



The Vadnais Lake Area Water Management Organization
800 East County Road E, Vadnais Heights, 55127 651-204-6070
Website: www.vlawmo.org; Email: office@vlawmo.org

Vadnais Lake Area Water Management Organization
Technical Commission Minutes
March 9, 2018
Vadnais Heights City Hall, Lakes Room

Commission Members Present:

Mark Graham	Vadnais Heights (VH)
Jim Grisim	White Bear Lake (WBL)
Bob Larson	North Oaks (NO)
Paul Duxbury	White Bear Township (WBT)
Gloria Tessier	Gem Lake (GL)

Commission Members Absent:

Marty Asleson	Lino Lakes (LL)
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Others in attendance: Stephanie McNamara, Kristine Jenson, Brian Corcoran, Tyler Thompson, Nick Voss (VLAWMO); Jeremy Erickson Justine Roe (St. Paul Regional Water Service – SPRWS); Kate Winsor (NO Resident); Diane Gorder (NO Natural Resources Cmte)

I. **Call to Order** Chair Graham called the meeting to order at 7:30am.

II. **Approval of Agenda**

It was moved by Graham and seconded by Tessier to approve the March 9, 2018 agenda as presented. Vote: all aye. Motion passed.

III. **Approval of Minutes**

It was moved by Larson and seconded by Grisim to approve the minutes of the February 9, 2018 meeting of the VLAWMO Technical Commission as presented. Vote: all aye. Motion passed.

IV. **Administration & Operations**

A. Funding Priorities from the Board

The Board was introduced to the new funding mechanism by BWSR which was discussed at the last TEC meeting. The three projects recommended by the TEC were discussed. No decisions were made but it will be discussed again at the April meeting. There is a meeting next week with the eligible agencies in Ramsey County to continue discussions for how to distribute the money. Graham also discussed that the Board did not approve the education grant that the TEC recommended which was disappointing.

B. Annual Report and 2019 Budget

The draft 2017 Annual Report will be available for your review and comment. Later this month or early April, we will be having a Finance and Policy & Personnel Committee meeting. Mark Graham has served on both committees. If anyone on the TEC would be interested in helping develop the first draft of the 2019 budget, please let Stephanie know. Nick stated that he would appreciate more responses for the TEC/BOD survey. Please turn them in by next week.

V. **Reports**

A. Financial Report for March & authorization for payment of checks.

It was moved by Graham and seconded by Grisim to approve the March Treasurer's report and payment of checks. Vote: all aye. Motion passed.

B. Monitoring Report – Part 2

Brian presented the 2017 monitoring results for some of the lakes studied in 2017. This month's presentation was focused on the chain of lakes within North Oaks.

Black Lake has been sampled since 2009 and every year it shows healthy sampling results. Haven't seen much change which is good.

Wilkinson Lake has data for about 20 years and has variable results with sampling results. It is consistently high in phosphorus and Chl A flips back and forth between above and below standards. A fish survey was done this year and no carp were found, which is good because they installed a carp barrier years ago. There were some bullheads but we don't believe that is the cause for poor water quality. We feel the poor quality is due to inputs to the lake.

Amelia Lake included extra samples along the tributary as it moves to Wilkinson. They found a spot where the results were sky high and there are plans to look into what feeds into the area to further investigate the source of the nutrients. Samples from the tributary from the south has also had high results. The inputs from the east have been within standards.

Deep Lake has input from Wilkinson and unbeknownst to us, it appears there is input from the conduit at Centerville Rd. We plan to monitor the flow and water quality at the input. Nutrients are above standards for all lake samples.

Charley Lake receives Mississippi River water. Chl A is consistently meeting standards. Phosphorus has gone above and below standards but in recent years has been below standards.

Gilfillan Lake Phosphorus levels have met standards since 2013 but they are slowly creeping back up. ChlA met standards soon after they filled the lake with Mississippi River water but the last few years, it has been above standards. With the augmentation process, the DNR permit states what the level of the lake can reach. In 2016 and 2017, the lake was above that level by about 1 – 1.5 feet. We have discovered that there have been culvert blocks installed to prevent the water from leaving the lake. The DNR is evaluating the situation.

West Vadnais results do not meet state standards. Ramsey Washington Watershed District is doing some work in the area to allow for more flow and have checked West Vadnais fish populations and found an abundance of carp which could be a cause for high nutrients. West Vadnais and East Vadnais are not connected.

Chloride levels in all lakes are well below standards and it is something we will continue to watch.

VI. Programs

A. Education & Outreach

1. Spring Calendar

Workshops are now scheduled and being promoted. Facebook events for sharing and printed flyers are available to post around town – thank you for any assistance in getting the word out. Events and registration are also on the VLAWMO web calendar. Nick has been attending the Vadnais Heights Economic Development Commission meetings which he has found to be helpful with connecting with non-profits and businesses. There are many events on the calendar for outreach and education over the next couple of months.

2. Water Matters Program

The Board discussed and approved, in general, the idea of having educational workshops before Board meetings. They felt having programs twice per year would be adequate and encouraged staff to arrange for local cable to record the sessions. Suggested ideas for these workshops were: fish populations and their impact on lake health, chloride use and impacts, groundwater, best management practices – what, where, how much, how effective?, wetland health, overview of all the agencies involved in water management and how they relate to each other, highlighted projects, bacterial impairment – what have we learned?

Nick also let the TEC know about a workshop regarding harmful algal blooms and that if any of the TEC are interested in attending, VLAWMO will cover the cost for the all-day workshop. It is going to be at St. Anthony Falls Lab which is a very interesting place to see and learn about all the work they do there.

VII. Projects

A. Birch Lake Project

1. 4th & Otter Lk Rd

The Board approved staff to move forward with the Clean Water Fund grant awarded from BWSR. Kristine has submitted the work plan and grant agreement. If BWSR accepts the work plan, then we will have our grant money available in April. The Board also approved the contract with Barr Engineering to complete the final engineering and provide technical oversight for this project.

2. 2017 Shoreline Maintenance Summary

Natural Shore provided a summary of the work they completed in 2017 along the Birch Lake restoration project area. VLAWMO has a cooperative agreement with the City of WBL to share the maintenance costs. Typically, maintenance costs were \$1000/year. Last year, the BLID has also committed to an annual \$1000 contribution to allow Natural Shore to conduct more visits which has resulted in a decrease in poison ivy, purple loosestrife, and reed canary grass, along with good growth of native plants. In 2017, they clocked in 29.75 hours of work at the site. They have presented a maintenance plan for 2018 not to exceed \$2000 so they will be back on the site this year to continue their work.

B. Goose/Oak Knoll Study

Kristine reported that the technical memo from Barr regarding the studies that were conducted last year along with recommendations for moving forward will be ready shortly.

C. Chloride Testing Options

Staff is looking for input/direction on possible options for both tracking and studying how the use of chloride is affecting water resources within VLAWMO. Since 2010 VLAWMO has been testing our lakes and Lambert Creek yearly for chloride levels. The PCA is the state agency most involved in the chloride study. They did a 5 year [metro chloride study](#) published 2 years ago for surface waters and a monitoring guidance document as well as a [chloride management plan](#) was developed. Some metro watersheds also have chloride TMDL's for their impaired waters. Most information and studies on chloride have been on [surface water impacts](#). There are 37 lakes, streams and wetlands impaired for high levels of chloride in the metro, most in the west metro, none in VLAWMO. A University of MN study (Stefan et al. 2008) found that 78% of the salt applied in the twin cities is either transported to local groundwater or remains in the local lakes and wetlands.

What is VLAWMO doing and should we be doing more?

As you know, VLAWMO checks chloride in our monitored lakes in the spring after the snow melt. The PCA has identified this as the best to document high levels of chloride. Lambert creek is monitored at the regular monitoring stations. Partnering with the BLID, both winter and summer chloride monitoring is done. There a number of salt education efforts, some in partnership with other agencies. We have a snow plowing video featuring local PW employees as well as print and social media efforts. VLAWMO has partnered with other watershed to host workshops on update salt use practices.

The question has come up about whether we can and should be doing more. Possible options to increase monitoring could be routine ground water testing, storm pond testing and/or soil testing. Should staff do the enhanced studies/testing or should a consultant be hired? An expert in this specialty might be able to scope a meaningful effort.

Information could be gathered from our cities on how salt use has changed over the years (increase/decrease) and if city Consumer Confidence Reports (CCR) test for chloride in their ground water wells. Another option could be to study the impact legacy chloride has on our water bodies and ground water.

Finally, what is our goal? What information will be gained and how will that information be used? Other comments/ideas? Following this effort robustly will require a shift in our priorities and a plan amendment.

Discussion:

Graham stated that VH uses brine currently for road treatment. It has been brought up that sand or sand/salt mix could be used. Graham noted that sand and pollutants wash into lakes trading one

pollutant for others. Sand increases the work load for public works staff and produces an industrial waste requiring costly disposal.

Graham questioned whether a local watershed such as VLAWMO was the right organization to take on a big study like this when there are bigger agencies who are looking at it. He asked how would study results be useful.

Corcoran stated that a big source of chloride is from commercial parking lots where liability is a concern. Better education and reducing liability for these companies could help reduce some chloride use. He also noted that each season has different snow and ice fall amounts and patterns which drive the use of deicers. Comparing years needs to factor that variable.

Grisim feels that studying it and having some real data rather than anecdotally would be a benefit because it would provide something concrete to work from. He noted that without having data, there isn't any real way to track what exactly is happening within communities.

Graham noted that chloride use was not a priority for VLAWMO when we did the water plan two years ago and that the cities and counties should be the lead on these studies. He would not recommend the staff time to do all this.

Graham stated that having raw data might be good but everyone knows that we need to use less salt but it doesn't seem like all the money and work for the study would give us useful information.

Erickson stated that it would be helpful to look at the historical data that has been collected to see if you can replicate or find guidance on this.

Grisim asked if there are "baby steps" that could be taken. McNamara stated that it is something that has been talked about but an appropriate for sampling plan would need to be developed. Brian stated we have historical data and read other studies but need direction for next steps. Brian stated the PCA did a 5 year study and we are following their protocols for sampling.

Stephanie stated that water softeners have been found to be a source of chloride in the impairment in the Mississippi River. Cities have been softening their water before it goes out to residents so again, it goes back to the Cities being more of a lead on this sort of study. Graham doesn't think staff should add any more work at this time but to investigate what other agencies are doing to study this and come back to TEC and Board with our findings.

D. Lambert Creek

1. Ditch Cleaning Open House and Letter

Along with the approval to use Institution Community Work Crews (ICWC) for the cleaning and clearing of debris on Ditch 14, the Board also approved a public meeting and that meeting took place at the regular VLAWMO Board meeting, February 28, 2018 at 7pm at the Vadnais Heights City Hall Council Chambers. Prior to the meeting, letters were mailed out to property owners along the Creek where the work will be taking place this spring informing and inviting them to the public hearing, as well as explaining the project and the ICWC program. Four residents attended and spoke at the meeting and overall response to the project was positive. Scott Miller, ICWC supervisor also spoke about how the ICWC works and their successes and answered questions from both the Board and the residents. Once a spring date is set for the work another round of letters will be sent out.

2. Engineering Project – Ditch Survey

Consultant is currently working on modeling. Staff has submitted a request form to the Board of Water and Soil Resources (BWSR) for their inspection and approval of the Ditch 14 and branch ditches records database once this data has been received from Houston Engineering. Upon completion the VLAWMO's "ditch database" it will be made public and submitted to BWSR for input into their statewide database.

E. Sucker Channel

Minnesota Native Landscapes won the bid to complete the final planting work for this project. The hope is they can complete the work in May, although that will be dependent on weather and when the ground thaws.

F. Deep Lake Study – RCD project assistance

Deep Lake is next on the list for a Sustainable Lake Management Plan. Ramsey Conservation District has provided a cost estimate to perform bathymetry and vegetation surveys. The cost for the bathymetry survey is \$1625 and would be conducted in early spring.

The vegetation surveys include both in-lake and shoreline surveys and would cost \$4075 and would be completed during the summer. VLAWMO has budgeted \$5700 for this work and is asking the TEC to provide approval on accepting these estimates from RCD.

It was moved by Grisim and seconded by Graham to approve both proposals from RCD to perform the bathymetry and vegetation surveys on Deep Lake in 2018. Vote: all aye. Motion passed.

VIII. WCA

A. Spire Credit Union

Preliminary plans have been reviewed and comments sent for a new Spire Credit Union branch that will be going in at the site of the current Vadnais Height's Wendy's located at 940 County Road E.

IX. Commissioner Reports

Graham stated that the communities this spring and summer will be dealing with the ban on residential irrigation which will be a major issue. Brian asked who is enforcing the ban. Graham stated that it is falling to the Cities to enforce it. Graham stated that he thinks the ban should be for everyone – not just residents.

X. St. Paul Regional Water Service (SPRWS) Report

Erickson stated that they will be looking at the structural integrity of the conduits from Centerville lakes. Tyler has been attending meetings about that. They want to look at the water quality of Centerville Lake. VLAWMO will be helping by collecting samples at the conduit as it empties to Deep Lake.

XI. Ramsey Conservation District (RCD) Report

Dissolution of the RCD has been brought to the Legislature and BWSR. Staff are continuing to work and Ramsey County is willing to absorb the employees if the dissolution moves forward. We hope that once all the dust settles, we will still be able to work with them in the ways we have in the past.

XII. Public Comment

Gorder stated that the Board approved the pedestrian bridge at Deep Lake channel. It will likely be done in late summer and will cost a bit more than was originally planned due to the results of soil analysis. The Capstone group will be meeting again on March 26th to discuss next steps regarding the results of the Pleasant Lake water level study.

XIII. Next Meetings

TEC: April 13; Board: April 25

XIV. Adjourn

It was moved by Graham and seconded by Larson to adjourn at 9:12am. Vote: All aye. Motion passed.

Minutes compiled and submitted by Kristine Jenson.