

**Vadnais Lake Area Water Management Organization
Technical Commission Minutes
May 12, 2017
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)
Jim Lindner	Gem Lake (GL)
Paul Duxbury	White Bear Township (WBT)

Commission Members Absent:

Marty Asleson	Lino Lakes (LL)
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Others in attendance: Kristine Jenson, Brian Corcoran, Tyler Thompson, Nick Voss (VLAWMO); Margaret Behrens, Andrea Pritchard (Ramsey Conservation District – RCD); Gloria Tessier (GL); Diane Gorder (NO); Greg Wilson (Barr Engineering); Della Young (Young Environmental Group); Terry Nyblom (VH – VLAWMO Board member); Connie Taillon, Jessie Farrell (WBL); Justine Roe (St. Paul Regional Water Service – SPRWS)

I. **Call to Order** Chair Graham called the meeting to order at 7:28am.

II. **Approval of Agenda**

It was moved by Lindner and seconded by Larson approve the May 12, 2017 agenda as amended.
Vote: all aye. Motion passed.

III. **Approval of Minutes**

It was moved by Graham and seconded by Lindner to approve the minutes of the April 14, 2017 Meeting of the VLAWMO Technical Commission as presented. Vote: all aye. Motion passed.

IV. **Administration & Operations**

A. Administrator's report

Stephanie stated that she is working with the MN Association of Watershed Districts to join their membership. We should know if they will accept us as a member in the next couple of months.

B. 2018 Budget

The current draft 2018 budget total is \$720,000. This is an 8% increase in the storm sewer fees (SSU) for 2018. This is a little higher increase than we would usually like but there are reasons for doing so. This compares to 2016 budget of \$694,995 and actual expenses of \$667,920 and a 2017 budget of 650,140. Two notes for this year's budget, it went down slightly from last year but the income from SSU fees went up. The budget went down this year because much of the activity is either studies to prep for new projects or it was projects that are funded by either grants or reserves from previous years. In 2017 VLAWMO started a financial shift from subsidizing its budget with reserves that had built up over time to one where revenue (Storm sewer fees) matched expenses. Those reserves have gotten very low, but the SSU fee increase in 2017 will start to reverse that hole in the reserves.

Our expenses are going up slightly if we hope to continue the same level of programing, projects and service that we have been enjoying the last few years. This includes the monitoring program, the cost-share and education grants that are becoming increasing popular, the other educational programs and our technical capacity. The second thing has to do with the larger Capital projects that were discussed in the Water Plan and our studies this year are bringing into focus. The 2017 studies build on earlier work. Unfortunately we have to finalize the budget for next year when some of the data and analysis are still coming in. So we are looking for your help and insights to guide how much and where to put some of the money that is a little more discretionary. Stephanie provided an overview of some things to consider:

- Goose Lake subwatershed. The Water Plan identifies \$220,000 as the cost of a bigger project on Goose Lake. Better numbers are coming in from Barr & Young but regardless, not all of that fits in our budget. Some will have to come from other sources such as partner cities, grants or other potential funding sources. The draft budget calls for \$40,000 (down \$180,000) which could go toward final design and perhaps some to implementation.
- Wilkinson Lake project. The same question but the amount in the budget is \$30,000 (down \$37,000)
- Deep Lake project. Proposed is \$5,700 (cut \$12,000). This would do some data collection studies but postpone the feasibility analysis that would help identify implementation strategies for Deep.
- Finally, is an 8% increase one that would, in your opinion, be acceptable in the watershed? In real money terms, single family residential (most of the parcels in VLAWMO) would see an increase in what they pay annually from \$36.84 in 2017 to \$39.69 in 2018 (+\$2.85). These are my rough numbers. Our financial analyst will give the final numbers before the August Board meeting.

Graham stated that it is difficult to find a balance between funding projects and programs without having to raise rates too much. He understands the struggle and supports the decisions that have been made for this draft budget.

V. Projects

A. Project Updates

1. Wilkinson & Goose Lakes Project Study

Greg Wilson from Barr Engineering and Della Young from Young Environmental Consulting Group will be at the meeting to give a presentation about this study and next steps for the watershed. They reviewed the process they went through to understand science as well as the social interests regarding the lakes. Stakeholders were engaged in a charrette and meetings were held with State agencies to discuss how we could proceed in making the lakes healthier. After reviewing the available data and reports, it is their opinion that the main source of Goose Lake's phosphorus is from sediment release and that the use of the lake by Ski Otters may not be much of an issue for the lake's water quality.

- Greg summarized some of the scientific findings he has found thus far. They used modeling to confirm that about 80% of the phosphorus source in East Goose in 2016 was internal loading and 20% stormwater inputs. They then analyzed how the installation of BMPs in the subwatershed would affect the phosphorus. If the load from the subwatershed was reduced 50%, the levels of phosphorus would be nearly the same. When analyzing if we could make an 80% reduction in internal load, it made a large effect on phosphorus. An alum treatment would technically give you the 80% reduction. Thus East Goose Lake shows that it is very dependent on internal load input. West Goose Lake is fed by East Goose Lake and the modeling is showing that 1/3 is internal, 1/3 is stormwater input, and 1/3 is East Goose input. Therefore addressing the internal input at East Goose would have a positive effect on West Goose but there would still need to be treatment for West Goose. We would need to address East Goose before West Goose.
- For Wilkinson, he feels the TMDL didn't account for some of the subwatershed inputs and he will continue to look at the inputs to the north of the lake.
- At this point, he foresees recommending chemical treatment to East Goose and address untreated runoff during redevelopment. Using spent lime is an option as well. For West Goose, a lot of it hinges on the East Goose input and to analyze untreated stormwater corner of the lake.
- For Wilkinson, he would like to further assess sources from the subwatershed and to assess the efficacy of the fish barrier to keep the rough fish out. He has suggested

some additional monitoring in the subshed area for Wilkinson to help pinpoint the sources of phosphorus. With Wilkinson, it often meets standards in the beginning of the season and goes over standard towards the end of the year. Based on the available information of subshed monitoring,

- Somewhere between Amelia and Cty Rd J/Ash St, the TP levels jump significantly. Additionally, from the NO farm, the levels are quite high. Birch and Black Lakes feed into Wilkinson and those lakes are the healthiest in the watershed. There are many wetland areas within the subshed so a theory would be that one of those might be a hot spot. It isn't unheard of that wetlands would release phosphorus at points in the summer. They will recommend in their report to do further assessment of the sources into Wilkinson to narrow down the input areas for this lake. A site visit this week allowed Greg to look at the fish barrier and it appears to be working to keep rough fish out. A planned fish survey this summer will provide us with evidence regarding its efficacy.

Discussion: Nyblom stated that he has witnessed that boat traffic by the Ski Otters was significantly more on West vs East Goose lakes. He also asked what was happening in the years 2011 vs 2016 in Greg's analysis – why he is using those years for the analysis. Those years were chosen because 2011 was a low precipitation year vs 2016 which was a high precipitation year. Nyblom asked about salt inputs. Greg stated that salt does affect lakes because it hinders the ability for a lake to turn over. At this point, the salt levels in our lakes is not a cause for concern based on the standards set by the State.

2. Sucker Lake Channel

After many iterations of plan designs and joint powers agreements (JPA), we finally have a final design and JPA that all partners can agree on. The Board approved the JPA at their April meeting and it is now moving through the other partners on the project for signature. Construction is set to begin in October and the native buffer plantings will likely be done in Spring 2018.

3. Bathymetry Report for Wilkinson & Charley Lakes

Andrea Pritchard, GIS specialist from RCD gave a brief presentation regarding the results of the bathymetry surveys conducted in early April on Wilkinson and Charley Lakes. The surveys were done just after ice-out to get the best results from the transducer before the vegetation starts to grow.

The contours of Wilkinson are atypical in that the lake is shallow and doesn't have the typical contours. Charley Lake is more typical in that there is a deeper area that gradually becomes shallower as it goes to the shoreline.

The hardness data for Wilkinson was minimal due to the shallowness of the lake.

4. Whitaker Wetlands

Brian gave an update that the plans should be complete for the June meetings.

VI. Programs

A. Landscape Level 1 Considerations

For the first time in VLAWMO's cost share program history, we have more applications than we can fund (and it is only May!). This is a great "problem" to have but it means we have to make some decisions in regards to how we fund the grants that have been submitted this month. Staff will bring forth recommendations for how we approach the grant program in the future in the hopes that the program's popularity will continue to grow, necessitating a more formal process of determining award amounts.

There are 7 applications this month:

2017-06 is a native restoration project for a property in North Oaks. The homeowners would like to work in phases on their large property to remove buckthorn and other invasive plants and replant

with native species. For this year, they would like to address approximately 2250 square feet of the property. The total cost is \$2900 and they are requesting \$2000.

2017-07 is a raingarden and restoration along Lambert Creek in Vadnais Heights. The area currently has mostly buckthorn holding the side of the creek in place. They are working with Prairie Restorations to install a raingarden in a part of the yard where most of the stormwater runoff flows to which would reduce the run off reaching the creek. Additionally, they would start to remove the existing buckthorn and install native shrubs and plants along the creek and once these plants are established, they will work on removing the rest of the buckthorn. This would affect 90 linear feet of the creek and would encompass approximately 1200 square feet, including the raingarden. The estimated total of the project is \$2700 and they are requesting \$2000.

2017-08 is for a shoreline restoration on the south side of Birch Lake. The property is currently all grass and exposed soil with a very steep grade to the shore that has nothing to capture stormwater runoff. The project will be 4100 square feet and run the entire length of their shoreline. They are working with Urban Ecosystems on the design and installation. Total project price is over \$12,000 and they are asking for \$2000.

2017-09M is a maintenance grant request for the purchase and installation of coconut fiber logs along a shoreline restoration project on the north side of Birch Lake. They received a grant last year to restore their shoreline and have done a good job taking care of the project site. These coconut logs would help protect the shoreline from erosion issues. They would add plants behind the logs as well to further protect the shoreline. They are requesting \$490.

2017-10 is for an area of land between two homes in North Oaks. One of the homes was rebuilt and due to the change in the landscape, stormwater collects in an area between two properties. Based on observations, the area drains eventually and if it overflows, it goes into a ditch system. One of the homeowners came to the raingarden workshop and has developed a preliminary plan and is interviewing contractors to do the installation. This particular grant would be represented by one of the homeowners (19 Dove Lane). The neighbor (17 Dove Lane) has submitted an application for a separate project on their property as well. The homes are on Gilfillan and this particular stormwater issue does not directly affect the lake but is technically in the subwatershed. They are estimating project costs for this project to be \$3000 and are requesting \$2000.

2017-11 is for 2 raingardens for the home at 17 Dove Lane. This home was rebuilt in 2016 and currently has visible signs of erosion in the landscape. The home is on Gilfillan and the stormwater runoff does go towards the lake. There is a weedy shoreline buffer that the homeowner would like to address but I advised him to first address the stormwater runoff higher up on the property. The homeowner is interviewing contractors to implement the project (along with 2017-10) and estimates the costs to be \$3000 and are requesting \$2000.

2017-12 is for a 2nd phase of a shoreline restoration on the south side of Birch Lake. The homeowner received a grant last year for the first phase and this project would encompass most of the remaining shoreline. The property houses the shed and machinery for the aerator used on Birch Lake and the shed is being replaced this year due to muskrat activity compromising the structure and the aeration equipment. They are working with Nelco Landscaping and project costs are estimated to be \$6000 and are requesting \$2000.

2017-13 is for another shoreline restoration along the south side of Birch Lake. This property is experiencing visible erosion leading directly to Birch Lake. The homeowners are working with Natural Shore Technologies and have a plan to address the immediate erosion issue plus create a buffer for the shoreline. Project costs are estimated to be \$3300 and they are requesting \$2000.

The total dollar amount of the requests this month is \$14,490. There is only \$8885 left in the Landscape Level 1 budget for this year. Kristine spoke with an earlier grant recipient who will not need all of her funding and was able to add another \$1450 back into the budget. However, we are still short to fully fund all the applications. In order to fairly analyze the applications, a screening

process that Rice Creek Watershed uses was conducted. The screening considers the project's impact to the watershed (how directly it connects to a waterbody, the level of impervious vs pervious drainage to the project, the level of volume reduction from the property, the level of erosion and sediment reduction to downstream waters, and wildlife habitat restoration). The maximum score possible was 25. After going through the screening process, there was a clear ranking for the projects and that led staff to offer a recommendation for how to fund these requests.

Grant #	Score	Grant Request	Recommended Award
2017-06	12	\$2000	\$750
2017-07	19	\$2000	\$1750
2017-08	19	\$2000	\$1750
2017-09M	n/a	\$490	\$425
2017-10	11	\$2000	\$750
2017-11	16	\$2000	\$1500
2017-12	17	\$2000	\$1650
2017-13	20	\$2000	\$1750

If we go with this funding strategy, we will exhaust all the funds in the budget for this year. Staff would like to request that they be given the blessing of the TEC to redistribute the funds in a fair and equitable way if any of the applicants decide to forgo funding due to not receiving the full amount they requested.

Staff recommends approval of the LL1 grants as proposed in the above table with the ability to redistribute funds should an applicant deny their award amount due to not receiving their total request.

It was moved by Lindner and seconded by Larson to approve LL1 grants 2017-06, 2017-07, 2017-08, and 2017-09M, 2017-10, 2017-11, 2017-12, and 2017-13 as presented in the table above.

Vote: all aye. Motion passed.

B. Education & Outreach

1. Booth events on Sign-up Genius

Nick showed a handout listing all the upcoming summer events that need volunteers to help facilitate. Nick explained how there is now a volunteer opportunity link on our website's calendar which allows people to easily see what events are coming up and sign up to help out for various jobs/shifts.

Nick said that the latest workshop held this past week on native plants was a hit. There were no empty chairs and the group was very engaged and we received extremely positive feedback.

2. Annual Report & Summary

Nick distributed the 2016 Annual Report that are hot off the press.

3. Shallow Lakes reading & Government tab on website

Nick distributed an informational guide developed by the MN Dept of Natural Resources about Shallow Lakes and encouraged the TEC members to read it, especially since VLAWMO has many shallow lakes.

C. WCA

1. Lambert Creek Maintenance – Pennington delineation

Brian reviewed the wet backyard issues the homeowners at Pennington Place have asked us to address. We paid to have the area delineated and the homeowners are not happy with the results. At some point one of the homeowners brought fill in to their backyard and there is no action we can take because it appears to have been done many years ago. Brian said this

issue isn't going to just go away but at the same time, there much we can do because of the Wetland Conservation Act. They are limited on where they could bring fill.

Discussion: Nyblom stated there isn't historical elevation data for Lambert Creek and he will be asking the Board to support and include in the 2018 budget that we get that information collected for the creek.

VII. Reports

A. Financial Report for May 2017 & Authorization for Payment

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

VIII. Commissioner Reports

Graham thanked Justine for hosting our Board meeting at the end of April and for giving a tour to everyone. Lindner stated that this should be his last TEC meeting and said he would miss everyone and enjoyed being part of this group. The City will be recommending Gloria Tessier to serve on the TEC for the future.

Grisim stated the BLID had their annual cleanup and had 12 bags full of garbage.

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

SPRWS had an open house and tour on May 11 and thanked VLAWMO staff for hosting a booth. Nick stated that most of the visitors were within the Capitol Region Watershed District so in the future, it would be great to have them there. Tyler stated that the people who were there were very interested in water so it was a lot of valuable interaction.

X. Ramsey Conservation District (RCD) Report

Behrens stated that on May 17, there will be a forum on soil health. She also invited everyone to join them for their monthly meetings on the first Thursday of the month.

XI. Public Comment

XII. Next Meetings

TEC: June 9; Board: June 28

XIII. Adjourn

It was moved by Linder to adjourn at 9:17am. Vote: All aye. Motion passed.

Minutes compiled and submitted by Kristine Jenson.