

**LAKE SHAMINEAU LAKE IMPROVEMENT DISTRICT**

**Findings of Facts, Conclusions and Record of Decision**

**In the Matter of the Determination of  
The Need for an Environmental  
Impact Statement (EIS) for the Lake Shamineau  
High-Water Control Project**

**JANUARY 2022**

## Background

The Lake Shamineau Lake Improvement District is proposing to construct a water level control outlet to remove excess water by pumping water to the southwest of the lake. Lake Shamineau is in the Scandia Valley Township of Morrison County.

The Lake Shamineau Lake Improvement District (LSLID) is the responsible governmental unit (RGU). An Environmental Assessment Worksheet (EAW) has been prepared in accordance with Minnesota Administrative Rules 4410.1000 through 4410.1700. The issuance of the EAW was discretionary per MN Rule 4410.4500 and the Lake Shamineau Lake Improvement District (LSLID) is the responsible governmental unit per MN Rule 4410.0500 subp. 2. The EAW is incorporated by reference into this Record of Decision on the Determination of Need for an Environmental Impact Statement (EIS).

The EAW was filed with the Minnesota Environmental Quality Board (EQB) and circulated for review and comment to the required distribution list and to those persons known by the LSLID to be interested in the proposed project. A notice of availability was published in the EQB monitor on November 23, 2021. A notice was published in the Morrison County Record newspaper. The EAW was made available electronically on the LSLID website and hard copies were available at the following locations:

- Scandia Valley Town Hall, 3518 320th Street, Cushing, MN 56443;
- Morrison County Land Services, 213 1st Avenue SE, Little Falls, MN 56345; and
- Todd County Soil, Water, Conservation, and Development Services, 215 1st Avenue South, Suite 103, Long Prairie, MN 56347.

The 30-day public comment period began on November 23, 2021 and closed at 4 pm on December 23, 2021. The opportunity was provided to submit written comments on the EAW to Rick Rosar, LSLID EAW Manager by US Mail or through email. Four written comments were received from agencies and from the public. All comments received were considered in determining the potential for significant environmental impacts.

Based on the information in the record, which is composed of the EAW for the proposed project, the comments submitted during the public comment period, the response to the comments and other supporting documents, the Board of Directors of the Lake Shamineau Lake Improvement District makes the following Findings of Facts, Conclusions, and Order.

## Findings of Fact

- A. Project Description:** The Lake Shamineau water level has risen to a high of approximately 2.9 feet above the Ordinary High-Water Level (OHWL) in recent years and is presently more than 1 foot above the OHWL, resulting in flood damages to properties and infrastructure and causing severe shoreline erosion. Alternative projects were reviewed by the LSLID during the feasibility phase of the Project, including various routes and outlet locations for a pumping system, as well as an option involving infiltration of the water after it was pumped from the lake. The project, as described below, was determined to be the most feasible option, based on constructability, environmental impacts, costs, and the ability to acquire necessary land rights.

The LSLID is proposing to construct an outlet structure, pump station, and an underground forcemain pipe as well as an underground pipe bypass to restore the lake's water levels closer to the OHWL. The project is located on the southwestern shoreline of Lake Shamineau and extends approximately 2.7 miles along roadway ditches and existing waterways before discharging into Fish Trap Creek. The pumping station will be constructed near the southwest corner of Lake Shamineau along Aztec Road, and the forcemain would be constructed along Aztec Road and then extend south along US Highway 10, where it would outlet into the County Road 203 ditch. Discharges would then flow west through US Highway 10 and continue westerly along an existing drainage ditch to Atlantic Road. Flows will be diverted out of the existing drainage ditch into a bypass channel primarily consisting of a buried pipe that will convey the water along the east side of Atlantic Road and the south side of Pulaski Road before discharging into an existing tributary of Fish Trap Creek and Todd County Ditch No. 41 (TCD-41). The project is primarily located within existing roadway ditches adjacent to agricultural fields, forests, wetlands, and the Lake Shamineau shoreline.

- B.** The LSLID has held numerous public meetings on the Project and specific conversations have also been held with local, state, and federal agencies involved in the permitting and regulation of the Project. Input from these meetings was utilized by the LSLID to review alternatives and to modify the Project to account for comments provided by project stakeholders, including landowners along the construction route and downstream landowners. A detailed wetland delineation investigation was completed along the Project corridor.
- C.** On October 13<sup>th</sup>, 2021, the Todd County Board of Commissioners, acting as the Drainage Authority, approved a petition authorizing the use of Todd County Ditch 41 as an outlet for water discharge as part of the Lake Shamineau High Water Outlet Project.
- D.** As the local sponsor, the LSLID initiated environmental review, in accordance with Minnesota Rules 4410.1000 subp. 3.D, by the preparation of a discretionary Environmental Assessment Worksheet (EAW) to determine if the project had the potential for significant environmental effects.

- E. Houston Engineering Inc., on behalf of the LSLID, assisted with preparing the EAW for the project in accordance with Minnesota Rules Chapter 4410.
- F. The EAW and supporting technical materials used in preparation of the EAW are incorporated by reference into this Record of Decision on the Determination of Need for an Environmental Impact Statement (EIS) for the Lake Shamineau High-Water Control Project.
- G. The EAW was filed with the Environmental Quality Board (EQB) and a notice of its availability was published in the EQB Monitor on November 23, 2021. A copy of the EAW was sent to all persons on the EQB Distribution List and to those persons requesting a copy. Press releases announcing the availability of the EAW were sent to the Morrison County Record and the LSLID web site.
- H. The 30-day EAW public review and comment began November 23, 2021, and ended December 23, 2021, pursuant to Minnesota Rules part 4410.1600.
- I. During the 30-day public review and comment period, the LSLID received four letters containing written comments. Comments were received from the following parties:
  - a. Sarah Beimers, Environmental Review Program Manager, State Historic Preservation Office (SHPO)
  - b. Crookneck Lake Improvement District (CLID) and the Lake Crookneck Improvement Associated (LCIA)
  - c. Karen Kromar, Project Manager, Environmental Review Unit, Resource Management and Assistance Division, Minnesota Pollution Control Agency (MPCA)
  - d. Melissa Collins, Regional Environmental Assessment Ecologist – Ecological and Water Resources, Minnesota Department of Natural Resources (DNR)
- J. The comments and the responses to the comments are compiled in Appendix A and incorporated by reference into this Record of Decision on the Determination of Need for an EIS. The four letters received with comments are included in their entirety, as Appendix B.
- K. Responses provided by the DNR and MPCA will be incorporated into the final Engineer’s Report, the permitting process, and final design for the Proposed Project as applicable.
- L. The Rules of the Minnesota Environmental Quality Board set forth the following standards and criteria (Minnesota Rules part 4410.1700, subps. 6 and 7) to which the effects of a project are to be compared to determine whether it has the potential for significant environmental effects:
  - a. Type, extent and reversibility of the environmental effects;
  - b. Cumulative potential effects of related or anticipated future projects;
  - c. The extent to which the environmental effects are subject to mitigation by ongoing regulatory authority; and
  - d. The extent to which environmental effects can be anticipated and controlled as a result of other environmental studies undertaken by public agencies or the project proposer, including other Environmental Impact Statements.

M. Based on the information contained within the EAW and provided in written comments received and in the responses to those comments, the LSLID has identified no un-mitigated environmental effects that would require the need for an EIS for the Lake Shamineau High Water Outlet Project.

### Conclusions of Law

- A. The Lake Shamineau Lake Improvement District (LSLID), which is the RGU for the project, has fulfilled the procedural requirements of law and rule applicable for the need of a Discretionary EAW.
- B. There are adequate and appropriate state and local regulations governing the activities of this project that will limit and control environmental effects, specifically the impacts to wetlands, public waters, and rare/natural resources.
- C. It has been determined that the proposed project does not present a potential for environmental impacts of such significance that an Environmental Impact Statement would be required.

### ORDER

Based on the above Findings of Fact and Conclusions and the entire record of this matter:

The Lake Shamineau Lake Improvement District Board of Directors hereby makes a Negative Declaration on the need for an Environmental Impact Statement. An EIS is not required for the Lake Shamineau High Water Outlet Project in Morrison and Todd County, Minnesota.

Any Findings that might properly be termed Conclusions and any Conclusions that might properly be termed Findings are hereby adopted as such.

**Dated this 17th day of January 2022,  
On behalf of the Lake Shamineau Lake Improvement District,**

*Rick Rosar*

\_\_\_\_\_  
**Rick Rosar, Chair**

*Tim Rice*

\_\_\_\_\_  
**Attest: Tim Rice, Secretary**

**Date:** 01/17/2022

# **LAKE SHAMINEAU LAKE IMPROVEMENT DISTRICT**

## **Appendix A**

### **Summary of Agency and Public Comments and the Responses to the Comments**

**In the matter of the Determination of  
The Need for an Environmental  
Impact Statement for the Lake Shamineau  
High-Water Control Project**

**January 2022**

**LAKE SHAMINEAU HIGH WATER OUTLET PROJECT  
EAW COMMENTS/RESPONSES**

<b>COMMENT ID</b>	<b>PUBLIC COMMENT/ AGENCY REVIEW</b>	<b>Comment Topic</b>	<b>ORIGINAL REVIEW COMMENT</b>	<b>RESPONSE</b>
1	MPCA	Item 6	<p>The EAW should include in the Project Description a discussion as to why the lake level is rising as this would be helpful information to fully understand and comment on the situation. Generally speaking, it makes more sense to mitigate for changes that have occurred as opposed to directing the problem elsewhere. The solution of sending the water downstream seems fairly simple, but whereas there is Trophic State Index (TSI) data on Lake Shamineau for approximately 15 years, there is not data on contaminants like nitrates, chlorides, sulfates, or agricultural chemicals that could impact downstream waters in ways that are not anticipated. If downstream wetlands or properties experience vegetation die off, flooding, or other impacts, there will be insufficient evidence to determine how much, if any, of the effects are caused by the Project. Therefore, the MPCA suggests gathering as much chemical data (outside of standard TSI data) on Lake Shamineau as possible prior to implementing the Project so its potential impacts are fully understood.</p>	<p>The rising water levels in the lake have been attributed to a trend of higher amounts of precipitation and the lack of a natural outlet to regulate the level of the lake. The LSLID will consider additional sampling and testing of water quality parameters in the Spring of 2022 and the results will be provided to the MPCA.</p>
2	MPCA	Item 11	<p>The EAW does not discuss the cause of increasing water levels of the lake. Imagery of the area suggests substantial development in the area. If increasing development without stormwater management coupled with increased rainfall due to climate change is related to the increased water levels, the Project proposer should consider adding upgradient stormwater retention to help mitigate the cause.</p>	<p>The rising water levels in the lake have been attributed to a trend of higher amounts of precipitation and the lack of a natural outlet to regulate the level of the lake.</p>

3	MPCA	Item 11	<p>The EAW should also discuss the environmental impacts of adding additional flow volume to the downstream receiving waters. Shoreline restoration work should include planting deep rooted native vegetation to both protect the shoreline and provide pollinator habitat.</p>	<p>A substantial amount of analysis was done on the downstream water bodies and the Operating Plan for the Project was developed in a manner that limits the Project from operating when those water bodies do not have the capacity to handle additional flow. The analysis and the Operating Plan also accounted for erosion along these waterways. A review of water quality implications associated with adding water from the lake into these waterways was also completed and the Project will not degrade the water quality in those downstream water bodies.</p>
4	MPCA	Item 11	<p>The National Pollutant Discharge Elimination System/State Disposal System (NPDES/SDS) Construction Stormwater Permit (CSW Permit) requires redundant downgradient sediment controls where construction encroaches within 50 feet of surface waters and wetlands at the site. Soil stabilization must occur within 14 days of temporarily or permanently not actively working any portion of the site. These requirements must be specified in the Stormwater Pollution Prevention Plan (SWPPP) for the Project.</p>	<p>Noted.</p>
5	MPCA	Item 11	<p>The Project proposer should be aware that the 0.22 acres of permanent wetland impacts will likely need to be mitigated through wetland replacement.</p>	<p>Avoidance, minimization, and replacement of permanent impacts to water resources will be documented and conducted through the project permitting process. It is anticipated that permit applications will be submitted to the USACE for the section 404 permit, the appointed LGU (Morrison SWCD) for the WCA permit, and the MNDNR for the Protected Waters permit. Mitigation measures will be determined through the acquisition of these permit approvals.</p>



6	MPCA	Item 17	<p>The Project will need to conform with state noise standards during operation. Any operation noise levels would need to meet the Noise Area Classification (NAC) 1 standards by the time sound reaches the neighboring residential properties. For residential locations (NAC 1), the limits are L10 = 65 dBA and L50 = 60 dBA during the daytime (7:00 a.m. – 10:00 p.m.) and L10 = 55 dBA and L50 = 50 dBA during the nighttime (10:00 p.m. – 7:00 a.m.) (Minn. R. 7030.0040). This means that during a one-hour period of monitoring, daytime noise levels cannot exceed 65 dBA for more than 10 percent of the time (six minutes) and cannot exceed 60 dBA more than 50 percent of the time (30 minutes).</p>	Noted.
7	MN DNR	Item 8	<p>The DNR has determined that a Public Waters Work Permit will be required for installation of the intake structure within Lake Shamineau, and that a DNR Water Appropriation Permit will not be required for the removal of water from the lake.</p>	Noted.
8	MN DNR	Item 11b.iii	<p>The EAW states that, “Dewatering from construction activities is not anticipated to exceed the thresholds described in the [MPCA NPDES} permit. If the thresholds are surpassed, a DNR Water Appropriation Permit will be acquired.” On page 12, the EAW describes the depth to the water table as predominantly ranging between 0-10 feet. Based on this information and, given that the forcemain will typically be buried to a depth of 10 feet or more below ground, it is likely that construction dewatering will be necessary. A DNR Water Appropriation Permit is required for an appropriation exceeding 10,000 gallons per day or 1,000,000 gallons per year. Even if the threshold for an individual appropriation permit is not met, prior authorization from the DNR is required to use the Water Appropriation General Permit.</p>	Noted.

9	MN DNR	Item 11b.iv.a	<p>We appreciate that the project area is located in predominantly previously disturbed areas and will minimize wetland impacts to the greatest degree possible. Though many of the wetland impacts are temporary in nature, soil structure is irreplaceable, and damaging it reduces soil function and encourages the spread of invasive species. In order to prevent soil compaction, please use poly and/or timber construction mats when working within wetland boundaries in unfrozen conditions. Please do not store equipment, materials, or spoil piles within wetlands. In order to limit the impact to small animals, please use wildlife-friendly erosion control made from natural fibers, and specifically not products that contain plastic.</p>	Noted.
10	MN DNR	Item 12a	<p>The EAW states that, “No contamination, registered storage tanks, or landfills are known to exist in or immediately adjacent to the project area.” Table 10 of the EAW identifies several sealed monitoring wells associated with the Johnson Bus Garage petroleum release site, which is in the reviewed MPCA database. The closest monitoring well was approximately 250 feet west of the proposed forcemain, near the intersection of Hwy 10 and 340th St. The documents available online indicate that there was groundwater contamination at this site. Although MPCA closed the site file, given the depth of the proposed excavation and the proximity to this site, it may be prudent to review the MPCA file on this site to ensure that there is not a risk of encountering petroleum contamination in the excavation.</p>	Noted.

11	MN DNR	Item 13b	We appreciate that the project proposer will work with DNR to avoid impacts to rare species. Please coordinate with DNR Regional Nongame Specialist, Erica Hoaglund (651-259-5772 or Erica.Hoaglund@state.mn.us) on avoidance measures for the species identified in this section as well as regarding the need for a Blanding's turtle avoidance plan.	Noted.
12	MN DNR	Item 16c	Please avoid using products that contain chloride for dust control in areas that drain to Public Waters.	Noted.
13	Crookneck Lake Improvement District (CLID) & Lake Crookneck Improvement Association (LCIA)	N/A	Analysis of lake-level data drawn from the MN DNR Lake Finder database demonstrates the lake levels for Crookneck Lake and Lake Shamineau track remarkably close since 1999. Review of the University Of Minnesota "Historical Aerial Photographs" collection dating back to the late 1940s and 1950s, performed by a member of the Lake Shamineau Emergency Task Force (LSETF), suggests that there may have been a natural outlet of Crookneck Lake into Lake Shamineau via the wetlands located to northwest of Crookneck Lake prior to Pine View Blvd being established. The two lakes are within approximately 100 yards of each other in this area. Other than a map of the local area no reference to Crookneck Lake is made in the EAW.	Noted.
14	CLID & LCIA	N/A	Analysis of the MN DNR Lake Finder data, the 2019 Groundwater Atlas of Morrison County, UM Historical Aerial Photographs, geological review and our close proximity would all support the conclusion that drawing down Lake Shamineau will result in Crookneck Lake receding, although at an undefined rate and time, as the shared groundwater recedes. The EAW makes no reference to what the impact of lowering Lake Shamineau would be on Crookneck Lake, our shared groundwater, or the adjacent wetlands which serve a recharge function.	Historic water level data indicates that Crookneck Lake is at or above its OHW level when Lake Shamineau is at or above its OHW level. Lake Shamineau will not be artificially lowered below its OHW level, so the historic data indicates that Crookneck Lake will not be artificially lowered below its OHW level.

15	CLID & LCIA	N/A	<p>Lake level goal/target: Review of Figure 1 demonstrates that since 1999 Crookneck Lake has been above its OHW level 18 of 23 years with 4 of these years following a period of drought. Six inches above the OHW level provides a buffer for periods of drought. The EAW does not make any reference to the impact on Crookneck Lake or the shared watershed should Lake Shamineau be drawn down to levels near or at their OHW level.</p>	<p>Historic water level data indicates that Crookneck Lake is at or above its OHW level when Lake Shamineau is at or above its OHW level. Lake Shamineau will not be artificially lowered below its OHW level, so the historic data indicates that Crookneck Lake will not be artificially lowered below its OHW level.</p>
16	CLID & LCIA	N/A	<p>Discharge/drawdown rate: The LSLID EAW dated March 2020, subsequently rescinded, called for a proposed rate of 4.608 million gallons per day, taking 2 years to reach their goal. During May 2020, Lake Shamineau was 2.98 ft. above its Ordinary High Water (OHW) level. The proposed maximum rate in this EAW is 10 cfs. During a ZOOM presentation, a question was asked to clarify the rate in gallons per day and an estimate of 6.480 million gallons per day was provided (this comparison is not verified or substantiated). Both EAWs failed to reference any impact to the shared watershed should Lake Shamineau be drawn down rapidly or incrementally allowing for time to study the impact on the ecosystem of Crookneck Lake and its surrounding wetland watershed over a set period of time as the lake level is incrementally stepped down, nor does this EAW consider the impact of future periods of drought. Previously Houston Engineers concluded that as Lake Shamineau is lowered, Crookneck Lake would also recede over an unpredictable time period. Not disclosed in the EAW is whether Crookneck Lake will subsequently recede due to the close proximity of the two lakes in the northeast corner of Crookneck Lake, or a lowering of the water table, or a combination.</p>	<p>The estimated drawdown period reported in 2020 EAW was superceded by the estimates included in the current EAW as the result of additional analysis done to refine the estimated drawdown period. A discharge rate of 10 cfs translates to a rate of approximately 6.46 MGD (US). Historic water level data indicates that Crookneck Lake is at or above its OHW level when Lake Shamineau is at or above its OHW level. Lake Shamineau will not be artificially lowered below its OHW level, so the historic data indicates that Crookneck Lake will not be artificially lowered below its OHW level.</p>

17	CLID & LCIA	N/A	<p>Of particular concern to Crookneck Lake is groundwater flowage. Historical aerial studies of Crookneck Lake performed by A.W. Research Laboratories, Inc., Brainerd, MN demonstrated a flowage from the Scandia Valley Transfer Station towards Crookneck Lake. The EAW does not address historical operations at the transfer station when open pit burning was common. Currently, only brush/leaves/trees are currently burned. As such, Crookneck Lake is concerned what impact an addition draw on the groundwater may have in this region.</p>	<p>The MPCA reviewed the EAW and expressed no concerns over this site and any potential impacts caused by the Project.</p>
18	CLID & LCIA	N/A	<p>The EAW failed to reference any alternative projects accomplished or underway to mitigate the high water. The Lake Shamineau Emergency Task Force (LSETF) has been very active in addressing the surrounding wetland watershed issues first identified as root causes for the high water conditions. Their projects are described in detail below. The LSLID is well aware of these projects and their successes as they have had representatives on or present at the governing board of this group from their onset. Due to the unknown synergistic effects of two major drawdown projects simultaneously impacting the watershed shared by the Scandia Valley Township lakes, in particular Crookneck Lake and Lake Shamineau.</p>	<p>The LSLID's Project is a stand alone project. As the commenters note, the other projects referenced are either completed or uncertain as to their scope and schedule. In any case, any of these other projects that may come to fruition would potentially reduce the length of time the Project would need to operate to meet the stated goal of reaching Lake Shamineau's OHW level, but they are not part fo the Project and do not factor into whether an EIS is necessary for the Project.</p>

19	CLID & LCIA	N/A	<p>CPE, cumulative potential impacts. Since the EAW is narrowly focused on the LSLID project and failed to address the impact of the cumulative potential impacts of the watershed projects being addressed by the LSETF and the LSLID pumping project, this section is grossly deficient in addressing the potential short term and cumulative long term impacts to Crookneck Lake, Lake Shamineau and should be significantly expanded. Furthermore, it must be acknowledged that any of these projects done individually or in combination impacts the entire watershed ecosystem, not just Lake Shamineau. During 2021, FishTrap Lake experienced low water levels and their LID received numerous inquiries about the excess quantities of weed growth. Lake Alex residents experienced low water and related docking issues. Reviewed below, water failed to flow into Crookneck Lake from its lateral from the Blue Line Trench for the first time since 1962; a result of the Blue Line be dredged. Also, noted above, Houston Engineers have stated that as the pumping progresses the groundwater level will recede. The groundwater throughout this region is recharged by surface water from Lake Alex, FishTrap Lake, Crookneck Lake, Lake Shamineau and the surrounding watershed wetlands marshlands. All of these components have witnessed a significant lowering this past year. Analysis of annual precipitation and lake levels demonstrates a lag period of a year or more to notice a difference in the lake levels. A finding confirmed by the DNR. During 2020 and 2021, low precipitation occurred across the region. The lake levels for both Shamineau and Crookneck significantly receded during 2021. Based on historical findings, the lakes can be expected to continue to recede during 2022. The EAW failed to address these historical patterns or forecast the effect on the surrounding public waters and wetlands should they come to fruition.</p>	<p>The LSLID's Project is a stand alone project. As the commenters note, the other projects referenced are either completed or uncertain as to their scope and schedule. In any case, any of these other projects that may come to fruition would potentially reduce the length of time the Project would need to operate to meet the stated goal of reaching Lake Shamineau's OHW level, but they are not part fo the Project and do not factor into whether an EIS is necessary for the Project. The EAW was reviewed by regulatory agencies that are qualified and resposible for reviewing the Project for concerns related to the concerns expressec by the CLID and none of those agencies offered any comments on concerns on these topics.</p>
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20	CLID & LCIA	N/A	<p>Both Crookneck Lake and Lake Shamineau residents have taken extensive mitigation projects to protect shoreline and property structure damaged by recent high water conditions. During 2021, the water receded to a level where the discussion switched from high-water to weeds and wave-rider boats. The EAW states the shorelines of each lake will naturally restore. For Crookneck Lake, the greatest threat today to shoreline erosion is the waves created by the wave-rider boats. These boats are not unique to Crookneck and are also on Shamineau Lake.</p>	<p>Comment noted; however, the use any particular type of watercraft on Crookneck Lake is not relevant to the decision on the need for an EIS.</p>
21	CLID & LCIA	N/A	<p>Since the LSETF Wetlands Projects are underway and their full effect on the watershed remains unknown, combined with the area under a 2-year drought, it would be prudent to delay pumping by the LSLID project until the drainage project is completed and the drought conditions end. A significant point of interest, the current drought in combination with the LSETF projects have significantly decreased the wetland volume providing a buffer for future uptick years in precipitation, a buffer which has not existed for many years. Lake Shamineau receded over a foot during 2021. Should it be determined that a pumping project is still required and given the assumption that it could take up to two years to determine the full effect of a pumping project on Crookneck Lake, a prudent course of action would be to require that a drawdown level for Lake Shamineau be limited to 12 inches above the OHW level for two years to determine the net effect of the lake lowering project. If after two years, the water level on Crookneck Lake has not dropped below 12 inches above the Crookneck Lake OHW level and no demonstrable effects to the ecosystem on either lake or surrounding wetlands, a further reduction in Lake Shamineau down to 6 inches above their OHW level should be considered. Any level below this mark does not offer a buffer should we enter a period of drought and its impact on lake levels as experienced during the past two years. The EAW failed to address the current need for this project now that the water levels have fallen to an unpredictable level.</p>	<p>Comments and opinions noted. Although water levels in Lake Shamineau have receded recently, water levels are still higher than they were when the LSLID first began investigating options for an outlet. There is still an urgent need to lower the water levels on the lake to mitigate property damage, protect and enhance water quality and provide access to the lake.</p>

22	CLID & LCIA	N/A	<p>Several references are made throughout the EAW stating that the project is in compliance with Todd and Morrison County, and state water and environmental plans and upon completion will enhance quality outcomes. No reference is made to the impact on surrounding lakes and wetlands adjacent to Lake Shamineau. Rather the EAW is deficient by being solely focused on Lake Shamineau and the discharge route.</p>	<p>Historic water level data indicates that Crookneck Lake is at or above its OHW level when Lake Shamineau is at or above its OHW level. Lake Shamineau will not be artificially lowered below its OHW level, so the historic data indicates that Crookneck Lake will not be artificially lowered below its OHW level.</p>
23	SHPO	N/A	<p>Based on the results of the survey, we conclude that there are no properties listed in the National or State Registers of Historic Places and no known or suspected archaeological properties located in the area that will be affected by this project. Please note that this comment letter does not address the requirements of Section 106 of the National Historic Preservation Act of 1966 and 36 CFR § 800. If this project is considered for federal financial assistance, or requires a federal permit or license, then review and consultation with our office will need to be initiated by the lead federal agency. Be advised that comments and recommendations provided by our office for this state-level review may differ from findings and determinations made by the federal agency as part of review and consultation under Section 106.</p>	<p>Noted.</p>



**Lake Shamineau Lake Improvement District  
Environmental Assessment**

**Appendix B  
Comment Letters Received by Agencies and the Public**

**November 23, 2021 through December 23, 2021**

	<b>Date</b>	<b>Person(s) or Entity</b>
1	December 15	Sarah Beimers, State Historic Preservation Office
2	December 15	Crookneck Lake Improvement District and Lake Crookneck Improvement Association
3	December 20	Karen Kromar, MPCA
4	December 22	Melissa Collins, MNDNR

December 15, 2021

Rick Rosar  
LSLID EAW Manager  
PO Box 394  
Motley, MN 56466

RE: EAW – Lake Shamineau High Water Outlet Project  
Morrison and Todd Counties  
SHPO Number: 2022-0369

Dear Rick Rosar:

Thank you for providing this office with a copy of the Environmental Assessment Worksheet (EAW) for the above-referenced project.

We have reviewed the EAW and the submitted cultural resources survey report titled *Phase I Archaeological Survey for the Shamineau Lake Pumping Project, Morrison and Todd Counties, Minnesota* (November 2021) as prepared by Duluth Archaeology Center. Based on the results of the survey, we conclude that there are **no properties** listed in the National or State Registers of Historic Places and no known or suspected archaeological properties located in the area that will be affected by this project.

Please note that this comment letter does not address the requirements of Section 106 of the National Historic Preservation Act of 1966 and 36 CFR § 800. If this project is considered for federal financial assistance, or requires a federal permit or license, then review and consultation with our office will need to be initiated by the lead federal agency. Be advised that comments and recommendations provided by our office for this state-level review may differ from findings and determinations made by the federal agency as part of review and consultation under Section 106.

Please contact Kelly Gragg-Johnson, Environmental Review Program Specialist, at [kelly.graggjohnson@state.mn.us](mailto:kelly.graggjohnson@state.mn.us) if you have any questions regarding our review of this project.

Sincerely,



Sarah J. Beimers  
Environmental Review Program Manager

cc: Benjamin Hengel, Houston Engineering

**Date:** December 15, 2021

**TO:** Rick Rosar  
LSLID EAW Manager  
P.O. Box 394  
Motley, MN 56466

**FROM:** Crookneck Lake Improvement District (CLID)  
Lake Crookneck Improvement Association (LCIA)

**SUBJ:** 30-Day Comment Period Input Referencing 2021 Lake Shamineau High Water Environment Awareness Worksheet

**2021 Lake Shamineau High Water Environmental Assessment Worksheet (EAW) 30 Day Review Comments:**

Based on a review of the EAW and the summary data included with this document, the following comments are submitted for as part of the 30 day review comment period:

- Analysis of lake-level data drawn from the MN DNR Lake Finder database demonstrates the lake levels for Crookneck Lake and Lake Shamineau track remarkably close since 1999. Review of the University Of Minnesota “Historical Aerial Photographs” collection dating back to the late 1940s and 1950s, performed by a member of the Lake Shamineau Emergency Task Force (LSETF), suggests that there may have been a natural outlet of Crookneck Lake into Lake Shamineau via the wetlands located to northwest of Crookneck Lake prior to Pine View Blvd being established. The two lakes are within approximately 100 yards of each other in this area. Other than a map of the local area no reference to Crookneck Lake is made in the EAW.
- Analysis of the MN DNR Lake Finder data, the 2019 Groundwater Atlas of Morrison County, UM Historical Aerial Photographs, geological review and our close proximity would all support the conclusion that drawing down Lake Shamineau will result in Crookneck Lake receding, although at an undefined rate and time, as the shared groundwater recedes. The EAW makes no reference to what the impact of lowering Lake Shamineau would be on Crookneck Lake, our shared groundwater, or the adjacent wetlands which serve a recharge function.
- Lake level goal/target: Review of Figure 1 demonstrates that since 1999 Crookneck Lake has been above its OHW level 18 of 23 years with 4 of these years following a period of drought. Six inches above the OHW level provides a buffer for periods of drought. The EAW does not make any reference to the impact on Crookneck Lake or the shared watershed should Lake Shamineau be drawn down to levels near or at their OHW level.
- Discharge/drawdown rate: The LSLID EAW dated March 2020, subsequently rescinded, called for a proposed rate of 4.608 million gallons per day, taking 2 years

to reach their goal. During May 2020, Lake Shamineau was 2.98 ft. above its Ordinary High Water (OHW) level. The proposed maximum rate in this EAW is 10 cfs. During a ZOOM presentation, a question was asked to clarify the rate in gallons per day and an estimate of 6.480 million gallons per day was provided (this comparison is not verified or substantiated). Both EAWs failed to reference any impact to the shared watershed should Lake Shamineau be drawn down rapidly or incrementally allowing for time to study the impact on the ecosystem of Crookneck Lake and its surrounding wetland watershed over a set period of time as the lake level is incrementally stepped down, nor does this EAW consider the impact of future periods of drought. Previously Houston Engineers concluded that as Lake Shamineau is lowered, Crookneck Lake would also recede over an unpredictable time period. Not disclosed in the EAW is whether Crookneck Lake will subsequently recede due to the close proximity of the two lakes in the northeast corner of Crookneck Lake, or a lowering of the water table, or a combination.

- Of particular concern to Crookneck Lake is groundwater flowage. Historical aerial studies of Crookneck Lake performed by A.W. Research Laboratories, Inc., Brainerd, MN demonstrated a flowage from the Scandia Valley Transfer Station towards Crookneck Lake. The EAW does not address historical operations at the transfer station when open pit burning was common. Currently, only brush/leaves/trees are currently burned. As such, Crookneck Lake is concerned what impact an addition draw on the groundwater may have in this region.
- The EAW failed to reference any alternative projects accomplished or underway to mitigate the high water. The Lake Shamineau Emergency Task Force (LSETF) has been very active in addressing the surrounding wetland watershed issues first identified as root causes for the high water conditions. Their projects are described in detail below. The LSLID is well aware of these projects and their successes as they have had representatives on or present at the governing board of this group from their onset. Due to the unknown synergistic effects of two major drawdown projects simultaneously impacting the watershed shared by the Scandia Valley Township lakes, in particular Crookneck Lake and Lake Shamineau.
- CPE, cumulative potential impacts. Since the EAW is narrowly focused on the LSLID project and failed to address the impact of the cumulative potential impacts of the watershed projects being addressed by the LSETF and the LSLID pumping project, this section is grossly deficient in addressing the potential short term and cumulative long term impacts to Crookneck Lake, Lake Shamineau and should be significantly expanded. Furthermore, it must be acknowledged that any of these projects done individually or in combination impacts the entire watershed ecosystem, not just Lake Shamineau. During 2021, FishTrap Lake experienced low water levels and their LID received numerous inquiries about the excess quantities of weed growth. Lake Alex residents experienced low water and related docking issues. Reviewed below, water failed to flow into Crookneck Lake from its lateral from the Blue Line Trench for the first time since 1962; a result of the Blue Line be dredged. Also, noted above, Houston Engineers have stated that as the pumping progresses the groundwater level will recede. The groundwater throughout this region is recharged by surface water from Lake Alex, FishTrap Lake, Crookneck Lake, Lake Shamineau and the surrounding watershed wetlands marshlands. All of

- these components have witnessed a significant lowering this past year. Analysis of annual precipitation and lake levels demonstrates a lag period of a year or more to notice a difference in the lake levels. A finding confirmed by the DNR. During 2020 and 2021, low precipitation occurred across the region. The lake levels for both Shamineau and Crookneck significantly receded during 2021. Based on historical findings, the lakes can be expected to continue to recede during 2022. The EAW failed to address these historical patterns or forecast the effect on the surrounding public waters and wetlands should they come to fruition.
- Both Crookneck Lake and Lake Shamineau residents have taken extensive mitigation projects to protect shoreline and property structure damaged by recent high water conditions. During 2021, the water receded to a level where the discussion switched from high-water to weeds and wave-rider boats. The EAW states the shorelines of each lake will naturally restore. For Crookneck Lake, the greatest threat today to shoreline erosion is the waves created by the wave-rider boats. These boats are not unique to Crookneck and are also on Shamineau Lake.
  - Since the LSETF Wetlands Projects are underway and their full effect on the watershed remains unknown, combined with the area under a 2-year drought, it would be prudent to delay pumping by the LSLID project until the drainage project is completed and the drought conditions end. A significant point of interest, the current drought in combination with the LSETF projects have significantly decreased the wetland volume providing a buffer for future uptick years in precipitation, a buffer which has not existed for many years. Lake Shamineau receded over a foot during 2021. Should it be determined that a pumping project is still required and given the assumption that it could take up to two years to determine the full effect of a pumping project on Crookneck Lake, a prudent course of action would be to require that a drawdown level for Lake Shamineau be limited to 12 inches above the OHW level for two years to determine the net effect of the lake lowering project. If after two years, the water level on Crookneck Lake has not dropped below 12 inches above the Crookneck Lake OHW level and no demonstrable effects to the ecosystem on either lake or surrounding wetlands, a further reduction in Lake Shamineau down to 6 inches above their OHW level should be considered. Any level below this mark does not offer a buffer should we enter a period of drought and its impact on lake levels as experienced during the past two years. The EAW failed to address the current need for this project now that the water levels have fallen to an unpredictable level.
  - Several references are made throughout the EAW stating that the project is in compliance with Todd and Morrison County, and state water and environmental plans and upon completion will enhance quality outcomes. No reference is made to the impact on surrounding lakes and wetlands adjacent to Lake Shamineau. Rather the EAW is deficient by being solely focused on Lake Shamineau and the discharge route.

**Background:** Crookneck Lake has a history of very active and involved owners that have taken multiple steps to study, understand and enhance the ecosystem (overall quality) of Crookneck Lake. During 1980, the Lake Crookneck Improvement Association (LCIA) was established with a mission to conserve the water quality and fishery, manage aquatic vegetation and the shoreline of the lake while also providing a platform for building community relations and public education. The financial management of aquatic invasive species led to the establishment of the

Crookneck Lake Improvement District (CLID) during 2005. Currently the CLID manages Curley Leaf Pondweed and Eurasian Watermilfoil while monitoring water quality and a recent infestation of Zebra Mussels. During 2021, the invasive species surveyors identified the possibility of hybrid Northern Water Milfoil. The surveyor will focus on this possible hybrid during 2022 and if it is located and confirmed by genetic studies our intent is to aggressively treat it. The vision of the LCIA and CLID remains the conservation of the ecosystem of the lake long term. The impact of the LSLID pumping project remains an unknown to our lake and surrounding wetlands. As such, an Environmental Assessment Study should be accomplished.

The Scandia Valley Township, located in Morrison County, arguably has demonstrated a significant increase in surface water over the last 8 years. Although Lake Alexander, Crookneck Lake, Fish Trap Lake and Lake Shamineau are included in these comments, the focus will be on Crookneck Lake and Lake Shamineau. All four lakes are located in the Long Prairie River watershed. The source of surface water is precipitation. Crookneck Lake and Lake Shamineau have no surface discharge outlets and historically recharge was limited to seasonal wetland surface recharge and annual precipitation. Wetlands and precipitation recharge both Lake Alexander and Fish Trap Lake. In addition, Lake Alexander discharges into Fish Trap Lake, which flows into Fish Trap Creek working its way to the Crow Wing River, ultimately recharging the Mississippi River. Historically, the majority of the 203 Corridor discharged either into Lake Alexander or westerly under HWY 10 eventually flowing into the Fish Trap Creek (Lake Alexander via Fish Trap Lake). Since 2010, increasing volumes of the 203 Corridor wetlands are discharging into Crookneck Lake and Lake Shamineau reaching year round flows since 2015.

Review of the Groundwater Atlas of Morrison County shows the groundwater is recharged by surface water. The soil is sandy and porous allowing for transit. For the two lakes of interest, Crookneck and Shamineau, the surrounding wetlands and lakes recharge the groundwater which flows in a northerly direction from the CR 203 Corridor (under/thru Crookneck Lake and then Lake Shamineau) ultimately being discharged into the Crow Wing River.

During 2016 and 2017, significant precipitation occurred across the Scandia Valley Township; followed by near to slightly below average for 2018 and a slight increase for 2019. Both 2020 and 21 were drought years. (See Table 1 for Brainerd precipitation totals). This is not a local finding, but rather a condition across the upper Midwest. Locally the following has been reported:

- Both Crookneck Lake and Lake Shamineau have set new all-time record high levels.
- Soil moisture is saturated, evidenced by standing water in ditches and fields.
- East & West Shamineau Drive are under water in various areas despite repaving to raise their elevation. West Shamineau Drive is closed to thru traffic. Both roads have been closed to local traffic only. Red Oak Lane (Crookneck Lake) is closed and under water since 2017.
- Lake Alexander and Fish Trap Lake have reached levels exceeding their culvert outlets during the summer of 2019 (culvert maintenance enhanced flow).
- The Fish Trap Creek has flowed at flood levels during 2019 west of HWY 10.
- The CR 203 Corridor is at all-time highs during 2016-2019.
- Lena Lake is reported to be at an all-time high (no official results).

- Hebron Gardens and adjacent woods have substantial ponding (60<sup>th</sup> Ave region).
- Round Lake has reached all time high levels.
- During 2021, the high water levels receded or disappeared. Multiple reports of drought conditions occurred.

A graphic display of Crookneck Lake and Lake Shamineau deltas from their respective Ordinary High Water (OHW) levels from 1999 to 2021 along with annual precipitation recorded for Brainerd, MN is attached. (Figure 1)

Notable findings from the graphic display demonstrate:

- Over the 23-year period, the lake levels mirror each other over time.
- Crookneck Lake was above OHW level 18 of 23 years; below OHW 5 years.
- Lake Shamineau was above OHW level 11 of 21 years; below OHW 10 years (missing 2 years of data).
- A lag exists between high/low annual precipitation and resulting lake water level.
  - o Both lakes were down from 2007-2010, following decreased annual precipitation between 2003-2007 (4 of 5 years Crookneck was below OHW)
  - o Both lakes recorded record high OHW levels during 2018-2020 following increased annual precipitation 2016-2017.

In reviewing the past twenty years of Crookneck Lake monitoring data, aquatic conditions in the lake and accessibility to the west bay appear to be optimal when the lake is approximately 6-9 inches above the OHW level. Invasive plant species are controlled and the water quality is good. This level corresponds to 12 inches below the level when a “no-wake” was first issued by the Morrison County Sheriff. As such, a level of 9 inches above the OHW level ensures full use of the lake, while providing a buffer for periods of drought. Lake levels below the OHW stimulates enhanced plant growth and diminished lake usability.

**High Water Mitigation Projects:** Currently two projects are underway to mitigate the high water on Lake Shamineau: the LSLID’s High Water Project, an engineered pumping project, and the LSETF Drainage Sector Project, a project with components adopted by the Scandia Valley Township and Morrison County. The project proposed by the LSLID has been single focused from the outset in 2016/2017...lower the lake level by an engineered pumping solution. Although a cursory review identified increased surface flow into the lake as a significant contributory cause, the LSLID decided to take no mitigating actions. At this time, the pumping project is working its way through the design and permitting process. During October 2019, a project spearheaded by a few individuals not tied to the LSLID board, set out to address the increased surface water (wetlands) across the Lake Shamineau region; routinely reporting their findings to the LSLID board. Ultimately this group formed into the LSETF with representatives from the LSLID Board.

- The LSETF has identified three sectors of the adjacent wetlands watershed to address the flowage of water into Lake Shamineau.
  - o Northwest Sector: This sector is north of Lena Lake ranging along the south side of Pine Ridge Golf Course to the “Ramey Pond”. The plan was to move water from Ramey Pond towards Hwy 10, south to the culverts under Hwy 10

leading towards Cass County Lake, ultimately meandering on to the Fish Trap Creek. Due to the close proximity of Ramey Pond to Lake Shamineau, separated by a road bed, the pond would recharge from the lake as it was drawn down. The first obstacle was Cass County Lake which was backed up due to excessive beaver activity. Once this issue was addressed over succeeding years water was removed from Ramey Pond toward Hwy 10 which then flowed naturally on. The success of this project on lowering Shamineau Lake is unclear but relieve to the homeowners along Ramey Pond, Lake Shamineau residents, was realized.

- Southwest 203 “Blue Line Trench” Sector: During the winter of 2020, the “Blue Line Trench” running west from 30<sup>th</sup> Ave to 20<sup>th</sup> Ave to Hwy 10 to Atlantic Rd ultimately flowing into the FishTrap Creek was dredged for the first time since it was developed during the WPA era. The goal of the project was to lower the 203 corridor wetlands watershed (Cty Rd 203 to Cty Rd 3) and providing a future discharge outlet for the Southeast sector. This project has drained a majority of the wetland watershed from this area. Of particular interest to Crookneck Lake when this project was proposed and implemented was the fact that a lateral runs into Crookneck Lake from the ditch between 30<sup>th</sup> and 20<sup>th</sup> Ave. The lateral provides a critical source of water to Crookneck Lake following spring thaw providing buffered, fresh water. The flow into Crookneck would extend into June or latter depending on snowpack. During 2021, no flow occurred which is the first time this has occurred dating back to 1962.
- Southeast Sector: This sector is currently under review with the assistance of Morrison County. Just east of 30<sup>th</sup> Ave is a delineation point. West of the point the wetland flow west. East it flows away from the west. Historically this sector would flow into Lake Alex but as Cty Rd 3 was re-routed and property owners developed their lands the natural drainage was altered and resulted in an increased volume of water being backed up into the wetland watershed surrounding the southeast sector of Lake Shamineau. The original plan was to establish a drainage project, pump assisted, to route the excess wetlands water to the Blue Line Trench. The original project failed to come to fruition. During 2021, a secondary project was proposed and is under development to divert the water back toward Lake Alex.

The CLID board endorses the efforts of the Scandia Valley Township as the LSETF Wetlands Drainage Sector Project moves forward. It is critical to recognize though that the marsh wetlands surrounding the lakes across the Scandia Valley Township perform a critical function by fulfilling a recharge function to the lakes and groundwater with filtered/buffered water. Although the recharge to Crookneck Lake and Lake Shamineau historically may have been limited to a seasonal flow, it fulfilled a critical function. A primary concern for the CR 203 Corridor wetlands is its ability to continue to serve as a buffering watershed for the lakes as it functions as a seasonal recharge for the lakes. Management of the 203 Corridor wetlands to ensure its future health as a natural buffer and source of seasonal recharge of the lakes will prove critical for this natural resource. Crookneck Lake has shared our concern with the LSETF,



Scandia Valley Township, and Morrison County officials the need to monitor the drawdown of the 203 Corridor and potential mitigating measures.

Crookneck Lake has significant reservations as both projects overlap, the LSETF Wetland Drainage Project and the LSLID Pumping Project, without time to determine the effect of each or the cumulative effect of both, on the surrounding wetland watershed and groundwater over time. No modeling studies have been performed to predict the potential of an unknown synergistic effect occurring as the surface wetland waters (reserves) are directed away from the lakes and a concurrent project lowers Lake Shamineau by an engineered pumping mechanism, both of which decrease the primary source of groundwater recharge in the area which is predominantly from wetlands and lakes.

The LSLID board and engineering firms have sent mixed messages with respect to whether this project will result in Crookneck Lake going down. Houston engineers have concluded that Crookneck Lake would ultimately lower as the groundwater rescinds, although when and how much remains unknown. Although members of the LSLID have indicated they believe that the lakes share a common groundwater and their project will result in a lowering of Crookneck Lake, their public documents or statements are not conclusive, choosing to ignore the impact on the adjacent Lincoln area lakes and wetlands.

The CLID provides the following to support a conclusion that drawing Lake Shamineau down will result in Crookneck Lake subsequently receding:

- The 2019 Ground Water Atlas of Morrison County indicates the groundwater is recharged from the surface water (wetlands) and lakes. Furthermore the groundwater flows in a northerly direction from the 203 Corridor thru/under Crookneck Lake and Lake Shamineau on to the Crow Wing River.
- Drawing down Lake Shamineau will ultimately draw down the shared groundwater, resulting in Crookneck Lake receding (Houston Engineers conclusion).
- Figure 1 clearly demonstrates a direct correlation of the two lakes over time when the individual OHW level deltas are plotted over time. Crookneck Lake averages 8.3 inches above Lake Shamineau.
- Review of the University Of Minnesota “Historical Aerial Photographs” collection suggest that there may have been a natural outlet of Crookneck Lake into Lake Shamineau via the wetlands located to northwest of Crookneck Lake prior to Pine View Blvd being put in place after the 1950’s photos.

Crookneck Lake is a relatively small, shallow lake in comparison to Lake Shamineau. Both lakes are in close proximity. At the onset of this project discussions centered on two premises supported by the engineering firm...a pumping solution was the only option to lower the lake as there was no means to control the inflow and due to climate change continued above normal annual precipitation would be the norm. Both conclusions have turned out to be false. The LSETF is successfully addressing the surrounding wetlands and the area experiencing sustained drought conditions.

Respectfully submitted,  
//Dan Seanger//

Dan Seanger  
Chairperson, Board of Directors  
Crookneck Lake Improvement District

//JJ Parker//

JJ Parker.  
President  
Lake Crookneck Improvement Association

**Attachment 1:**

**Table 1: Crookneck Lake and Lake Shamineau Data.**

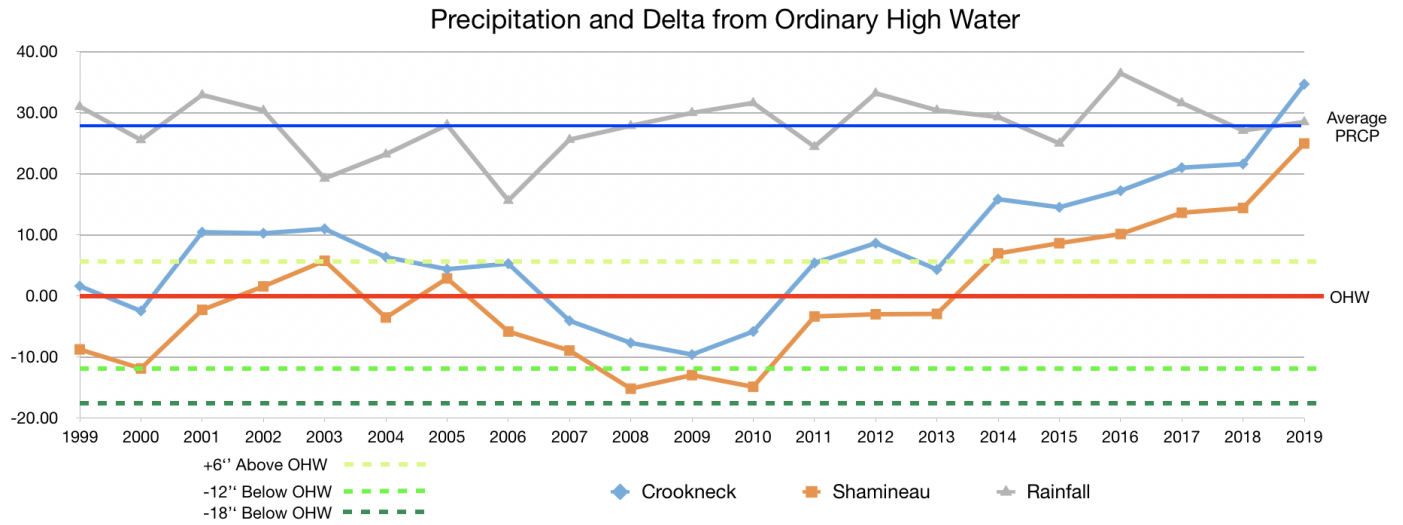
Year to Year Period	Year to Year Crookneck Lake	Year to Year Lake Shamineau	Year	Precipitation	Delta OHW Crookneck Lake	Delta OHW Shamineau Lake
1999 – 2000	-4.08	-3.12	1999	31.01	+1.62	-8.75
2000 – 2001	+7.98	+9.59	2000	25.54	-2.46	-11.87
2001 – 2002	-0.18	+3.84	2001	32.91	+10.44	-2.28
2002 – 2003	+0.72	+4.20	2002	30.37	+10.26	+1.56
2003 – 2004	-4.62	-9.30	2003	19.23	+10.98	+5.76
2004 – 2005	-1.98	+6.41	2004	23.19	+6.36	-3.54
2005 – 2006	+0.90	-8.69	2005	28.0	+4.38	+2.87
2006 – 2007	-9.35	-3.12	2006	15.62	+5.28	-5.82
2007 – 2008	-3.61	-6.24	2007	25.6	-4.07	-8.94
2008 – 2009	-1.92	+2.22*	2008	27.86	-7.68	-15.18
2009 – 2010	+3.78	-1.92*	2009	29.98	-9.6	-12.96*
2010 – 2011	+11.22	+11.52*	2010	31.6	-5.82	-14.88*
2011 – 2012	+3.24	+0.36	2011	24.43	+5.4	-3.36
2012 – 2013	-4.32	+0.06	2012	33.19	+8.64	-3.0
2013 – 2014	+11.52	+9.90	2013	30.04	+4.32	-2.94
2014 – 2015	-1.32	+1.68	2014	29.3	+15.84	+6.96
2015 – 2016	+2.70	+1.50	2015	24.99	+14.52	+8.64
2016 – 2017	+4.78	+3.48	2016	36.44	+17.22	+10.14
2017 – 2018	+0.06	+0.78	2017	31.6	+21.0	+13.62
2018 – 2019	+13.07	+10.56	2018	27.08	+21.6	+14.4
2019 – 2020	+0.73	+7.32	2019	28.48	+34.67	+24.96
2020 - 2021	-2.26	-10.2	2020	20.79	+35.4	+32.28
			2021	18.53**	+25.62	+22.08

Methodology for Data Analysis: Source is the MN DNR Lake Finder. To determine the annual delta from the Ordinary High Water (OHW) level the first recorded reading of the year (representing snow pack run off) and the last recording of the year (representing summer rainfall) are averaged and a positive or negative delta from the OHW is calculated. The “Year to Year” represents either a plus or negative delta over the 2 year period. NOTE: The “\*” years are based on single data point readings; only one reading to determine the annual delta from the OHW. The “\*\*” indicate the total as of December 13, 2021.

Precipitation data represents the annual precipitation recorded at Brainerd, MN.

Attachment 2:

Figure 1: Precipitation and Delta from Ordinary High Water Level



Year	Crookneck	Shamineau	Rainfall
1999	1.62	-8.75	31.01
2000	-2.46	-11.87	25.54
2001	10.44	-2.28	32.91
2002	10.26	1.56	30.37
2003	10.98	5.76	19.23
2004	6.36	-3.54	23.19
2005	4.38	2.87	28
2006	5.28	-5.82	15.62
2007	-4.07	-8.94	25.6
2008	-7.68	-15.18	27.86
2009	-9.6	-12.96	29.98
2010	-5.82	-14.88	31.6
2011	5.4	-3.36	24.43
2012	8.64	-3	33.19
2013	4.32	-2.94	30.4
2014	15.84	6.96	29.3
2015	14.52	8.64	24.99
2016	17.22	10.14	36.44
2017	21	13.62	31.6
2018	21.6	14.4	27.08
2019	34.67	24.96	28.48

December 20, 2021

Rick Rosar  
Lake Shamineau Lake Improvement District  
PO Box 394  
Motley, MN 56466

Re: Lake Shamineau High Water Outlet Project Environmental Assessment Worksheet

Dear Rick Rosar:

Thank you for the opportunity to review and comment on the Environmental Assessment Worksheet (EAW) for the Lake Shamineau High Water Outlet project (Project) in Morrison and Todd Counties, Minnesota. The Project consists of construction of an outlet structure, pump station and underground pipe as well as ditch excavation in order to manage lake water levels. Regarding matters for which the Minnesota Pollution Control Agency (MPCA) has regulatory responsibility or other interests, the MPCA staff has the following comments for your consideration.

**Project Description (Item 6)**

The EAW should include in the Project Description a discussion as to why the lake level is rising as this would be helpful information to fully understand and comment on the situation. Generally speaking, it makes more sense to mitigate for changes that have occurred as opposed to directing the problem elsewhere. The solution of sending the water downstream seems fairly simple, but whereas there is Trophic State Index (TSI) data on Lake Shamineau for approximately 15 years, there is not data on contaminants like nitrates, chlorides, sulfates, or agricultural chemicals that could impact downstream waters in ways that are not anticipated. If downstream wetlands or properties experience vegetation die off, flooding, or other impacts, there will be insufficient evidence to determine how much, if any, of the effects are caused by the Project. Therefore, the MPCA suggests gathering as much chemical data (outside of standard TSI data) on Lake Shamineau as possible prior to implementing the Project so its potential impacts are fully understood.

**Water Resources (Item 11)**

*Stormwater*

- As mentioned previously, the EAW does not discuss the cause of increasing water levels of the lake. Imagery of the area suggests substantial development in the area. If increasing development without stormwater management coupled with increased rainfall due to climate change is related to the increased water levels, the Project proposer should consider adding upgradient stormwater retention to help mitigate the cause.
- The EAW should also discuss the environmental impacts of adding additional flow volume to the downstream receiving waters. Shoreline restoration work should include planting deep rooted native vegetation to both protect the shoreline and provide pollinator habitat.

- The National Pollutant Discharge Elimination System/State Disposal System (NPDES/SDS) Construction Stormwater Permit (CSW Permit) requires redundant downgradient sediment controls where construction encroaches within 50 feet of surface waters and wetlands at the site. Soil stabilization must occur within 14 days of temporarily or permanently not actively working any portion of the site. These requirements must be specified in the Stormwater Pollution Prevention Plan (SWPPP) for the Project. Please direct questions regarding CSW Permit requirements to Roberta Getman at 507-206-2629 or [Roberta.Getman@state.mn.us](mailto:Roberta.Getman@state.mn.us).

#### *Wetlands*

- The Project proposer should be aware that the 0.22 acres of permanent wetland impacts will likely need to be mitigated through wetland replacement. For questions, please contact Jim Brist at 651-757-2245 or [Jim.Brist@state.mn.us](mailto:Jim.Brist@state.mn.us).

#### **Noise (Item 17)**

The Project will need to conform with state noise standards during operation. Any operation noise levels would need to meet the Noise Area Classification (NAC) 1 standards by the time sound reaches the neighboring residential properties. For residential locations (NAC 1), the limits are L10 = 65 dBA and L50 = 60 dBA during the daytime (7:00 a.m. – 10:00 p.m.) and L10 = 55 dBA and L50 = 50 dBA during the nighttime (10:00 p.m. – 7:00 a.m.) (Minn. R. 7030.0040). This means that during a one-hour period of monitoring, daytime noise levels cannot exceed 65 dBA for more than 10 percent of the time (six minutes) and cannot exceed 60 dBA more than 50 percent of the time (30 minutes). For noise related questions, please contact Maggie Wenger at 651-757-2007 or [Maggie.Wenger@state.mn.us](mailto:Maggie.Wenger@state.mn.us).

We appreciate the opportunity to review this Project. Please provide your specific responses to our comments and notice of decision on the need for an Environmental Impact Statement. Please be aware that this letter does not constitute approval by the MPCA of any or all elements of the Project for the purpose of pending or future permit action(s) by the MPCA. Ultimately, it is the responsibility of the Project proposer to secure any required permits and to comply with any requisite permit conditions. If you have any questions concerning our review of this EAW, please contact me by email at [Karen.kromar@state.mn.us](mailto:Karen.kromar@state.mn.us) or by telephone at 651-757-2508.

Sincerely,

*Karen Kromar*

*This document has been electronically signed.*

Karen Kromar  
Project Manager  
Environmental Review Unit  
Resource Management and Assistance Division

KK/RB/JB/MW:rs

cc: Dan Card, MPCA, St. Paul  
Jim Brist, MPCA, St. Paul  
Roberta Getman, MPCA, Rochester  
Maggie Wenger, MPCA, St. Paul  
Scott Lucas, MPCA, St. Paul  
Scott Niemala, MPCA, Brainerd

Division of Ecological and Water Resources  
Region 3 Headquarters  
1200 Warner Road  
Saint Paul, MN 55106

Transmitted by Email

December 22, 2021

Lake Shamineau LID  
Rick Rosar, LSLID EAW Manager  
P.O. Box 394  
Motley, MN 56466

Dear Mr. Rosar,

Thank you for the opportunity to comment on the Lake Shamineau High Water Project EAW in Morrison and Todd Counties. The DNR greatly appreciates the partnership the Lake Shamineau Lake Improvement District (LSLID) has had with the DNR over the last two years. We understand the difficulties that many residents have faced due to the high water levels in Lake Shamineau, and believe that this coordination has produced a project that will address the needs of the LSLID while protecting natural resources. We thank you for your willingness to engage throughout this process. The DNR has reviewed the EAW and we respectfully submit the following comments for your consideration:


1. Page 8, Permits and Approvals Required. The DNR has determined that a Public Waters Work Permit will be required for installation of the intake structure within Lake Shamineau, and that a DNR Water Appropriation Permit will not be required for the removal of water from the lake.
2. Page 19, Water Appropriation. The EAW states that, “Dewatering from construction activities is not anticipated to exceed the thresholds described in the [MPCA NPDES] permit. If the thresholds are surpassed, a DNR Water Appropriation Permit will be acquired.” On page 12, the EAW describes the depth to the water table as predominantly ranging between 0-10 feet. Based on this information and, given that the forcemain will typically be buried to a depth of 10 feet or more below ground, it is likely that construction dewatering will be necessary. A DNR Water Appropriation Permit is required for an appropriation exceeding 10,000 gallons per day or 1,000,000 gallons per year. Even if the threshold for an individual appropriation permit is not met, prior authorization from the DNR is required to use the Water Appropriation General Permit.
3. Page 20, Wetlands. We appreciate that the project area is located in predominantly previously disturbed areas and will minimize wetland impacts to the greatest degree possible. Though many of the wetland impacts are temporary in nature, soil structure is irreplaceable, and

damaging it reduces soil function and encourages the spread of invasive species. In order to prevent soil compaction, please use poly and/or timber construction mats when working within wetland boundaries in unfrozen conditions. Please do not store equipment, materials, or spoil piles within wetlands. In order to limit the impact to small animals, please use wildlife-friendly erosion control made from natural fibers, and specifically not products that contain plastic.

4. Page 21, Contamination/Hazardous Materials/Wastes. The EAW states that, “No contamination, registered storage tanks, or landfills are known to exist in or immediately adjacent to the project area.” Table 10 of the EAW identifies several sealed monitoring wells associated with the Johnson Bus Garage petroleum release site, which is in the reviewed MPCA database. The closest monitoring well was approximately 250 feet west of the proposed forcemain, near the intersection of Hwy 10 and 340<sup>th</sup> St. The documents available online indicate that there was groundwater contamination at this site. Although MPCA closed the site file, given the depth of the proposed excavation and the proximity to this site, it may be prudent to review the MPCA file on this site to ensure that there is not a risk of encountering petroleum contamination in the excavation.
5. Page 26, State-Listed Species. We appreciate that the project proposer will work with DNR to avoid impacts to rare species. Please coordinate with DNR Regional Nongame Specialist, Erica Hoaglund (651-259-5772 or [Erica.Hoaglund@state.mn.us](mailto:Erica.Hoaglund@state.mn.us)) on avoidance measures for the species identified in this section as well as regarding the need for a Blanding’s turtle avoidance plan.
6. Page 33, Dust and Odors. Please avoid using products that contain chloride for dust control in areas that drain to Public Waters.

Thank you again for your ongoing partnership and for the opportunity to review this document. Please let me know if you have any questions.

Sincerely,

A handwritten signature in cursive script that reads "Melissa Collins". The signature is written in black ink on a light blue rectangular background.

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CC: Cindy Kevern, District Administrator  
Dan Lais, DNR Regional Manager  
Tim Crocker, DNR District Manager  
Mark Anderson, Area Hydrologist

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