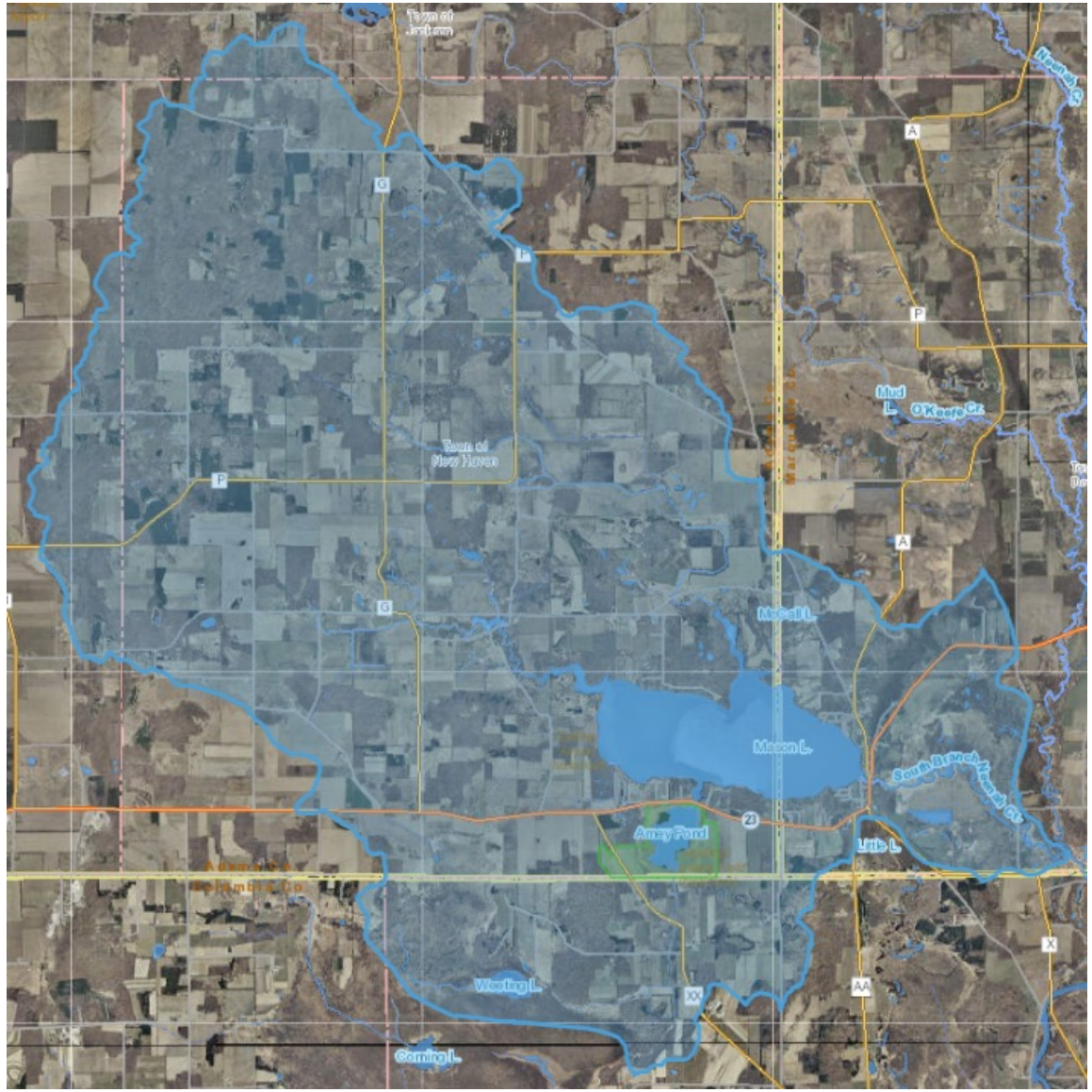
Lake Mason & South Branch Creek Watershed

Colton Hutchinson
Scott Provost
Jen Bergman

South Branch Creek Watershed

- Point Intercept Survey (2021)
- Long Term Trend Monitoring
- Citizen Lake Monitoring Network
- Stream Sampling by Volunteers
- Resources

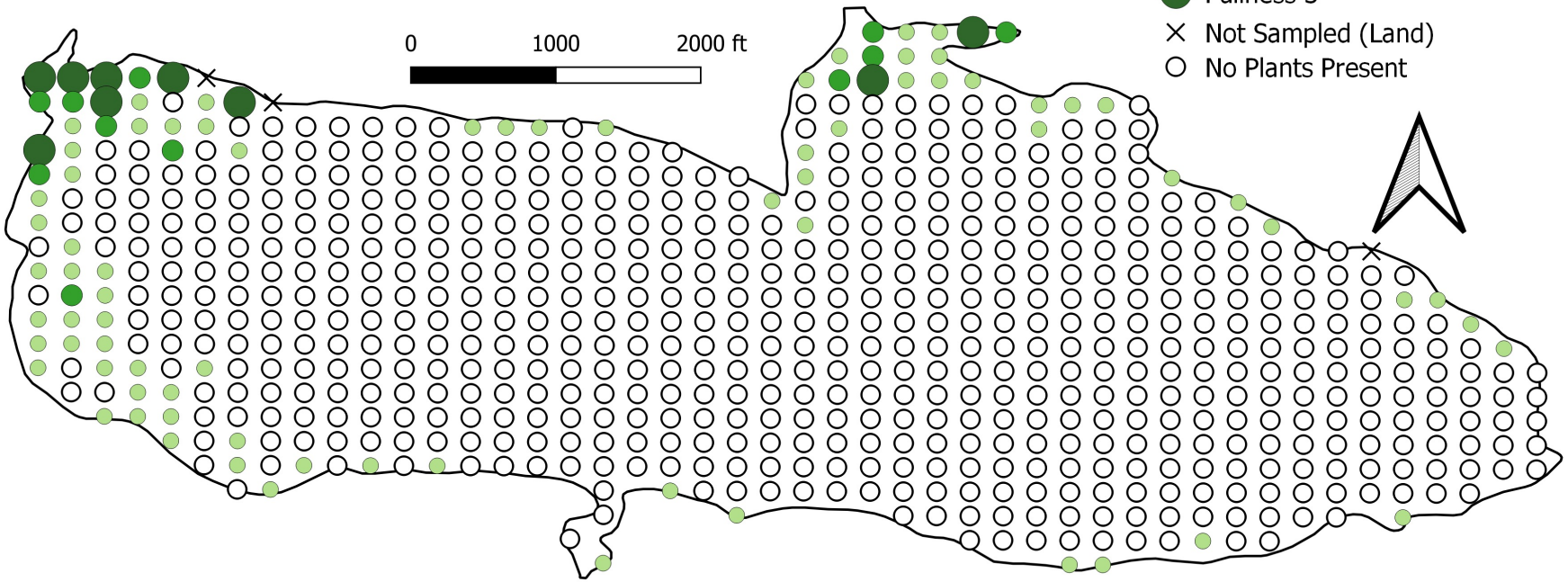


Fisheries

- Rough Fish Removal
  - 3-year Landspread Permit Exemption Granted by DNR to Fisheries Program
    - Thanks to the farmers willing to take carp and shad!
      (Jason Musiedlak, Ken Huber, and Jason Linder)
  - 5,000lbs of carp and 800lbs of gizzard shad were removed; land spread
  - Carp and shad removal was low
    - Holiday market for carp fell early this year, Mason Lake still had ice.
    - Asian carp flooded the market, Brooks could not find a buyer.
    - Weird spring weather; few days of warm weather and then back to snow and cold; carp moved back to the stumps. Limited carp and shad removed, Brooks is eating that cost for his time, travel, etc.
    - **Plans to be out in Late October – Early November**
  - Fish survey planned for 2024; Rotation Schedule (all lakes are on rotations; Mason Lake has had "add-on" fish surveys over the recent years)
  - **Common Carp Management and the Lost Island Lake Restoration Presentation**
    https://www.youtube.com/watch?v=S4ebQmWb9Rc&t=2677s

Aquatic Plant Point-Intercept Survey

Mason Lake, Adams County
7/19/21 - 7/22/21



Fullness Rating	Coverage	Description
1		Only few plants. There are not enough plants to entirely cover the length of the rake head in a single layer.
2		There are enough plants to cover the length of the rake head in a single layer, but not enough to fully cover the tines.
3		The rake is completely covered and tines are not visible.

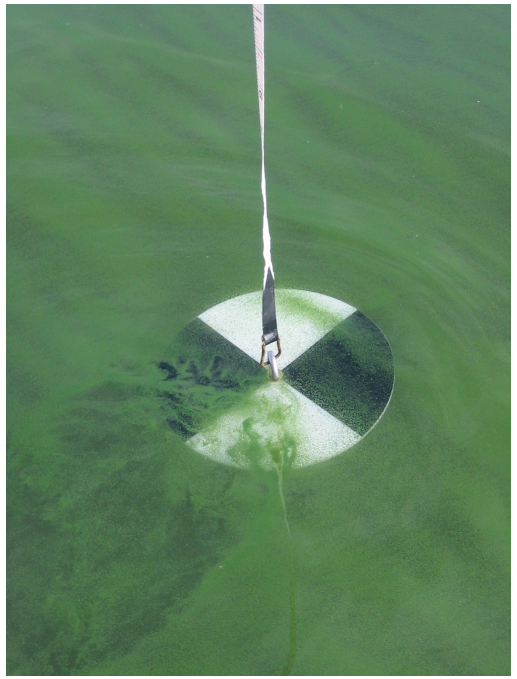
Plant Community

Common Name	Scientific Name	Frequency of Occurrence in Vegetated Areas (%)	Relative Frequency	# of Sites Found	Avg. Rake Fullness	# Visual Sightings
Coontail	*Ceratophyllum demersum*	67.74	39.6	63	1.37	6
Eurasian Watermilfoil	Myriophyllum spicatum	22.58	13.2	21	1.10	2
Sago Pondweed	*Stuckenia pectinata*	22.58	13.2	21	1.19	4
Common Waterweed	*Elodea canadensis*	19.35	11.3	18	1.00	0
Small Duckweed	*Lemna minor*	11.83	6.9	11	1.27	10
Slender Naiad	*Najas flexilis*	7.53	4.4	7	1.00	0
White Water Lily	*Nymphaea odorata*	5.38	3.1	5	1.80	6
Long-Leaf Pondweed	*Potamogeton nodosus*	4.30	2.5	4	2.75	3
Small Pondweed	*Potamogeton pusillus*	4.30	2.5	4	1.00	0
Curly-Leaf Pondweed	Potamogeton crispus	3.23	1.9	3	1.00	0
Muskgrasses	Chara spp.	1.08	0.6	1	1.00	0
Large Duckweed	*Spirodela polyrhiza*	1.08	0.6	1	1.00	1

Total number of sites visited	697
Total number of sites with vegetation	93
Total number of sites shallower than maximum depth of plants	323
Frequency of occurrence at sites shallower than maximum depth of plants	28.79
Floristic Quality Index	16.13
Maximum depth of plants (ft)	6.00
Species Richness	12
Species Richness (including visuals)	12

Long Term Trend vs CLMN Lake Monitoring

- LTT
  - Collected by DNR Staff
  - Spring, July, August, September
  - Temp Profile, Dissolved Oxygen, Secchi Depth, Chlorophyll a, Total Suspended Solids, Total Phosphorous
- CLMN
  - Collected by Citizen Volunteers
  - Spring, June, July, August
  - Chlorophyll a, Total Phosphorous, Secchi Depth



Trophic Classification on Lakes

OLIGOTROPHIC

- Clear water, low productivity
- Very desirable fishery of large game fish

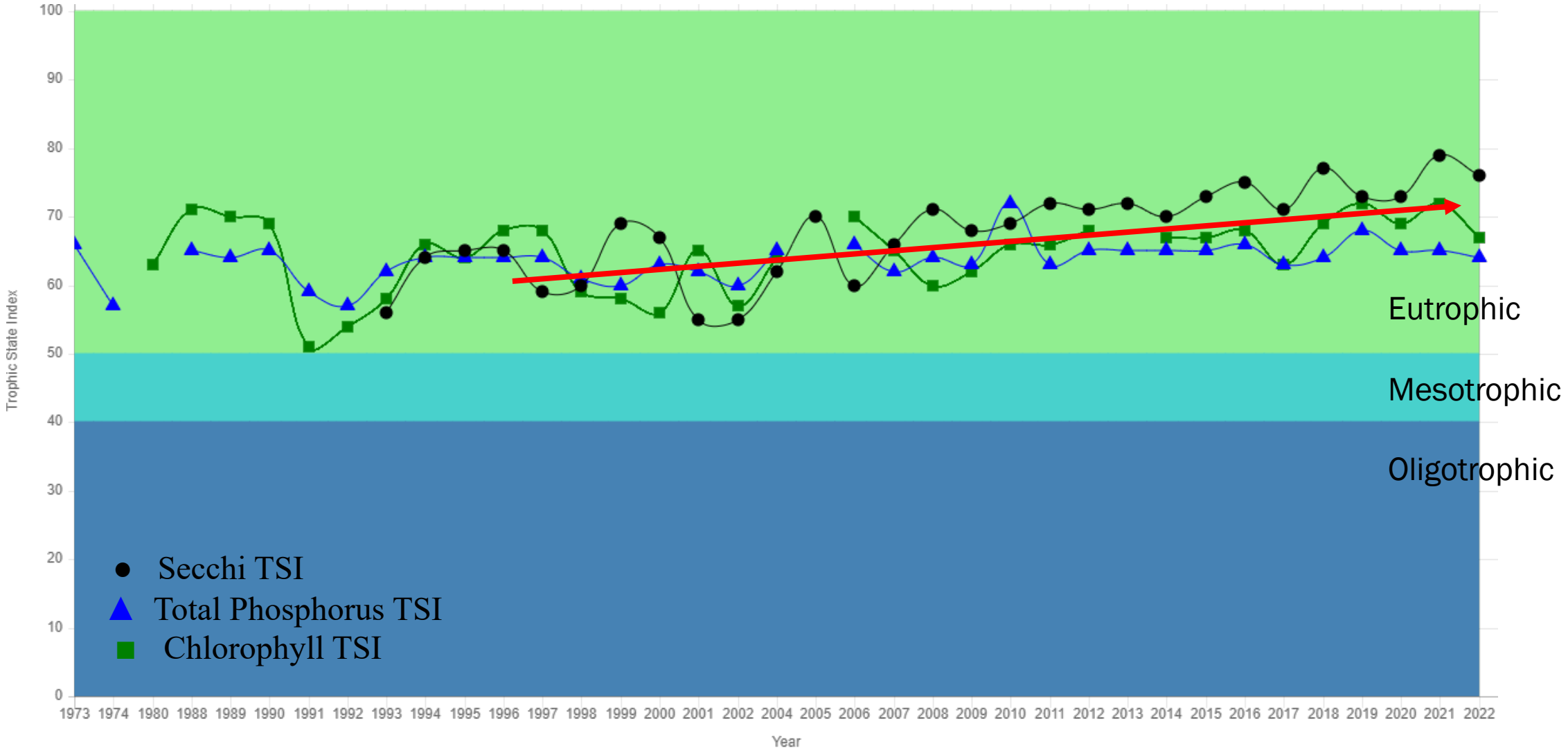
MESOTROPHIC

- Increased production
- Accumulated organic matter
- Occasional algal bloom
- Good fishery

EUTROPHIC

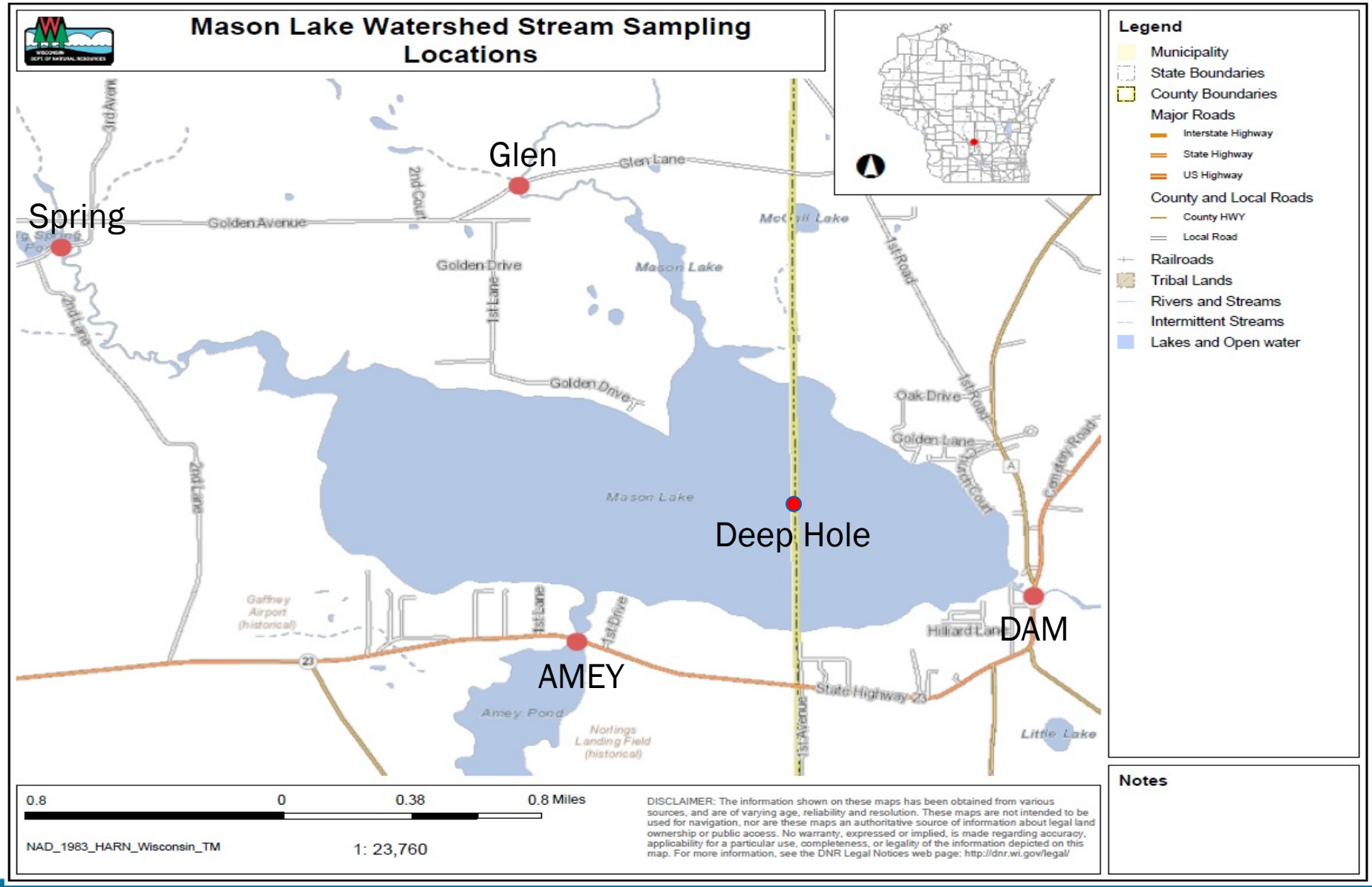
- Very productive
- May experience oxygen depletion
- Rough fish common

Trophic Status Index



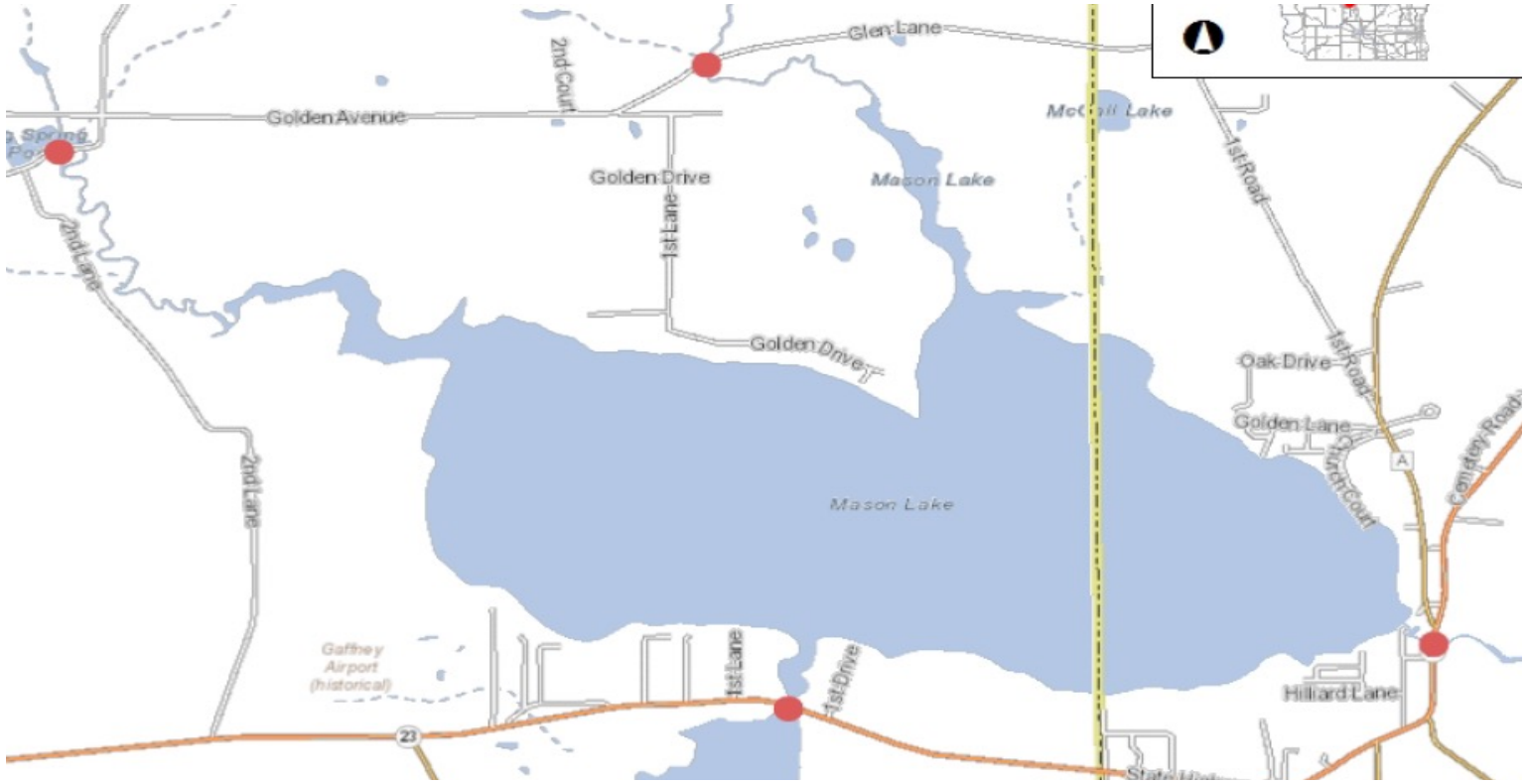
Stream Sampling

- Sampling Time
  - April – April 2024
  - Monthly
- Parameters:
  - Temperature
  - DO (mg/L)
  - % Saturation
  - Streamflow
  - Suspended Solids
  - Total Nitrogen
  - Total Phosphorous



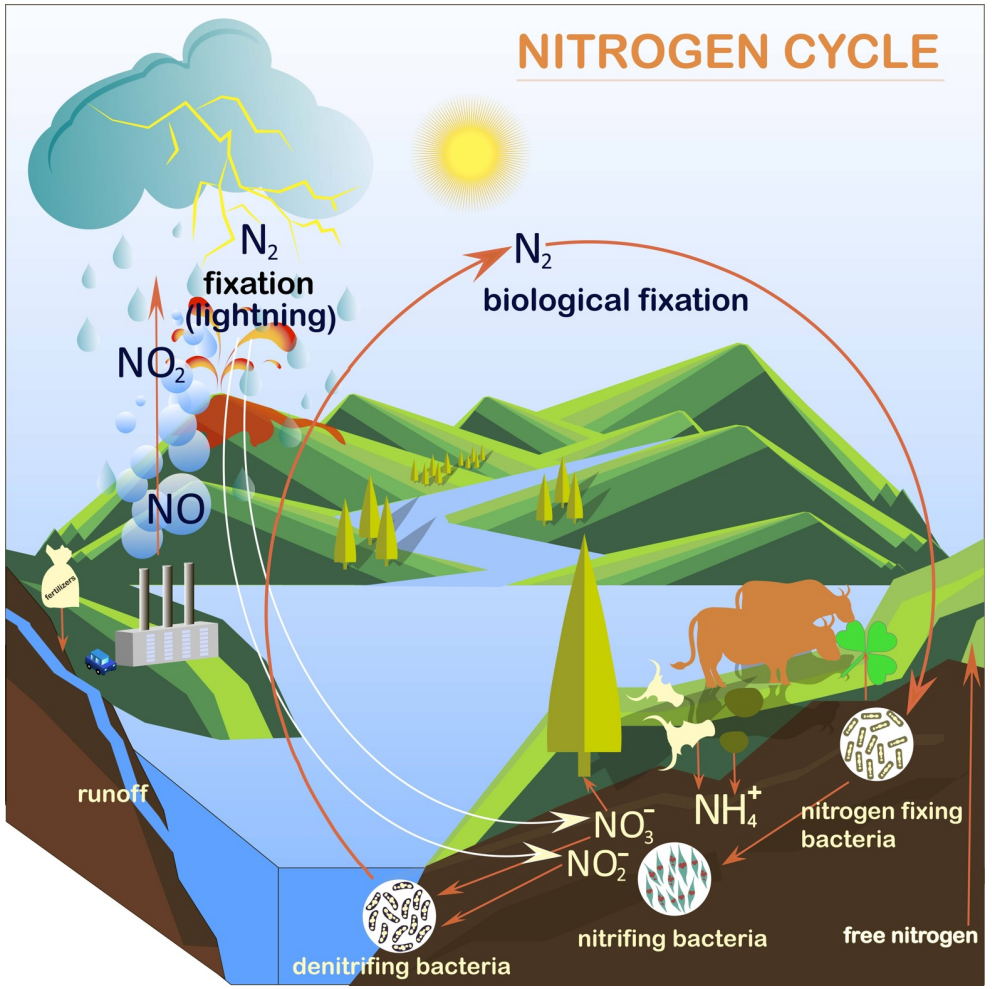
Stream Parameters

Location	Temp Range	Avg Temp	% Saturation	DO mg-L	TSS
Spring	12.7 - 18.2	16.18	115.26	11.12	7.77
Glen	10.2 - 21.0	16.48	104.68	10.21	15.10
Amey	16.0 - 26.2	21.70	111.49	9.97	12.79
Dam	13.3 - 25.9	21.55	103.78	9.60	30.77



Total Nitrogen Background

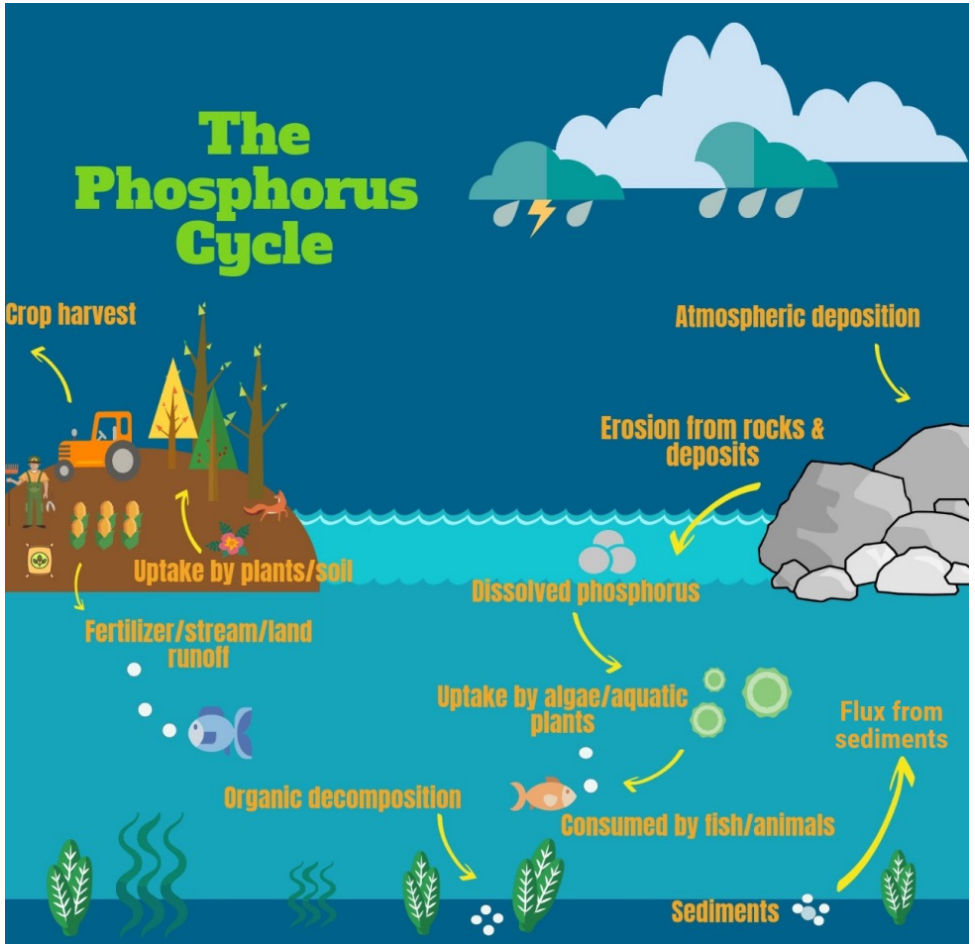
- No Standards in WI
- EPA Thresholds: 2 – 6 mg/L of Total Nitrogen for Streams
  - 0.30 mg/L of Inorganic N can sustain Algae Blooms
- Sources:
  - Fertilizer
  - Animal Manure
  - Septic Systems



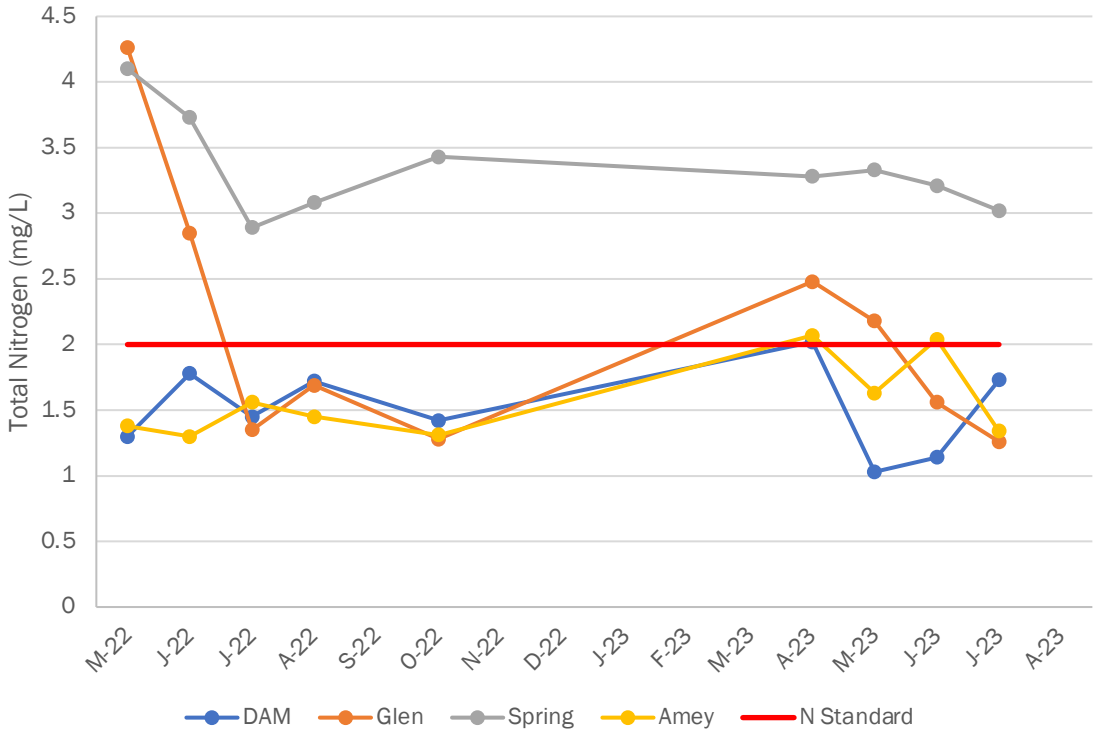
Total Phosphorous Background

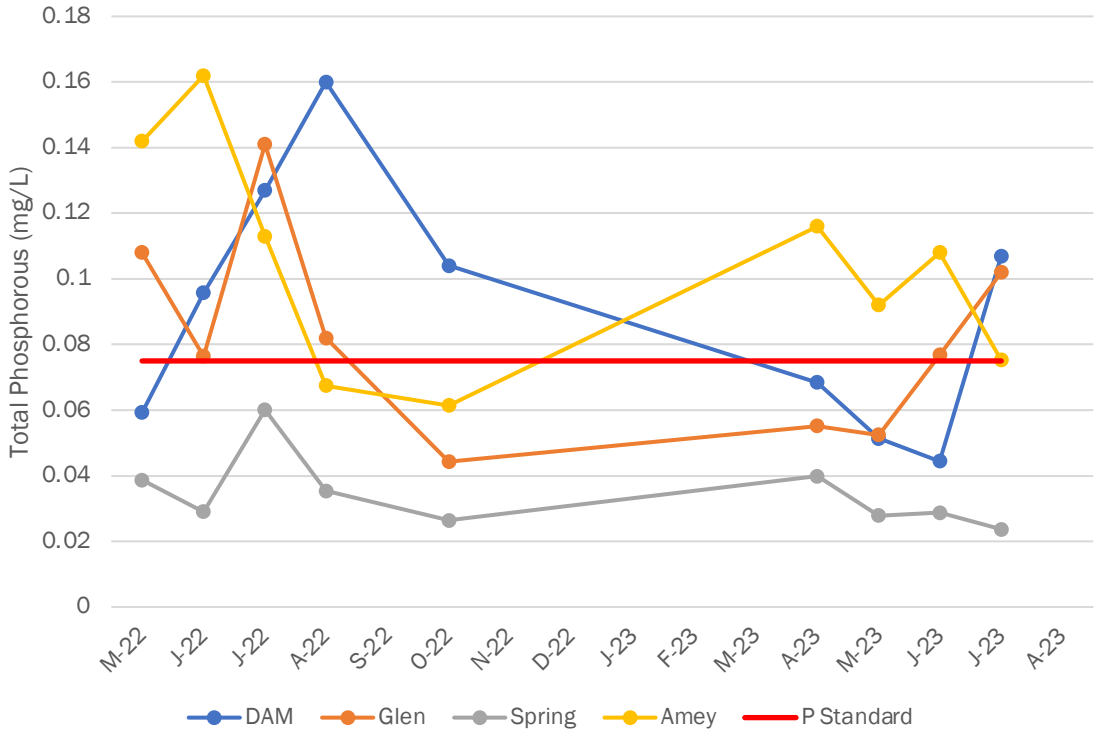
- NR 102.06
  - Streams and Rivers: 0.075 to 0.10 mg/L
  - Lakes: 0.015 to 0.040 mg/L

- Sources:
  - Erosion of Sediment
  - Fertilizer
  - Resuspension



Results So Far...





Location	Daily Load of NO2+NO3	Daily Load of Phosphorous
DAM	210.72	13.25
Glen	19.45	0.79
Spring	328.52	3.40
Amey		

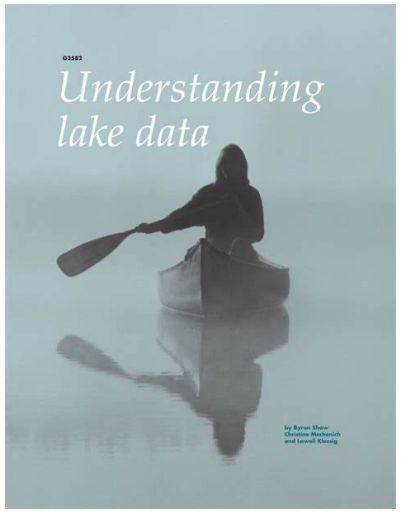
Resources:

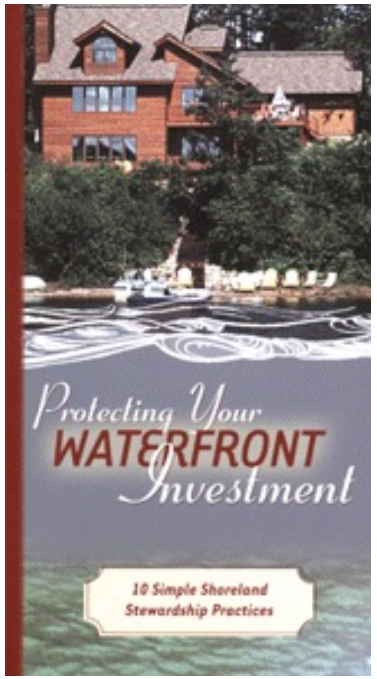
REPORT A VIOLATION

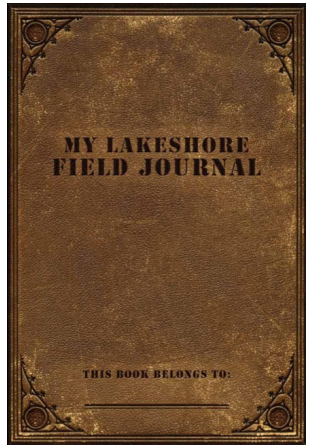
CALL OR TEXT 1-800-847-9367

SUBMIT A VIOLATION REPORT ONLINE

- https://healthylakeswi.com/
- https://apps.dnr.wi.gov/lakes/lakepages/
- https://learningstore.extension.wisc.edu/
- https://knowlesnelson.org/
- https://www.ducks.org/
- https://dnr.wisconsin.gov/contact/Hotline.html







Healthy Lakes

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PROTECTING LAND AND WATER IN WISCONSIN

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CONNECT WITH US

Colton Hutchinson
Water Resources Specialist
Colton.Hutchinson@wisconsin.gov
715-660-0446

Scott Provost
Streams & Lakes Biologist
Scott.Provost@wisconsin.gov
715-315-0329

Jen Bergman
Fisheries Biologist
Jennifer.Bergman@wisconsin.gov
715-451-9944

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