

Lessard-Sams Outdoor Heritage Council

Fiscal Year 2018 / ML 2017 Request for Funding



Date: June 01, 2016

Program or Project Title: Lake Wakanda Enhancement Project (HRE06)

Funds Requested: \$921,100

Manager's Name: Loren Engelby

Organization: Kandiyohi County

Address: 1801 E Highway 12

City: Willmar, MN 56201

Office Number: 320-235-3266

Mobile Number: 320-212-1059

Email: loren_e@co.kandiyohi.mn.us

Website: http://www.co.kandiyohi.mn.us/departments/drainage/lake_wakanda_info.php

County Locations: Kandiyohi

Regions in which work will take place:

- Prairie

Activity types:

- Enhance

Priority resources addressed by activity:

- Habitat

Abstract:

Kandiyohi County's Lake Wakanda Enhancement Project is a one-time funding request to construct four water control structures and fish barriers. This comprehensive project will protect and enhance critical fish and wildlife habitat on the 1,754-acre shallow lake. Located at the headwaters of the South Fork of the Crow River, which flows into the Mississippi, Lake Wakanda is part of a prairie chain of lakes near Willmar, Minnesota. Using a systems approach, Kandiyohi County will maximize recent watershed improvements and current investments of cooperating partners to enhance Lake Wakanda's fish, wildlife and non-game habitat.

Design and scope of work:

Lake Wakanda is a state-designated waterfowl feeding and resting area and provides habitat for waterfowl, migratory shorebirds, colonial nesting birds, fur-bearing animals, fish and other species. The lake is primarily managed for sport fishing/angling and stocked with walleyes by Minnesota DNR and local sportsmen groups. Its watershed covers approximately 39 square miles—a watershed to lake ratio of 14:1. It is susceptible to high nutrient inputs and excessive water levels from agricultural and municipal runoff. These influences create high turbidity, providing optimal conditions for undesirable fish species, such as the Common Carp. The high density of carp exacerbates Lake Wakanda's poor habitat and water quality. This shallow lake is currently hypereutrophic and supports very little aquatic plant growth, which suppresses desirable species abundance.

The scope of Kandiyohi County's Lake Wakanda Shallow Lake Enhancement Project is to build a series of water control structures and fish barriers at four locations:

- Public water course on the south side of Lake Wakanda, connecting to Big Kandiyohi Lake, a 2,692-acre recreational lake. The sheet-pile weir will have removable stop-logs and a fish barrier.
- Replacement of Fleckten's Bridge, a former cart-way crossing, with a concrete box culvert connecting to the east bay of Lake Wakanda, leading to Little Kandiyohi Lake. The fabricated culvert will include removable stop-logs and a fish barrier.
- Replacement of an existing County Road 8 sheet-pile structure with a new sheet-pile variable water control structure and a fish barrier. Its purpose is to control Lake Wakanda water levels and flow between Little Kandiyohi Lake.

- Construction of a road safe culvert and fish barrier along County Road 123 to isolate fish from the west bay of Lake Wakanda, a designated bay for wildlife.

Priorities were determined by cooperating partners consisting of local resource managers and citizens. The Kandiyohi County Lake Wakanda Enhancement Project uses The Cooperative Enhancement Plan for Lake Wakanda (see attachment) as its source for its three primary goals:

- (1) To address the ecosystem and critical lake habitat needs for aquatic plant life, waterfowl, shorebirds, other game and non-game species and a healthy diverse fish community;
- (2) To build water control structures with fish barriers at four locations utilizing Ducks Unlimited engineering design plans;
- (3) To enhance fish and wildlife habitat through active management and provide greater recreational opportunities for the public.

The Project's team of ten partners is committed to enhancing the habitat and ecosystem diversity in Lake Wakanda. Improvements will address aquatic habitat and water quality while positively affecting its prairie chain of lakes—Eleanor, Little Kandiyohi, Kasota, Swan, Minnetaga, Big Kandiyohi and Lillian.

Given the synergy of the partners and current investments, the group feels strongly in-lake tools are now necessary to optimize efforts. Local support to manage water levels on Lake Wakanda is overwhelming. Legal action to drawdown water levels is secured through Minnesota Statute 103G.408. Land rights necessary for construction are secured by the County. This project is shovel-ready, pending final Ducks Unlimited engineering, construction and permitting.

Which sections of the Minnesota Statewide Conservation and Preservation Plan are applicable to this project:

- H4 Restore and protect shallow lakes
- H6 Protect and restore critical in-water habitat of lakes and streams

Which other plans are addressed in this proposal:

- Long Range Duck Recovery Plan
- Managing Minnesota's Shallow Lakes for Waterfowl and Wildlife

Describe how your program will advance the indicators identified in the plans selected:

The Lake Wakanda Enhancement Project will support the Shallow Lake Program Plan of Managing Minnesota's Shallow Lakes for Waterfowl and Wildlife by contributing to the goal of managing and protecting the State's goal of 1,800 shallow lakes. Its aim is to enhance critical shallow lake habitat of Lake Wakanda—a state-designated Waterfowl Feeding and Resting Area. This lake is a local resource for fish and waterfowl recreation and accessible via two public access sites.

The Lake Wakanda Enhancement Project will also support the Long-Range Duck Recovery Plan by helping recover historical breeding and migratory habitat for waterfowl in support of the goal of managing 29 lakes per year for a total of 1,800 lakes by 2056.

Which LSOHC section priorities are addressed in this proposal:

Prairie:

- Protect, restore, and enhance shallow lakes

Describe how your program will produce and demonstrate a significant and permanent conservation legacy and/or outcomes for fish, game, and wildlife as indicated in the LSOHC priorities:

The Lake Wakanda Enhancement Plan is not a programmatic request; instead it is a focused project with a goal to improve lake conditions. Its improvement will significantly enhance fish and wildlife habitat. As a joint plan, it gives consideration to fisheries, waterfowl and other wildlife resources, while also improving water quality, clarity and submersed and emergent vegetation levels.

A comprehensive watershed approach coupled with in-lake management techniques provide opportunities to enhance Lake Wakanda:

- Outlet water control structures capable of allowing periodic, partial drawdown and effective fish barriers;
- Predator fish management will be essential to improving water quality, clarity and submersed/emergent vegetation levels while maintaining recreational fishing opportunities for at least 2/3 of the time in Lake Wakanda.

According to the Plan, partial drawdowns of up to 1.5 feet will promote plant regeneration. This approach will be considered up to once every 6 years. The time period between drawdowns, from full refill to start of next partial drawdown, is expected to be 8-10+ years with effective predator fish management. Partial drawdowns will last no longer than two consecutive winters and one summer and will be conducted only under plan-specified conditions.

Kandiyohi County will have permanent rights to build, operate, and maintain all enhancement structures. Operation and maintenance of the enhancement features will be a cooperative effort with the Minnesota Department of Natural Resources. Future adaptive management strategies will be vetted to provide habitat benefits for generations.

Describe how the proposal uses science-based targeting that leverages or expands corridors and complexes, reduces fragmentation or protects areas identified in the MN County Biological Survey:

Agricultural Best Management Practices (BMPs) as well as municipal stormwater and wastewater upgrades are contributing to the attainment of enhancing habitat and water quality conditions on Lake Wakanda.

Tools for water level drawdown will promote vegetation growth. Fish control measures using fish barriers will limit the mobility of Common Carp throughout Lake Wakanda basin after winterkill. Common Carp have proven to produce massive year-classes in Lake Wakanda after winterkill, ultimately impacting the entire chain and downstream lakes. Lake Wakanda is the headwaters of the South Fork of the Crow River, which will benefit by retention of nutrients and floodwater at the landscape level.

Temporary water level drawdown will increase sunlight penetration and promote submersed aquatic plant growth as well as consolidate shoreline sediments and allow for germination of emergent plants. Aquatic plants will help stabilize bottom sediments, manage internal nutrient cycling, reduce wave action, control shoreline erosion, provide direct food resources for waterfowl, and provide critical habitat for all shallow lake species.

The outcomes proposed through drawdown and fish control were experienced when Lake Wakanda had a significant winter fish kill in 2012-13. Habitat and water quality conditions following that event improved dramatically, but were only temporary. This event allowed us to see the potential of Lake Wakanda. In-lake tools will provide the means to meet continued enhancement objectives.

Given the average depth of three to four feet in its shallow bays and reaching 14 feet in the main basin, Lake Wakanda is a unique body of water with two public accesses. It can support a diverse and healthy ecosystem along with a predator fish community. Keeping Common Carp and Black Bullhead populations limited along with decreased nutrient levels will expand recreational opportunities. The four water control structures with fish barriers will enhance the complex ecosystem. In addition, the project will positively affect Lake Wakanda's chain of prairie lakes and corridors that are surrounded by public land and privately owned conservation program lands.

How does the proposal address habitats that have significant value for wildlife species of greatest conservation need, and/or threatened or endangered species, and list targeted species:

This project is located in Bird Conservation Region 11 (BCR) Prairie Pothole Region and will enhance shallow lake habitat conditions, benefiting wetland wildlife and help address priority waterfowl species and other species of State concern:

Waterfowl:

High Priority Species (5): Mallard, Blue-winged Teal, Lesser Scaup, Greater Scaup, Northern Pintail

Other Priority Species (5): Wood Duck, Redhead, Canvasback, Ring-necked Duck, American Wigeon

Non-game and Other Wetland Associated Migratory Birds:

American Bittern*, Northern Harrier*, Yellow Rail, both Hudsonian and Marbled Godwit, and Wilson's Phalarope*, which populate Minnesota during spring and fall migration. *Use as a breeding habitat.

Temporary water level draw-downs will increase the interspersed of emergent plants and shallow water habitat for wading birds and increase aquatic invertebrates for Wilson's Phalarope

Two Bald Eagle nests are documented

High Priority Shorebirds:

Several high priority shorebird species will directly benefit from this project during shallow lake draw-downs that expose mudflats and shallow water conditions for foraging habitat during spring and fall: Piping Plover, American Golden Plover, Solitary Sandpiper, Hudsonian, Marbled Godwit and Wilson's Phalarope

Endangered Species:

There are no federally threatened, endangered or proposed candidate species in the immediate area. However, the proposal area does include documented records for eight state-listed species as follows:

5 birds: Trumpeter Swan, Loggerhead Shrike, Horned Grebe, Common Tern, Peregrine Falcon

Old-Growth Hardwood Forest: Basswood, Kentucky Coffee Tree, Oak and Elm

This project will benefit all native fish and wildlife species that utilize shallow lake habitats. Refer to <http://nabci-us.org/bcr11.html>.

Identify indicator species and associated quantities this habitat will typically support:

Several fish and wildlife species (listed above), will significantly benefit from the Lake Wakanda Enhancement Project. Lake Wakanda's mix of two shallow bays and main basin provide critical and unique habitat in west central Minnesota. The lake has a maximum depth of approximately 14 feet within the main basin which provides recreational fishing opportunities but it is also unique in that it contains large bays that average 3-4 feet in depth providing critical areas for wildlife and waterfowl. Improvements through this grant will capitalize on local efforts to improve Lake Wakanda by providing the water control structures and fish barriers necessary to limit numbers of rough fish such as Common Carp and Bullheads.

We recognize that the four in-lake management tools are one piece of a very large and complex water system. By successfully enhancing Lake Wakanda, we are restoring critical brood rearing and migratory habitat for waterfowl including those of greatest conservation concern. In addition, Lake Wakanda's improved water quality, which is listed in Minnesota's impaired waters will serve the general public with recreational opportunities, abundant aquatic life and restored habitats for birds and other wildlife species.

Outcomes:

Programs in prairie region:

- Protected, restored, and enhanced shallow lakes and wetlands *The Lake Wakanda Enhancement Project will improve 1,754-acres of critical shallow lake habitat. Construction of the water control structures and fish barriers will allow for management practices to promote native aquatic plant abundance and enhance the wildlife habitat and fishery. As a Migratory Waterfowl Feeding and Resting Area, Lake Wakanda will be added to the list of ongoing projects to meet the goals of the Minnesota Department of Natural Resource's Long-Range Duck Recovery Plan and Shallow Lakes Program Plan. In accordance with the Cooperative Lake Wakanda Enhancement Plan lake surveys will be conducted by the Minnesota DNR.*

How will you sustain and/or maintain this work after the Outdoor Heritage Funds are expended:

Through the successful funding of this project to construct water control structures and fish barriers, Lake Wakanda will see improved aquatic plant growth and distribution, enhanced wetland wildlife habitat and overall, a more diverse and balanced fishery. Kandiyohi County will own and provide all capital maintenance for the water control structures and fish barriers. The County will work with the Minnesota Department of Natural Resources for all active water level drawdown, fish management, and routine maintenance. Fish barrier maintenance and management actions will be dictated by the comprehensive lake management plan, Cooperative Enhancement Plan for Lake Wakanda (see attachment) that was created collaboratively with Kandiyohi County, the Minnesota Department of Natural Resources, the Minnesota Pollution Control Agency, the Minnesota Board of Water and Soil Resources, the local Soil and Water Conservation District, Crow River Organization of Water, the Wakanda and Big Kandiyohi Lake Associations, Blomkest Sportsmen's Club and Ducks Unlimited.

Explain the things you will do in the future to maintain project outcomes:

Year	Source of Funds	Step 1	Step 2	Step 3
2018-2019	Kandiyohi County	Outlet water control structures capable of allowing periodic, partial drawdown and effective fish barriers	Predator fish management will be essential to improving water quality, clarity and submersed/emergent vegetation levels while maintaining recreational fishing opportunities for at least 2/3 of the time in Lake Wakanda.	According to the Plan, periodic, partial drawdowns of up to 1.5 feet to consolidate sediment and promote plant regeneration. This approach will be considered up to once every 6 years. The time period between drawdowns, from full refill to start of next partial drawdown, is expected to be 8-10+ years with effective predator fish management. Partial drawdowns will last no longer than two consecutive winters and one summer and will be conducted only under plan-specified conditions.

What is the degree of timing/opportunistic urgency and why it is necessary to spend public money for this work as soon as possible:

The Lake Wakanda Enhancement Project is strategic, comprehensive and maximizes watershed improvements. Current efforts to address the flashy watershed and extensive nutrient inputs make it timely, including the multi-million dollar restoration of Grass Lake, which is immediately upstream. Multiple partners collaborated to create the Cooperative Enhancement Plan for Lake Wakanda with residents, the public at large and cooperating agencies: Kandiyohi County, Minnesota Department of Natural Resources, Minnesota Pollution Control Agency, Minnesota Board of Water and Soil Resources, local Soil and Water Conservation District, Crow River

Organization of Water, Wakanda and Big Kandiyohi Lake Association, Blomkest Sportsmen’s Club and Ducks Unlimited. Its timely funding keeps momentum, leverages partners' investments and ensures enhancement measures are viable as identified in the Plan—the longer degradation continues within this chain of lakes, the more difficult enhancement will become furthering the loss of wildlife habitat and public use of Lake Wakanda.

How does this proposal include leverage in funds or other effort to supplement any OHF appropriation:

Kandiyohi County is providing an anticipated \$107,200 in leverage, which is detailed in the budget section. The County is committed to the ongoing maintenance of the proposed four water control and fish barrier structures.

The Cooperative Enhancement Plan for Lake Wakanda is the culmination of local effort and commitment of multiple partners from residents, public at large, sportsman clubs and industry professionals. With the plan complete, Kandiyohi County is seeking a one-time award of OHF to construct the in-lake tools to execute the plan. Recent work completed by the cities of Willmar and Kandiyohi addressing the flashy watershed and extensive nutrient input along with the current \$5.7 million restoration of upstream Grass Lake (refer to support letters attachment) make the viability of this habitat enhancement project timely. Other investments include the \$155,000 Watershed BMPs to Kandi Creek and the multiple years of investment by Lake Wakanda Association & Kandiyohi County for water planning and sampling analysis.

Relationship to other funds:

- N/A - Per call with LSOHC on May 19, 2016

Describe the relationship of the funds:

N/A

Describe the source and amount of non-OHF money spent for this work in the past:

Appropriation Year	Source	Amount
2008-2011	Multiple Sources including State Bonding-Grass Lake Restoration	\$5.7 Million
2015	Clean Water Fund (Watershed BMPs)-Kandi Creek	\$155,000
2005-2012	Lake Wakanda Association & Kandiyohi County Water Planning Taskforce-Lake Wakanda Sampling Analysis	\$27,376

Activity Details

Requirements:

If funded, this proposal will meet all applicable criteria set forth in MS 97A.056 - **Yes**

Will restoration and enhancement work follow best management practices including MS 84.973 Pollinator Habitat Program - **Yes**

Is the activity on permanently protected land per 97A.056, subd 13(f), tribal lands, and/or public waters per MS 103G.005, Subd. 15 - **Yes (Public Waters)**

Do you anticipate federal funds as a match for this program - **No**

Land Use:

Will there be planting of corn or any crop on OHF land purchased or restored in this program - **No**

Accomplishment Timeline

Activity	Approximate Date Completed
Final Engineering and Design	Fall 2017
Permitting	Spring 2018
Seek and Award Bids to Construction Contractor(s)	Summer 2018
Construction of Water Control Structures and Fish Barriers	Fall 2018

Budget Spreadsheet

Total Amount of Request: \$921,100

Budget and Cash Leverage

BudgetName	LSOHC Request	Anticipated Leverage	Leverage Source	Total
Personnel	\$0	\$37,800	Kandiyohi County, Kandiyohi County, Kandiyohi County, Kandiyohi County	\$37,800
Contracts	\$730,900	\$64,400	Kandiyohi County	\$795,300
Fee Acquisition w/ PILT	\$0	\$0		\$0
Fee Acquisition w/o PILT	\$0	\$0		\$0
Easement Acquisition	\$0	\$5,000	Kandiyohi County	\$5,000
Easement Stewardship	\$0	\$0		\$0
Travel	\$300	\$0		\$300
Professional Services	\$177,900	\$0		\$177,900
Direct Support Services	\$0	\$0		\$0
DNR Land Acquisition Costs	\$0	\$0		\$0
Capital Equipment	\$0	\$0		\$0
Other Equipment/Tools	\$0	\$0		\$0
Supplies/Materials	\$12,000	\$0		\$12,000
DNR IDP	\$0	\$0		\$0
Total	\$921,100	\$107,200		- \$1,028,300

Personnel

Position	FTE	Over # of years	LSOHC Request	Anticipated Leverage	Leverage Source	Total
Kandiyohi County Public Drainage Manager	0.06	3.00	\$0	\$24,300	Kandiyohi County	\$24,300
County Commissioners-Elected Officials (2)	0.01	3.00	\$0	\$1,700	Kandiyohi County	\$1,700
County Administrator	0.01	3.00	\$0	\$5,900	Kandiyohi County	\$5,900
County Engineer	0.01	3.00	\$0	\$5,900	Kandiyohi County	\$5,900
Total	0.10	12.00	\$0	\$37,800		\$37,800

Amount of Request: \$921,100

Amount of Leverage: \$107,200

Leverage as a percent of the Request: 11.64%

DSS + Personnel: \$0

As a % of the total request: 0.00%

Easement Stewardship: \$0

As a % of the Easement Acquisition: -%

Does the amount in the contract line include R/E work?

Yes. 100%.

Does the amount in the travel line include equipment/vehicle rental? - No

Explain the amount in the travel line outside of traditional travel costs of mileage, food, and lodging:

Describe and explain leverage source and confirmation of funds:

Kandiyohi County, as the project lead, will be providing in-kind support from its county commissioners and ancillary staff to oversee the project and ensure its implementation. It will seek contingency leverage funds from its cooperating partners listed in the Cooperative Enhancement Plan for Lake Wakanda (see attachment).

Does this proposal have the ability to be scalable? - No

Output Tables

Table 1a. Acres by Resource Type

Type	Wetlands	Prairies	Forest	Habitats	Total
Restore	0	0	0	0	0
Protect in Fee with State PILT Liability	0	0	0	0	0
Protect in Fee W/O State PILT Liability	0	0	0	0	0
Protect in Easement	0	0	0	0	0
Enhance	0	0	0	1,754	1,754
Total	0	0	0	1,754	1,754

Table 2. Total Requested Funding by Resource Type

Type	Wetlands	Prairies	Forest	Habitats	Total
Restore	\$0	\$0	\$0	\$0	\$0
Protect in Fee with State PILT Liability	\$0	\$0	\$0	\$0	\$0
Protect in Fee W/O State PILT Liability	\$0	\$0	\$0	\$0	\$0
Protect in Easement	\$0	\$0	\$0	\$0	\$0
Enhance	\$0	\$0	\$0	\$921,100	\$921,100
Total	\$0	\$0	\$0	\$921,100	\$921,100

Table 3. Acres within each Ecological Section

Type	Metro/Urban	Forest/Prairie	SE Forest	Prairie	Northern Forest	Total
Restore	0	0	0	0	0	0
Protect in Fee with State PILT Liability	0	0	0	0	0	0
Protect in Fee W/O State PILT Liability	0	0	0	0	0	0
Protect in Easement	0	0	0	0	0	0
Enhance	0	0	0	1,754	0	1,754
Total	0	0	0	1,754	0	1,754

Table 4. Total Requested Funding within each Ecological Section

Type	Metro/Urban	Forest/Prairie	SE Forest	Prairie	Northern Forest	Total
Restore	\$0	\$0	\$0	\$0	\$0	\$0
Protect in Fee with State PILT Liability	\$0	\$0	\$0	\$0	\$0	\$0
Protect in Fee W/O State PILT Liability	\$0	\$0	\$0	\$0	\$0	\$0
Protect in Easement	\$0	\$0	\$0	\$0	\$0	\$0
Enhance	\$0	\$0	\$0	\$921,100	\$0	\$921,100
Total	\$0	\$0	\$0	\$921,100	\$0	\$921,100

Table 5. Average Cost per Acre by Resource Type

Type	Wetlands	Prairies	Forest	Habitats
Restore	\$0	\$0	\$0	\$0
Protect in Fee with State PILT Liability	\$0	\$0	\$0	\$0
Protect in Fee W/O State PILT Liability	\$0	\$0	\$0	\$0
Protect in Easement	\$0	\$0	\$0	\$0
Enhance	\$0	\$0	\$0	\$525

Table 6. Average Cost per Acre by Ecological Section

Type	Metro/Urban	Forest/Prairie	SE Forest	Prairie	Northern Forest
Restore	\$0	\$0	\$0	\$0	\$0
Protect in Fee with State PILT Liability	\$0	\$0	\$0	\$0	\$0
Protect in Fee W/O State PILT Liability	\$0	\$0	\$0	\$0	\$0
Protect in Easement	\$0	\$0	\$0	\$0	\$0
Enhance	\$0	\$0	\$0	\$525	\$0

Target Lake/Stream/River Feet or Miles

1,754

I have read and understand Section 15 of the Constitution of the State of Minnesota, Minnesota Statute 97A.056, and the Call for Funding Request. I certify I am authorized to submit this proposal and to the best of my knowledge the information provided is true and accurate.

Parcel List

Explain the process used to select, rank and prioritize the parcels:

N/A-Lake Wakanda is Public Water #34-169P

Section 1 - Restore / Enhance Parcel List

Kandiyohi

Name	TRDS	Acres	Est Cost	Existing Protection?
Lake Wakanda	11834206	1,754	\$0	Yes

Section 2 - Protect Parcel List

No parcels with an activity type protect.

Section 2a - Protect Parcel with Bldgs

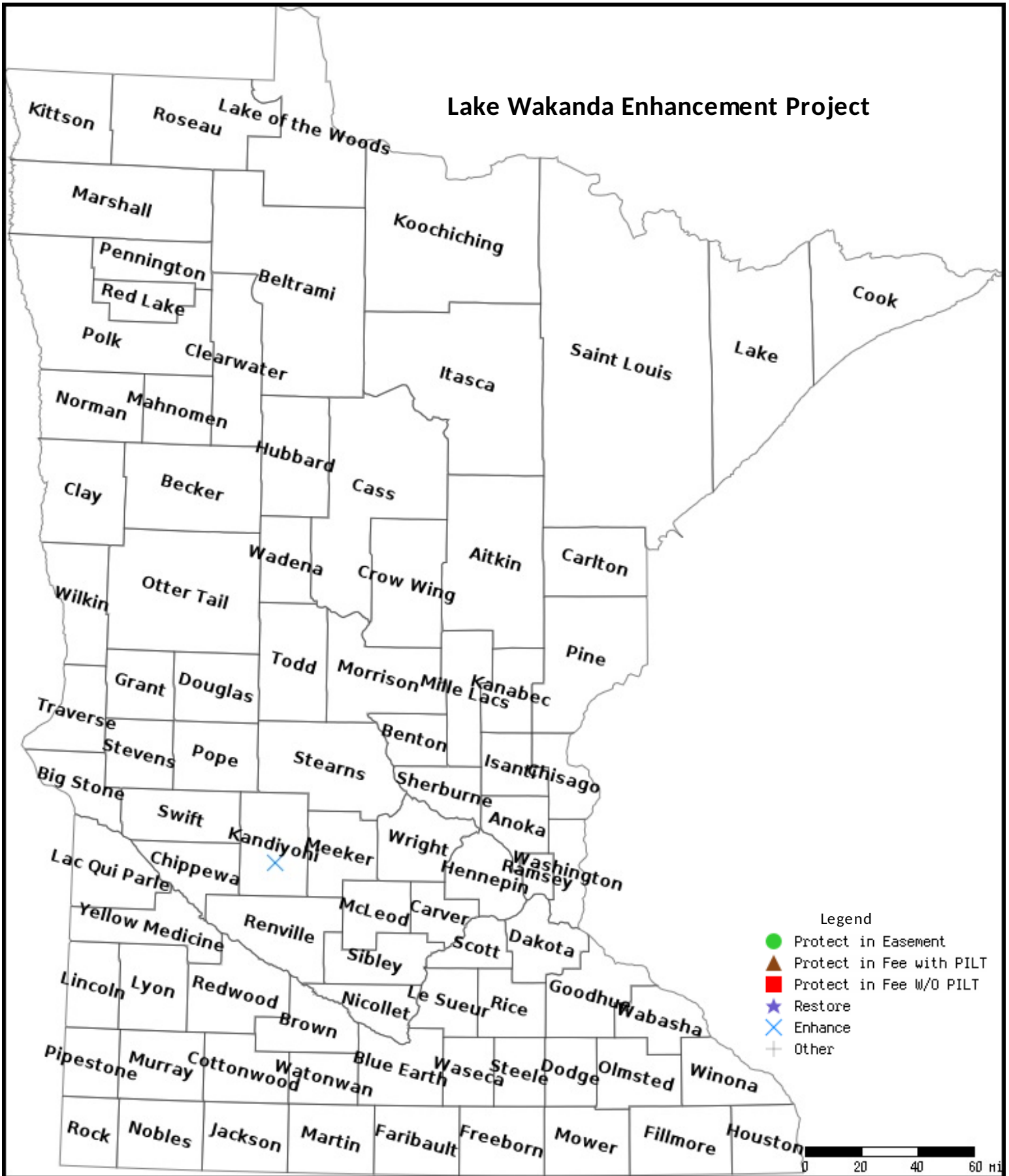
No parcels with an activity type protect and has buildings.

Section 3 - Other Parcel Activity

No parcels with an other activity type.

Parcel Map

Lake Wakanda Enhancement Project



Data Generated From Parcel List

In the Dakotah language, Wakanda means where the spirit dwells.
A number of burial mounds were found in this area.
~Kandiyohi County Historical Society

Lake Wakanda

Lake Wakanda is a shallow lake located approximately three miles southeast of the city of Willmar. It lies within a chain of lakes including Big Kandiyohi, Lillian, Little Kandiyohi, Kasota, Minnetaga and Swan that form the headwaters of the South Fork of the Crow River.

Features

- 1,754-Acre Shallow Lake
- Two Bays/Main Basin
- Two Public Accesses
- Chain of Prairie Lakes
- Habitat for Fish & Wildlife

Designations

- Designated Waterfowl Feeding & Resting Area
- Impaired Water Body

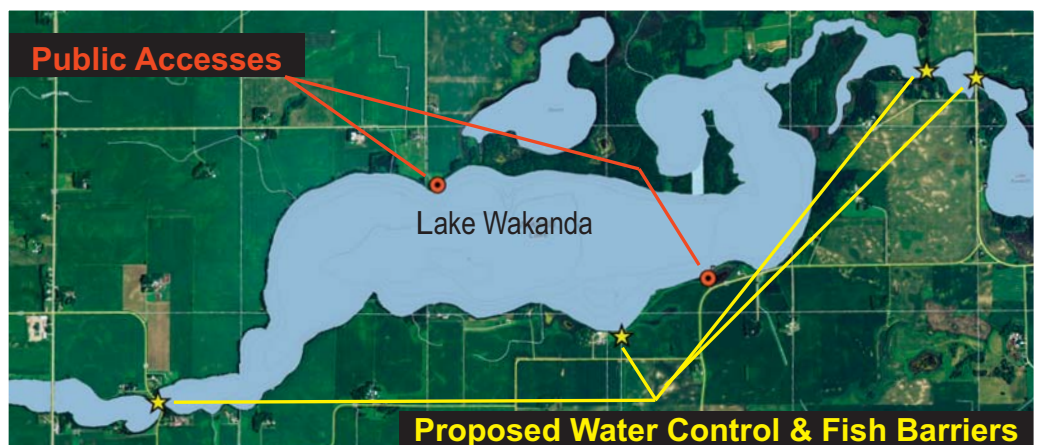
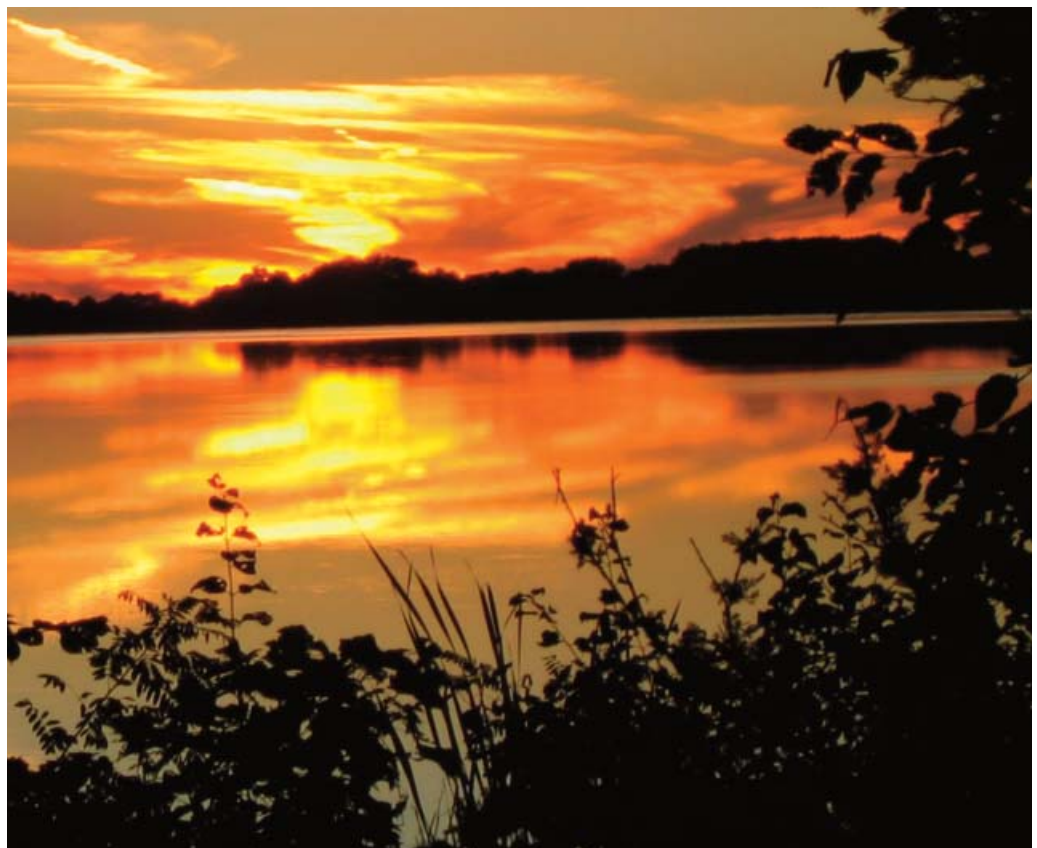
Enhancement Overview

Kandiyohi County's Lake Wakanda Enhancement Project is a one-time funding request to construct four water control structures and fish barriers to improve critical shallow lake habitat for fish and wildlife.

Project Timeliness

This comprehensive project meets the goals of the Minnesota **DNR's Long-Range Duck Recovery and Shallow Lakes Program Plans**. Using a systems approach, Kandiyohi County will maximize recent upstream watershed improvements and current investments of cooperating partners to enhance Lake Wakanda's game and non-game species and habitats.

Kandiyohi County's Lake Wakanda Enhancement Project



Lake Wakanda—A Complex System of Shallow Prairie Lakes



Lake Wakanda following 2012-13 winterkill. This event provided a vision of what can be accomplished by actively managing the lake. In-lake tools will enable enhancement objectives and ultimately, impact the entire chain and downstream lakes. Legal action to drawdown water levels is secured through Minnesota Statute 103G.408.



Pelicans foraging in late summer.

Enhancement Plan

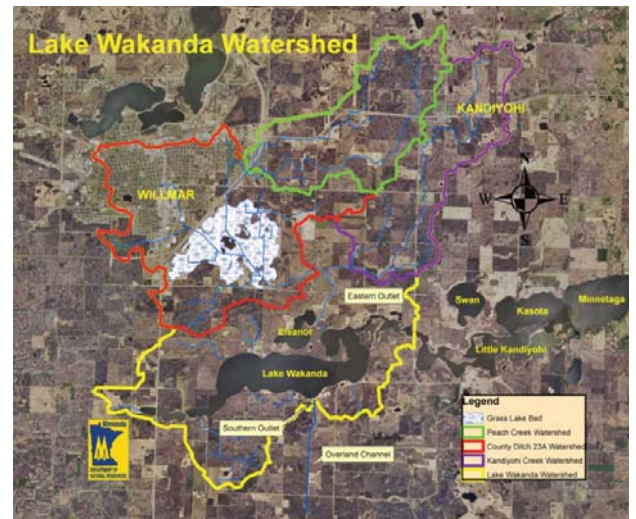
Lake Wakanda is a unique body of water with two public accesses and average depth of 3' - 4' in its shallow bays and reaches 14' in the main basin. It can support a diverse and healthy ecosystem along with a predator fish community. Critical brood rearing and migratory habitat for waterfowl including those of greatest conservation concern will be enhanced while serving the general public with recreational opportunities, abundant aquatic life and restored habitats for birds* and other wildlife species.

*High Priority Species

- Mallard, Blue-winged Teal, Lesser Scaup, Greater Scaup, Northern Pintail, Piping Plover, American Golden Plover, Solitary Sandpiper, Hudsonian, Marbled Godwit and Wilson's Phalarope

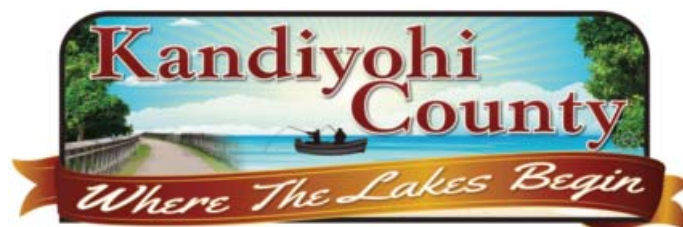
*Endangered Species

- Documented records for state-listed species: Trumpeter Swan, Loggerhead Shrike, Horned Grebe, Common Tern and Peregrine Falcon

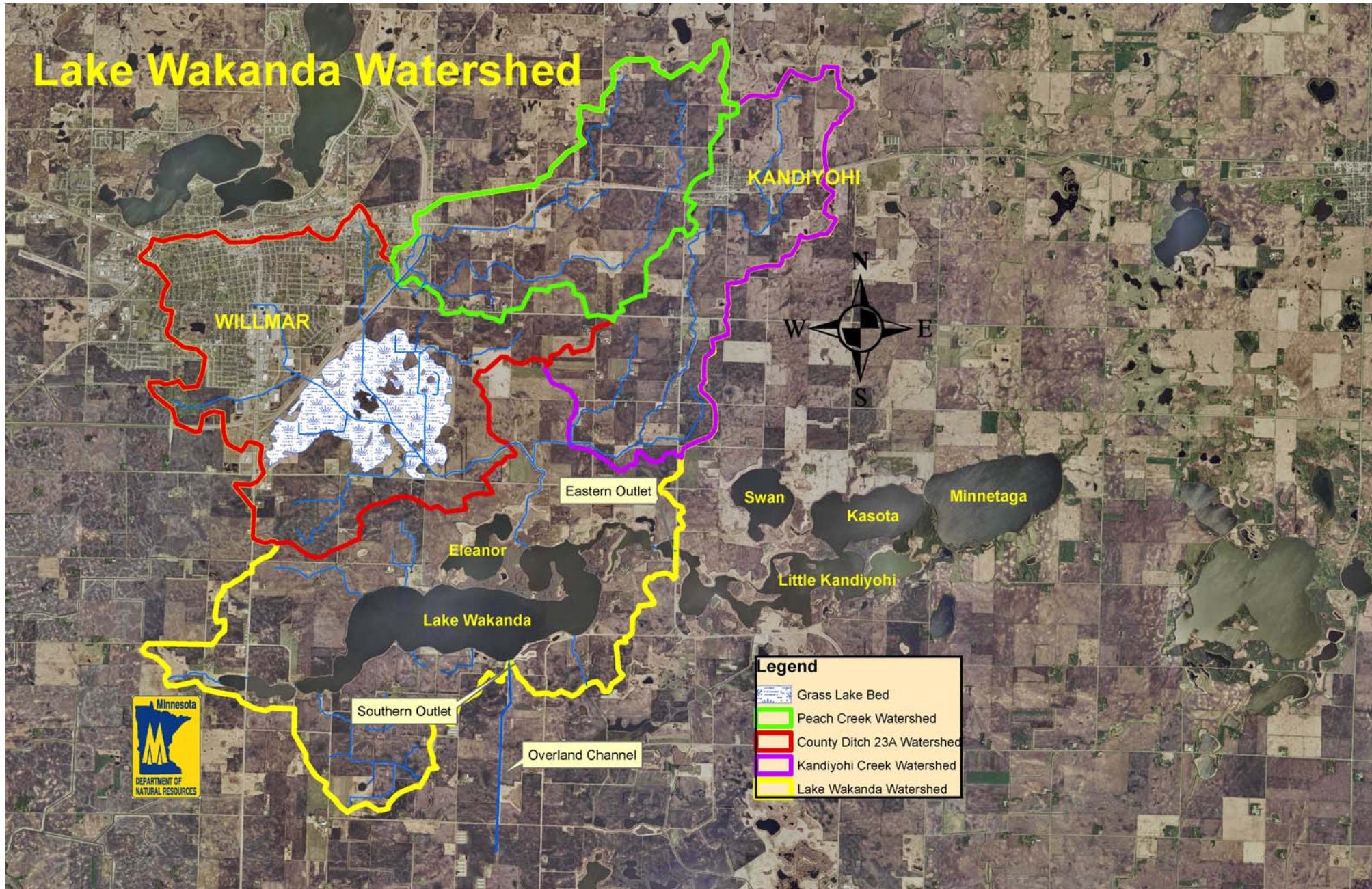


Recent work completed to address the flashy watershed and the extensive nutrient input make this project timely along with the current multi-million dollar restoration of Grass Lake, which is immediately upstream. <http://bit.ly/20x77gG>

Ongoing maintenance will be done according to the "Cooperative Enhancement Plan for Lake Wakanda" that was created collaboratively with residents, the public at large and cooperating agencies: Kandiyohi County, Minnesota Department of Natural Resources, Minnesota Pollution Control Agency, Minnesota Board of Water and Soil Resources, local Soil and Water Conservation District, Crow River Organization of Water, Wakanda and Big Kandiyohi Lake Association, Blomkest Sportsmen's Club and Ducks Unlimited.



Lake Wakanda Watershed



WILLMAR

KANDIYOHI



Eastern Outlet

Swan

Kasota

Minnetaga

Eleanor

Little Kandiyohi

Lake Wakanda

Southern Outlet

Overland Channel

Legend

- Grass Lake Bed
- Peach Creek Watershed
- County Ditch 23A Watershed
- Kandiyohi Creek Watershed
- Lake Wakanda Watershed





Health and Human Services Building
Suite 2020
2200 23rd Street NE, Willmar, MN 56201-9423
Phone 320-231-6215 Fax 320-231-7899

May 9th, 2016

Lessard, Sam
Outdoor Heritage Council
95 State Office Building
Saint Paul, MN 55155

Dear Council Members:

Work to improve Lake Wakanda and the Kandiyohi Chain of Lakes, which form the headwaters of the South Fork of the Crow River, has been ongoing for over twenty five years. Those of us who have been involved from the start are excited about the convergence of several interrelated efforts, including the most essential element - the Lake Wakanda Enhancement Project. This project will improve fish and wildlife habitat, allow for ecosystem restoration and help protect downstream lakes. Together we believe these efforts represent one of the most comprehensive approaches undertaken in our state to restore the headwaters of a major watershed. They include:

- Restoration of Grass Lake, a 1200 acre basin located upstream of Lake Wakanda, will help buffer altered hydrology and improve water quality (construction is underway).
- Kandi Creek stabilization Project. A Clean Water Legacy Project to stabilize a highly erosive tributary to Lake Wakanda and implement Best Management Practices in the Watershed.

- Lake Wakanda has been designated as one of three priority watersheds by MPCA for implementation work in the South Fork Crow Watershed Restoration and Protection Strategies (WRAPS).
- Cooperative Enhancement Plan for Lake Wakanda (34-169), Kandiyohi County Lake Wakanda, dated May 22nd, 2015.

The Cooperative Enhancement Plan for Lake Wakanda was unanimously approved by the Kandiyohi County Board at a joint public hearing with the DNR to authorize temporary lake level drawdowns on June 3rd, 2015. Strong public support was demonstrated at the June 3rd public hearing. The plan culminates 25 years of working with multiple partners, strong locally led advocacy and coming to consensus with a diverse set of stakeholders on an extremely complex lake system.

They say “timing is everything”, the time for the Wakanda Fish and Wildlife Enhancement Project is now, the momentum is strong and we respectfully ask for your help to accomplish a pivotal piece of what we believe to be a historic watershed moment.

Sincerely,

A handwritten signature in cursive script that reads "Harlan Madsen". The signature is written in black ink and is positioned above the printed name.

Harlan Madsen
Kandiyohi County Commissioner
District 5



MAYOR AND COUNCIL

City Office Building
Box 755
Willmar, Minnesota 56201

320-235-4913
FAX 320-235-4917

May 10, 2016

Lessard-Sams Outdoor Heritage Council
95 State Office Building
St. Paul, MN 55155

RE: Kandiyohi County/Lake Wakanda LSOHA Grant Application

Dear Council Members,

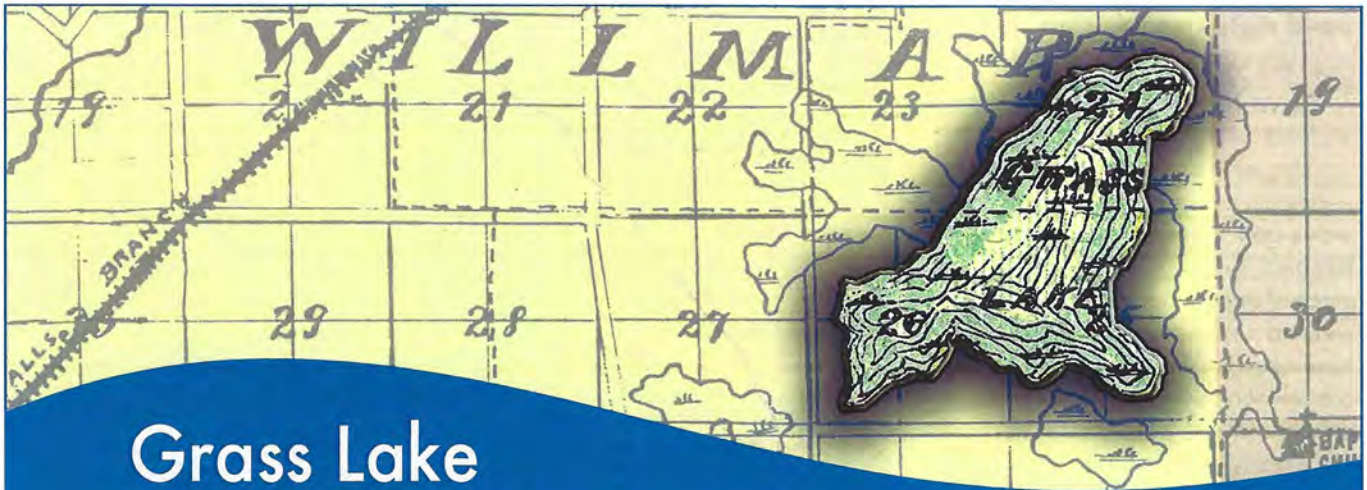
This letter shall serve as confirmation of the City Of Willmar extending its full support for the grant application to the Lessard-Sams Outdoor Heritage Council for the Lake Wakanda Shallow Lakes Restoration and Enhancement Project. The benefits of lake restoration, downstream enhancements and water and sediment retention in Lake Wakanda will positively impact the fish and wildlife habitats as well as downstream flood damage reduction.

Kandiyohi County Ditch 23A, which provides drainage for the City's stormwater runoff, starts in the City of Willmar and flows southeast through the Grass Lake basin eventually discharging into Lake Wakanda. Improvements will allow for better water quality for Lake Wakanda and also downstream lakes of Little Kandiyohi, Big Kandiyohi and the impaired South Fork of the Crow River.

Sincerely,

CITY OF WILLMAR

Marv Calvin
Mayor



Grass Lake Restoration Project



The Grass Lake prairie wetland is located in central Kandiyohi County, southeast of the city of Willmar, Minnesota. Efforts are underway to restore this large, shallow prairie wetland which has been extensively drained and altered.

Prior to its drainage, Grass Lake was approximately 1,200 acres in size, with its western edge extending into what is now the developed southeastern portion of Willmar. The majority of the lake bed still resides to the south and east of the Highway 23/71 bypass, which runs along the southeast edge of the city.

Grass Lake and its contributing drainage area are located at the upper end of the South Fork of the Crow River watershed. Just downstream of Grass Lake is a chain of lakes including Wakanda, Little Kandiyohi, and Minnetaga.

Background and history

In 1905, the Board of County Commissioners approved the construction of a “public ditch” through Grass Lake and the surrounding area. The purpose of the ditch was to provide drainage for the city of Willmar and improve surrounding lands for agricultural use. As a result, a combination of public and private drainage measures, including open ditches, subsurface tile drainage systems, and lift pumps were installed—effectively draining the lake.

Once drained, this large, shallow lake bed was successfully farmed for many years. In more recent years, however, the capacity of the ditch system through Grass Lake and downstream has been taxed by above-normal precipitation cycles and subsequent increases in upstream watershed runoff. As a result, the former lake bed has been affected by frequent flooding, creating poor conditions for farming. In addition, the lakes downstream of Willmar and Grass Lake have experienced flooding issues of their own, as well as issues with water quality. To help address these issues, the restoration of Grass Lake has become a priority for many, including local landowners; city, county, state and federal agencies; the state legislature; and a number of conservation organizations.

Given Grass Lake’s proximity to the city of Willmar, existing infrastructure, and other properties adjacent to the former lakebed, a number of challenges need to be addressed as part of the lake’s restoration. Perhaps the most important will be minimizing potential adverse impacts to areas upstream of the lake bed, including portions of the city of Willmar. To determine the extent of potential impacts and to develop an effective restoration design, a comprehensive hydrologic and hydraulic modeling effort was undertaken. Included in this report are the results of the modeling analysis, with a summary of the major construction features planned to successfully restore Grass Lake.

Land rights acquisition

Over the past 20 years, a coalition of conservation groups and local, state, and federal agencies have been working with landowners to purchase perpetual conservation easements, with a goal of restoring the drained lakebed. To date, just over 1,300 acres of the drained shallow prairie wetland and associated uplands have been secured under perpetual conservation easement and remain in private ownership. Partial restoration has already occurred in some areas of the project. With the final easements now in place, the restoration of the larger Grass Lake shallow prairie wetland can now be considered.

Design constraints

One of the many challenges associated with restoring Grass Lake includes protecting private and public properties that surround the lake bed from adverse flood impacts. This is difficult because certain areas of the city of Willmar use and benefit from the same ditch system that drains Grass Lake. Much of this area of the city is low in elevation and part of the former Grass Lake bed.

Previous plans to restore Grass Lake included installing lift stations at the edge of the city to pump stormwater runoff into the lake. While feasible, this project was not supported by the city due to related short- and long-term costs, as well as reliance on pumps for flood protection. Through additional planning, investigation, and design a revised restoration plan has been developed. This new plan includes re-routing a portion of the county ditch system to divert runoff from the city around the lake bed. With this diversion, a majority of the former lake bed can be restored without the use of pumps, while minimizing potential adverse impacts to the city or other surrounding lands.



A 1997 aerial photograph taken near the proposed location of the outlet structure of a restored Grass Lake. The entire study area is shown in Figure 1.

The restoration plan

The restoration design evaluated in this study includes the principal features described below and depicted in Figure 2:

- 1 Construction of an outlet structure located in the southeast corner of the restored lake. The structure will manage restored water levels in the lake at elevation 1111.0 feet (NGVD29).
- 2 Construction of additional armored and vegetated auxiliary spillways to help manage expected discharges from large runoff events.
- 3 Construction of a diversion for Peach Creek and its contributing watershed. The diversion will allow all Peach Creek flows to directly enter the restored Grass Lake (as opposed to flowing into Branch 3 of the county ditch system).
- 4 Construction of a diversion for Branch 3 of County Ditch 23A so it can be re-routed parallel to and along the east side of the Highway 23/71 bypass and out of the restored lake bed.
- 5 Construction of a diversion for a portion of the main County Ditch 23A to remove it from the planned restoration area.

- 6 Construction of a number of shallow earthen embankments in areas along the west and south sides of the lake to control and manage water elevations within the restored lake bed.

Design analysis and results

The hydrology and hydraulics of the Grass Lake watershed were modeled using a detailed computer simulation. The existing stormwater conveyance system was modeled to estimate a baseline for peak water surface elevations and flows within the watershed. Proposed restoration features were then added to the model to allow a comparison of pre- and post- project conditions. This analysis also provides an assessment of potential restoration benefits, including flood storage.

Two-, 10-, and 100-year storm events were simulated for both existing and proposed conditions. Figure 3 shows the existing and proposed model results for the 100-year, 24-hour storm event at seven key locations within the project area.

Figure 1: Study area

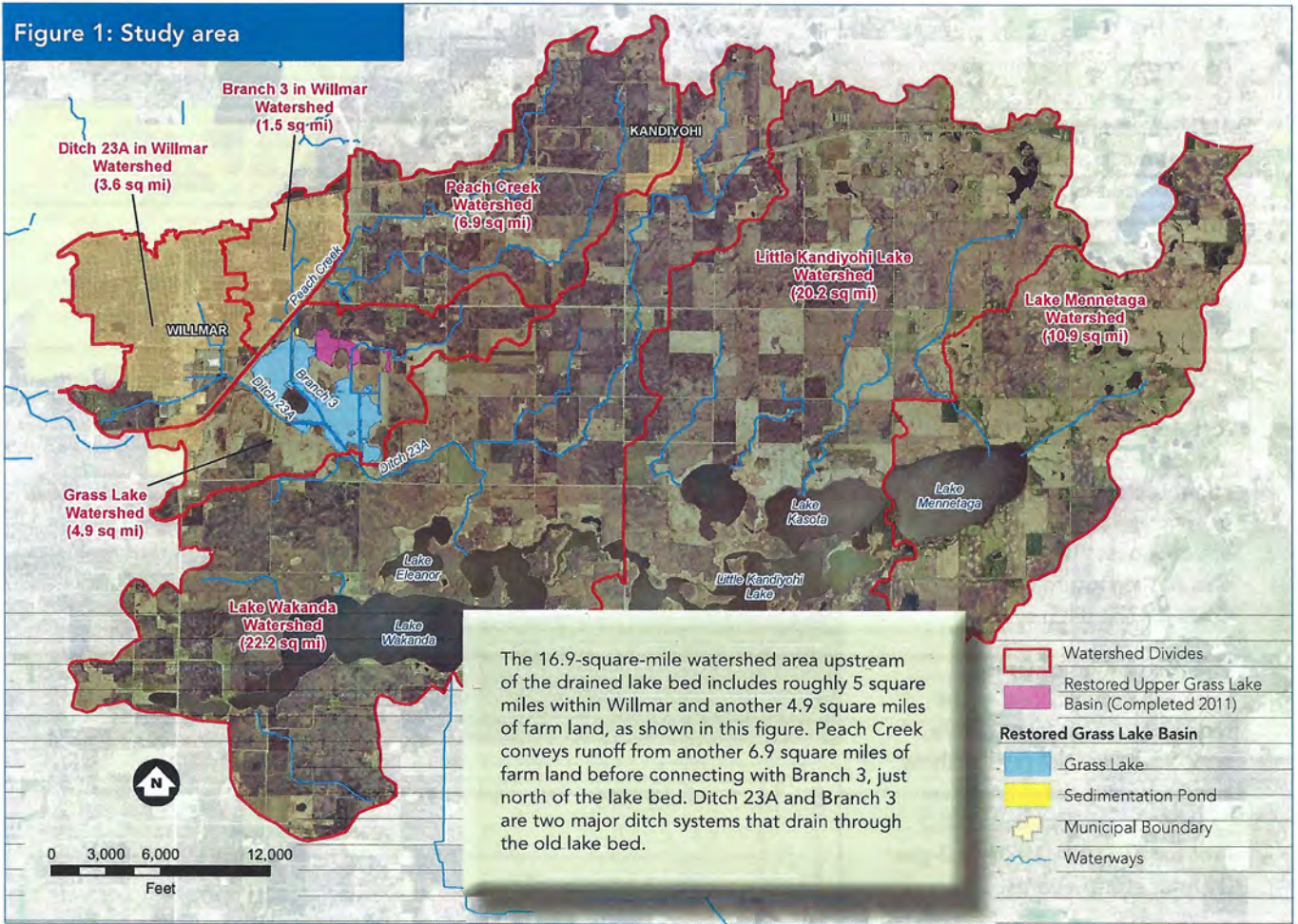
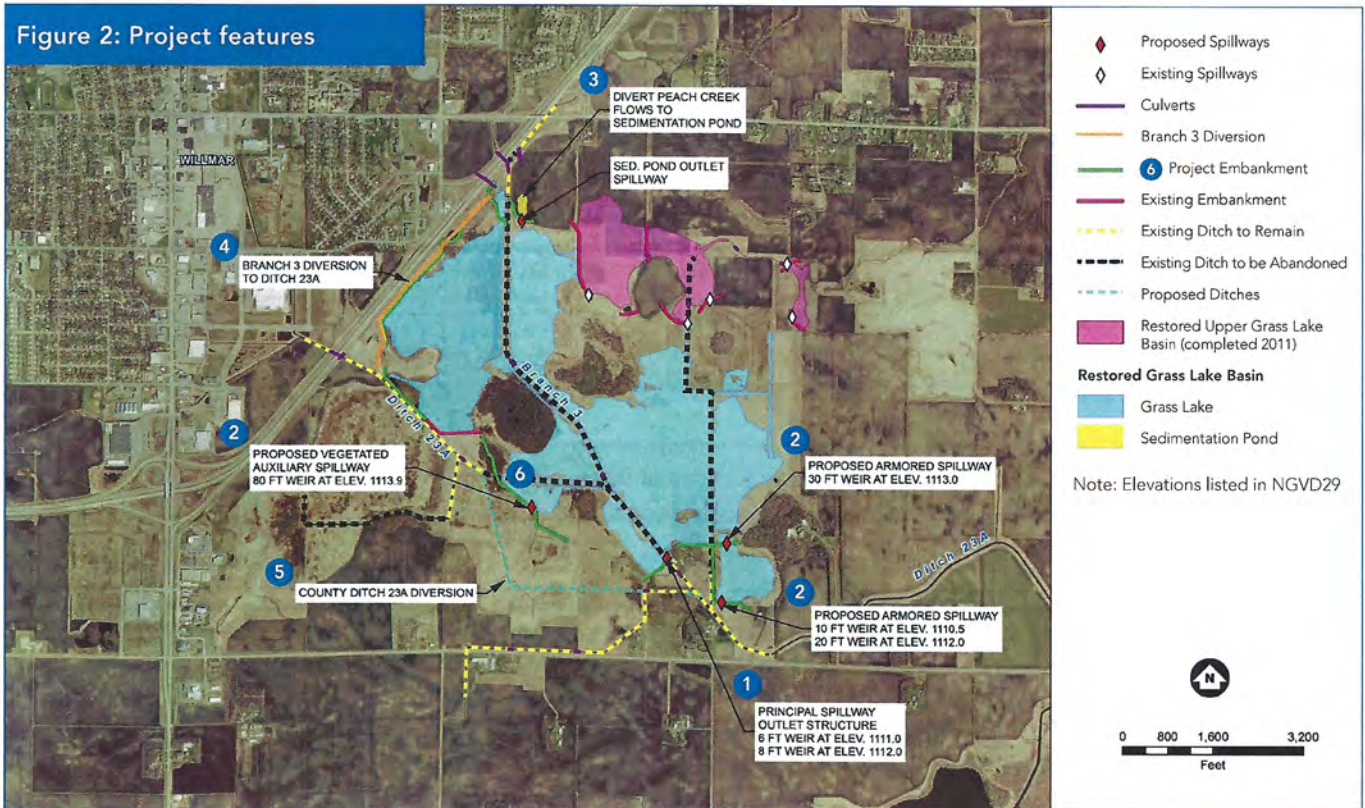


Figure 2: Project features



Notable findings

- As proposed, the restoration of Grass Lake will not increase the 100-year peak water surface elevations in areas upstream of the lake bed by more than 0.1 feet, including areas within the city of Willmar.
- Approximately 12 square miles of drainage area, including the Peach Creek watershed, will contribute directly to the restored lake bed. This will reduce flows to the adjoining county ditch system, improving its function and drainage effectiveness. The project should also reduce future maintenance costs for the ditch system.
- The restoration of Grass Lake will reduce flooding on the downstream lakes. More specifically, model results show a reduction of flood levels on Lake Wakanda between 0-0.2 feet for the 100-, 10-, and 2-year 24-hour storm events.

Funding

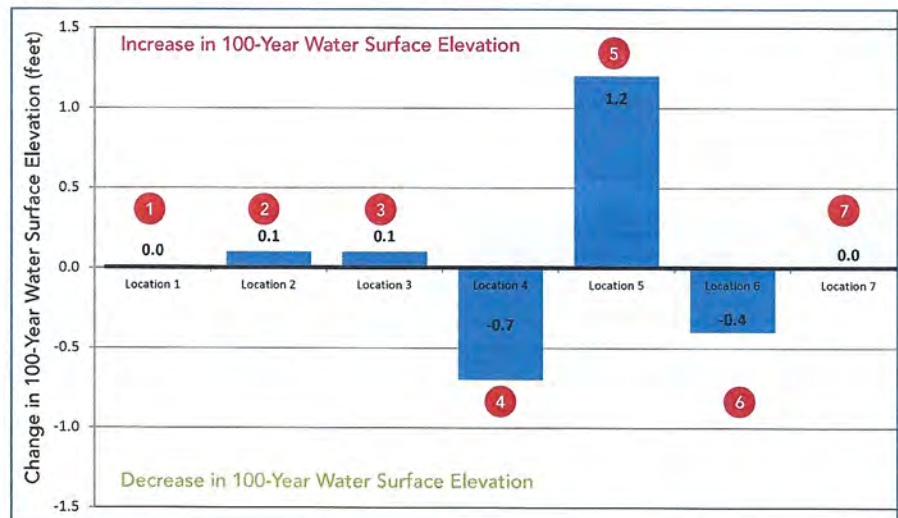
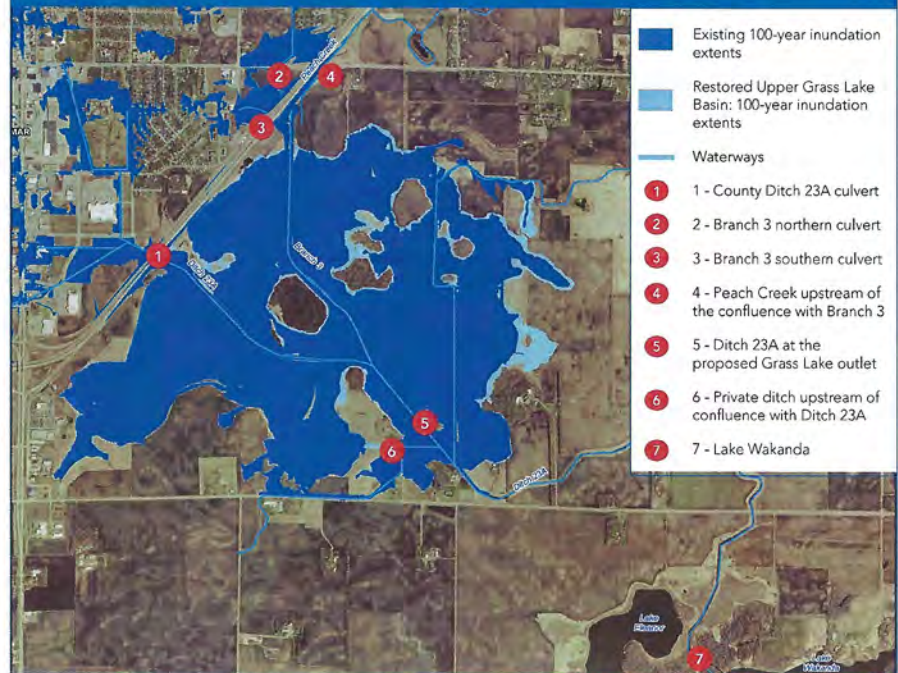
Numerous funding sources have been used to secure easements and perform interim restoration work. The state legislature, through capital budget appropriations, has provided much of the necessary remaining funding to implement the full restoration of Grass Lake, as described in this report.

Conclusion

The restoration of Grass Lake presents an excellent opportunity to restore a large shallow prairie wetland along the edge of the city of Willmar. The project will provide multiple benefits to the area and will not be detrimental to surrounding properties.

The project will require that County Ditch 23A be modified through partial abandonment, reroutes, and an impoundment through MN Statute 103E. The restoration and associated modifications to the county drainage system will neither impair the utility of the drainage system nor deprive affected landowners of its benefit. The project is anticipated to reduce future maintenance costs related to the ditch system.

Figure 3: Existing and proposed conditions peak water surface elevations for the 100-year, 24-hour design event





**MINNESOTA
SOIL AND WATER CONSERVATION DISTRICTS**



1005 High Avenue
Willmar, MN 56201
320-235-3906, Ext 3
www.kandiyohiswcd.org

May 13, 2016

Lessard – Sam’s Outdoor Heritage Council
95 State Office Building
St. Paul, Mn. 556155

RE: Kandiyohi County / Lake Wakanda LSOHC Grant Application

Dear Council Members:

The Kandiyohi Soil and Water Conservation District (SWCD) is in full support of the Lake Wakanda Shallow Lakes Restoration and Enhancement project. We encourage the Lessard - Sam’s Heritage Council to consider this unique grant for funding

This funding will be used to address the in – lake enhancement efforts of the “Cooperative Lake Enhancement Plan” for Lake Wakanda (34-0169). Lake Wakanda has served as a regional attraction and recreational resource for many years. We support the In-Lake cooperative resource plan to enhance and protect the lake along with current Wetland Restorations like the Grass Lake Restoration located North of Lake Wakanda.

Recently the Kandiyohi SWCD along with the Crow River Organization was awarded funding from the Minnesota Board of Water and Soil Resources (BWSR) through the Clean Water Land and Legacy Grant that will complement the In-Lake enhancement efforts targeted for Lake Wakanda. The Legacy funding will help the SWCD to accelerate the Phase one work in the Kandi Creek Watershed which outlets into Kandiyohi Ditch 23A approximately 1 mile upstream of Lake Wakanda, landowner support for the Kandi Creek project is very strong. The focus of the grant will restore 5 wetlands along with protecting the steep channel grade by installing 12 in channel grade stabilization structures along with buffering 50 plus acres along the Creeks corridor. Addressing water quality and quantity concerns in the watershed will have a positive impact on downstream users and ecosystems by reducing sediment transportation and eliminating excess total suspended solids from field and in- channel sources.

The Kandiyohi SWCD is committed to be an active participant in the In-Lake Enhancement of Lake Wakanda and its contributing watersheds and to insure the future success of water resource management.

Sincerely

Rick Reimer

A handwritten signature in black ink that reads "Rick Reimer". The signature is written in a cursive, flowing style.

Kandiyohi SWCD, District Manager

May 9, 2016

Lessard-Sams Outdoor Heritage Council
95 State Office Building
St. Paul, MN 55155

RE: Lake Wakanda Grant Application

Dear LSOHC,

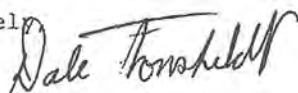
The Blomkest Sportsman's Club fully supports this funding request to the Lessard-Sams Outdoor Heritage Council with hopes of securing the necessary funds to construct the water level control/fish barrier structures needed to execute the "Cooperative Lake Wakanda Enhancement Plan".

An enhanced Lake Wakanda would be a tremendous asset to waterfowl hunters and anglers alike in southern Kandiyohi County. Kandiyohi County's slogan is "Where the Lakes Begin" with Lake Wakanda being the second largest lake in southern Kandiyohi County. Lake Wakanda could produce thousands of hours more hunting and angling than it currently does if roughfish populations were better controlled resulting in higher quality habitat.

The Blomkest Sportsman's Club purchased/installed the existing 12 unit "helixor" aeration system in the mid-1990's. Around that same time period, Wakanda was designated as a Migratory Waterfowl Feeding and Resting Area. Wakanda has unique characteristics that allows it to potentially be both an excellent fishing and waterfowl lake *at the same time*. Approximately half the lake is comprised of shallow shoals and secluded bays perfect for emergent/submersed vegetation growth and waterfowl hunting. The middle portion of the lake has public accesses on the north and south side and is deeper with less submersed vegetation levels making this area more conducive to boating and angling.

We believe the roughfish control strategy in conjunction with watershed improvement projects that have and are taking place in this headwaters lake will be successful in sustaining higher quality habitat benefitting hunting and fishing in the southern Kandiyohi County area.

Sincerely,



Blomkest Sportsman's Club

Marilee Felt Druskin
5970 - 71st Avenue SE
Willmar, Minnesota 56201

April 4, 2016

To The LESSARD COUNCIL:

Let me introduce LAKE WAKANDA, the fourth largest lake in Kandiyohi County, Minnesota. Lake Wakanda is where the prairie meets the woodland eighty miles west of Wayzata. Wakanda is the western-most in the chain of shallow prairie lakes with the Dakotah names of Kandiyohi, Kasota, and Minnetaga. This chain of lakes is the source of the South Fork Crow River whose waters flow into the Mississippi River upstream from Minneapolis and St. Paul continuing to Lake Pepin and ultimately the Gulf of Mexico.

WAKANDA means "where the Spirit dwells" or "spiritual place" in the Dakotah language. For ten thousand years, this region was inhabited by Native Americans. Artifacts and sign of their villages remain near Lake Wakanda shores. Burial mounds southeast of the lake are documented and illustrated in *THE ABORIGINES OF Minnesota* (MN Historical Society 1911). The Dakotah come to these shores to honor their ancestors even today.

Lake Wakanda was historically a paradise for birds with migrating and nesting duck species, western grebes, loons, songbirds and shorebirds, bald and golden eagles, green, blue and black crowned herons, woodcocks, hawks, owls, trumpeter swans, and more. Wild rice and countless varieties of native vegetation have provided habitat and support for a diverse native fish community as well, including the red mouth buffalo fish for which KANDIYOHI County is named.

Recognizing the significance and value of this area, a legislative commission selected 6,399 acres on this chain of lakes as one of three proposed and platted sites for the new state capitol following statehood in 1858.

My ancestors homesteaded on lands bordering Lake Wakanda in 1866. Since then our family has known and loved this shallow prairie lake. The deterioration of its ecosystem and water quality is of great concern and has been for many years.

By way of Kandiyohi County Ditch 23A, Wakanda has been the recipient of runoff from thousands of acres of ag land as well as untreated sewage in stormwater from the towns of Willmar and Kandiyohi. The lake has also suffered from industrial pollutants coming in through Ditch 23A. Prior to the 1990's, Lake Wakanda seemed to have an amazing capacity to heal itself. However, the fixed crest lake outlet dams in the 1991 Wakanda Plan, which raised the lake level and initiated stocking of non-native walleye for the local sportsmen, created a cesspool of pollutants and prevented natural shallow lake function. High water wave action, lake bank erosion, and tree and vegetation loss contributed to the impairment of the ecosystem. Wakanda became a carp and walleye lake with toxic blue algae and thick pea-green water. The lake's ecosystem could no longer be sustained and the plan was declared a failed plan by the DNR in 2006. Fecal pollution levels remain above State of Minnesota standards making the lake unfit for recreation.

In the Spring of 2005, the Wakanda Watershed Group (a grass roots group) embarked upon a water testing program to determine exactly what was polluting the lake and the sources of that pollution. This testing, along with a study by MPCA's Advanced Citizen Monitoring Program, placed Lake Wakanda on the PCA's impaired waters list in 2008. Also in 2008, the MN legislature allocated funds through bonding to begin the restoration of the Grass Lake Prairie Wetland southeast of Willmar, a project started by the same

The Friends of the Lake Wakanda Chain, a strong advocate for the health of Lake Wakanda, was registered as a lake association in 2007. Its adopted mission statement is “To restore and maintain the health of this shallow prairie lake system by promoting natural shallow lake functions and ecology within the lakes, and by promoting a decrease in pollution from outside sources.”

Willmar's new Wastewater Treatment Facility went on-line in 2010 and Kandiyohi joined the Green Lake Sanitary Sewer Facility in 2013. Both still send their storm water to Lake Wakanda via Ditch 23A and the Kandi Creek. Testing does show some reduction in fecal matter but there are still unacceptable fecal counts.

In 2015, after ten years of grass roots efforts, a new lake plan was adopted in a collaborative process. Public hearings were held and the Kandiyohi County Commissioners and MN DNR Commissioner Landwehr approved the Lake Wakanda Enhancement Plan. The plan includes the construction of variable water control structures and fish barriers to support periodic drawdowns. Existing water control structures and fish barriers must be replaced.

Scientists have determined periods of low water are essential to the health of a shallow prairie lake. The benefits are control of carp, reduced high water bounces, reduced lake bank erosion; re-established and sustained vegetation, restored populations of invertebrates, crayfish, fresh water shrimp, fresh water clams all of which will improve and protect habitat for wildlife and native fish and enhance water quality.

The Grass Lake Prairie Wetland Restoration (largest in MN history) and Kandi Creek Improvement Plan are in progress and will contribute to the Lake Wakanda Enhancement Plan as early as 2017. Please approve our request for a one-time grant to fund the proposed variable water control structures which are essential to the Plan's success.

Lake Wakanda should be protected as a natural environment area with a healthy ecosystem. Help Wakanda recover and be what she is—home and haven for peace-loving creatures of countless variety, a beautiful healthy lake where prairie meets the woodland and “the spirit dwells.”

Sincerely and respectfully,



Marilee Felt Druskin
From Lake Wakanda

Attachments: Map and Photographs

Brad Nichols
9610 Lake Avenue South
Spicer, MN 56288

April 27, 2016

TO: Lessard-Sam Outdoor Heritage Council

RE: LSOHC Grant Application

My family has owned a cabin in the Lake Wakanda area since the 1920's. We own 8-acres on the point between Little Kandiyohi Lake and Lake Kasota which are located within the same chain of shallow prairie lakes as Lake Wakanda. Little Kandiyohi Lake and Lake Kasota suffer from the same degraded conditions as Lake Wakanda. Our family has experienced the decline in habitat conditions and water quality first hand and we're committed to helping improve things moving forward. The Nichols family fully supports the Lake Wakanda enhancement project and we firmly believe the benefits of that project will extend well beyond Lake Wakanda itself.

Lake Wakanda can provide excellent waterfowl hunting and fishing opportunities when conditions are right. Following winterkill events on Lake Wakanda we see an increase in waterfowl use, presumably due to food availability. That increase spills over into Little Kandiyohi and Kasota Lakes and in years following winterkill events we experience better waterfowl hunting. Multiple generations continue to hunt at the Nichols Cabin. It's important to us that we keep this tradition alive and we want to leave a legacy for our children and grandchildren.

We believe the plan for periodic partial drawdowns, induced winterkill and multiple barriers to inhibit Carp movements along with restoring Grass Lake will significantly improve habitat for waterfowl in the area and improve overall water quality. We can only hope that these opportunities may be available to enhance both Lake Kasota and Little Kandiyohi Lake as well down the road.

Sincerely,



May 11, 2016

Lessard-Sams Outdoor Heritage Council
95 State Office Building
St. Paul, MN 55155

RE: Outdoor Heritage Fund request for funding

Dear Council Members:

I am writing to support the request for funding being made by Kandiyohi County for the Lake Wakanda project. I am currently a property owner on Lake Wakanda and have been familiar with Lake Wakanda for more than 60 years when I was first taken there to go hunting with my father. At that time, the lake was known as Lake Wagonga and sometimes Lake Waconda. Lake Wakanda was used for waterfowl hunting prior to 1900 and has continued to be a lake used for waterfowl hunting and resting waterfowl ever since. In addition, stories abound of large Northern Pike caught in the lake many years ago along with some panfish. In more recent year, it has become known for Walleye fishing when the rough fish are not in total control of the lake.

I became a property owner in 1976 and, accordingly, am celebrating my 40th anniversary as a property owner. The land I purchased was and is known mainly as a point for waterfowl hunting. Records in the Kandiyohi County Recorder's Office show that the land was purchased in 1910 by then Kandiyohi County Court District Judge G. E. Quale and Willmar Hardware Store owner G. P. Karwand. Judge Quale purchased Karwand's interest in the property from his estate in 1920 and the property continued to be owned by Judge Quale and later his son and the heirs of his son until I purchased it in 1976. My family has continued to use the property for hunting and general recreational purposes ever since.

There are now a number of hunters who own land on Lake Wakanda and hunt it on a regular basis. In addition, there are waterfowl hunters who use the public access to access the lake and hunt on it. The lake has historically been used as a feeding and resting area for waterfowl with the amount of use being directly dependent on the quantity of rough fish in the lake. The rough fish destroy the vegetation which, of course, results in the waterfowl using it only for a temporary resting area.

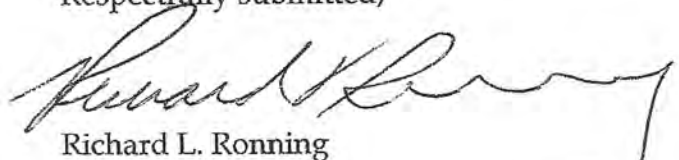
In the early 1990s a problem developed on the lake with "hunters" chasing up the waterfowl that were resting and feeding at the west end of the lake. Conservation Officers call it "rallying" the birds. Rallying is a very difficult charge to prove and Conservation Officers don't often cite a person for doing it. I personally talked with the main perpetrator and he would not stop. At that time, I decided it was time to petition the Department of Natural Resources (DNR) to have Lake Wakanda designated as a waterfowl feeding and resting area. I prepared the Petition and went out and got the

May 11, 2016

necessary signatures and submitted it to the DNR. In due time, the lake was designated a waterfowl feeding and resting area and has been ever since. The purpose of the designation of a waterfowl feeding and resting area has only been half fulfilled. The waterfowl can now rest undisturbed on the lake, but in most years they cannot feed on the lake due to the rough fish destroying the vegetation.

The steps have been taken and the right to manage the water level of Lake Wakanda has been secured pursuant to Minn. Stat. § 103G.408. The current control structures on the lake are wholly inadequate and basically useless. The plan submitted for the improvement of Lake Wakanda is a joint effort of a number of government agencies, including Board of Water and Soil Resources, Kandiyohi County SWCD, Minnesota Pollution Control Agency, Minnesota DNR (four divisions), Kandiyohi County and Crow River Organization of Water, as well as Ducks Unlimited, Blomkest Sportsmen's Club and Wakanda Chain of Lakes Association. The next step is to implement the plan and move ahead with new control structures. The funds being requested are needed to put in the new structures and start rehabilitating the lake. Your approval of the project and granting of the funds for this project will keep it moving. Without the funds, the project is in all likelihood dead and I seriously doubt that the plan will ever be implemented and the lake will remain seriously impaired. Implementing the Wakanda lake plan will not only benefit Lake Wakanda, it will also benefit Little Kandiyohi Lake, Eleanor Lake, Swan Lake, Big Kandiyohi Lake, Lake Kasota and Lake Minnetaga. I respectfully request that you grant the fund request so that this plan moves forward rather than dying. Thank you for your consideration.

Respectfully submitted,



Richard L. Ronning

RLR/LAA:nb

Big Kandiyohi Lake Association

1316 West Birch Ave
Olivia, MN 56277

April 27, 2016

Lessard-Sams Outdoor Heritage Council
95 State Office Building
St. Paul, MN 55155

RE: Kandiyohi County/Lake Wakanda LSOHC Grant Application

Dear Council Members:

The Big Kandiyohi Lake Association extends its full support for your partnerships grant application to the Lessard-Sams Outdoor Heritage Council to fund the "In-Lake" component of the "Cooperative Lake Wakanda (34-0169-00) Enhancement Plan". We strongly believe the "In-Lake" component of this plan when coupled with existing wetland restoration (e.g., Grass Lake Restoration, Kandi Creek Enhancement) and future watershed improvement projects will significantly enhance fish and wildlife habitat in Lake Wakanda (1,754 acres), the Wakanda Chain-of-Lakes and the entire headwaters portion of the South Fork of the Crow River, especially our Big Kandiyohi Lake (2,683 acres).

Big Kandiyohi Lake is the second largest lake in Kandiyohi County and is a vital recreational and economic resource for this region. Upstream Lake Wakanda not only directly impacts Big Kandiyohi Lake from a water quantity and quality standpoint, DNR fisheries data reveals that Lake Wakanda is the primary breeding/production grounds for Common Carp which ultimately infects our lake further degrading our water quality, fish habitat and ultimately our recreational fishery and general use of the lake (swimming, skiing, just being in the water!). Although commercial netters have historically and currently removed thousands upon thousands of pounds of Carp from "Big Kandi", it will continue to be a never-ending battle without severely reducing the ability of Carp to rebuild within and immigrate from Lake Wakanda. We strongly believe the "In-Lake" strategies that would be funded with this grant would go a long ways in not only improving fish and wildlife habitat in Lake Wakanda, but also in our lake and downstream Lake Lillian (1,151 acres) as well.

Sincerely,

Steve Wood



President, Big Kandiyohi Lake Association

Big Kandiyohi Lake Board of Directors

May 1, 2016

RE: Request for Funding Lake Wakanda Enhancement Plan Water Control Structures

To the Lessard Council:

We have owned property on Big Kandiyohi Lake for more than 35 years. We totally endorse the request for funding the Lake Wakanda Enhancement Plan Water Control Structures. We know the work being done at Lake Wakanda will also improve the water quality of our lake.

Thank you for your consideration and support.

Sincerely,

A handwritten signature in cursive script that reads "Debra Folkerts". The signature is written in black ink and is positioned above the typed name.

Myron and Debra Folkerts
1040 W Pine Ave
Olivia MN 56277