

9 September 2022

TO: Morrison County Commissioners

FROM: Dan Seanger

Chairperson, Crookneck Lake Improvement District

SUBJ: Annual Report to Commissioners on 20 Sep 2022

To date, 2022 appears to be another overall positive year for Crookneck Lake and the Crookneck Lake Improvement District (CLID). Our spring Curly Leaf Pondweed (CLP) survey delineated a zone of 10.6 acres warranting herbicide treatment. Working in concert with the DNR and our treatment contractor we were fortunate to once again be allowed the use of Diquat, an alternative herbicide, resulting in a savings to the CLID of approximately \$17,000 based on 2021 pricing. The early summer survey demonstrated excellent efficacy treating the CLP population with minimal to no impact on native vegetation, a desired outcome of the DNR for continued use of Diquat. No Eurasian Watermilfoil (EWM) was identified during this survey. Once again, Yellow Iris was identified along the north shore. The late summer survey, focused on EWM, did not find any EWM. It appears we may have been successful in treating the EWM identified during 2019 and targeted for treatment. During this survey, samples were collected for genetic testing of milfoil plants demonstrating “hybrid” characteristics. The genetic analysis will not be available until spring 2023. The density of these plants was not sufficient to warrant issuance of a DNR permit to treat this year. In the fall of 2018, Crookneck Lake was listed as infested with Zebra Mussels (ZM). During 2021 and 2022 a dive survey failed to locate any ZM. Water samples collected from multiple locations twice a year from 2018 - 2022 for Zebra Mussel (veliger stage) and Spiny Water Flea have tested negative. During 2020 - 2021, professional dock services which remove over 30 docks across the lake, together with property owners, did not identify any ZM.

The record high-water levels experienced over the past several years have diminished. The record high for Crookneck Lake was recorded on 10 October 2019, at 3.86 ft. above its ordinary high water (OHW) level. On 19 August 2022, the level was 2.3 ft. above its OHW level, about 6.5 inches above last year reading on 26 August. Observations of weekend activity would conclude the lake has returned to full recreational activities. The wakes created by “high-prop thrust” boats have become a discussion topic with respect to their impact on management of aquatic invasive species, shoreline erosion, water quality, and recreational use of the lake. We continue to monitor the status of the Lake Shamaineau lake-level lowering projects and impact they may have on Crookneck Lake.

Review of the CLID 2021 Late Summer Survey

2021 Performance Plan Update



2021 Late Summer AIS Survey

This is the final 2021 AIS survey which was completed after our report to you last year. Three significant findings: No Zebra Mussels found during a dive survey; no EWM indicating we may have been successful in treating it from the lake; and identification of potential Hybrid Milfoil. The Hybrid Milfoil requires genetic studies to confirm its identity and if it is in a sufficient density a permit can be attained from the DNR to treat. NOTE: Findings are consistent with the 2022 Late-Summer Survey.

Review of the CLID 2022 Performance Work Plan

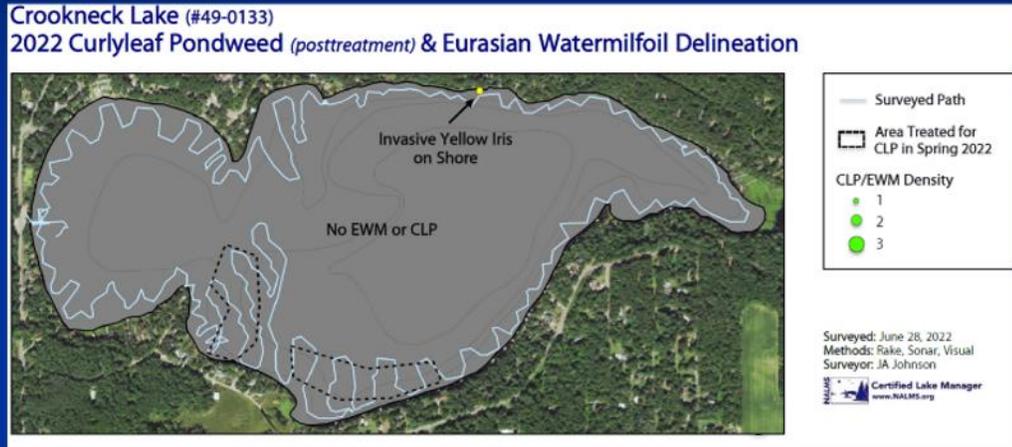
2022 Performance Plan

- **Continue 5-yr management plan**
 - **SURVEY** during spring and summer to determine presence of invasive species & effect of treatment on native species
 - **TREAT** invasive species
 - **MONITOR/PERFORM** water quality studies
 - **MANAGE** the **CLID**

The CLID is on track to successfully complete the 2022 Performance Work Plan.

1. Management of the CLID: We are on track to successfully complete all taskings.
2. Surveys and Treatment slides follow.
3. Monitor the quality of the lake water: Crookneck Lake continues to be classified overall as being in a Mesotrophic (healthy) state. Total Phosphorus and Secchi depth (water clarity) statistically demonstrates positive trends.

2022 Performance Plan Review



2022 Summer AIS Survey

3. Survey and Treat Aquatic Invasive Species: Three aquatic vegetation surveys were performed. The spring Curly Leaf Pondweed (CLP) survey delineated 10.6 acres for treatment indicated by the two oblique zones outlined by dots. The early summer survey demonstrated effective CLP treatment without impacting native species and no EWM. Invasive yellow Iris was once again identified along the north shoreline. The Late-Summer Survey, focused on identification of EWM, did not identify any EWM. Samples of suspect “hybrid” milfoil was collected for genetic testing. Results of this survey was consistent with those of the 2021 Late-Summer Survey.

2022 Performance Plan Review



Yellow iris is a **regulated invasive species**. Species are legal to buy, sell, transport and possess, but may not be introduced into a free-living state, such as released into public waters.

- Yellow iris grows along shorelines, in shallow water and in roadside ditches.
- Competes with native shoreland vegetation.

Yellow iris located along north shoreline.

Treasurer Financial Summary

Treasurer Report

2022 Recap

Beginning balance:	\$84,685
Levy \$60:	\$8,220 (expected)
AIS Grants:	\$9,328 (\$7,576 expensed)
Expenses:	\$9,526 (estimated)
Ending balance:	\$90,905 (estimated)

The CLID is now financially sound and able to withstand two consecutive high expense years.

2023 Performance Work Plan

2023 Performance Plan (Approved)

- **Continue 5-yr management plan**
 - **SURVEY** during spring and summer to determine presence of invasive species & effect of treatment on native species
 - **TREAT** invasive species
 - **MONITOR/PERFORM** water quality studies
 - **MANAGE** the **CLID**

The CLID membership approved the 2023 CLID performance plan to: Survey for AIS, Treat AIS, Perform Water Quality Studies, and Manage the CLID.

2023 Performance Work Plan Budget

2023 Performance Plan Budget (Approved)						
Operating Expense	2023 Proposed Budget	2023 Estimated Cost	2022 Estimated Cost	2022 Budget	2021 Actual Cost	2020 Actual Cost
AIS Surveys	\$5,400	\$5,400	\$5,200	\$5,100	\$4,950	\$4,467
Weed Treatment	\$24,000	\$4,000	\$2,226	\$24,000	\$2,380	\$1,794
Insurance	\$1,100	\$1,100	\$1,070	\$1,100	\$1,030	\$946
Admin Costs	\$6,000	\$6,000	\$242	\$500	\$460	\$357
Water Quality	\$750	\$750	\$690	\$675	\$615	\$595
Operations	\$37,250	\$17,250	\$ 9,428	\$31,375	\$9,435	\$8,159
Legal Reserve	\$15,000	\$0		\$15,000		
Total	\$52,250	\$17,250		\$46,375		

The CLID membership approved the “2023 Proposed Budget” which is representative of the 2022 budget based predominately on future unknown cost of treating AIS infestations. The operating expense for weed treatment is based on what the cost of the herbicide Aquathol-K, the herbicide routinely permitted for use prior to the last two treatment years.

2023 Annual Levy

Annual Levy

The Board of Directors approved a motion to set the 2023 annual levy at \$40. Factors considered included:

- Treatment cost of Curly Leaf Pond Weed, Eurasian Water Milfoil, and Hybrid Milfoil
- Likelihood that we can use the alternative herbicide to treat CLP
- Likelihood of receiving an AIS grant
- A recommended cash balance of about 2 times the yearly operating expenses
- Consideration of public input and comments

The CLID Board of Directors approved a levy “user charge” for calendar year 2023 of \$40 with a goal of slowly drawing down our cash balance.

ACTION REQUESTED: The CLID Board of Directors respectfully requests the County Commissioners concur with the CLID’s 2023 Performance Plan, Performance Plan Budget, and Levy “user charge” of \$40 and approve each by motion.

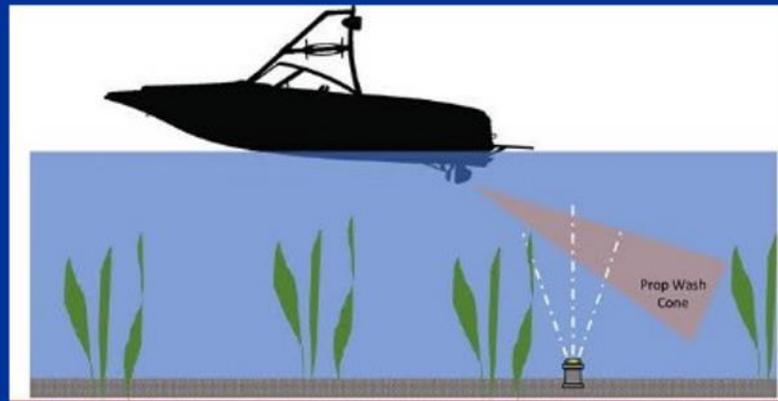
POINT OF INTEREST FROM OUR MEETING:

Wake/Prop Thrust Boats: Increasingly the issue of wake size on the Crookneck Lake has been a topic of discussion. During 2019, the Morrison County Sheriff posted a “No Wake Notice Within 300 ft of the Shoreline” at the lake access due to high water conditions. Since that time, the lake has receded, and more normal usage of the lake has returned, although the lake remains well above the OHW level. Now with the use of “high-prop thrust” boats on the lake, the number of residents are voicing concerns about waves breaching their shorelines or rocking their boats have increased; a finding not isolated to Crookneck Lake. This past year, the St. Anthony Falls Lab (SAFL) conducted an initial study (Wake Energy and Dynamics) which found that the wake energy produced by these boats may take up to twice the distance as compared to a standard boat to displace its energy in addition to producing an increased vertical thrust turbulence. During Phase II of their study, they plan to evaluate different watercraft. Once these studies are complete, it is anticipated regulatory guidance may come from

either the State Legislature or DNR. A LID potentially may find itself involved in the future should it be deemed the vertical “prop wash cone” and the “wave-energy” has an impact on the water quality of a lake, the management of AIS, shoreline conservation, and/or the fishery.

Information/Updates

- Wake/Prop Thrust Studies Update



Hopefully this information provides an overview of the CLIDs 2022 activities and our plans for 2023. The 2022 CLID annual meeting minutes are attached as a reference for the information included in this report. I look forward to our annual meeting.

Dan Seanger
Chair, CLID
(218) 575-2333

ATTACHMENT: 2022 CLID Annual Meeting Minutes

Crookneck Lake Improvement District
Annual Meeting Minutes

The annual meeting of the Crookneck Lake Improvement District (CLID) was held on July 30th, 2022 at the Scandia Valley, Town Hall.

Dan Seanger, CLID Chairman, called the meeting to order at 9:03 A.M., introduced the Board of Directors recognizing Bill McComb for his years of service on the board, reviewed the agenda, and announced this was the first call to cast your ballots. The meeting's power point presentation which contains graphics and additional information in the notes section is located at CrookneckLake.com under CLID.

Standard Agenda Items

Seanger turned to the standard agenda items beginning with the secretary's report noting that the minutes of last year's meeting were approved as in the past by the board prior to inclusion in the CLID's Annual Report to the Morrison County Board of Commissioners. Both documents were then posted on the CrookneckLake.com web site.

He then continued with a review of the Crookneck Lake 5-Year Management Plan, a plan which integrates the roles and functions of the CLID and Lake Crookneck Improvement Association (LCIA) with the goal of promoting a "Healthy Ecosystem While Maximizing the Lakes Usage". Dan stated that we are now in the fifth year of the plan and as such it will be updated this year to include what is being referred to as "call to actions/trigger points". This led into a review of the CLIDs "Establishment Orders" contrasting what we can and cannot do based on our current order and what was historically done by the LCIA.

Seanger then turned to a review of the final 2021 late summer Aquatic Invasive Species (AIS) Survey, which focused on identifying Eurasian Watermilfoil (EWM) and Zebra Mussels (ZM). This survey was performed after last years meeting and concluded the 2021 surveys. No EWM was found in the lake for treatment; however, the surveyor reported the presence of milfoil resembling "hybrid" milfoil along the eastern shoreline and near the lake access. The surveyor recommended confirmatory genetic testing during 2022 if similar plants are present and treatment. The dive survey did not find any ZM.

Next was a review of the "2022 Performance Work Plan" approved at the 2021 annual CLID meeting.

1. Survey the lake for invasive species: Two aquatic vegetation surveys have been performed to date. The spring survey focused on Curly Leaf Pondweed (CLP) and delineated an area of 10.6 acres for treatment compared to 11.9 acres during 2021. No viable Eurasian Watermilfoil (EWM) was identified. The second survey, Summer AIS Survey, surveyed the entire lake for AIS and surveyed the CLP treated area for efficacy of treatment and impact on native species. The survey demonstrated the treatment was highly effective for treating CLP with no additional CLP found and minimal to no effect on the native population. No EWM was found. Also identified

- in the summer survey was the presence of Yellow Iris along the north shore. This is a new invasive to Crookneck Lake; although it should be noted that this plant is a regulated invasive species. Species are legal to buy, sell, transport and possess, but may not be introduced into a free-living state, such as released into public waters. The surveyor recommends working with property owners to remove the plants. Two plant surveys are pending. A late summer survey which will focus on EWM and any suspicious hybrid milfoil. Samples for genetic testing of suspicious plants characteristic of “hybrid” milfoil will be collected and if confirmed we will be able to treat the areas with our milfoil DNR permit. As in the past, two surveys for Zebra Mussel (veliger stage) and Spiny Water Flea were collected during June and July. The results of these samples are pending. Results from 2018 – 2021 have all been negative. During 2020 - 2021, professional dock services which remove over 30 docks across the lake, together with property owners have not identified any ZM.
2. Treat invasive species: During May, 10.6 acres of CLP was delineated and permitted for treatment by the DNR. This year we were fortunate to once again secure a permit to use the herbicide Diquat to treat CLP. The cost was \$2,236 compared to an estimated cost of \$17,000 for the alternative herbicide Aquathol-K. Our intent is to treat any EWM or “hybrid” milfoil identified during the late summer AIS survey.
 3. Monitor the quality of the lake water: Crookneck Lake continues to be in a “Mesotrophic (healthy) State”. Total Phosphorus and Secchi Depth are “improving with 99%”, Chlorophyll-a data shows “no significant trend exists”, and the Total Trophic State Index is “improving with 90% confidence” down from 95%. It’s noted the presence of ZMs would distort the above trends. Both the surveyor and numerous individuals have commented on the clarity of the water over the past few years which declines during the summer. Could this be the result of ZMs or changing weather patterns or recreational activity across the lake...all speculation at this time?
 4. Management of the CLID: Seanger reviewed the management protocols utilized by the CLID to fulfill mandates found in the Establishment Order and state statutes noting we may need to perform a periodic 5-yr “Agreed Upon Procedures” protocol review during 2023.

Seanger made a second and final call to cast ballots for election to the Board of Director’s.

Treasurer’s Report: A recap of our financial status was reviewed noting further details are found in the 2022 Annual Treasurer’s Report. Our beginning balance was \$84,685 and estimated ending balance is \$90,905. Estimated expenses total \$9,526. The uptick in our ending balance is primarily due our ability to receive an AIS Grant from Morrison County, no 2021 EWM treatment cost, and approval to use Diquat, an alternative herbicide, resulting in a significant savings. The 2022 Treasurer’s Report is posted on “CrookneckLake.com” under “CLID”.

2023 Proposed Performance Plan, 2023 Proposed Performance Plan Budget and 2023 Proposed Levy: Seanger reviewed the process used for approval of each indicating the members present would approve the Proposed Performance Plan, Performance Plan Budget, while the board has the responsibility to set the Proposed Levy. All three are included in the annual report to the

Morrison County Board of Commissioners who approve them by motion at our annual meeting with them during August or September.

Proposed 2023 Performance Plan and Proposed Performance Plan Budget: Seanger provided a summary review of each indicating the performance plan represents the “work plan” for the CLID next year while the budget “funds” the work.

Seanger asked for a motion from floor to approve the 2023 Performance Plan. Rick Theisen made the motion, seconded by John Gurney. Subject opened for discussion. No discussion ensued. Motion passed by unanimous voice vote.

Seanger asked for a motion from floor to approve the 2023 Performance Plan Budget. John Gurney made the motion, Rick Theisen seconded. Dan began the discussion of the 2023 Performance Plan Budget in detail by reviewing actual costs, estimated cost, and the proposed budget. The board has demonstrated over the years a fiscal discipline to spend significantly less than budgeted for. However, the board requests continued full funding of the budgetary line items so as not to find their ability to fund projects tied to limited funding, a scenario the board faced in 2019. The Proposed 2023 Performance Plan Budget has a nominal increase for each line item. A question was asked referencing the increase in Admin Costs. Dan explained it includes \$5,100+ for an “Agreed-Upon Procedures” protocol which we may be required to engage in every five years and also explained the state statute which limits the Board to not spend over \$5,000 on a line item without prior approval at the annual meeting. Discussion ensued on providing ample funds for the board to perform its functions. Our ability to fund the treatment of both EWM and hybrid milfoil this year was asked. As of now we have \$1,752 in grant funds and the \$24,000 approved in the 2022 CLID budget. During 2023, the proposed budget includes \$24,000 for treatment of all AIS (CLP and milfoil) plus we will apply for a grant from the county. There are a multitude of unknowns when it comes to answering this question but based on historical worst-case scenarios, we believe we would be okay. After a short discussion on funding streams, levy collections, and flexibility of board to be able to react to unknown variable costs the budget was approved by unanimous voice vote.

Dan Seanger made a motion to authorize the annual CLID meeting to be held in any weekend during 2023, Adolf Rabe seconded. During discussion Seanger explained the reason for this request is that state statute specifies that unless approved during the previous annual meeting, the annual meeting must be held during specific summer months. Motion passed by voice vote.

2023 Proposed Levy: Seanger stated that it is the responsibility of the Board to set the 2023 levy; however, Dan made the following motion at the direction of the board members present. I make a motion for the Board members present (JJ Parker absent) to hear from the floor any discussion referencing the 2023 levy. Is there a second from the floor. Seconded by Rick Theisen. Seanger opened the discussion with his opinion of future grant availability, the ability to continue to use the alternative herbicide, cost of herbicides, CLP located during the summer survey and unknown milfoil saga. He further stated he would be comfortable accepting the risk of setting the level at a rate to recapture an amount below the 2023 estimated expenses vs. the proposed 2023 proposed budget. Dan also stated that JJ Parker believes we have a healthy reserve which he is comfortable with lowering. Don Johnson and several members present

stated levy consistency from year to year is desirable rather than a large differential between years. Dan was asked if he had a recommendation for the levy and he stated that he would recommend less than \$60 but not as low as \$20 to have a stable multiyear levy. There being no further discussion, Dan closed the open session, and called on the four board members present (JJ Parker absent) for a motion for the 2023 levy. April Powell made the following motion, “The CLID Board will set the 2023 levy at \$40 which will be recommended to the Morrison County Board of Commissioners for approval”, Don Johnson seconded. There was no further discussion by the board. The motion was approved by a unanimous hand vote of the board members present.

Election of Board of Directors: Don Johnson certified the ballot results and announced the results: 21 votes were cast (2 by mail, 8 by email, and 11 at the meeting) via a secret ballot. Dan Seanger (homestead/resident) received 21 and John Monahan (non-homestead/non-resident) received 21 votes. Their terms on the CLID Board of Directors will run thru the 2024 election. Don then introduced John Monahan to the group.

Old Business

Update “LCIA/CLID” web site: Migration has been ongoing. Target date for completion remains 2022.

Revise 5-Year Crookneck Lake Management Plan: Target date for completion is 2022 and will include “Trigger Points/Call for Action”.

New Business

Contact Info: Notify a board member of property sales or change of addresses to ensure receipt of mailings.

2023 AIS Treatment: The CLID Board intends to treat the lake during 2023 for identified AIS with approved herbicides. If you wish to opt out and not allow treatment adjacent to your property notify a board member by April 30, 2023.

First call for next year’s Board of Directors. At this time, projected 2023-2025 term board vacancies: two resident/homestead and one non-resident/non-homestead. Contact any board member for more information on responsibilities or to have your name on the ballot.

Information/Updates

Crookneck Lake Water Level: On 7 July 2022, the lake was at 2.56 ft or ~2ft 7in above the OHW which is about 5.5in above the level on 8 July 2021. Overall, the lake is down 1.3ft or 1ft 3.6in from its all-time high on 19 Oct 2019.

Lake Shamineau “Lake Lowering Project”: Dan reviewed that the a the CLID and LCIA provided a joint reply to the project’s Environmental Assessment Worksheet. The LSLID Board, the EAW approval authority subsequently declined to address our concerns further. The current “Draft” Operational Plan does contain provisions which call for the LSLID to study the impact on Crookneck Lake should our lake be lowered to our OHW level while they are pumping down to their OHW level.

Wake/Prop Trust Studies: The St. Anthony Falls Lab (SAFL) has completed Phase I and will be performing Phase II of their studies into Wake Energy and Dynamics produced by ‘high-prop thrust’ boats. Phase I focused on the wave energy developed and distance required to dispel it concluding a distance twice that of a watercraft. Phase II will focus on the angular downward thrust towards the bottom of the lake. Currently, we are in a wait and see mode as the studies are pending. The question for the CLID is, what is the impact on AIS and water quality management (water clarity and shoreline erosion as it impacts water quality)? The SAFL studies may shed light on the subject. Dan also reviewed Lake Minnetonka’s proposed regulatory limits on use of these crafts on this lake.

Seanger opened the meeting up for any additional new business. Dan thanked the board for the coffee and donuts. There being no additional new business, John Gurney made a motion to adjourn the meeting, Rick Theisen seconded, approved unanimously by voice vote. Meeting adjourned at 10:24 A.M.

Don Johnson

Secretary

ATCH: 2022 Annual Meeting Presentation (located at CrookneckLake.com under CLID)