

**Knife Lake Improvement District
Annual Report for 2023**

**Prepared by Kyle Hams
November, 2023**

Board Members for 2023:

Kyle Hams, Chair

Doug Sabinash, Vice-chair

Ray Ludowese, Treasurer

Tom Zych, Secretary

Other board members: Ron Groebner, Kevin Johnson, and Ed Hamlin – Liaison for Knife Lake Sportsmen's Club

Weeds:

- Letters and authorization forms were mailed out to 340 lake property owners on January 3rd with a return date of February 15th. This was two months earlier than previous years to accommodate DNR request. 264 authorization forms were confirmed for nuisance weed spraying.
- Ice out was approximately April 29, 2023, six days later than 2022.
- Sprayed 50.3 acres on Knife Lake for Curly Leaf Pond Weed on May 23, 2023, by Central Minnesota Aquatics with approval from the MN DNR. The total amount paid to Central Minnesota Aquatics for Curly Leaf Pond Weed was \$36,970.50.
- Sprayed for nuisance weeds by Central Minnesota Aquatics with approval from the MN/DNR and current permit on June 22, 2023 for 259 property owners that returned the authorization forms and where nuisance weeds were a problem.
- The total amount paid to Central Minnesota Aquatics for control of native plants (nuisance weeds) was \$34,188.
- The total amount paid to Central Minnesota Aquatics to spray herbicides to control weeds on Knife Lake for 2023 was \$71,158.
- Received grant from COLA for \$11,463.04, DNR grant for \$7,290 and donation from Knife Lake Sportsmen's Club of \$5,000 for a total of \$23,753.04 to offset this cost.

Coalition of Area Lake Associations (COLA) Report for 2023:

In 2023, Knife Lake's share of the Aquatic Invasive Species (AIS) budget was \$6,463.04.

A presentation was given by KLID to COLA explaining the sharing of funds was not equitable considering lake acre comparison to the other Kanabec County lakes. As a result, Knife Lake was awarded a one-time additional distribution of \$5,000 bringing our total reimbursement to \$11,463.04. Future discussions are planned for the allocation of COLA funds.

Knife Lake is one of three lakes, in Kanabec County, to pilot a program with the DNR for a boat cleaning station that will include new signage and tools for removing possible AIS as boats leave the lake accesses. This pilot program will take place on the north access.

Lake Testing: Testing was done throughout the summer to test for algae and phosphorus, algae and water clarity. Results can be seen on the RMB Labs website under lakes.

Dam Inspection: The report is included; all maintenance was completed.

Financial Report: Included

Aerators: Will be placed in spring if oxygen levels get low.

Assessment: Remains at \$125.00.

Dam Inspection

USDA-NRCS

Knife Lake Dam June 6, 2023

MN-PDM-001A

MAINTENANCE INSPECTION SHEET FLOODWATER RETARDING & MULTIPLE-PURPOSE STRUCTURES Single Structure

PROJECT: Knife Lake Dam MN03065-08

DATE OF INSPECTION: June 6, 2023

COUNTY: Kanabec

1. Principal Spillway: a. Damage to outlet or riser, b. Obstructions, logs, brush, trash, etc. c. Seepage, d. Separation of joints (observation), e. Cracks or breaks, and f. Differential Settlement (Observation).

b. Small 6 ft wide grass vegetation on the middle of the structure – monitor.



Vegetation



d. The right abutment headwall extension has tilted about 1.25 inches. The left abutment headwall has tilted about 0.75 inch. The deflection has been noted in the past. There has been no measurable change. Continue to monitor annually.



Right Abutment



Left Abutment

The first buttress on the left and right abutment is experiencing spalling. This has been noted on previous inspections. – Continue to monitor.



Right Buttress
No apparent change in spalling.



Left Buttress
No apparent change in spalling.

2. Emergency Spillways (both inlet and outlet channels): **a.** Inadequate vegetation, **b.** Banks – rills and gullies, **c.** Channel erosion, **d.** Obstructions, weeds, brush, logs, etc., and **e.** Excessive deposition. N/A

3. Embankments: **a.** Settlement or cracking, **b.** Erosion, **c.** Leakage or seepage, **d.** Damaged by wildlife, livestock, etc., **e.** Inadequate vegetation, **f.** Excessive vegetation, weeds, brush, etc.

The embankment and vegetation looked good. No damage, sloughing, cracking, or seepage was noted. Woody vegetation on the upstream face of the embankment was removed two years ago. Some minor brush regrowth was spot treated last year. Some minor regrowth should be spot treated again this year.

4. Impoundment Area: **a.** Excessive sedimentation, and **b.** Debris. N/A

5. Fences and Gates: **a.** Loose or damaged posts, **b.** Loose or broken wires, and **c.** Debris accumulation.

Gates are intact and in working order.
The safety fence extension noted in 2021 had been repaired and was damaged again.

Repair extension



6. Damaged Sod Chutes: N/A**7. Damaged Riprap: N/A****8. Drainage System:**

Drawdown gates were opened and closed, and pipes were flushed. Significant debris was flushed from the left gate, but water eventually ran clear.

Water is coming out of the RDS downstream piezometer cap. Water was not coming out of the LDS piezometer. This has been noted previously. Continue to monitor.



Piezometer RDS

(Last year's photo – there is smaller amount of water coming out his year)



Piezometer - LDS Abutment

9. Borrow Areas (condition of vegetation): N/A**10. Other (specify):**

Drought conditions in 2021 allowed Marv Kunkel and Craig Peterson to inspect the outlet channel. During the inspection, it noted that the first buttress on the left downstream side of the spillway had a spot with exposed rebar. All other buttresses were checked, and no other issues were noted. Recommend cleaning and patching.



Members of inspection team:

Kyle Hams, Knife Lake Improvement District (Chair)
Ron Groebner, Knife Lake Improvement District
Jeff Suess, Knife Lake Improvement District
Kevin Johnson, Knife Lake Improvement District
Doug Sabinash, Knife Lake Improvement District
Bob Hecht, Knife Lake Improvement District
Marv Kunkel, Civil Engineering Technician, NRCS, Mora
Corinne Schrantz, Civil Engineer, NRCS, Waite Park
Joshua Prudhomme, Engineering Trainee, Waite Park
Marshall Humphrey, Ag Engineer, NRCS, Elk River
Craig Peterson, Area Engineer, NRCS, Elk River

Remarks and Maintenance needed:

Priority on the maintenance is as follows:

1. Remove/treat vegetation regrowth on the upstream side of the embankment. Estimate time and material \$300.
2. Repair Safety Fence Extension. Estimate time and material \$100.
3. Patch concrete on buttress. Patching Time and material \$200.

The maintenance items above will be completed by:

Knife Lake Improvement District

What is the current hazard class of this dam?

High Hazard – EAP has been developed. Note: The dam was reclassified from significant to high hazard in ~2016. The 2015/2016 study was reviewed to determine the appropriate hazard class. The correct classification is being reviewed.

Has any development occurred or is planned that may change the hazard class now or in the next 5 years? *None*

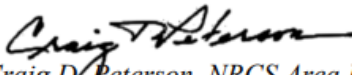
Name of Representative of Local Contracting Organization:

Kyle Hams, Knife Lake Improvement District

Name of Representative of the Soil and Water Conservation District:

N/A

Name of Representative of NRCS:


Craig D. Peterson, NRCS Area Engineer 6/13/2023

*(On the original paper copy, these three individuals should sign their names after their agency.)
File original paper copy in local records. Send electronic copy to State Conservation Engineer as soon after the inspection is complete as possible.*

I hereby give permission for the NRCS to release a copy of this inspection report to the Minnesota Department of Natural Resources, Dam Safety.

Signature of Representative of Local Contracting Organization

Date

Financials

KLID 2023-24 Financials	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	August	Totals
Revenues													
Revenues from Assessments (County Taxes)													\$ -
Donations	\$ 2,500.00												\$ 2,500.00
Grants (COLA)													\$ -
Interest Earned/Dividend	\$ 14.66												\$ 14.66
Misc.													\$ -
Totals	\$ 2,514.66	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 2,514.66
Expenditures													
AIS Consulting													\$ -
Central MN Aquatics, Inc (weed control)													\$ -
Crowl's Nest Resort (stamps/supplies)													\$ -
Clark Aquatic Services, Inc. (weed control)													\$ -
East Central Energy													\$ -
First Citizens Bank													\$ -
Groebner, Ron													\$ -
Hams, Kyle		\$ 88.14											\$ 88.14
Johnson, Kevin													\$ -
Kanabec Publications													\$ -
Knife Lake Sportsmans Club													\$ -
Kanabec County		\$ 46.36											\$ 46.36
MN Counties Ins. Trust (Insurance)													\$ -
MN Unemployment Insurance Fund													\$ -
Office Expense	\$ 203.10												\$ 203.10
Secretary (Sue, DeGoller)													\$ -
Ray Ludowese													\$ -
Misc/Supplies/Postage													\$ -
RMB Labs (Water Testing)		\$ 27.00											\$ 27.00
Rush Printing													\$ -
Suess, Jeff													\$ -
Daniel Swanson (Weed Survey)													\$ -
Post Office													\$ -
Transfer to Savings													\$ -
Totals	\$ 203.10	\$ 161.50	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 161.50
YTD Profit (Loss)													#####
Total Cash Balance Knife Lake Fund(A)	#####												#####
Current Cash Balance	#####	\$ 90,461.41	#####	\$ 90,461.41	\$ 90,461.41	#####	#####	#####	\$ 90,461.41	\$ 90,461.41	\$ 90,461.41	\$ 90,461.41	#####
Platinum Savings Account													
Deposits													
Interest Earned	\$ 11.60												
Withdrawal													
Totals	\$ 11.60	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
August 23 Balance	\$10,083.56												
Current Savings Balance	#####	\$ 10,095.16	#####	\$ 10,095.16	\$ 10,095.16	#####	#####	#####	\$ 10,095.16	\$ 10,095.16	\$ 10,095.16	\$ 10,095.16	#####