

APPENDICES





APPENDIX A. PLAN SUMMARY

This summary can be printed as a brochure on 11x17 paper and folded in half for plan outreach.

Project Partners





Vision Statement

Sense of Place	We are home to the largest lakes within Minnesota and the largest patterned peatlands in the nation.
11000	We are the homeland of the Red Lake Nation.
	We are home to residents and visitors who enjoy our lakes, rivers, and forests, and work our farmlands.
Vision	We envision a future of cooperation among residents, and tribal, state, and local agencies with shared goals of preserving our cultural and natural resources for future generations.

For questions or cost share to implement practices, please contact your local partners:

- Beltrami SWCD: 218-333-4158
- Beltrami County Environmental Services: 218-333-4158
- Red Lake Watershed District: 218-681-5800
- Red Lake Department of Natural Resources: 218-679-3959

View the plan online! Scan this QR code to visit the plan's website







What is One Watershed, One Plan?

- Voluntary program and plan
- districts, and tribal governments within the watershed border
- Local priorities, locally driven
- boards, tribal councils)
- After adopted, implementation funding from the State is obtained through a noncompetitive process instead of competitive
- Program website: <u>https://bwsr.state.mn.us/one-watershed-one-plan</u>

- Aligns water planning along watershed boundaries, including all the counties, watershed

• Uses existing authorities and funding mechanisms (county, SWCD, and watershed district

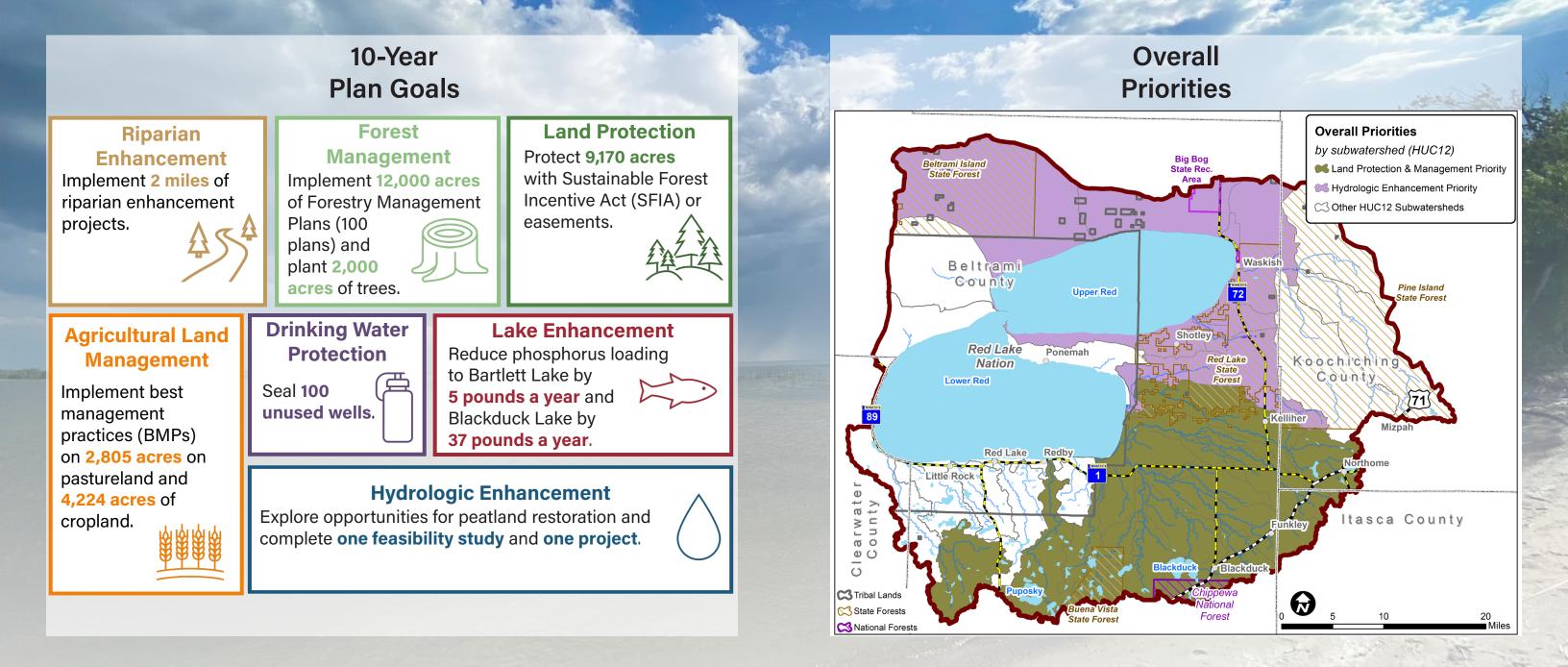


Watershed Highlights

- The Upper/Lower Red Lake Watershed is rich with natural resources and is a vast patchwork of peatlands, forests, lakes, streams, and agricultural lands spanning 1,940 square miles.
- Three guarters of the ULRLW consists of open water or wetlands and peatlands.
- The watershed includes Upper and Lower Red Lake, which combined is the largest lake in Minnesota (completely within Minnesota's borders).
- All the drainage from within the smaller subwatersheds ends up in Upper/Lower Red Lake and eventually outlets into the Red Lake River at the Red Lake Dam. The outflows at the dam are controlled by the USACE.

Plan Highlights

- Red Lake Nation, and Red Lake Watershed District.
- The planning partners have a long history of cooperation and working together on projects, providing more funding for projects and programs moving forward.
- The Planning partners set 7 goals during the planning process. The goals and their outcomes provided for plan implementation.



 Implementation of this plan is voluntary, and outreach, cost share, and incentive programs will be used to assist with voluntary implementation on private lands (See map below). Planning partners include Beltrami Soil and Water Conservation District, Beltrami County,

grants, monitoring, and programs in the watershed. This plan enhances the partnership by

are highlighted below. Funding from the Clean Water Land and Legacy Amendment will be



APPENDIX B. PUBLIC INPUT SUMMARY

Public Kickoff Meetings

There were two public meetings held at the beginning of the planning process. On August 15, the Upper Lower Red Lake One Watershed One Plan (1W1P) partnership held a public kickoff meeting in Kelliher, MN. On October 25, the Red Lake Department of Natural Resources held a public meeting in the Red Lake Nation. The purpose of these meetings was to gather information to incorporate into the 1W1P including:

- What are the top-rated issues and opportunities they would like included in the plan?
- What resources would they like prioritized for protection and restoration?



Figure 1. Public Kickoff meeting in Kelliher, MN

At the Kelliher meeting, after a presentation about the 1W1P process and the Upper/Lower Red Lake Watershed, participants were given pennies to show what they would spend money on protecting and/or restoring in the watershed. The highest rated resource was lake and stream water quality (Figure 2).

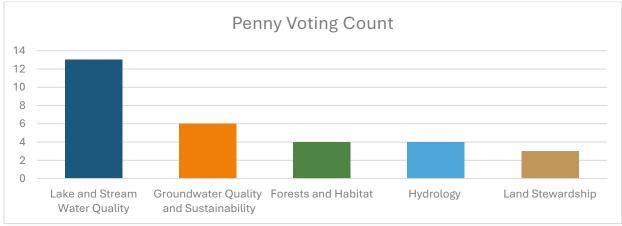
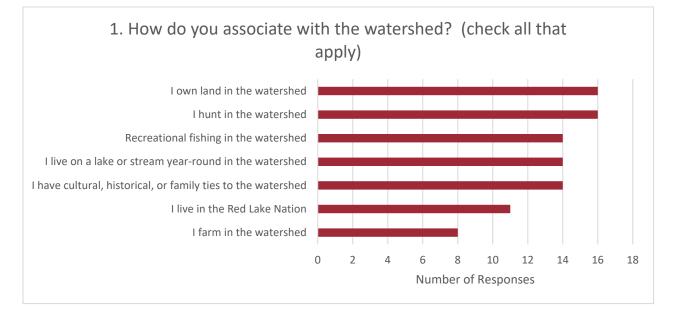


Figure 2. Penny voting results.

Public Survey Responses

A survey was also provided at the public kickoff meetings. This survey was available online for anyone not able to attend the meetings. There were 37 survey responses in all.

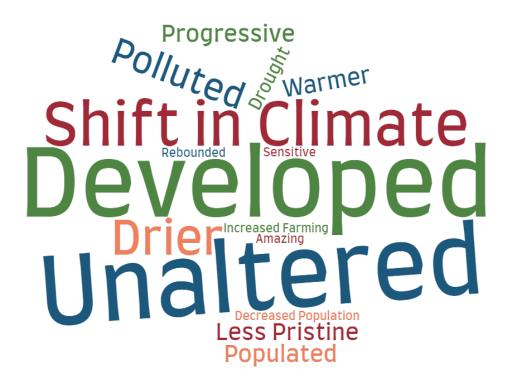


2. What are 4-to-5 words that come to mind when you think about the Upper/Lower Red Lake Watershed Area?





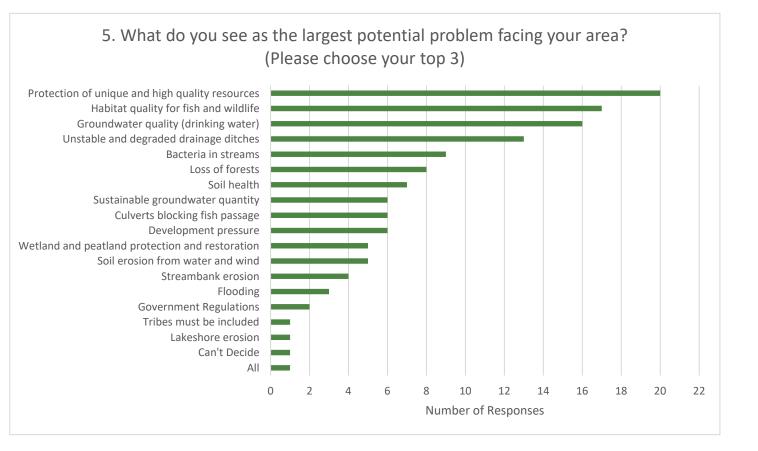
3. What do you think this area will look like in 50 years?



4. What would you like this area to look like in 50 years?









6. If you could magically improve one water resource in the watershed today, which problem would you fix? (responses are grouped into themes)

- Streams
- The stream and how it flows.
- Pollution in the rivers and streams.

- The illegal dumping of garbage, sewage, and human waste on ice and under ice of public waters
- Garbage and human waste left out on the lake ice.
- Garbage and human waste left on frozen lakes.
- Red Lake
- Stocking more small local with walleye, bass, crappie, sunfish
- I think either the groundwater because of the water quality or wetlands because of the importance it has as a habitat for the wild life around it
- Industrial farming and development pressure

- Groundwater (arsenic)
- Ground water quality
- Groundwater
- Conserve water every day

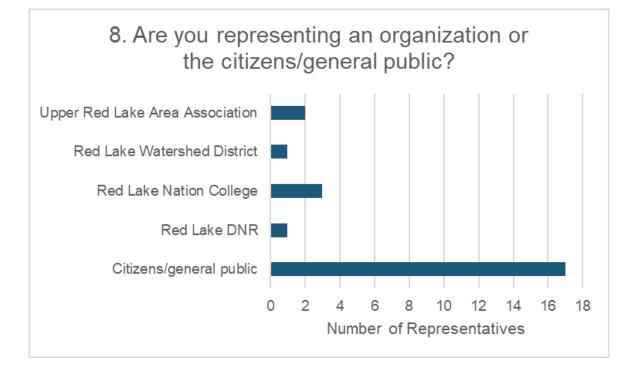
- Ditches
- Degrading drainage ditches
- More clean ditches so we can farm sooner.
- I'd probably get rid of all the judicial ditching projects.

- Wetlands
- Wetland Mitigation
- Laws regulating wetlands.



7. Are there any topics, resources, problems, or opportunities that we didn't cover during this survey?

- Boundary controversy on Upper Red Lake and possible implications for a successful 1W1P collaboration
- Keeping land open for public use
- Prevention, if we prevent something from happening, we won't need to fix it
- Erosion from recreational vehicles
- Tribal treaty rights
- Private property need not be impeded.
- Excess deer in the Shooks area.
- Recreational opportunities
- Lake level of Red Lake
- Infrastructure needs
- Land waste area effect water and land
- Amount of mercury in the fish
- Invasive species





APPENDIX C. GOAL CALCULATIONS

Goals and priority resources were determined using current data and planning partner input. Each goal is described below.

Agricultural Land Management

The Agricultural Land Management goal was calculated as a percentage of the agricultural land in the ULRLW (Table 1). For Hay/Pasture, BMPs are already implemented on 9% of the land. The goal is to add another 6% to bring the total to 15% BMP coverage. For crops, BMPs are already implemented on 3% of the land. The goal is to add another 7% to bring the total to 10% BMP coverage.

NLCD Land Cover	Total Acres	BMPs Already Implemented*	% with BMPs	Draft Goal
Hay/Pasture	28,054	2,493	9%	1,683 acres to get to 15% (adds 6%)
Cultivated Crops	42,243	1,232	3%	2,957 to get to 10% (adds 7%)

Table 1. Agricultural Land Management goal calculations.

*Data from <a href="https://public.tableau.com/app/profile/mpca.data.services/viz/CWAA-Bestmanagementpracticesbywatershed/Bestmangementpractic

Riparian Enhancement

To evaluate the Riparian Enhancement goal, first the BMPs already implemented in the watershed were evaluated (Table 2). Much of the fence and livestock BMPs were implemented by NRCS. Planning partners determined they could implement 2 miles of riparian enhancements in the next 10 years.

Table 2. Riparian BMPs implemented in the ULRLW.

BMP*	Feet	Miles
Fence	121,963	23.1
Lined Waterway or Outlet	4,475	0.8
Livestock Pipeline	83,122	15.7
Riparian Forest Buffer	1,230	0.2
Streambank and Shoreline Protection	357	0.1
Total	211,147	40

*Data from <u>https://public.tableau.com/app/profile/mpca.data.services/viz/CWAA-</u> Bestmanagementpracticesbywatershed/Bestmangementpracticesbywatershed

Lake Enhancement

There are 98 lakes over 10 acres in size in the watershed, so they needed to be prioritized for projects over the next 10 years. Lakes were prioritized using the four categories from the WRAPS and then adding on Lake Shoreline Classification criteria.

Four resource categories from the WRAPS:

- Restoration: Impaired.
- Nearly Restored: Impaired, but close to the standard or "barely impaired".
- Nearly Impaired: Close to the standard but not impaired.
- Protect: Well above the state standard.

Lake Shoreline Classifications (DNR)

The purpose of shoreland classifications is to guide development along lakes and rivers consistent with their ability to withstand human development and recreational activity. Minnesota's shoreland rules establish shoreland classifications for lakes and rivers.

The shoreland classification is used in local shoreland zoning ordinances to regulate the following development standards, which vary based on classification:

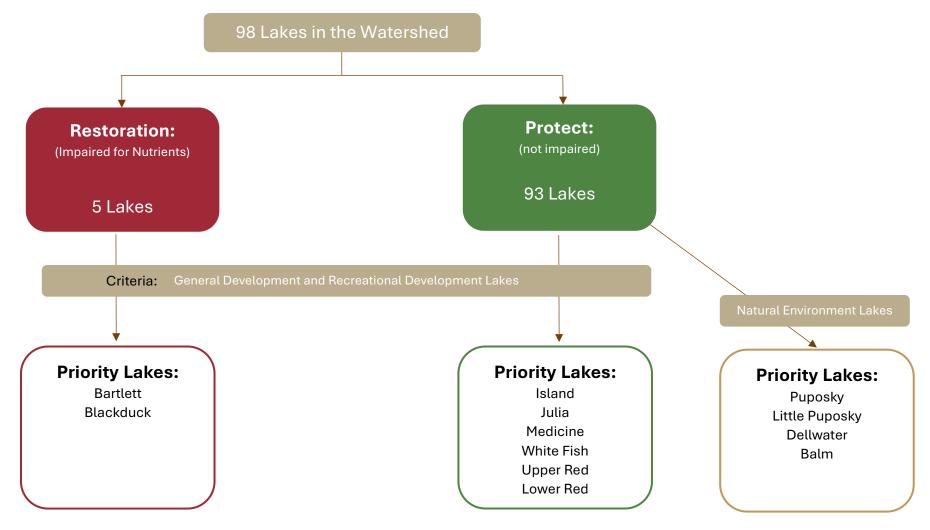
- Lot area and width
- Structure and septic system setbacks from the water
- Size of the shore impact zone, wherein vegetation and land alteration activity is limited

Shoreland Class	Typical Look of the Lake
General Development Lakes are generally large, deep lakes with high levels and mixes of existing development. These lakes often are extensively used for recreation and, except for the very large lakes, are heavily developed around the shore. Second and third tiers of development are fairly common. These lakes also typically have the highest property values.	
Recreational Development Lakes are generally medium-sized lakes. They often are characterized by moderate levels of recreational use and existing development. Development consists mainly of seasonal and year-round residences and recreationally-oriented commercial uses.	
Natural Environment Lakes : Generally small, often shallow lakes with limited capacities for assimilating the impacts of development and recreational use. They often have adjacent lands with substantial constraints for development such as high water tables, exposed bedrock, and unsuitable soils. These lakes, particularly in rural areas, usually do not have much existing development or recreational use. These lakes also typically have the lowest property values.	



Lake Prioritization

Out of the 98 lakes in the ULRLW, 8 lakes were classified as General or Recreational Development. These are the lakes where we want to focus the most effort and funding during the 10-year plan to make measurable change. There are also four Natural Environment Lakes that are a priority for protection. These 12 lakes are considered Tier 1 lakes and all the other lakes in the watershed are considered Tier 2 lakes. Project development and outreach will be targeted to Tier 1 lakes. Projects can be implemented on Tier 2 lakes as opportunities arise. Data characteristics are shown for these 12 priority lakes in Table 3.



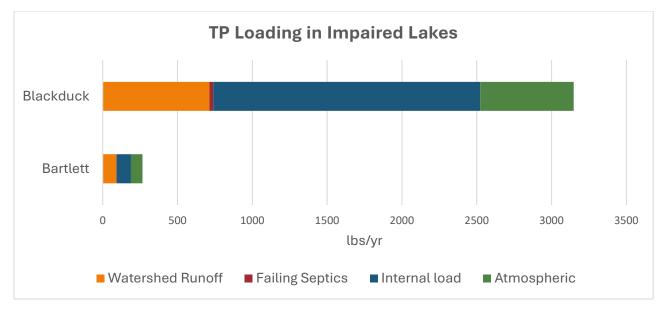


Lake Name	AUID	TP (µg/L)	Chl-a (µg/L)	Secchi (m)	LPSS Priority Class	Lake of Biological Significance	WRAPS category
BARTLETT	36-0018-00	32	20.7	1	Impaired	High	Protect
BLACKDUCK	04-0069-00	34	20.2	2.2	Impaired	Moderate	Nearly Restored
LITTLE PUPOSKY	04-0197-00	45	3.3	1.1	High	Outstanding	Potential Impairment
MEDICINE	04-0122-00	30	8.7	3.1	Higher	Outstanding	Nearly Impaired
ISLAND	04-0265-00	22	4.1	2.5	Highest	-	Protect
JULIA	04-0166-00	23	5.9	4	Highest	Outstanding	Protect
PUPOSKY	04-0198-00	14	6.5	1.8	Highest	Outstanding	Protect
WHITE FISH	04-0137-00	12	3.5	4.5	Higher	-	Protect
UPPER RED	04-0035-01	47	11.7	0.8	Highest	High	Site Specific Standard
LOWER RED	04-0035-02	36	16.5	1.2	Highest	Outstanding	Site Specific Standard

Table 3. Lake data in the ULRLW.

Goal Setting

Lower Red, Upper Red, White Fish, Julia, Island, and Medicine lakes are all in good condition. Bartlett and Blackduck lakes are impaired, therefore they were assigned a phosphorus reduction goal. Figure 1 and Table 4 show the phosphorus budgets for Blackduck and Bartlett lakes. The goal was set to reduce the watershed runoff and failing septic system loading by 5%.







						Goal
	Watershed Runoff	Failing Septics	Internal load	Atmospheric	Total	
lbs/yr	(lbs/yr)	(lbs/yr)	(lbs/yr)	(lbs/yr)	(lbs/yr)	5%
Bartlett	91	1	97	77	266	4.6
Blackduck	714	24	1785	625	3148	36.9

Table 4. TMDL phosphorus budget for Bartlett and Blackduck lakes (MPCA 2022).

Forest Management

Currently there are 27,194 acres of Forest Stewardship Plans in the ULRLW. In 2023, the SWCD cost shared 1,260 acres of forest stewardship plans (11 plans). The planning partnership determined that they could continue this progress for another 10 years. Therefore, the goal is to add another 1,200 acres and 10 plans per year, reaching 12,000 acres in 10 years.

The RLDNR has a goal of planting 2,000 acres of trees in the next 10 years, so this goal was incorporated into the plan.

Protection

A landscape stewardship plan was not completed for the ULRLW, but the calculations of protection per minor watershed were completed (Table 5). Protection includes public land, conservation easements, public water, and wetlands. It would take 45,831 acres to reach either 75% protection or the maximum potential protection (if less than 75%) in the whole watershed (Figure 2, Table 5).

Planning partners determined they could make 20% progress towards that long-term goal in 10 years; therefore, the 10 year goal is 9,166 acres of protection.

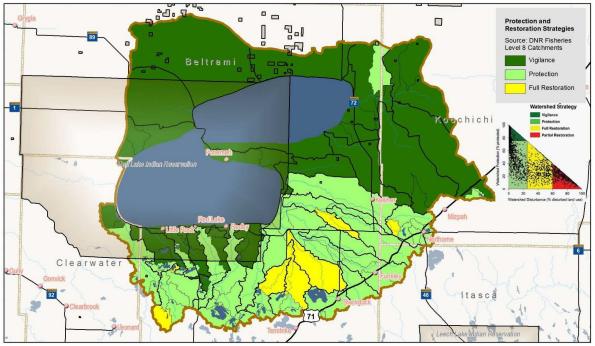


Figure 2. Protection levels in the ULRLW. Dark green is >75% protected, light green is <75% but also <25% disturbed. Yellow is <75% protected and >25% disturbed. In the yellow subwatersheds reaching 75% protection is not likely.

UPPER / LOWER RED LAKE

Table 5. Protection goals per minor watershed.

Minor Watershed #	Priority Lake	Minor Watershed Name	HUC10 Number	% Total Protected Lands (2023)	% Goal from LSP	1W1P Goal Acres (75% or PPT)	% Max Protection (PTP + Current Protection)
62059		unknown	902030207	100.0%	Goal Met	Goal Met	100.0%
62026		Mosquito Cr	902030209	100.0%	Goal Met	Goal Met	100.0%
62022		Unknown DNR Minor Watershed Name	902030208	100.0%	Goal Met	Goal Met	100.0%
62021	Lower Red	Lower Red L	902030209	100.0%	Goal Met	Goal Met	100.0%
62014		Tamarac R	902030201	100.0%	Goal Met	Goal Met	100.0%
62060		unknown	902030207	100.0%	Goal Met	Goal Met	100.0%
62019		Ditch	902030201	100.0%	Goal Met	Goal Met	100.0%
62012		Tamarac R	902030201	100.0%	Goal Met	Goal Met	100.0%
62025		Manomin Cr	902030203	99.9%	Goal Met	Goal Met	99.9%
62057		unknown	902030202	99.7%	Goal Met	Goal Met	99.7%
62051		Sucker Cr	902030209	99.3%	Goal Met	Goal Met	99.3%
62016		Elm Cr	902030201	99.0%	Goal Met	Goal Met	99.0%
62058	Upper Red	unknown	902030204	98.6%	Goal Met	Goal Met	98.6%
62055		Ditch #30	902030202	98.3%	Goal Met	Goal Met	98.3%
62020		Ditch	902030201	97.9%	Goal Met	Goal Met	97.9%
62015		Little Tamarac R	902030201	92.9%	Goal Met	Goal Met	97.2%
62024	Balm	Big Rock Cr	902030207	89.5%	Goal Met	Goal Met	96.3%
62052		Unknown DNR Minor Watershed Name	902030204	96.3%	Goal Met	Goal Met	96.3%
62018		Lost R	902030201	94.0%	Goal Met	Goal Met	95.3%
62053		Ditch	902030201	94.8%	Goal Met	Goal Met	94.8%
62027	Island	Little Rock Cr	902030207	84.1%	Goal Met	Goal Met	92.0%
62054		Tamarac R	902030201	91.0%	Goal Met	Goal Met	91.0%
62017		Shotley Bk	902030204	87.5%	Goal Met	Goal Met	90.9%
62008		Battle R	902030205	89.6%	Goal Met	Goal Met	90.1%
62034		Unknown DNR Minor Watershed Name	902030207	87.4%	Goal Met	Goal Met	90.0%
62010		Armstrong Cr	902030205	76.3%	Goal Met	Goal Met	89.9%
62001		Unknown DNR Minor Watershed Name	902030206	78.8%	Goal Met	Goal Met	89.1%
62056		Unknown DNR Minor Watershed Name	902030207	87.4%	Goal Met	Goal Met	88.4%
62013		Ditch	902030201	85.1%	Goal Met	Goal Met	85.1%
62023		Sandy R	902030208	74.7%	75%	67	93.6%

UPPER / LOWER RED LAKE

Minor Watershed #	Priority Lake	Minor Watershed Name	HUC10 Number	% Total Protected Lands (2023)	% Goal from LSP	1W1P Goal Acres (75% or PPT)	% Max Protection (PTP + Current Protection)
62007		Unknown DNR Minor Watershed Name	902030205	70.3%	75%	174	90.2%
62028	Dellwater	Unknown DNR Minor Watershed Name	902030208	74.3%	75%	67	90.2%
62029		Sandy R	902030208	60.2%	75%	1,523	90.0%
62031		Pike Cr	902030207	70.4%	75%	727	84.5%
62038	Medicine	Unknown DNR Minor Watershed Name	902030206	60.7%	75%	546	82.9%
62043		Detling Cr	902030206	71.0%	75%	215	81.4%
62006		S Br Battle R	902030205	57.2%	75%	1,015	81.2%
62030		Unknown DNR Minor Watershed Name	902030208	39.4%	75%	2,603	80.8%
62033	Julia	Mud R	902030207	59.2%	75%	3,873	80.1%
62039		Unknown DNR Minor Watershed Name	902030206	52.5%	75%	1,042	79.3%
62032	Puposky	From Puposky L	902030207	60.4%	75%	1,266	79.1%
62011	Bartlett	S Br Battle R	902030205	60.8%	75%	464	78.1%
62003		S Cormorant R	902030206	56.9%	75%	1,890	77.9%
62036	Whitefish	Darrigans Cr	902030206	53.1%	75%	3,604	76.6%
62046		Blackduck R	902030206	74.3%	75%	44	75.1%
62047		Squaw Cr	902030206	73.9%	60%	77	74.8%
62035		Hay Cr	902030207	50.8%	60%	3,139	73.4%
62009		S Br Battle R	902030205	61.9%	60%	3,987	72.5%
62041	Blackduck	Blackduck L	902030206	55.1%	60%	2,694	72.5%
62049		Meadow Cr	902030206	51.9%	60%	891	71.8%
62002		Spring Cr	902030206	48.2%	60%	2,345	68.7%
62005		N Cormorant R	902030206	53.2%	60%	3,903	68.6%
62045		Fish Cr	902030206	57.9%	60%	421	65.3%
62044		S Cormorant R	902030206	40.2%	50%	1,298	61.4%
62042		Blackduck R	902030206	45.5%	50%	3,016	60.0%
62037		Unknown DNR Minor Watershed Name	902030206	47.8%	50%	1,204	58.3%
62004		Perry Cr	902030206	46.6%	50%	973	54.2%
62040		O'Brien Cr	902030206	33.1%	40%	2,615	52.9%
62050		N Cormorant R	902030206	49.6%	40%	51	50.2%
62048		Haden Cr	902030206	36.7%	30%	98	38.3%
			Tota	al watershed acres to rea	ach 75% <u>or PPT:</u>	45,831	

Drinking Water Protection

Elink data shows there were 9 wells sealed from 2007-2020 (does not include wells sealed in Red Lake Nation). Planning partners felt that with more funding and effort they could seal 10 wells/year to achieve 100 wells sealed in 10 years. This goal includes well sealing in the Red Lake Nation.

Hydrologic Enhancement

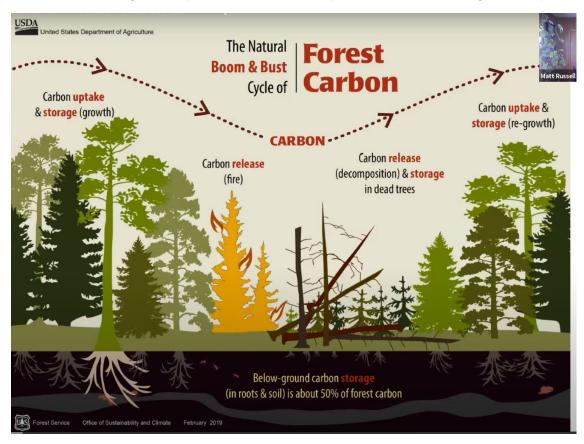
A subcommittee consisting of Bruce Hasbargen (Beltrami County Highway Department), Brent Rud (Beltrami County Environmental Services), Charlie Tucker (DNR), Jim Graham (USFWS), Chad Severts (BWSR), Mitch Brinks (TSA8), and Moriya Rufer (Houston Engineering) met to look at where hydrologic enhancement projects could be possible. The USFWS has federal funding for peatland restoration that could be used near their lands north of Upper Red Lake. Beltrami County has discussed ditch abandonment in this area and is open to looking into potential projects. The subcommittee determined that one feasibility study and one project could be possible in the next 10 years. The feasibility study will need to include a detailed analysis of land ownership and any agricultural benefits resulting from the drainage systems in this area.

Carbon Benefits

Carbon benefits were calculated as additional stacked benefits from implementing plan goals.

Forests

Using the plan's Forest Protection Goal, the carbon stored in the existing forests was quantified. Because this storage already exists, it was called "protected carbon storage" in the plan.



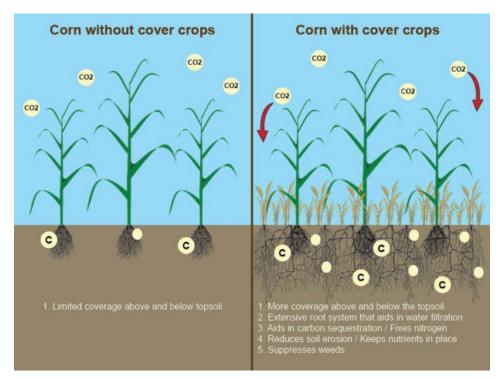
Reference for carbon calculations:

US Forest Service Forest Inventory and Analysis. EVALIDator tool:

https://www.fs.usda.gov/ccrc/tool/forest-inventory-data-online-fido-and-evalidator

Cover Crops

The number of acres that currently have Ag BMPs and the goal number of increased BMPs was used to quantify carbon sequestration gained from those practices as this would be new carbon capture.



Reference for carbon calculations:

COMET-Planner tool. Carbon and Greenhouse Gas Evaluation for NRCS Conservation Practice Planning. USDA and Colorado State University. Available at: <u>http://www.comet-planner.com/</u>

Storage Benefits

Storage benefits were calculated as additional stacked benefits from implementing plan goals.

Forests

Using the plan's Forest Management Goal, the amount of storage was quantified that would be lost if existing forests were cleared for agricultural production or subdivisions for development. Therefore, it was called "protected water storage" in the plan.

Reference:

Senay, G. B. and Kagone, S., 2019, Daily SSEBop Evapotranspiration: U. S. Geological Survey Data Release, https://doi.org/10.5066/P9L2YMV



Appendix D. HSPF SAM Scenario

To:	ULRL Partnership
From:	Tim Erickson, PE
	Houston Engineering, Inc.
Subject:	BMP Scenario in HSPF-SAM for the Upper/Lower Red Lake CWMP
Date:	June 19, 2024
Project:	11464-0001

Introduction

The Agricultural Land Management goal in Section 4 is measured in acres, but an HSPF SAM scenario was developed to determine the pollutant reduction benefits to the watershed resources from implementing this goal. This Appendix provides the inputs and outputs from the model.

Scenario Development

A best management practice (BMP) scenario was developed for the ULRL Watershed using Hydrologic Simulation Program-Fortran Scenario Application Manager (HSPF-SAM) and the ULRL HSPF model. The ULRL HSPF model simulates hydrology, sediment, and nutrients (nitrogen and phosphorus) in the ULRL Watershed for the period 1996-2016 and was developed by the Minnesota Pollution Control Agency (MPCA). The model can be downloaded at https://www.respec.com/sam-file-sharing/.

The scenario applies non-structural BMPs to 4,225 acres of cropland and 2,805 acres pasture in the Blackduck River subwatershed, which flows into Lower Red Lake. The breakdown of BMPs is as follows:

- 4,225 acres of non-structural practices on cropland.
 - 50% cover crop (2,112.5 acres),
 - o 50% no till (2,112.5 acres)
- 2,805 acres of pasture management on pastureland.

The BMPs were distributed evenly across the cropland and pastureland in the targeted area. The Blackduck River subwatershed (along with HSPF basins and basin IDs) is shown in red/maroon in the below figure (Figure 1).



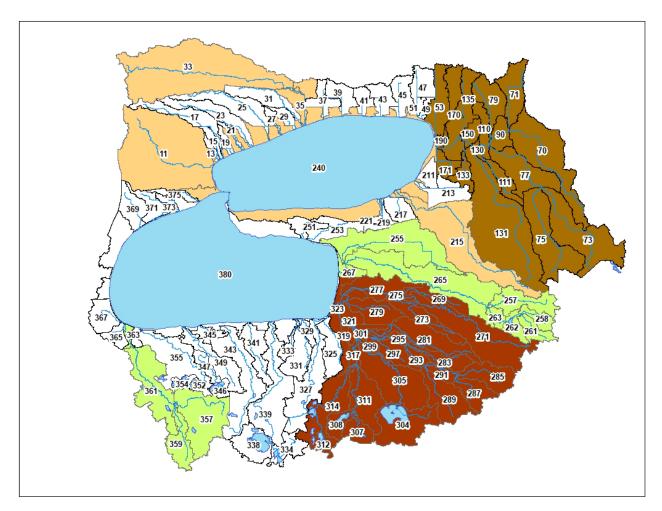


Figure 1. Priority watershed in the Red Lake Watershed with HSPF Basins and Basin IDs.



The Blackduck River subwatershed covers a total area of 191,139.8 acres in the HSPF model with a total cropland area of 5,126 acres and a total pastureland area of 38,333 acres. The BMPs are implemented on 83.0% (4,225 acres) of the cropland and 7.3% (2,805 acres) of the pastureland. The basins in the Blackduck River Watershed included in the BMP scenario are provided in **Table 1**, along with HUC12 ID and name, total area (in acres), total cropland area, and total pasture area.

Basin ID	HUC12	HUC12 Name	Total Area (acres)	Total Cropland Area (acres)	Total Pasture Area (acres)
A269	090203020609	Lower North Cormorant River	4,728.3	123.0	835.3
A271	090203020608	Upper North Cormorant River	24,029.1	1,042.7	5,657.5
A273	090203020609	Lower North Cormorant River	7,291.2	507.8	1,812.1
A275	090203020609	Lower North Cormorant River	678.8	44.0	274.2
A277	090203020609	Lower North Cormorant River	7,786.5	306.2	1,694.2
A279	090203020610	Lower Blackduck River	7,751.4	0.7	400.3
A281	090203020606	Perry Creek	12,807.5	414.3	2,747.8
A283	090203020607	South Cormorant River	5,040.4	396.3	766.3
A285	090203020607	South Cormorant River	8,235.4	0.0	1,513.2
A287	090203020607	South Cormorant River	5,902.5	0.0	260.0
A289	090203020605	Spring Creek	11,091.2	64.3	2,125.2
A291	090203020607	South Cormorant River	2,743.3	10.7	190.6
A293	090203020607	South Cormorant River	2,235.1	360.3	409.6
A295	090203020607	South Cormorant River	1,882.9	0.0	583.0
A297	090203020607	South Cormorant River	5,199.9	74.1	510.6
A299	090203020607	South Cormorant River	1,255.7	0.0	0.0
A301	090203020606	Perry Creek	1,785.1	18.0	343.4
A304	090203020601	Blackduck Lake	15,102.6	64.1	2,452.4
A305	090203020604	Upper Blackduck River	18,947.0	405.0	4,820.4
A307	090203020603	O'Brien Creek	4,529.8	16.0	839.5
A308	090203020603	O'Brien Creek	3,806.6	26.2	532.0
A311	090203020603	O'Brien Creek	11,353.6	700.1	4,701.7
A312	090203020602	Darrigans Creek	2,956.6	0.0	34.5
A314	090203020602	Darrigans Creek	13,747.7	304.0	2,937.6
A317	090203020603	O'Brien Creek	1,738.4	19.8	116.8
A319	090203020604	Upper Blackduck River	1,032.8	48.9	298.2
A321	090203020610	Lower Blackduck River	3,521.7	4.2	425.9
A323	090203020610	Lower Blackduck River	7,623.1	174.8	1,050.8

Table 1. Priority basins and areas in the HSPF model.



The BMP reduction efficiencies for the BMPs used in the simulation are provided in **Table 2**. The BMP reduction efficiencies represent the load reduction at the BMP as a percentage (e.g., a reduction efficiency of 75% for sediment means 75% of sediment is removed by the BMP.

Table 2. Reduction coefficients for BMPs

	Reduction Coefficients (%)				
ВМР	Sediment	TN	ТР		
Cover Crops	74	28	29		
No-Till	80	79	68		
Rotational Grazing	65	62	65		

Results

Outlet of Blackduck River

Results from the BMP scenario were summarized at the outlet of the watershed, into Lower Red Lake. **Table 3** provides a summary of the expected annual load reductions for nitrogen, phosphorus, and sediment based on the BMP implementation scenario. **Tables 4, 5, and 6** provide a summary of the loads and reductions for nitrogen, phosphorus, and sediment, respectively. The loads and reductions include the existing total base load, the total load for the scenario, the absolute load reduction from the scenario, and percent base load reduction from the scenario.

Table 3. Summary of load reductions at outlet of Blackduck River into Lower Red Lake.

	Load Reductions				
Priority Reach	Total Nitrogen (lbs/year)	Total Phosphorus (lbs/year)	Total Sediment (tons/year)		
Blackduck River @ Lower Red Lake	5,929.4	499.4	133.0		

Table 4. Summary of nitrogen loads and reductions at outlet of Blackduck River into Lower Red Lake.

Priority Pooch	HSPF Basin	HSPF Nitrogen (lbs/year)				
Priority Reach		Base	Scenario	Reduction	%Reduced	
Blackduck River @ Lower Red Lake	A323	197,238	191,609	5,629	2.9%	

Table 5. Summary of phosphorus loads and reductions at outlet of Blackduck River into Lower Red Lake.

Priority Reach	HSPF		Phosph		
Filonty Reach	Basin	Base	Scenario	Reduction	%Reduced
Blackduck River @ Lower Red Lake	A323	18,703.1	18,203.7	499.4	2.7%



Table 6. Summary of phosphorus loads and reductions at outlet of Blackduck River into Lower Red Lake.

Drierit / Deech	HSPF		ent (tons/year))	
Priority Reach	Basin	Base	Scenario	Reduction	%Reduced
Blackduck River @ Lower Red Lake	A323	2,216.4	2,083.3	133.0	6.0%

Edge-of-Field Reductions

The edge-of-field load reductions are reductions leaving the landscape or field. These load reductions will differ from load reductions seen at the outlet of the watershed because additional processes impact the sediment and nutrients as it travels through the river system. **Table 7** provides the edge-of-field reductions by priority basin.

	Total Landscape Load			BMP Area (acres)		Load Reductions		
Basin ID	Sediment (tons/yr)	Nitrogen (Ibs/yr)	Phosphorus (lbs/yr)	Cropland	Pasture	Sediment (tons/yr)	Nitrogen (Ibs/yr)	Phosphorus (lbs/yr)
A269	12.72	8,547	658.2	51.0	61.1	3.54	452.4	34.9
A271	99.78	48,741	3,821.4	432.8	414.0	32.35	3,776.9	289.8
A273	39.16	15,621	1,242.0	210.8	132.6	15.55	1,710.3	129.7
A275	4.21	1,684	134.4	18.3	20.1	1.37	164.3	12.7
A277	33.28	15,031	1,191.6	127.1	124.0	9.51	1,113.9	85.5
A279	8.75	8,915	677.6	0.3	29.3	0.17	50.4	4.4
A281	56.79	24,587	1,924.3	172.0	201.1	14.33	1,571.0	121.0
A283	30.19	10,269	798.0	164.5	56.1	13.16	1,249.0	93.4
A285	17.07	14,182	1,076.1	0.0	110.7	0.44	206.1	18.2
A287	6.67	8,777	640.4	0.0	19.0	0.08	35.4	3.1
A289	35.70	20,285	1,542.2	26.7	155.5	2.72	475.1	39.2
A291	3.76	4,240	312.2	4.4	13.9	0.40	56.8	4.6
A293	24.59	5,762	452.1	149.5	30.0	11.88	1,096.4	81.5
A295	8.03	3,907	308.0	0.0	42.7	0.17	79.4	7.0
A297	10.40	8,171	615.8	30.7	37.4	2.51	279.0	21.5
A299	0.35	1,557	115.6	0.0	0.0	0.00	0.0	0.0
A301	5.25	3,044	236.7	7.5	25.1	0.69	98.8	7.9
A304	55.15	21,403	1,613.4	26.6	179.5	2.92	461.9	38.0
A305	80.13	33,075	2,566.2	168.1	352.7	15.40	1,662.1	130.0
A307	12.54	6,735	507.0	6.6	61.4	0.90	138.6	11.6
A308	9.69	4,886	369.4	10.9	38.9	1.12	128.5	10.4
A311	94.51	24,139	1,922.7	290.6	344.0	25.89	2,300.2	179.4
A312	2.48	3,234	232.2	0.0	2.5	0.01	4.1	0.4
A314	58.07	21,822	1,677.4	126.2	215.0	11.49	1,099.1	86.7

Table 7. Edge-of-field load reduction in the Blackduck Watershed from the BMP scenario.



_ .	Tota	Total Landscape Load			BMP Area (acres)		Load Reductions		
Basin ID	Sediment (tons/yr)	Nitrogen (Ibs/yr)	Phosphorus (Ibs/yr)	Cropland	Pasture	Sediment (tons/yr)	Nitrogen (Ibs/yr)	Phosphorus (Ibs/yr)	
A317	3.97	2,322	171.2	8.2	8.5	0.72	63.1	4.9	
A319	5.94	1,820	143.7	20.3	21.8	1.80	157.2	12.2	
A321	8.93	4,807	369.6	1.8	31.2	0.29	62.5	5.4	
A323	21.24	10,570	828.8	72.6	76.9	5.65	567.9	44.3	
Total	749.4	338,132	26,148	2,128	2,805	175.1	19,060	1,478	

Overall, the BMPs will provide total annual landscape (edge-of-field) reductions of 175.1 tons of sediment, 19,060 pounds of nitrogen, and 1,478 pounds of phosphorus. This landscape reductions result in total load reduction into Lower Red Lake (from the Blackduck River) of 133.0 tons of sediment, 5,629 pounds of nitrogen, and 499.4 pounds of phosphorus. These reductions resulted in changes of in-lake concentrations of -2.0%, -0.1%, and -0.2% of sediment, nitrogen, and phosphorus, respectively, in Lower Red Lake.





APPENDIX E. REGULATORY COMPARISIONS

Many of the issues affecting priority issues can be addressed in part through administration of statutory responsibilities and ordinances. This document is intended to be used to summarize the existing local rules, ordinances and statutes that are currently being administered by planning entity, to understand areas of duplication, gaps, and opportunities.

Table 1. Regulatory responsibilities in the ULRLW.

	Rule, Ordinance or Statute Name	Beltrami	RLWD
	Shoreland Management MN Rules 6120.3300	County Shoreland Management Ordinance (#6)	N/A
	Floodplain Management MN Statutes 103F, 104, 394	N/A	Surface Drainage and Flood Mitigation District Rule
	Subsurface Sewage Treatment System MN Rules 7080-7083	County SSTS Ordinance (#32)	N/A
ties	Solid Waste Management MN Statute 115A, 400	County Solid Waste Management Ordinance (#13)	N/A
ilidisr	Hazard Management Minnesota Statute, Chapter 12	N/A	N/A
Respor	Feedlots MN Rules 7020	N/A	N/A
Statutory Responsibilities	Buffers MN Statute 103F.48	N/A	Rule
Sta	Aggregate Management	N/A	N/A
	Construction Erosion Control	N/A	N/A
	Bluffland Protection	N/A	N/A
	Tile Drainage	N/A	Subsurface Tile Drainage District Rule
	Land Use	County Zoning Ordinance	N/A

Continued on next page....



	Rule, Ordinance or Statute Name	Beltrami	RLWD
Ordinances	Public Drainage Systems MN Statute 103E	County is Drainage Authority	RLWD is not a Drainage Authority in this watershed
	Stormwater Runoff	N/A	N/A
Rules, and	Wetland Conservation Act MN Rule 8420	County Environmental Services	N/A
	County Agriculture Inspector	N/A	N/A
Local Regulations,	Aquatic Invasive Species	County Prevention and Management Plan	N/A
	Agricultural Soil Erosion	N/A	N/A

APPENDIX F. MEMORANDUM OF AGREEMENT

UPPER/LOWER RED LAKE WATERSHED – ONE WATERSHED ONE PLAN MEMORANDUM OF AGREEMENT

This agreement (Agreement) is made and entered into by and between:

Beltrami County Board of Commissioners, Beltrami Soil and Water Conservation Districts Board of Supervisors, the Red Lake Nation Tribal Council, and the Red Lake Watershed District Board of Managers, are collectively referred to as the "Parties."

WHEREAS, the County of this Agreement are political subdivision of the State of Minnesota, with authority to carry out environmental programs and land use controls, pursuant to Minnesota Statutes Chapter 375 and as otherwise provided by law; and

WHEREAS, the Soil and Water Conservation District (SWCD) of this Agreement is a political subdivision of the State of Minnesota, with statutory authority to carry out erosion control and other soil and water conservation programs, pursuant to Minnesota Statutes Chapter 103C and as otherwise provided by law; and

WHEREAS, the Red Lake Nation is a federally-recognized Indian tribe with both inherent authority and delegated federal authority to carry out environmental programs and land use controls, and with statutory authority, pursuant to Minnesota Statutes Section 471.59, to enter into joint powers agreements with other state governmental units; and

WHEREAS, the Watershed District of this Agreement is a political subdivision of the State of Minnesota, with statutory authority to carry out the conservation of the natural resources of the state by land use controls, flood control, and other conservation projects for the protection of the public health and welfare and the provident use of the natural resources, pursuant to Minnesota Statutes Chapters 103B, 103D, 103E and as otherwise provided by law; and

WHEREAS, the parties to this Agreement have a common interest and statutory authority to prepare, adopt and assure implementation of a comprehensive watershed management plan in the Upper/Lower Red Lake Watershed (<u>Attachment A - Map</u>) to conserve soil and water resources through the implementation of practices, programs, and regulatory controls that effectively control or prevent erosion, sedimentation, siltation, and related pollution in order to preserve natural resources, ensure continued soil productivity, protect water quality, reduce damages caused by floods, preserve wildlife, protect the tax base, and protect public lands and waters; and

WHEREAS, with matters that relate to the coordination of water management authorities pursuant to Minnesota Statutes Chapters 103B, 103C, and 103D with public drainage systems pursuant to Minnesota Statutes Chapter 103E, this Agreement does not change the rights or obligations of the public drainage system authorities.

WHEREAS, pursuant to Minnesota Statutes Section 103B.101 Subd. 14, the Board of Water and Soil Resources (BWSR) "may adopt resolutions, policies, or orders that allow a comprehensive plan, local water management plan, or watershed management plan, developed or amended, approved and adopted, according to chapter 103B, 103C, or 103D to serve as substitutes for one another or be replaced with a comprehensive watershed management plan," also known as the "One Watershed, One Plan"; and

WHEREAS, the Parties have formed this Agreement for the specific goal of developing a plan pursuant to Minnesota Statutes § 103B.801, Comprehensive Watershed Management Planning, also known as *One Watershed, One Plan*.

WHEREAS, the purposes and goals of the One Watershed, One Plan that are specified in this agreement are consistent with the Red Lake Nation's goal of maintaining the purity of Upper and Lower Red Lake, and the soil and lands in the vicinity of the lakes.

NOW, THEREFORE, the Parties hereto agree as follows:

- Purpose: The Parties to this Agreement recognize the importance of partnerships to plan and implement
 protection and restoration efforts for the Upper/Lower Red Lake Watershed (<u>Attachment A Map</u>). The
 purpose of this Agreement is to collectively develop and adopt, as local government units, a coordinated
 watershed management plan for implementation per the provisions of the Plan. Parties signing this
 agreement will be collectively referred to as: Upper/Lower Red Lake Planning Partnership.
- 2. Joint Powers: This Agreement does not establish a joint powers entity but set outs the terms and provisions by which the parties "may jointly or cooperatively exercise any power common to the contracting parties or any similar powers, including those which are the same except for the territorial limits within which they may be exercised." Minnesota Statutes Section 471.59. As is permitted under the joint exercise of powers statute, Minnesota Statutes Section 471.59, the parties agree that under this Agreement, and as agreed upon and directed by the Policy Committee, one or more of the parties may exercise any power common to them on behalf of the other participating units, such as they have done under the Memorandum of Agreement where the Beltrami Soil and Water Conservation District is the fiscal agent and provides the day-to-day administrative duties of the Upper/Lower Red Lake Planning Partnership.
- 3. Term: This Agreement is effective upon signature of all Parties in consideration of the Board of Water and Soil Resources (BWSR) Operating Procedures for One Watershed, One Plan; and will remain in effect until the adoption of the plan by all parties or the end date of the Minnesota Board of Water and Soil Resources One Watershed One Plan, whichever is later, unless canceled according to the provisions of this Agreement or earlier terminated by law.
- 4. Adding Additional Parties: A qualifying party within the Upper/Lower Red Lake Watershed that is responsible or water planning and resource management according to Minnesota State Statutes desiring to become a member of this Agreement shall indicate its intent by the adoption of a board resolution by the time of the first Policy Committee meeting that includes a request to the Policy Committee to join the Upper/Lower Red Lake Planning Partnership, a representative appointed to the Policy Committee, and a statement that the party agrees to abide by the terms and conditions of the Agreement; including but not limited to the bylaws, policies and procedures adopted by the Policy Committee.

- 5. Withdrawal of Parties: A party desiring to leave the membership of this Agreement shall indicate its intent in writing to the Policy Committee in the form of an official board resolution. Notice must be made at least 30 days in advance of leaving the Agreement. General Provisions:
 - a. **Compliance with Laws/Standards:** The Parties agree to abide by all federal, state, and local laws; statutes, ordinances, rules and regulations now in effect or hereafter adopted pertaining to this Agreement or to the facilities, programs, and staff for which the Agreement is responsible.
 - b. **Sovereignty of the Red Lake Band of Chippewa Indians:** The parties to this Memorandum of Agreement agree to respect the sovereignty of the Red Lake Band of Chippewa Indians over its lands and waters.
 - c. Indemnification: Each party to this Agreement shall be liable for the acts of its officers, employees or agents and the results thereof to the extent authorized or limited by law and shall not be responsible for the acts of any other party, its officers, employees or agents. The provisions of the Municipal Tort Claims Act, Minnesota Statute Chapter 466, and other applicable laws govern the liability of the Parties. To the full extent permitted by law, actions by the Parties, their respective officers, employees, and agents pursuant to this Agreement are intended to be and shall be construed as a "cooperative activity." It is the intent of the Parties that they shall be deemed a "single governmental unit" for the purpose of liability, as set forth in Minnesota Statutes § 471.59, subd. 1a(a). For purposes of Minnesota Statutes § 471.59, subd. 1a(a) it is the intent of each party that this Agreement does not create any liability or exposure of one party for the acts or omissions of any other party. The single governmental unit shall be sufficiently insured to cover any potential liabilities that may arise from the unit's activities.
 - d. Records Retention and Data Practices: The Parties agree that records created pursuant to the terms of this Agreement will be retained in a manner that meets their respective entity's records retention schedules that have been reviewed and approved by the State in accordance with Minnesota Statutes § 138.17. The Parties further agree that records prepared or maintained in furtherance of the agreement shall be subject to the Minnesota Government Data Practices Act (Minnesota Statutes Chapter 13) and the Official Records Act (Minnesota Statutes Section 15.17). At the time this agreement expires, all records will be turned over to the <u>Beltrami Soil and Water Conservation District</u> for continued retention. Each Party may also request and receive, copies of all the records.
 - e. **Timeliness:** The Parties agree to perform obligations under this Agreement in a timely manner and keep each other informed about any delays that may occur.
 - f. **Extension:** The Parties may extend the termination date of this Agreement upon agreement by all Parties.
 - g. **Amendment of Memorandum of Agreement:** This MOA may be amended by approval of the Policy Committee with final approval by each of the above-listed County Boards of

Commissioners, SWCD Boards of Supervisors, the Watershed District Board of Managers, and Tribal Council.

6. Administration:

- a. **Establishment of Committees for Development of the Plan.** The Parties agree to designate one representative, who must be an elected or appointed member of the governing board, to a Policy Committee for the development of the watershed-based plan and may appoint of one or more technical representatives to an Advisory Committee for the development of the plan in consideration of the BWSR Operating Procedures for One Watershed, One Plan.
 - i. The Policy Committee will meet as needed to decide on the content of the plan, serve as a liaison to their respective boards, and act on behalf of their Board. Each representative shall have one vote.
 - ii. Each governing board may choose one alternate to serve on the Policy Committee as needed in the absence of the designated member.
 - iii. The Policy Committee will establish bylaws within 90 days of the execution of this document to describe the functions and operations of the committee(s), as well as any other committees created in furtherance of this Agreement.
 - iv. The Advisory Committee will meet monthly or as needed to assist and provide technical support and make recommendations to the Policy Committee on the development and content of the plan.
 - v. The parties agree that the Steering Team shall continue and shall consist of the One Watershed One Plan Coordinator, local water planners, and the WD Administrator for the purposes of logistical and day-to-day decision-making in the implementation process. The Steering Team will meet quarterly or as needed.
- b. Submittal of the Plan. The Policy Committee will recommend the plan to the Parties of this agreement. The Policy Committee will be responsible for initiating a formal review process for the watershed-based plan conforming to Minnesota Statutes Chapters 103B and 103D, including public hearings. The Policy Committee will recommend the approved Plan to the Parties of the Agreement. Upon completion of local review and comment, and approval of the plan for submittal by each party, the Policy Committee will submit the watershed-based plan jointly to BWSR for review and approval.
- c. **Adoption of the Plan.** The Parties agree to adopt and begin implementation of the plan within 120 days of receiving notice of state approval, and provide notice of plan adoption pursuant to Minnesota Statutes Chapters 103B and 103D.

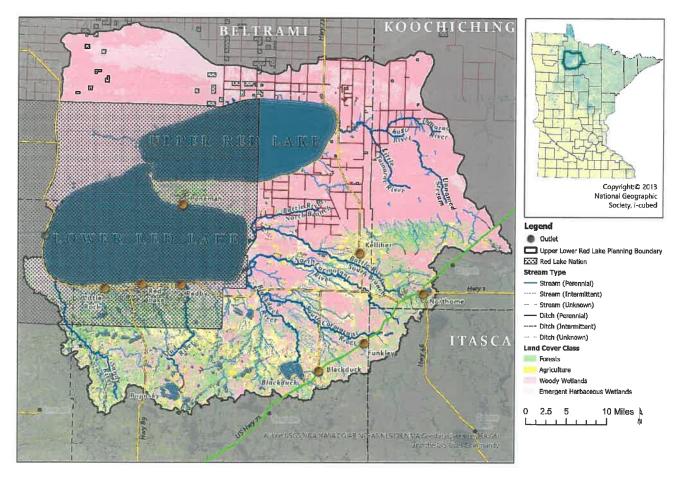
- 7. Fiscal Agent: <u>Beltrami Soil and Water Conservation District</u> will act as the fiscal agent for the purposes of this Agreement and agrees to:
 - a. Accept all responsibilities associated with the implementation of the BWSR grant agreement for developing a watershed-based plan.
 - b. Perform financial transactions as part of the grant agreement and contract implementation.
 - c. Pursuant to Minnesota Statutes Section 471.59, Subd. 3, provide for strict accountability of all funds and report of all receipts and disbursements and annually provide a full and complete financial report.
 - d. Provide the Policy Committee with the records necessary to describe the financial condition of the BWSR grant agreement.
 - e. Retain fiscal records consistent with the agent's records retention schedule until termination of the agreement.
- 8. **Grant Administration**: *Beltrami Soil and Water Conservation District* will act as the grant administrator for the purposes of this Agreement and agrees to provide the following services:
 - a. Accept all day-to-day responsibilities associated with the implementation of the BWSR grant agreement for developing a watershed-based plan, including being the primary BWSR contact for the *One Watershed*, *One Plan* Grant Agreement, and being responsible for BWSR reporting requirements associated with the grant agreement.
 - b. Provide the Policy Committee with the records necessary to describe the planning condition of the BWSR grant agreement.
- 9. The Beltrami Soil and Water Conservation District agrees to provide or delegate the following services:
 - a. Coordinate or delegate the coordination and facilitation of Policy Committee meetings, including establishing date, location, time, and any necessary accommodations.
 - b. Coordinate or delegate the coordination and facilitation of Advisory Committee meetings including establishing date, location, time, and any necessary accommodations.
 - c. Development of bid specifications and management of contracts for any consulting firms selected by the Policy Committee.
 - d. Coordinate or delegate the creation and maintenance of the Upper/Lower Red Lake One Watershed One Plan webpage.
 - e. Assist the Policy Committee and the Steering Team with the administrative details to oversee the development of the watershed-based plan and initial implementation workplan. Assistance with data compilation, meeting facilitation, and plan writing.
 - f. Perform other duties to keep the Policy Committee, the Advisory Committee, and the Steering Team informed about the development of the watershed-based plan.

10. **Authorized Representatives:** The following persons will be the primary contacts for all matters concerning this Agreement:

Beltrami County	Beltrami Soil and Water Conservation District
Brent Rud	Brent Rud
Environmental Services Director	District Manager
701 Minnesota Ave NW	701 Minnesota Ave NW
Bemidji MN 56601	Bemidji MN 56601
Red Lake Nation	Red Lake Watershed District
Shane Bowe	Myron Jesme
15761 High School Drive	1000 Pennington Ave S
PO Box 279	Thief River Falls, MN 56701
Red Lake, MN 56671	

Attachment A

Upper/Lower Red Lake Watershed Planning Area



IN TESTIMONY WHEREOF the Parties have duly executed this Agreement by their duly authorized officers.

PARTNER: Beltrami County

APPROVED:

Richard Chaleren Vice Chain 12-13-22 Board Chair Date BY:

12-14-22 BY:

District Manager/Administrator

Date

IN TESTIMONY WHEREOF the Parties have duly executed this Agreement by their duly authorized officers.

PARTNER: Beltrami SWCD

APPROVED:

ay Handrichson 10/18/22 Date BY: Board Chair

10-18.22 BY:

District Manager/Administrator

Date

IN TESTIMONY WHEREOF the Parties have duly executed this Agreement by their duly authorized officers.

PARTNER: Red Lake Band of Chippewa Indians

1-11-23 BY: Darrell G. Seki, Sr., Chairman Date

BY:

Board Chair

Date

BY:

District Manager/Administrator

Date

Page 6 of 8

IN TESTIMONY WHEREOF the Parties have duly executed this Agreement by their duly authorized officers.

PARTNER: RED LAKE WATERSHED DISTRICT

APPROVED:

BY:

mndly 10/27/22

Board Chair

Date

BY:

District Manager/Administrator

Date

10/27/22

APPENDIX G. RLWD RULES

RED LAKE WATERSHED DISTRICT

RULES AND GUIDANCE DOCUMENT

Amended Rules



Adopted: August 27, 2015

RED LAKE WATERSHED DISTRICT

DISTRICT RULES AND GUIDANCE DOCUMENT

TABLE OF CONTENTS

1.	Permitting Procedures, Fees and Financial Assurances - District Rule
2.	Permitting Procedures, Fees and Financial Assurances - Guidance7
3.	Surface Drainage and Flood Mitigation – District Rule12
4.	Surface Drainage and Flood Mitigation – Guidance16
5.	Subsurface Tile Drainage – District Rule20
6.	Enforcement – District Rule21
7.	Enforcement – Guidance

FOR QUESTIONS, COMMENTS, OR FURTHER INFORMATION: Red Lake Watershed District Myron Jesme or Loren Sanderson 218-681-5800 jesme@wiktel.com loren@wiktel.com

RED LAKE WATERSHED DISTRICT DISTRICT RULES

PERMITTING PROCEDURES, FEES AND FINANCIAL ASSURANCES RULE

Adopted August 27, 2015 Effective September 30, 2015

- 1. POLICY. The District permit requirement is not intended to delay or inhibit development. Rather permits are needed so that the managers are kept informed of planned projects, can advise and in some cases provide assistance, and can ensure that land disturbing activity and development occurs in an orderly manner and in accordance with the overall plan for the District. All interpretations of these rules and permit decisions under these rules will incorporate and be consistent with District purposes set forth in Minnesota Statutes section 103D.201.
- PERMIT REQUIREMENT. Any person or agency of the State of Minnesota or political subdivision undertaking an activity for which a permit is required by the District rules must first submit a permit application. The application must be submitted on the form provided by the District or the substantial equivalent, and must include all exhibits required by the applicable District rule(s). Application forms are available on the District web site at: www.redlakewatershed.org.
 - A. All permit applications must bear the original signature of the landowner.
 - B. No land-disturbing activity to which a District permit requirement applies may be commenced prior to receiving authority from the District, its administrator or staff.
 - C. Permit decisions will be made by the Board of Managers, except as specified in 3. PERMIT decisions may be delegated by the Board of Managers to staff or the District administrator for decision after consultation and review by the Board member representing that particular area of the District. If a permit is approved by staff or administrator, the permit will still be approved by the Board before being issued. The Board will review a staff or administrator permit decision at the applicant's request. Permit decisions may approve or deny an application and may impose reasonable conditions on approval. Conditions may include, consistent with the rules, requirements for financial assurances and maintenance agreements or declarations, and may require that these documents be properly executed or recorded before permit issuance.
 - D. A permit is valid for one year from the date the permit is approved, with or without conditions, unless specified otherwise or the permit is suspended or revoked.
 - E. To request an extension or transfer of a permit, the permittee must notify the District in writing prior to the permit expiration date and provide an explanation for the extension or transfer request. The District may impose different or additional conditions on an extension or deny the extension in the event of a material change in circumstances, except that on the first extension, a permit will not be subject to additional or different requirements solely because of a change in District rules. New or revised rule requirements will not be imposed on an extension of a permit where the permittee has made substantial progress toward completion of the permitted work. If the activities subject to the permit have not substantially commenced, no more than one extension may

be granted. An applicant wishing to continue to pursue a project for which permit approval has expired must reapply for a permit from the District and pay applicable fees.

- F. A permittee may transfer a permit to another party only upon approval of the District, which will be granted if:
 - the proposed transferee agrees in writing to assume responsibility for compliance with all terms, conditions and obligations of the permit as issued;
 - 2) there are no pending violations of the permit or conditions of approval; and
 - 3) the proposed transferee has provided any required financial assurance necessary to secure performance of the permit.

The District may impose different or additional conditions on the transfer of a permit or deny the transfer if it finds that the proposed transferee has not demonstrated the ability to perform the work under the terms of the permit as issued. Permit transfer does not extend the permit term. The District may suspend or revoke a permit issued under these rules wherever the permit is issued on the basis of incorrect information supplied to the District by the applicant,

- G. A permit applicant consents to entry and inspection of the subject property by the District and its authorized agents at reasonable times as necessary to evaluate the permit application or determine compliance with the requirements of a District permit or rule(s).
- H. A District permit is permissive. Obtaining a permit from the District does not relieve the applicant from responsibility to comply with any procedures or approvals that may be required by Minnesota Statutes chapter 103E or any other rules, regulations, requirements or standards of any applicable federal, state, county, township, local government or subdivision thereof, or local agency.
- I. The District further requires as a condition of all permits that they be notified when said permitted work is completed.
- 3. DISTRICT WIDE PERMITS. The District may issue District-wide permits, approving certain routine activities or specific classes of projects where a standard design has been approved by the District, as long as the work is conducted in compliance with applicable District-wide rule requirements.
 - A. Each District-wide permit activity or project classification will be subject to such specific requirements as the Board may establish.
 - B. A hearing will be held before any District-wide permit activities or project classification are issued or established.

4. RECONSIDERATION.

 Before a permit decision is final for the purpose of appeal under Minnesota Statutes §103D.537, an applicant may request that the Board of Managers reconsider its decision. The applicant may submit a notice of reconsideration on a form provided by the District that includes concurrence in an extension of the time for District permit action under Minnesota Statutes §15.99. The notice must be submitted within 10 days of the permit decision and at least one day before the date by which a permit decision must be rendered under §15.99. Within 10 days of submitting the notice, the applicant must in writing enumerate for the District the specific findings or conditions for which reconsideration is requested, along with any additional submittals or argument supporting applicant's request.

- B. The District will give the applicant due notice of when the Board of Managers will reconsider the permit decision. The Board of Managers will adopt findings on reconsideration. The District will not take longer than 120 days to issue a final decision including reconsideration, unless a further extension is approved by the applicant.
- C. The permit decision is final if an applicant fails to timely file notice under paragraph 4.A, if the applicant otherwise waives the right of reconsideration, or if the Board of Managers is unable to reconsider the permit decision before the expiration of the District's time for review under §15.99. Otherwise, the Board of Managers' decision on reconsideration is the final decision.
- D. District costs incurred for reconsideration are permit administration costs for which an applicant may be responsible under Section 5 of this rule.
- 5. "AFTER THE FACT" PERMIT. An "After The Fact" permit may be considered by the District and granted to an individual, if the "After The Fact" permit submission is the first submission provided to the District by said person or entity for the work that has been done. If a person or entity has had a prior written warning given to them in regard to their failure to follow the permitting rule requirements, a \$500.00 late filing fee shall be assessed against said person or entity for the "After The Fact" permit submission. Said late filing fee assessment is in addition to any other conditions or requirements that may ordered by the District in regard to repair or restoration of non-permitted work by said persons or entity in regard to an approval or disapproval of an "After The Fact" permit application. In addition to the remedies provided in Minnesota Statute 103D.545 and other remedies provided for in these rules, in those instances where work has been performed before a permit has been approved, the District may require that the property be returned to its original condition before consideration of the "After The Fact" permit application. The District may also require the applicant to pay actual engineering and attorney's fees, allowed by law, incurred by the District in dealing with the un-permitted work.
- 6. FINANCIAL ASSURANCE. The managers, at their discretion, may require an applicant to file a bond, letter of credit or other escrow deposit in a form approved by the District as a condition of permit issuance. The amount of the financial assurance required will be set in accordance with a schedule established and maintained the Board of Managers by resolution. When the permitted activities are certified as having been completed in compliance with the District permit and rules, the financial assurance will be released.
 - A. If the District determines that the permitted activities have not been completed in compliance with the permit and District rules, the Board of Managers may determine that the assurance is forfeited and the District may use the funds to take such actions the District deems necessary to bring the subject property into compliance with the permit and District rules, to prevent or mitigate harm to protected resources or other property, to abate or restore damages, or otherwise to ensure conditions in compliance with an applicable District permit and/or the District rules. If financial assurance funds prove insufficient to complete necessary work, the District may complete the work and assess the permit holder and/or property owner for any excess costs.

B. No financial assurance will be required of any agency of the United States or of any governmental unit or political subdivision of the State of Minnesota. The District may require that the District be named as a beneficiary in the financial assurance of the agency's contractor.

PERMITTING PROCEDURES, FEES AND FINANCIAL ASSURANCES

Guidance to District Rule

The Permitting Procedures, Fees and Financial Assurances District Rule sets forth the basic process for property owners to apply for watershed district permits and for district processing of applications. These procedures are intended to assure that the District's process is fair, thorough, and effective.

A. Policy

The policy statement at section 1 of the rule states that the District's regulatory program is intended to balance two interests. First, the District has an interest, and indeed a statutory mandate - Minnesota Statutes §103D.341 - to reasonably regulate and monitor activities within its boundaries that may affect water resources. Second, it wishes to do so without unnecessary burdens on those who wish to make use of their property responsibly. A District and its staff will keep both of these interests in mind in carrying out its regulatory program.

B. Application Submittal

Key elements of the rule for application submittal, at section 2, are as follows:

- The rule states explicitly that activity subject to District rules may not occur until a permit has been applied for and issued or authority given by the District to proceed.
- The landowner must sign the application form. The applicant and permittee should always be the party who is indicated in the county land records as the owner of the property on which the activity is to occur. If another party (such as a contractor or intended property buyer) is the District's contact, it should be identified as the agent for the landowner and the District should document its authority to represent the landowner. This insures: (a) that any activity pursuant to a District permit occurs with the knowledge of the landowner and (b) that if compliance action is necessary, the District or the contractor will have access to the property.
- The application must be made on a form supplied by the District. State law (Minnesota Statute §15.99) stipulates that once an application is submitted, the District must approve or deny the application within a specified time frame (60 days) or else the permit is deemed granted. Therefore it is important that an application be clearly identified as an application, and not, for example, merely a pre-application inquiry. The time limit in Minnesota Statute §15.99 begins upon the District's receipt of a written request containing all information required by law or by a previously adopted rule, ordinance, or policy of the District, including the applicable application fee. If the District receives a written request that does not contain all required information, the 60-day limit starts over only if the District sends written notice within 15 business days of receipt of the request telling the requester what information is missing. Additional information associated with an incomplete application is available for review per Minn. Stat. §15.99.
- When a landowner submits an application, it operates as a grant of permission for the District to enter the property. Entry typically will be needed for the District to evaluate the permit application and, once a permit is issued, to monitor activity for permit compliance. The watershed law (Minnesota Statutes §103D.335, subdivision 14) already authorizes the District to enter lands "to make surveys and investigations to accomplish the purposes of the watershed district." This

appears to give the District adequate legal authority to enter private property, outside of constitutionally protected areas such as those in or adjacent to homesteads. The rule language is consistent with this authority.

• A permit may be approved subject to certain conditions that must be fulfilled before the permit is valid. (While other conditions may apply to the manner in which the work itself is conducted after a permit is issued). The District rule states that a permit extends for one year after permit approval and/or issuance. To state it another way, all activity on the land that is subject to the permit (not including subsequent ongoing maintenance) must be completed within a year. This means that it is the permittee's burden to, as soon as possible, meet any conditions that must be fulfilled before permit issuance. This prevents the situation wherein an approved permit is indefinitely open because the permittee has never fulfilled such pre-conditions and the permit has never actually issued.

C. Permit Extension and Transfer

However, because it may take time for pre-issuance conditions to be met, and because even without such conditions a project may take more than a year to complete, the District rules include a process for a permit to be extended. An applicant must request extension before the permit has expired. An extension presents a situation where there is a need for balancing of interests as described earlier. On the one hand, once a District has evaluated an application and determined that proposed work can be done in compliance with the District's rules, a landowner should be able to complete the work without unexpected new costs or barriers. On the other hand, the District does not want land in a disturbed state indefinitely and, as an administrative matter, does not want a permit open indefinitely. Further, because the District's rules may evolve over time to reflect new knowledge and policies, the District has an interest in limiting the extent to which future land disturbance is "grandfathered" under old rules and does not have to meet new standards.

The model permit extension terms balance these considerations as follows:

- A permit may be extended for an indefinite number of years, at the District's discretion, provided the work has been "substantially commenced." However, if the work has not been substantially commenced by the end of the second permit year (two years), it may not be extended and the landowner will need to make a new application.
- The District may deny or place new conditions on an extended permit for a "material change in circumstances." This allows the District to ensure that the permit continues to protect water resources if there is new knowledge or information relevant to the work since the permit was approved or last extended. The term "material" is intended to give some protection to the landowner, and means that the District will not change the "rules of the game" unless the change is both significant and relevant.
- Further, on the first extension, a change in the District's rules occurring since permit approval will not count as a "material" change. This insulates a permittee from a change in the rules for a two-year period of time after a permit is approved. If a permittee seeks a second extension and the District rules have changed in the interim, the District may apply new conditions as needed for the work to conform to the new rules.

• However, once the permittee has made "substantial progress" on the work, a request for permit extension will not be subject to a rule change occurring since permit approval or the prior extension.

Similarly, the District rule allows for a permittee to transfer the permit to a third party. It is advised that the permit always "runs with the land," so the typical reason for a permit to be transferred is because the property is being conveyed. The general principle that the rule reflects is that permit transfer should not be burdened. However, the rule conditions this principle on the following:

- The transferee, in writing, must assume all permit obligations. This avoids the situation where a permittee is excused from permit obligations and ceases to have authority over the land, but the new landowner disclaims knowledge of the permit responsibilities.
- At the time of permit transfer, the work must comply with the permit. First, it is important to document that the site was in compliance when a permit transferee assumes compliance responsibility. This precludes the transferee's later claim that the site was non-compliant on the earlier permittee's watch, and that the transferee was unaware of or should not be responsible for it. Also, practically speaking, property transfer is an effective moment to require that site condition be corrected, as it will be made a condition of sale.
- If the District holds a financial assurance, it will need a substitute assurance from the permit transferee and will return the existing one to the transferor permittee.

Finally, the District rule allows the District to deny or impose conditions on a permit transfer if it has doubts about the proposed transferee that are relevant to whether the transferee can perform the work in compliance with the permit. This clause probably won't apply very often, but gives the District the ability to exercise its judgment if certain work is sensitive or the proposed transferee has been shown to be irresponsible in the past. The District will have to decide what is sufficient evidence to support special conditions in this circumstance.

D. Standards Without Need for Permit Process

The District rule, at section 3, creates the authority for a District to issue what are termed "District-wide permits." A District-wide permit can be an efficient mechanism for a District to impose standards on a certain type of activity without requiring everyone performing that activity to navigate the ordinary permit process. Typically this would apply to a class of activity that does not create a large risk of water resource impact and that, because it is simple or straightforward, does not generally require project-specific evaluation and project-specific conditions.

A District-wide permit may allow the District to do three things: (a) apply a set of standard conditions to the defined activity sufficient to provide basic necessary water resource protection (for example, if the activity involves minor land disturbance, the general permit may require basic erosion and sediment control); (b) make a record of where in the watershed the work is occurring, allowing for the work to be monitored as necessary and also giving the District information about cumulative effects; and (c) exercise jurisdiction over the work in the event a particular case does create a risk of water resource harm.

E. Reconsideration

At section 4, the District rule includes a process for an applicant to ask the board of managers to reconsider a District permit decision. This reconsideration is intended as a requirement before the applicant may appeal the decision to a court under Minnesota Statutes §103D.537.

If an applicant challenges a permit action, the District will always be in the strongest position to defend its decision if there are detailed findings to support a permit denial, or to support conditions included in a permit approval. The United States Supreme Court underscored this point in its decision in *Koontz v St. Johns River Water Management District*, U.S. No. 11-1447; 570 U.S. (2013). The Court held that land-use agencies imposing conditions on the issuance of development permits must have a rational relationship and rough proportionality with the impacts of the proposed development.

Because most permit actions are not contested, it doesn't make sense for every such action to rest on extensive staff or consultant work and detailed findings. The reconsideration process is intended to allow for the District to devote the resources to such efforts only as to those aspects of a permit that are in fact contested. The District rule requires an applicant to give a District fair notice of its objection to the denial or conditions, and ensures that the applicant has a full opportunity to address the board of managers in that regard. The District rule also provides that a District may recover its additional permit review costs incurred in the reconsideration process.

This process must be carefully managed so that the District does not violate Minnesota Statutes §15.99, which as noted places a strict deadline on a District's final permit decision. The District rule states that if the reconsideration process cannot be completed within the section 15.99 (120 days) time frame, then the applicant is not required to complete the reconsideration step before exercising its appeal right. It is especially important for Districts to manage the permit process so that decisions are timely within these deadlines, and adequate time is anticipated for reconsideration of contentious permit conditions.

F. Permit Fee

Minnesota Statutes §103D.345, subdivision 2, states that a watershed district may require a permit fee that covers the actual cost for the District to process a permit application and then to monitor compliance with the issued permit. This includes staff and consultant costs (including attorney costs, as allowed by law) and related administrative costs. At section 5, the rule basically incorporates the statutory language. However if all rules are followed by the applicant while applying for a District permit, all fees will be waived and there will be no charge for the permit.

G. Financial Assurance

Section 6 of the district rule incorporates the Minnesota Statutes §103D.345, subdivision 4, authority given to watershed districts to require that a permittee give a bond to ensure its performance under the permit. The District rule uses the term "financial assurance" rather than "bond" to allow a permittee to use other means of assurance including letters of credit and cash escrows. As is recommended for the permit fee, the required amount of financial assurance for a particular type and scale of project would be set in a schedule that could be reviewed and adjusted by the board of managers as needed, without a formal rulemaking.

The rule further sets forth fairly straightforward terms for how the assurance will be used by the District, the enforcement costs that the assurance may be used to fund, and the release and return of unused funds once the work is completed in accordance with the permit terms. The rule explicitly states that if District costs exceed the amount of a financial assurance, the permittee will be responsible to reimburse for those excess costs. The District would have to pursue such a claim by an independent legal action, if necessary.

The rule provides that a financial assurance will not be required if the permittee is a federal, state or local unit of government. The watershed law does not specifically exempt governmental agencies from the District's authority to require a financial assurance. However, the practice of watershed districts

generally is not to impose such a requirement. It is reasoned that public permittees, in general, are more reliable in meeting permit requirements and that where a particular permittee is not, it remains accessible and is not going to disappear or go into bankruptcy. Further, the cost of a bond or letter of credit would just be an additional taxpayer cost. Notwithstanding, the rule states that if the public permittee requires a bond of its contractor, the District is to be named a beneficiary. The reasoning here is that this gives protection to the District without measurable added cost.

H. Permit Approval Authority

Finally, section 2 of the District rule states that the board of managers will decide permits, except as may be delegated to the administrator or staff. A district board of managers may be quite comfortable delegating the authority for permit decisions to its administrator or staff for simpler permits or those likely to be less controversial. Allowing the administrator or staff to approve certain permits reduces the time and cost for applicants and frees the board of managers agenda for other matters. The delegation would occur by a board resolution that defines the limits of the delegation.

With the reconsideration process at section 4, if a permittee objects to a permit decision of the administrator or staff, it will come before the board for review. A district can include other procedures in its rules, or in the delegation resolution, that would, for example, allow a board member or an interested member of the public other than the applicant to ask that the board consider an application in a given instance.

RED LAKE WATERSHED DISTRICT RULES AND REGULATIONS

SURFACE DRAINAGE AND FLOOD MITIGATION

Adopted August 27, 2015 Effective September 30, 2015

DEFINITIONS

Board of Managers shall mean Board of Managers of the Red Lake Watershed District

District shall mean the Red Lake Watershed District

Dike shall mean a bank or mound of earth, berm or obstruction that is built or placed in a manner which will affect the flow of water and especially to protect an area from flooding.

Drainage Way shall mean a natural or artificial channel which provides a course for the flow of water, whether that flow be continuous or intermittent.

Flood Mitigation shall mean managing and control of flood water movement, such as redirecting flood run-off through the use of floodwalls and flood gates, rather than trying to prevent floods altogether.

Improve has the meaning set forth at Minnesota Statutes §103E.215, subdivision 2, which states that improvement means tiling, enlarging, extending, straightening, or deepening of an established and constructed drainage system.

Managers shall means the Red Lake Watershed District Board of Managers

Private Drainage Way shall mean a drainage way other than a public drainage way, which includes but is not limited to private tile drainage and surface drainage systems constructed along roadways.

Public or Legal Drainage Way shall mean a drainage way under the jurisdiction of the drainage authority pursuant to Minnesota Statutes chapter 103E.

Surface Drainage shall mean removal of surface water by development of the slope of the land utilizing systems of drains to carry away the surplus water.

Tile Drainage shall mean an agriculture practice that removes excess water from soil subsurface.

1. POLICY. It is the policy of the Board of Managers to promote the use of the waters and related resources within the District in a provident and orderly manner to improve the general welfare and public health for the benefit of the District's present and future residents. Further, it is the policy of the Board of Managers to regulate new construction, improvement, repair and maintenance of public and private drainage ways for the following purposes:

- A. To preserve the capacities of drainage systems to accommodate future needs.
- B. To improve water quality and minimize localized flooding.
- C. To minimize the loss of drainage capacity.
- D. To avoid drainage conditions that cause or aggravate erosion or sedimentation of downstream drainage ways or waterbodies.
- E. To ensure that parties responsible for accumulation of debris, soil and sediment in drainage ways maintain those drainage ways.

2. REGULATION

- A. A permit must be obtained from the District before undertaking any of the following:
 - i. Excavation of a new private drainage way located within any public right of way;
 - ii. Work below the top of bank of an existing public, legal or private drainage way located within any public right of way that disturbs soil or alters the dimensions or hydraulic profile of the channel;
 - iii. Constructing, installing or altering a road or utility crossing beneath or over a public or legal drainage way; or
 - iv. Constructing, altering or removing a dike which alters the flow of water.
- B. Section A notwithstanding, no permit from the District is required:
 - i. To construct, establish or perform maintenance on an existing private drainage way, as long as the private drainage way is located outside of any public right of way.
 - ii. To repair or replace tile drainage to the same size of tile as previously existed.
 - iii. To perform emergency work on any private drainage way located within a public right of way to avoid substantial property damage due to flooding, subsidence or other cause, in which case the District must be notified of the work and the reasons for the emergency action, as soon as possible. If at all possible, efforts to notify the District should be made before performing any emergency work. Any emergency work performed without the District's and governmental roadway authority's permission is performed at the owners own risk.
 - iv. To disturb surface soils in the course of ordinary cultivation or other agricultural activity. This may include general field ditching.
- C. The requirements of this rule are in addition to other applicable laws and procedures, including those of Minnesota Statutes chapter 103E. This rule is to provide for management of waters in the public interest and does not displace in whole or part any private legal rights a property owner or other person may have with respect to the use and drainage of waters.

- D. A contractor or equipment operator is responsible to ascertain whether a permit is required by this rule and, if so, that it has been obtained.
- 3. SURFACE DRAINAGE. The following criteria apply to applications under this rule other than those for the construction, alteration or removal of a dike:
 - A. An applicant may not dispose of or alter the flow of surface water so as to unreasonably burden another landowner with surface flow.
 - B. Surface water will not be artificially directed from upper land to and across lower land without adequate provision on the lower land for its passage.
 - C. Surface water will not be artificially directed into a legal drainage system from land not assessed to that system unless express authority from the drainage authority is obtained as defined under Minnesota Statutes 103E.401.
 - D. Temporary storage and retention basins on the parcel or parcels proposed to be drained will be used to the extent feasible for upstream storage and to maintain peak flows, prevent erosion and avoid increased demand on public drainage systems.
 - E. An applicant shall control erosion and downstream siltation by the following means:
 - i. All work involving exposed or stockpiled soil or materials subject to erosion will conform to an erosion and sediment control plan approved by the District.
 - ii. Open drainage ways will be stabilized with vegetation above the low water mark or other best management practices to reduce channel erosion.
 - iii. To reduce sediment transport, where feasible drainage will be discharged through marsh lands, swamps, retention basins or other treatment facilities prior to release into the receiving public water. Where feasible, a retention basin will overflow to a wide, shallow grassed waterway.
 - iv. Drainage ways will be constructed with side slopes designed in accordance with proper engineering practice to minimize erosion, giving due consideration to the intended capacity of the drainage way; its depth, width and elevation; and the character of the soils to be drained.
 - v. Water inlets, culvert openings and bridge approaches must have adequate shoulder and bank protection to minimize land and soil erosion.
 - vi. Channels and outfalls must be designed to be stable.
 - vii. Consideration for establishment of a grass filter strip 16.5 feet in width where possible and maintained on each side of a new private drainage way and on each side of an existing private drainage way which is subject to work for which a permit is required by this rule.
 - F. The proposed activity may not adversely affect downstream water quality or quantity.
- 4. DIKES. The following criteria apply to the construction, alteration or removal of a dike:
 - A. The dike may not unreasonably restrict flow onto down gradient property.
 - B. The dike may not be constructed or maintained within the 100-year floodplain unless plans and specifications, signed by a registered engineer, are submitted showing that:

- i. The work will not impede 100-year flood flows outside of the delineated retention area, or raise the 100-year flood level or increase flood peak downstream;
- ii. Overflow sections are designed to handle overtopping during major floods without significant erosion or risk of failure and without sandbagging or other manual measures before or during a flood; and
- iii. The capacity of pumping facilities to remove surface water stored behind a dike is consistent with Minnesota Hydrology Guide criteria.
- C. Operational procedures must prohibit pumping when the agricultural dike is overtopped during a rain or snow-melt event until downstream flood peaks have occurred.
- D. Outlet drainage must be sized to the applicable capacity in the Minnesota Hydrology Guide (Curve 1) for agricultural drainages, or other technical specifications established by the District.
- E. A permit to construct or maintain an agricultural dike will be conditioned on the applicant's granting the District the right in perpetuity to:
 - i. Enter onto property to assure landowner has installed and is maintaining traps/gates to restrict or eliminate outflow from the diked area during and after overtopping flood events; and
 - ii. Enter on the subject property to inspect traps/gates during and after an overtopping flood event.

5. EXHIBITS. The following exhibits may be requested to accompany the permit application. Two copies, (standard paper size of 8.5 inches by 11 inches), which include:

- A. Map showing location of project and tributary area.
- B. Plans and specifications for the project.
- C. Existing and proposed cross sections and profile of affected area.
- D. Description of bridges or culverts required.
- E. List of owners of properties benefitted or affected by the proposed work.
- F. Such other submittals as the District reasonably may require to evaluate whether the proposed activity meets the standards of this rule.

SURFACE DRAINAGE AND FLOOD MITIGATION

Guidance to District Rule

The Surface Drainage and Flood Mitigation district rule identifies the changes to surface water flows that will require a permit from the watershed district, and sets forth the standards it will apply in order to determine whether those changes are permitted. A watershed district's consideration of this district rule in particular will benefit from the district engineer's advice to assure that critical water management concerns in the local watershed are addressed.

A. Policy

The policy statement at section 1 serves several purposes. First, it communicates to property owners why the watershed district is choosing to regulate surface drainage and assists those owners in designing their proposed surface drainage alterations in a way that will be consistent with district goals. Second, when the board of managers must exercise judgment during permitting decisions, it will refer to the policy statement in order to align its decisions with the stated policies. Third, in the event of a legal challenge to a permit decision, the underlying policies of the rule will guide the judge. If the permit decision aligns with those policies, the judge will give greater deference to the board's decision and the district's legal position will be stronger.

The proposed policies reflect the following goals for surface drainage management:

- To preserve capacity in public drainage systems into which lands assessed benefits for those systems discharge. Note that the drainage law (Minnesota Statutes chapter 103E) does not control the volume that may flow from assessed benefited lands into the system or the rate of that flow. However, a watershed district under its regulatory authority (Minnesota Statutes chapter 103D) may regulate both volume and peak flow off of lands benefited into a drainage system to provide drainage benefits equitably to all lands paying into the system.
- To limit the movement of soils into channels and preserve the integrity of channel banks, in order to limit maintenance costs for public ditch systems and limit the transport of sediment, nutrients and other pollutants to downstream receiving waters.
- To protect the structural integrity of public drainage systems from destabilizing hydraulic forces.
- To prevent unassessed benefited lands from draining into public or private drainageway systems, in order to preserve system capacity for those property owners bearing the cost of those systems, and in the interest of equity.

B. Regulation

The regulation section identifies proposed changes to the landscape that require a permit from the watershed district. The separation between those activities that require a permit from those that don't is made with reference to the four policies identified in the preceding section. What this section does is identify those activities that, if not done properly, can cause impacts to public drainage systems and downstream waters that, as the policies spell out, the watershed district is trying to prevent. The goal is to exercise watershed district oversight of those activities while, to the extent possible, avoiding imposing permitting burdens on other activities that don't pose a substantial risk of impact.

In addition, this section strives to define activities that require permits, and those that don't, as precisely as possible. Ambiguity in knowing what does and does not require a permit is a burden on property owners and can be a source of legal conflict. This doesn't mean that all ambiguity can be eliminated, but where possible it should be minimized.

The District rule first describes the activities that require a permit, and then carves out from those descriptions certain exemptions. The District rule sets forth specific descriptions of activities that require a permit. In summary, they include:

- diking.
- Any work in or over a public surface drainage system or within any right of way of a governmental roadway.

The following activities that otherwise would meet one of these criteria are exempted from the permit requirement:

- Ordinary maintenance of a private drainage way.
- Emergency work on a non-public drainageway or channel necessary to avoid significant property damage. The District rule requires advance notice to and approval from the watershed district for work in a private drainage way located within a public right of way. Notice to and approval from the proper governmental roadway entity is also necessary. However, it is recognized that certain situations may arise which require immediate action. In these cases, any emergency work performed without proper notice and approval is done at the owner's own risk.
- Ordinary cultivation or other ordinary agricultural activity.

The District rule contains an explicit reminder that it does not eliminate any other legal requirements or constraints applicable to the proposed work. As regards the drainage code, this means, for example, that a landowner performing work in a public channel may not obstruct flows; that a new outlet into a public system or the connection of unassessed lands is prohibited without drainage authority approval; and that the drainage authority retains all authority under the drainage law to do work within public systems and assess the costs.

The rule also explicitly affirms that it does not displace any private property rights in water flow, or any rights to be protected from such flows. The rule reflects the responsibility of the watershed district to manage surface drainage for the general public benefit. But the District does not act as an arbiter, for example, as between adjacent property owners. So if a property owner excavates a channel or alters their land in a way that affects the flow of water onto adjacent property, property owner may need a permit from the watershed district, but the property owner will be responsible to ensure that they are not infringing on the rights of the adjacent owner by increasing, relocating or diverting flows across the neighboring property.

Finally, this section of the District rule states that a contractor or equipment operator is equally responsible to ensure that there is compliance with the rule. If there is enforcement, this protects a watershed district against claims by a property owner that it wasn't aware of what a contractor was doing, or claims of a contractor that the property owner had assured it that all permits and approvals were in order. It allows a watershed district to look to the property owner, or the party actually doing the work on the land, or both, to restore and remediate the impacts of any unpermitted work. The property owner and the contractor then can sort out responsibility and cost between themselves.

C. Criteria for Surface Drainage Changes

This section applies to all activities subject to permits except for diking and subsurface tile drainage, and states the criteria against which a permit application will be evaluated.

The criteria in the District rule relate back to the policies enumerated in Section 1 of the rule. They are as follows:

- Flows volume or peak onto adjacent property may not unreasonably increase.
- Unassessed lands may not be drained into a public system without obtaining express permission from the drainage authority in accordance with 103E.401.
- To the extent reasonable, flows resulting from proposed changes must be retained on-site before discharge, or discharged to off-site retention natural or artificial in order to mitigate flow changes and limit downstream sediment transport.
- Erosion and sedimentation in drainage systems will be minimized through a number of means, as feasible:
 - An erosion and sediment control plan must be submitted and approved;
 - Channels must be vegetated above low-water mark;
 - Channel banks must be designed with proper slopes;
 - Hydraulic forces must be assessed and provided for in the design;
 - Grass filter strips establishment should be considered wherever channel work is conducted.
- Finally, there is a general requirement that downstream flows or water quality may not be adversely affected.

The last criterion, in particular, is general, which leaves discretion in the hands of the District. However, risk of impact or adverse effects can be very specific to each particular situation, and this criterion rests on the need for a watershed district to be able to protect surface drainage systems as necessary in the context of each specific set of circumstances.

Note that the procedural rules include a step by which an applicant may ask the board of managers to reconsider a permit decision before it is appealed. Where the board denies a permit, or includes certain conditions in the permit, this reconsideration step is the opportunity for the District, through its engineer, to re-examine the facts of their decision and to closely review their findings about potential impacts.

D. Criteria for Dikes

This section states the criteria against which a permit application for a dike will be evaluated. These criteria, as well, related back to Section 1 and are as follows:

- Flows onto adjacent property may not be diverted to an unreasonable extent.
- Retention may not contribute to an increase in down gradient flood peak, and there must be downstream capacity for any change in the hydrograph of flow.
- The dike structure must be designed so that, without additional stabilizing measures, it will withstand flood conditions without erosion or risk of failure.
- The structure outlet, and basin drawdown pumping capacity, must be sized and designed in accordance with the criteria contained in the Minnesota Hydrology Guide.
- The applicant must submit and follow operational procedures that prohibit drawdown pumping during a flood event until downstream flood peaks have receded.

The District rule also provides that as a condition of a permit, the property owner must grant the watershed district a perpetual right to install, maintain and operate traps or gates to prevent outflows from the diked area during and after flood events that cause the dike to be overtopped.

It is noted that here, too, there will be a need to assess the specific circumstances and to apply some judgment in applying these criteria in each case. Again, the reconsideration step in the procedural rule allows for the level of analysis that is necessary if the District and an applicant do not reach concurrence on a given proposal.

E. Exhibits

This section lists application submittal requirements. The basic submittal requirements that may be requested are: (a) maps and information to locate the project; (b) topographic, elevation, dimensional and flow data necessary to evaluate the hydrologic, hydraulic and flood impact of a proposed change in the landscape; and (c) a listing of potentially affected owners.

A watershed district may require any other submittals that it reasonably needs to evaluate a proposed activity for compliance with the rule criteria. This allows the district to keep its mandatory submittals reasonably limited, and to tailor the submittal burden on an applicant to what is needed in order to evaluate the applicant's specific proposal. This presumes that district staff will work with an applicant to identify necessary submittals. If an applicant fails or refuses to supply what the district requests, the district may be unable to properly evaluate an application, and this may be a legal basis to deny the permit.

Minnesota Statutes §15.99 requires a permitting agency, including a watershed district, to act on a permit application within the time specified in the statute. This time starts to run when the district receives the application, unless within 15 business days of receipt, the district advises the applicant that the application is incomplete. In light of this statute, it always is important that a district promptly review an application and determine whether it is complete. This becomes even more important if the district relies on a "catch-all" provision, since an application that otherwise contains required submittals is complete unless and until the district identifies other information that is necessary.

F. Definitions

This section defines certain terms used in the rule. Specifically, it defines "drainage way" as pertaining only to surface drainage systems, which may include tile portions, and establishes the terminology to distinguish between public and private systems. It also: (a) defines drainage system "improvement" as having the same meaning as under Minnesota Statutes chapter 103E.

RED LAKE WATERSHED DISTRICT DISTRICT RULE

SUBSURFACE TILE DRAINAGE

Adopted August 27, 2015 Effective September 30, 2015

1. POLICY. It is the policy of the Board of Managers to promote the sound construction and management of subsurface tile drainage systems in order to minimize downstream flooding and maximize soil storage and agricultural productivity.

2. REGULATION

- A. No person shall install or construct any non-incidental subsurface tile drainage system, after the effective date of adoption of these rules, without obtaining a required permit from the Watershed District.
- 3. CRITERIA. An application for a permit must meet the following requirements:
 - A. All subsurface tile drainage systems must protect from erosion and include RLWD approved erosion control measures.
 - B. All subsurface tile outlets including lift station pumps, must be located out of a legal drainage system and governmental roadway right of way unless approved by District and must be visibly marked.
 - C. It is recommended that after harvest, tile outlet controls, including lift station pumps, be opened or turned on to remove water from the system unless downstream culverts are freezing.
 - D. Obtaining a permit from the RLWD Managers does not relieve the applicant from the responsibility of obtaining any other additional authorization or permits required by law. (Ex: NRCS, SWCD, Township, County, State, etc.)
 - E. Upon completion of the project, "As Built" plans must be provided to the District.
 - F. Consideration must be made for turning off pumps for short period of times during the summer so maintenance can be performed on public, legal and private drainageways, such as road ditches or private natural field drains.

4. EXHIBITS. The following exhibits may be requested to accompany the permit application. Two copies, (standard paper size of 8.5 inches by 11 inches), which include:

- A. Legal description and site map and/or GPS coordinates to accurate scale showing location of all tiles, surface water inlets, outlet(s), lift stations, pumps, and flow control devices;
- B. Land area to be tiled (acres);

RED LAKE WATERSHED DISTRICT DISTRICT RULE

Pursuant to authority granted by Minnesota Statutes section 103D.341

RULE XX ENFORCEMENT RULE

Adopted August 27, 2015 Effective September 30, 2015

1. MANNER OF ENFORCEMENT. In the event of a violation or threatened violation of a District rule, permit, order or stipulation, or a provision of Minnesota Statutes chapter 103D, the District may take action to prevent, correct or remedy the violation or any harm to water resources resulting from it. Enforcement action includes but is not limited to injunction; action to compel performance, abatement or restoration; and prosecution as a criminal misdemeanor in accordance with Minnesota Statutes sections 103D.545 and 103D.551.

2. INVESTIGATION OF NONCOMPLIANCE. The District's authorized representatives may enter and inspect a property in the watershed to determine the existence of a violation or threatened violation as described in section 1, above.

3. ADMINISTRATIVE COMPLIANCE ORDER. The District may issue a preliminary compliance order without notice or hearing when it finds a violation or threatened violation as described in section 1, above, and that the violation or threatened violation presents a serious threat of adverse effect on water resources. A preliminary compliance order may require that the property owner or responsible contractor cease the land-disturbing activity; apply for an after-the-fact permit; and take corrective or restorative action. A preliminary compliance order is not effective for more than ten days. The Board of Managers by resolution may delegate to District staff the authority to issue preliminary compliance orders.

A. BOARD HEARING. After due notice and a hearing at which evidence may be presented, the Board of Managers shall make findings. If the Board finds a violation as described in section 1, above, it may issue a compliance order of indefinite duration that may require the property owner or responsible contractor to cease land-disturbing activity; apply for an after-the-fact permit; take corrective or restorative action; reimburse the District for costs under Minnesota Statutes section 103D.345, subdivision 2; and/or be subject to any other remedy within the District's authority. A compliance order may supersede a preliminary order or may be issued without a prior preliminary order.

4. LIABILITY FOR ENFORCEMENT COSTS. To the extent provided for by Minnesota Statutes section 103D.345, subdivision 2, a property owner or responsible contractor is liable for investigation and response costs incurred by the District under this rule, including but not limited to the costs to inspect and monitor compliance, engineering and other technical analysis costs, legal fees and costs, and administrative expenses.

5. CONTRACTOR LIABILITY. Any individual, firm, corporation, partnership, association or other legal entity contracting to perform work subject to one or more District rules will be responsible to ascertain that the necessary permit has been obtained and that the work complies with the permit, rules and statutes and any applicable District orders or stipulations. A contractor that, itself or through a subcontractor, engages in an activity constituting a violation or threatened violation under section 1, above, is a

responsible contractor for purposes of this rule.

ENFORCEMENT

Guidance to District Rule

The Enforcement district rule advises property owners and contractors of the steps the watershed district may take to address a violation or threatened violation of a district rule, permit or other binding district requirement.

1. Manner of Enforcement

This paragraph states the scope of watershed district authority to take enforcement action, and the forms that action may take. Largely, it restates §§103D.545 and 103D.551 of the Minnesota Statutes, the two provisions of the watershed law that provide the foundation for district enforcement. In short, watershed districts may bring action to stop or prevent a violation, to require compliance and action to fix the consequences of a violation, to recover enforcement expenditures, and to charge a violation as a criminal misdemeanor. Notably, apart from a small fine that may be imposed for a misdemeanor, watershed districts do not have the authority to impose or recover a financial penalty.

Note that the paragraph refers not only to a violation of a district rule, permit, or other regulatory requirement, but also to a threatened violation. If a threatened violation does not lead to an actual violation, the district would not be entitled to an order requiring the responsible party to take action. However, if the facts are supportive, the District may issue an order, or obtain a court injunction, to stop the action that threatens violation. The proposed text allows for a district, in consultation with its legal counsel, to determine in any given case the available and preferred remedies.

2. Investigation of Noncompliance

This paragraph advises that the district's duly authorized and delegated representatives, without prior notice to or permission of the property owner, may enter land within the watershed to inspect for compliance with district rules, permits and other regulatory requirements. This re-states Minnesota Statutes §103D.335, subdivision 14, which states:

The managers may enter lands inside or outside the watershed district to make surveys and investigations to accomplish the purposes of the watershed district. The watershed district is liable for actual damages resulting from entry.

The district need not know or even suspect that a violation is occurring, nor is its authority limited to lands on which activity taking place is subject to a district permit. The statute permits entry onto any lands as the district finds appropriate in order to effectively carry out its regulatory function.

Note that the statute gives this authority to "[t]he managers." We believe it is reasonable to read the term "managers" as meaning, more broadly, the district's representatives - managers, staff, contract personnel -

both because the term "managers" is used elsewhere in the watershed law simply to refer to the district as a whole and because, as a matter of common sense and necessity, it is not only the district managers themselves who are in the field performing regulatory inspections and oversight on behalf of the district.

The statutory authority under subdivision 14 to enter private property cannot override the U.S. and Minnesota Constitutions, and therefore is limited by the constraints those documents place on entry. Specifically, except under certain limited circumstances, district representatives cannot enter enclosed structures or outside areas that directly surround a residence and its associated structures (garage, shed, etc.). Also, while the statute authorizes entry without notice to or agreement of the landowner, a district may adopt procedures under which it limits the practice of unannounced entry for reasons such as inspector safety and landowner relations. In implementing its inspection authority, a district should coordinate closely with its legal counsel to establish its inspection procedures and practices.

3. Administrative Compliance Order

Under the watershed law, a district board of managers is given the power to issue orders relating to permits and permit compliance. This authority is implemented in paragraph 4, described further below.

However, a condition that is causing or threatening harm to water resources may need attention immediately, or at least before the board of managers practically can be convened to hear a matter and issue an order. For that reason, it is desirable for district staff to be able to exercise the authority to issue an order at the time a violation is observed.

There are two concerns about staff's issuance of legally binding orders in the field. One is a "due process" concern: that the authority of a public agency to issue a legally binding order without giving the recipient notice and a chance to be heard is legally limited. The second is that the authority to issue orders lies in the board of managers and must be specifically delegated to district staff. Historically, court cases have limited the ability of a public decision-making body to delegate its authority to staff. The law is concerned when, by doing so, the body is transferring its broad judgment and discretion to staff.

The model language attempts to address both of these concerns:

• With respect to the due process concern, the district rule requires the district to find that there is a violation or imminent violation that poses a serious water resource threat. In other words, order authority is to be exercised only when it is necessary to avert an important impact that otherwise would occur if no action could be taken until the managers were able to meet.

Also, the rule states that a staff order has effect only for ten days. The intent is that a staff order allows for harm to be prevented and the status quo to be maintained, only until the board of managers has a reasonable opportunity to convene and hear the facts with notice to, and participation of, the affected property owner. The "ten days" in the district rule is not a specific legal requirement; a board of managers may choose a different duration based on the frequency of its regular meetings and its ability to convene for a special meeting. However, the longer this period is, the more legally vulnerable the delegation to staff may be. Optimal practice is for the district administrator to coordinate with the board president so that the time and place of the board hearing can be included in the staff order itself.

• Regarding the delegation concern, the rule requires that delegation be accomplished by written resolution of the board. In this resolution, the board should consider spelling out constraints on

staff's authority so that the level of discretion given to staff is only so much as is absolutely necessary to achieve the purpose of the delegation, that is, to protect the resource until the board is able to give notice and hold a hearing. This may include, for example, requiring that an order contain specific findings as to what the violation is, what the actual or threatened impact is, and why that impact is serious. The resolution also may direct that permittee action demanded by the order be only what is necessary to prevent the resource impact until the board has the opportunity to hear the matter.

If a board of managers is not comfortable delegating order authority to its staff, there are options. For example, the district may simply institute a structured procedure for staff to issue a formal document in the nature of a "notice of probable violation" in place of a legally binding order. The notice would identify the apparent violation and impact, and would advise of recommended compliance actions, but would not purport to order that those actions be taken. Instead, it would advise of a compliance hearing by the board of managers and notify that the hearing will occur unless the suggested actions are timely taken. If the responsible party did not agree with staff's determination that there was a violation, it could choose not to take the recommended action, and wait to present its case to the board.

While a watershed district order is legally binding, a district can enforce that order only by going to a state district court judge. To have the strongest legal position in front of the judge, a district is always advised to have an order issued not just by its staff, but by its board of managers. This means that even if staff has issued a field order, the board will want to hold a hearing and issue a superseding order before going to court. Therefore there is not always a great difference between a staff order and a staff notice.

A. Board Hearing

This paragraph provides for a board hearing before a district compliance order (other than a preliminary order) may be issued. Because a district order may impose substantial cost on a property owner or contractor - by delaying work, requiring restoration action or imposing district costs - the law requires that the potential recipient of an order be given notice and an opportunity to appear and present evidence to the board before the board makes findings. The law does not specify how many days' notice must be given, how notice must be given, or the specific procedures that must be afforded at the hearing beyond an "opportunity to be heard." District legal counsel should be consulted on these details, and whether they should be included in the rule language or simply followed as district practice.

The paragraph also makes clear that on the basis of a finding of violation, a board of managers may order any remedy "within the District's authority." These remedies include: (a) a directive to cease and desist until an after-the-fact permit is applied for and issued: (b) a requirement that the responsible party bring the activity into compliance and/or take steps to remediate impacts from a violation; and (c) reimbursement of the district for its costs incurred in compliance monitoring and enforcement. As noted previously, a watershed district cannot impose a monetary penalty. Also, of course, the district cannot itself conduct criminal proceedings; a misdemeanor action would need to be brought in state district court by the proper law enforcement agency.

Finally, the paragraph makes clear that the board has the authority to consider and issue an order, whether or not there is a preliminary, staff-issued field order. If there is not actual or threatened harm to justify a staff order, then the district may simply notice and hold a board compliance hearing. Typically, this will follow staff efforts to work with a violator to secure compliance, but it can occur whenever the board of managers deems appropriate and need not follow informal or formal staff action.

4. Liability for Enforcement Costs

Paragraph 5 of the district rule states that a property owner or responsible contractor will be responsible for district costs to investigate and respond to a violation of a district rule, permit or other regulatory requirement to the extent that Minnesota Statutes §103D.345, subdivision 2, allows. This statute says that a watershed district may charge an "inspection fee." It then states how the fee may be calculated:

The inspection fee must be used to cover actual costs related to a field inspection. Inspection costs include investigation of the area affected by the proposed activity, analysis of the proposed activity, services of a consultant, and any required subsequent monitoring of the proposed activity. Costs of monitoring an activity authorized by permit may be charged and collected as necessary after issuance of the permit.

Accordingly, if there has been an inspection, then the cost of the inspection, any analysis related to it, and any subsequent monitoring related to it may be recovered from the property owner or other responsible party. It further says that consultant costs related to the inspection, and to subsequent analysis and monitoring, are recoverable costs as well. This would include engineering and other technical consultants, but also may be read to include fees paid to district legal counsel for assistance in evaluating compliance and carrying out enforcement procedures. To recover these costs, it is important for a district to keep careful records of them.

Enforcement may result in a variety of costs to a district - staff hours, administrative and consultant costs, sampling and analysis costs, manager per diems for special meetings, contract costs for restoration work undertaken by the district, and potentially costs for court proceedings. The proposed rule language does not take a position on the precise extent to which each of these falls within the scope of the statute. Each district should determine its position with the advice of district legal counsel (for example, attorney fees for court proceedings may be excluded from the scope of §103D.345, subdivision 2, by virtue of separate treatment in §103D.545, subdivision 3). Note also that in the absence of the authority to impose a fine, a watershed district's ability to require that a responsible party reimburse its costs may be a measurable financial incentive for early compliance.

5. Contractor Liability

The watershed law requires that watershed districts adopt and apply rules governing activities that may injure water resources, but it does not anywhere state who is subject to enforcement in the event a rule, or a permit issued under the rules, is not followed. It is good practice to require the property owner of record to be the named permit applicant, so that the authority to perform the proposed work is established and the district always has an official location where the permittee can be located. Further, in the event of noncompliance, it will be necessary for the property owner to be accountable for the violation to ensure that there is legal access to the property for any compliance work that is needed. In this case, it is reasoned that if a contractor has actually performed the work that does not comply, the property owner has a contract relationship with the contractor that will allow the property owner to demand that the contractor address the violation and hold the property owner harmless for costs.

However, there is nothing in the watershed law that prevents a district from also holding directly accountable the contractor that, itself or through its subcontractor, is responsible for the violation. A district may decide that it will have more leverage to gain compliance if both the property owner and the

contractor are directly subject to district orders and enforcement proceedings. If the district encounters a situation where the property owner appears to be innocent of the violation, holding the contractor responsible as well allows the district to take enforcement action directly against the contractor with minimum imposition on the property owner.

Paragraph 6 establishes that a contractor also is responsible for a violation if it, or its subcontractor, performed the activity constituting the violation. This section defines the term "responsible contractor" as it is used throughout the rule to denote a contractor that may be subject to enforcement.

Local Funding Authorities

BWSR

Purpose: This table provides an overview of Minnesota statutes and laws that provide authorities to local governments to fund water management projects, to be used by local governments while exploring funding options for locally funded water projects. Does not include fees, fines, or wetland banking, grants, etc. This is not a legal document and should not be considered comprehensive, complete, or authoritative. note: "metro" refers to Anoka, Carver, Dakota, Hennepin, Ramsey, and Washington counties or watershed organizations in the 7-county metro area.

Citation	Applies to	Summary (please see details in the full text of each provision)
§ <u>40A.152</u>	Counties (metro)	Money from the county conservation account (see <u>chapter 287</u>) must be spent by the county to reimburse the county and taxing jurisdictions within the county for revenue lost under the conservation tax credit under §273.119 or the valuation of agricultural preserves under §473H.10. Money remaining in the account after reimbursement may be spent on: 1) agricultural land preservation and conservation planning and implementation of official controls under this chapter or chapter 473H; 2) soil conservation activities and enforcement of soil loss ordinances; 3) incentives for landowners who create exclusive agricultural use zones; 4) payments to municipalities within the county for the purposes of clauses 1-3.
§ <u>103B.241</u>	Watershed districts & watershed management organizations (metro)	May levy a tax to pay for plan preparation costs & projects in the adopted plan necessary to implement the Metropolitan Water Management Program.
§ <u>103B.245</u>	Watershed districts & watershed management organizations (metro)	May establish a watershed management tax district within the watershed to pay the costs of: planning required under §§ <u>103B.231</u> and <u>103B.235</u> , the capital costs of water management facilities described in the capital improvement program of the plans, and normal & routine maintenance of the facilities.
§ <u>103B.251</u>	Watershed districts & watershed management organizations (metro), counties	May certify for payment by the county all or any part of the cost of a capital improvement contained in the capital improvement program of plans developed in accordance with §103B.231. Counties may issue general obligation bonds to pay all or part of the cost of project. The county may pay the principal and interest on the bonds by levying a tax on all property located in the watershed or subwatershed in which the bonds are issued. Loans from counties to watershed districts for the purposes of implementing this section are not subject to the loan limit set forth in §103D.335.

Citation	Applies to	Summary (please see details in the full text of each provision)
§ <u>103B.331</u> Subdivisions	Counties	(3) May charge users for services provided by the county necessary to implement the local water management plan.
3 & 4		(4) May establish one or more special taxing districts within the county and issue bonds to finance capital improvements under the Comprehensive Local Water Management Act. After adoption of the resolution, a county may annually levy a tax on all taxable property in the district.
§ <u>103B.335</u>	Counties, municipalities, or townships	May levy a tax to implement the Comprehensive Local Water Management Act or a comprehensive watershed management plan (§103B.3363). A county may levy amounts needed to pay the reasonable costs to SWCDs and WDs of administering and implementing priority programs identified in an approved & adopted plan or comprehensive watershed management plan.
§ <u>103B.555</u> Subdivisions 1 & 3	countries	(1) May establish a Lake Improvement District and impose service charges on the users of lake improvement district services within the district. May levy an ad valorem tax solely on property within the lake improvement district for projects of special benefit to the district; may impose or issue any combination of service charges, special assessments, obligations, and taxes.
		(3) A tax under Subd. 1 may be in addition to amounts levied on all taxable property in the county for the same/similar purposes.
§ <u>103C.331</u> Subdivision 16	County boards on behalf of soil and water conservation districts	May levy an annual tax on all taxable real property in the district for the amount that the board determines is necessary to meet the requirements of the district.
§ <u>103D.335</u>	Watershed districts	A watershed district has the power to incur debts, liabilities, and obligations and to provide for assessments and to issue certificates, warrants, and bonds.
§ <u>103D.601</u>	Watershed districts	May set up special taxing districts via petition to conduct larger, Capital Improvement Projects (CIP). The costs to the affected parties cannot exceed \$750,000.
§ <u>103D.615</u>	Watershed districts	May declare an emergency and order that work be done without a contract. The cost of work undertaken without a contract may be assessed against benefitted properties or raised by an ad valorem tax levy if the cost is not more than 25% of the most recent administrative ad valorem levy and the work is found to be of common benefit to the watershed district.

Citation	Applies to	Summary (please see details in the full text of each provision)
§ <u>103D.729</u>	Watershed districts	May establish a water management district or districts in the territory within the watershed to collect revenues and pay the costs of projects initiated under §§ <u>103B.231</u> , <u>103D.601</u> , <u>103D.605</u> , <u>103D.611</u> , or <u>103D.730</u> . (Guidelines for creating water management districts)
§ <u>103D.901</u>	Watershed districts	County auditors assess the amount specified in an assessment statement filed by managers. The county may issue bonds (§ <u>103E.635</u>). An assessment may not be levied against a benefited property in excess of the amount of benefits received.
§ <u>103D.905</u> Subdivisions 2,3, 7-9	Watershed districts	Established funds for watershed districts (not a complete list – see full statute language): Organizational expense fund - consisting of an ad valorem tax levy, shall be used for organizational expenses and preparation of the watershed management plan for projects. General fund - consisting of an ad valorem tax levy, shall be used for general administrative expenses and for the construction or implementation and maintenance of projects of common benefit to the watershed district. May levy a tax not to exceed 0.00798 percent of estimated market value to pay the cost attributable to projects initiated by petition. Repair and maintenance funds - established under §103D.631, Subd. 2. Survey and data acquisition fund - consists of the proceeds of a property tax that can be levied only once every 5 years and may not exceed 0.02418 percent of estimated market value. Project tax levy - a WD may levy a tax: 1. To pay the costs of projects undertaken by the WD which are to be funded, in whole or in part, with the proceeds of grants or construction or implementation loans under the Clean Water Partnership Law; 2. To pay the principal of, or premium or administrative surcharge (if any), and interest on, the bonds and notes issued by the WD pursuant to §103F.725; 3. To repay the construction or implementation loans under the Clean Water Partnership Law.
§ <u>103E.011</u> Subdivision 5	Drainage authorities	A drainage authority can accept and use external sources of funds together with assessments from benefited landowners in the watershed of the drainage system for the purposes of flood control, wetland restoration, or water quality improvements.
§ <u>103E.015</u> Subdivision 1a	Drainage authorities	When planning a "drainage project" or petitioned repair, the drainage authority must investigate the potential use of external sources of funding, including early coordination for funding and technical assistance with other applicable local government units.
§ <u>103E.601</u> § <u>103E.635</u> § <u>103E.641</u>	Drainage authorities	Funding of all costs for constructed " drainage projects " are apportioned to benefited properties within the drainage system pro rata on the basis of the benefits determined (§103E.601). After the contract for the construction of a drainage project is awarded, the board of an affected county may issue bonds of the county

Citation	Applies to	Summary (please see details in the full text of each provision)
		in an amount necessary to pay the cost of establishing and constructing the drainage project. (§103E.635). Drainage authorities may issue drainage funding bonds (§103E.641).
§ <u>103E.728</u> § <u>103E.731</u> § <u>103E.735</u>	Drainage authorities	Costs for drainage system repairs are apportioned pro rata on all benefited properties of record. The drainage authority may charge an additional assessment on property that is in violation of §103E.021 (ditch buffers) or a county soil loss ordinance (§103E.728). If there is not enough money in the drainage system account to make a repair, the board shall assess the costs of the repairs on all property and entities that have been assessed benefits for the drainage system (§103E.731). To create a repair fund for a drainage system to be used only for repairs, the drainage authority may apportion and assess an amount against all property and entities benefited by the drainage system, including property not originally assessed and subsequently found to be benefited according to law. (§103E.735).
Chapter <u>287</u>	Counties	Counties participating in the agricultural land preservation program impose a fee of \$5 per transaction on the recording or registration of a mortgage or deed that is subject to tax under $\$$
Chapter <u>365A</u>	Towns	Townships may create subordinate service districts with special taxing authority. Requires a petition signed by at least 50 percent of the property owners in the part of the town proposed for the subordinate service district.
§ <u>373.475</u>	Counties	A county board must deposit the money received from the sale of land under Laws 1998, chapter 389, article 16, section 31, subd. 3, into an environmental trust fund. The county board may spend interest earned on the principal only for purposes related to the improvement of natural resources.
Chapter <u>429</u>	Municipalities	May levy special assessments against properties benefitting from special services (including curbs, gutters and storm sewer, sanitary sewers, holding ponds, and treatment plants).
§ <u>444.075</u>	Municipalities	May collect stormwater utility fees to build, repair, operate & maintain stormwater management systems.
§ <u>462.358</u> Subdivision 2b(c)	Municipalities	May accept a cash fee for lots created in a subdivision or redevelopment that will be served by municipal sanitary sewer and water service or community septic and private wells. May charge dedication fees for the acquisition and development or improvement of wetlands and open space based on an approved parks and open space plan.
M. L. 1998, Chapter 389 Article 3, Section 29	Red River Watershed Management Board	Watershed Districts that are members of the Red River Watershed Management Board may levy an ad valorem tax not to exceed 0.04836 percent of the taxable market value of all property within their district. This levy is in excess of levies authorized by §103D.905.

APPENDIX I. REFERENCES



Alsop, Wayne. October 2009. The L.O.W. down. Lake of the Woods County Historical Society.

Beltrami, 2017. Beltrami County Priority Concerns Scoping Document. Beltrami Environmental Services and Soil and Water Conservation District.

Capolupo, M., Valbonesi, P., and Fabbri, E. 2021. A comparative assessment of the chronic effects of micro- and nano-plastics on the physiology of the Mediterranean Mussel Mytilus galloprovincialis. Nanomaterials. v.11, 649.

DATAUSA, 2023. Beltrami County, Minnesota. Accessed June 2023. https://datausa.io/profile/geo/beltrami-county-mn.

DNR, 2008. Red Lake Peatlands Poster. Department of Natural Resources. August 2008. https://files.dnr.state.mn.us/eco/mcbs/peatland_poster.

DNR, 2017. Watershed Context Report- Upper/Lower Red Lake September, 2017. Department of Natural Resources.

DNR, 2013. Lakes, rivers, and wetlands facts. Department of Natural Resources. Reviewed 2013. https://www.dnr.state.mn.us/faq/mnfacts/water.html.

DNR, 2023a. Climate trends. Department of Natural Resources. Accessed June 2023. https://www.dnr.state.mn.us/climate/climate_change_info/climate-trends.html.

DNR, 2023b. Minnesota Climate Trends. Department of Natural Resources. Accessed June 2023. https://arcgis.dnr.state.mn.us/ewr/climatetrends/.

DNR, 2023c. Big Bog State Recreation Area. Department of Natural Resources. Accessed June 2023. <u>https://www.dnr.state.mn.us/state_parks/park.html?id=sra00308#information</u>.

EPA, 2016. What Climate Change Means for Minnesota. Environmental Protection Agency. https://www.epa.gov/sites/default/files/2016-09/documents/climate-change-mn.pdf.

Jacobson, P., T. Cross, D. Dustin. 2016. A Fish Habitat Conservation Framework for Minnesota Lakes. Fisheries, Vol 41, No. 6.

Judd, Jake. (2022, April 20). *Walleye Regulations Announced for Upper Red Lake*. KNSI Radio. <u>https://knsiradio.com/2022/04/20/walleye-regulations-announced-for-upper-red-lake/</u>

Krause, L., K. McCullough, E. Kane, R. Kolka, R. Chimner, and E. Lilleskov. 2021. Impacts of historical ditching on peat volume and carbon in northern Minnesota USA peatlands. Journal of Environmental Management, 296, 113090.

Koochiching, 2018. 2018-2028 Koochiching County Comprehensive Local Water Management Plan. Koochiching Soil and Water Conservation District, Koochiching County Environmental Services Department and Koochiching County Water Plan Advisory Committee. MDH, 2023. Source Water Protection Web Map Viewer. Minnesota Department of Health. Accessed June 2023.

https://mdh.maps.arcgis.com/apps/View/index.html?appid=8b0db73d3c95452fb45231900e977b e4.

MNBWSR, 2022. Climate Change Trends and Action Plan. Minnesota Board of Water and Soil Resources. St. Paul, MN.

MNDNR, 2023. Minnesota Climate Explorer. Upper/Lower Red Lake. Accessed November 2023. https://arcgis.dnr.state.mn.us/climateexplorer/main/historical

MPCA, 2007. Minnesota Statewide Mercury Total Maximum Daily Load. Minnesota Pollution Control Agency. St. Paul, MN.

MPCA, 2017. Upper/Lower Red Lake Watershed Monitoring and Assessment Report. Minnesota Pollution Control Agency.

MPCA, 2021. Upper Lower Red Lake Watershed Restoration and Protection Strategy. Minnesota Pollution Control Agency.

MPCA, 2023. Protecting wild rice waters. Minnesota Pollution Control Agency. Accessed June 2023. <u>https://www.pca.state.mn.us/air-water-land-climate/protecting-wild-rice-waters</u>.

MPCA, 2023a. Minnesota's 2024 Impaired Waters List. Minnesota Pollution Control Agency. Accessed November 2023. <u>https://www.pca.state.mn.us/air-water-land-climate/minnesotas-impaired-waters-list</u>

MPCA, 2023b. As temps rise, so does potential for harmful algae and need to reduce pollution. Minnesota Pollution Control Agency. Accessed November 2023. <u>https://www.pca.state.mn.us/news-and-stories/as-temps-rise-so-does-potential-for-harmful-algae-and-need-to-reduce-pollution</u>

NDMC, 2023. U.S. Drought Monitor. National Drought Mitigation Center. Accessed November 2023. <u>https://droughtmonitor.unl.edu/DmData/TimeSeries.aspx</u>

NOAA, 2023. What is a harmful algal bloom? National Oceanic and Atmospheric Administration. Accessed November 2023. <u>https://www.noaa.gov/what-is-harmful-algal-bloom</u>

Orgon, T. J., Hafs, A. W., Isaacson, C. W., & Bowe, S. E. (2023). Spatial and temporal variability of mercury in Upper and Lower Red Lake Walleye. *Ecotoxicology*, 1-13.

Red Lake Nation, 2023. Tribal History & Historical Photos. Red Lake Nation Accessed June 2023. https://www.redlakenation.org/tribal-history-historical-photos/.

RLWD, 2006. Red Lake Watershed District 10-Year Comprehensive Plan. Red Lake Watershed District.

Rivers, J. S., D. I. Siegel, L. S. Chasar, J. P. Chanton, P. H. Glaser, N. T. Roulet, J. M. McKenzie, 1998. A stochastic appraisal of the annual carbon budget of a large circumboreal peatland, Rapid River Watershed, northern Minnesota. Global Biogeochemical Cycles, Vol 12 (4), pp 715-727.



RLDNR, 2013. 2013 Red Lake Band of Chippewa Indians Surface Water Data Summary 10/30/2013. Red Lake Department of Natural Resources.

RLDNR, 2023. Red Lake Fisheries Program GIIGOONYIKEWIN. Red Lake Department of Natural Resources. Accessed June 2023. https://www.redlakednr.org/fisheries/.RLWD, 2006. Red Lake Watershed District 10-Year Comprehensive Plan. Red Lake Watershed District.

Shurpali, N. J., S. Verma, J. Kim, T Arkebauer. 1995. Carbon dioxide exchange in a peatland ecosystem. Journal of Geophysical Research, 100: D7, 14319-14326.

Orgon, Tyler J., A. W. Hafs, C. W. Isaacson, S. E. Bowe, 2023. Spatial and temporal variability of mercury in Upper and Lower Red Lake Walleye. Ecotoxicology, 32: 811-823.

USCB, 2023a. 2017-2023 ACS 5-Year Narrative Profile Beltrami County, Minnesota. United States Census Bureau. Accessed June 2023. <u>https://www.census.gov/acs/www/data/data-tables-and-tools/narrative-profiles/2021/report.php?geotype=county&state=27&county=007</u>.

USCB, 2023b. 2017-2021 ACS 5-Year Narrative Profile Red Lake Reservation, Minnesota. United States Census Bureau. Accessed June 2023. <u>https://www.census.gov/acs/www/data/data-tables-and-tools/narrative-profiles/2021/report.php?geotype=aian&aian=3100</u>.DATAUSA, 2023. Beltrami County, Minnesota. Accessed June 2023. <u>https://datausa.io/profile/geo/beltrami-county-mn</u>.

USDA/NRCS, 2023. Rapid Watershed Assessment Resource Profile. U.S. Department of Agriculture and Natural Resource Conservation Service.

USFWS, 2008. Federally Listed Endangered, Threatened and Candidate Species for Minnesota. U.S. Fish and Wildlife Service.