

**Tug Lake District
Annual Meeting Minutes
August 30, 2025**

Present: Todd Nicklaus, Don Olson, Mary and Reid Badeau, Todd Miller, Buzz Sorge, Bob Kupfer, Rick Geiss, Judy and Phil Hill, Barb Hartley, Dan Marzu, Jim Venski, Jack Koltes, John Redman, Jean and John Greenwood

Annual Meeting Minutes Motion – Tug Lake Chairperson

Motion made by Todd Nicklaus, seconded by Bill Wulf, to accept the August 31, 2024, Annual Meeting Minutes. Motion passed.

Treasurer Nominations and Election

Don Olson was unanimously elected to continue as Tug Lake District Treasurer. His tenure will be for three years, after which time the treasurer's position will be up for nomination again.

Jim Venske asked how many hours per month are involved. Don said once you get into the Wisconsin Department of Revenue and get our name into their website, they tell you what you need to do. If there are no changes, usually you will just need to sign off on forms. Working with the Township of Rock Falls and the Lincoln County Board is mostly a game of phone tag.

Dr. Todd Miller - Lake Water Quality Findings Update

Lake water quality findings will be determined by the amount and type of data collected at the buoy in the middle of the lake, water samples collected by the Citizen Lake Monitoring Network (CLMN), and the Snap Plus Program which addresses external nutrient loading from land on the north side of the lake.

Dr. Miller stated that buoys are used in lake research across the world and showed a map of buoys across the Great Lakes. The buoys measure water temperature, dissolved Oxygen, cyano-bacteria, weather prediction, and the viability of doing recreational activities in the lake.

Dr. Miller showed a dashboard for our buoy. The most important data are water surface and water depth temperatures which reflect the stratification of lake temperatures over time.

Starting in spring, it is expected there will be a decrease in Dissolved Oxygen at the bottom of the lake during the warm months of summer, and then towards Fall more mixing brings nutrients up from the bottom to feed algae which then creates the potential for algal blooms.

We are hoping to see how much bottom waters are responsible for blooms. The buoy updates this information every two minutes, and thus, is a huge improvement over manual testing.

In addition, the buoy is especially important for measuring wind effects on mixing. We can read total chlorophyll algae *and* Phycocyanin pigment blue-green algae. The buoy bloom sensors do not tell us how big the bloom is, but we can measure wind-driven algae. Other sensors measure air temperature and wind speed which gives us information about wind and wave action.

John Greenwood commented that when we first got concerned because blooms were thick and profuse with high toxin levels in 2016, we have seen that yearly blooms since then have appeared less intense. Dr. Miller replied that there are a lot of variables that make things different year-to-year. Toxicity is not necessarily coordinated to what appears to the naked eye.

Jim Venske asked what we can do to improve the quality of the lake more, e.g., septic tanks, no fertilizer on lawns, no agricultural run-off, etc. Dr. Miller indicated that since we have not pinpointed our input of contributing cyano-bacteria factors, we can't know if there is anything else we can do. By being at this meeting, you are already doing a lot.

Todd Nicklaus noted that we have done a lot on our lake by allowing the shoreline vegetation to grow as a filtration system and updating septic tanks. We will understand more on the agricultural front soon.

Jean Greenwood noted that other lakes have buoys out there that do measure for more variables, but that might be overkill for our small lake. It appears that our buoy is sufficient and up to its intended purpose.

Buzz Sorge complimented Dr. Miller on the buoy as an incredible piece of technology.

CITIZEN LAKE MONITORING Network (CLMN)

Shirley Gawjeski and Barb Hartley established the CLMN with the Wisconsin Department of Natural Resources to initiate Tug Lake data collection. If the Tug Lake District were to drop out of CLMN, we would be moved to the bottom of the application list.

Water samples are sent by CLMN represented lakes by lake partners, Lake Associations, and Lake Districts to the Wisconsin State Lab in Madison. Then the DNR accesses the data. The DNR also has established a satellite monitoring program to look at lake clarity. The CLMN measures with a Secchi disk which on some lakes can be as deep as 60 feet. Tug Lake is typically from 1.5 to 2.5 feet. Tug has brown water and relatively good clarity (we are tannic). The DNR compares our samples and squares it with the DNR satellite pass data.

The CLMN sampling process maintains consistent monitoring of temperatures from the surface to 21 feet at three-foot intervals at the deep hole of the lake. Four water samples are taken throughout the summer. One at ice out, and one at the end of June, July, and August. One part of the water sample is run through a filter, put in a test tube, and froze. The other part is acidified, which stabilizes the water sample, and refrigerated. The two parts are sent to the Wisconsin State Lab where it must arrive cold so it can be analyzed.

This year our lake was chosen to submit separate samples to compare our work against the quality assurance sample of the state. Madison then analyzes the sample to see what's in our lake. Priority mail used to take two days. Now it takes at least a week from Irma to Madison. We don't know if the arrival times vary as we get no feedback. Don Olson said the state is paying priority mail for non-priority delivery.

Jim Venske offered to take the samples to Madison. Reid said CLMN only needs this done four times a year.

Bob Kupfer asked if the water quality has improved. Reid Badeau said Secchi disk clarity is the only way to answer that. Kupfer said he has weeds on his shore for the first time.

ADDITIONAL NUTRIENT SAMPLING

Reid Badeau and Don Olson collect a series of nutrient samples twice per month for analysis at UW-Milwaukee.

Bill Wulf indicated there was a lot of increased sedimentation due to loss of shoreline trees due to beavers.

Dr. Miller stated the Tug Lake website has a page with the DNR link to a water explorer map which contains the trophic state index. You can download the CLMN yearly report at this link: [WExWDNR](#).

Snap Plus Report

Todd Nichlaus indicated that much less fertilizer is going into the garden north of the lake than in the past. He spoke with the Klade family who operate farms north of Tug Lake and he and Dan Marzu will meet with them soon. The Klade family is concerned about the cost of the program but there are grants available to pay for the SNAP PLUS project. For example, developing deeper buffer/run-off channels is good for getting continuing grants.

Dan Marzu indicated that SNAP PLUS will address tillage practices, and amounts of fertilizer and salt. The goal is to get a different cover crop with a good Phosphorus Index of only seven, compared to 22.5. This index might be lowered to 2 due to qualities of the land and all these changes. Cover crops can be used for animal forage and soil health. This is a win-win for farmers with environmentally friendly farming methods.

Buzz Sorge – Comprehensive Lake Planning Grant Project

There are currently two Water Quality Monitoring Grants in place for the Tug Lake District. Dr. Miller's work is a key reason for being awarded these grants. All of our research data points to developing a multi-pronged approach for lowering Phosphorus levels in the lake. We do not need to treat the lake sediments until we solve how much Phosphorus is being produced by nutrient input sources within the lake and from external land sources.

The biggest thing we will learn from the SNAP PLUS Program is how much Phosphorus is coming into the lake from the watershed. We only need a 15 percent reduction of Phosphorus into the lake to determine if we should use or not use an alum treatment. Continued use of the Snap Plus Program could then make our lake very viable for a long time. Thus, we need Dr. Miller's research and Dan Mazu's Snap Plus collaborative work with the Nicklaus and Klade 300-acre watershed to achieve this on an ongoing basis.

Buzz will check with Pat Oldenberg to see if he is comfortable with us putting the Water Quality Response Model (2024) up on the Tug Lake District website. Buzz says we are in good shape to fund the work.

Board of Commissioners Volunteer/Succession Plan – Officer Mentoring Plan

Don Olson explained the timelines for Chair, Secretary, and Treasurer and the two other Board of Commissioner positions as follows:

- *Chair – the three-year term ends in 2027 at the Tug Lake District Annual Meeting.
- *Treasurer – the three-year term ends in 2028 at the Tug Lake District Annual Meeting.
- *Secretary – the three-year term ends in 2026 at the Tug Lake District Annual Meeting.
- *Two other Board Commissioners – are appointed by the Lincoln County Board of Directors and the Township of Rock Falls Board.

It was suggested that a Resident Survey be developed and distributed to all residents and the results be presented at a future Board of Commissioners meeting. Residents will be personally contacted and asked if they might be interested in a district officer position. The role of the Tug Lake website will be explored regarding this process.

Tug Lake Park and Beach Area Renovations

Tug Lake donated \$2,000 to spruce up the picnic area. The Lincoln County Forestry Department put in an outdoor shower and a new well.

Finance and Audit Review

Judy Hill suggested we keep procedures as they are for filing the Auditors Report. She also asked that we clarify grant money expenditures to date and identify needs for future expenses in order to qualify for future grants.

Todd Nicklaus made motion, Mary Badeau seconded to accept Auditors Report. Motion passed.

John asked Buzz about the grant writing process for 2025-26. Buzz replied that lake science and modeling tells us what to do, but not *how* to do it. This then becomes how the citizens come together and determine what the citizens want as a whole planning community. We need to demonstrate we have that capacity.

Buzz indicated that Advanced Lake Management Grants can be up to \$200,000 - \$225,000. We need capacity at the local level, and the Tug Lake District has an outstanding capacity to get this done. John asked if we need to start the grant writing process in a year. Buzz said yes.

Judy asked if we would be expected to donate \$2,000 each year to the Tug Lake Beach area. Don said no, not unless we choose to.

Money for training and conferences has been put into the budget for this year so we can have attendees informed and educated.

Proposed 2026 Budget Presentation

Budget Items

- \$600 Administration
- \$1,500 Insurance
- \$3,000 Professional Services
- \$4,200 Lake Water Quality Research
- \$5,000 Buoy Operation
- \$200 Training and Conferences
- \$500 Contingency
- **\$15,000 Total Budget**

Todd Nicklaus made a motion and Judy Hill seconded to accept the Proposed Budget report. Motion passed.

Annual Tug Lake Picnic

The Tug Lake Picnic will be held right after the Annual Meeting at the Tug Lake Park.

Public Comment

Note: Public Comments will be heard, but no action will be taken on them. Items brought to the Commissioner's attention during the public comment section will be added to future Commissioner Quarterly or Electors Meeting Agendas for future discussion and decision.

Motion to Adjourn

A motion was made by Todd Nicklaus, seconded by Don Olson, motion passed.

Respectfully submitted,

John Greenwood
Tug Lake District Secretary