Protect wild shorelines
- Restore suburban shorelines
- Implement rainwater gardens and other lake protection tools
- Let trees be trees
- Keep working with agency partners to determine source(s) of upstream nutrients

We still do not know one thousandth of one percent of what nature has revealed to us.

Albert Einstein



Do what you can, with what you have, where you are.

Theodore Roosevelt