



Lessard-Sams Outdoor Heritage Council

DNR Aquatic Habitat Restoration and Enhancement - Phase 6
ML 2023 Request for Funding

General Information

Date: 06/01/2022

Proposal Title: DNR Aquatic Habitat Restoration and Enhancement - Phase 6

Funds Requested: \$13,226,400

Manager Information

Manager's Name: Jamison Wendel

Title: Stream Habitat Supervisor

Organization: Minnesota DNR

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Location Information

County Location(s): Hubbard, Becker, Aitkin, Todd, Kanabec, Pine, Lake, Crow Wing, Cass, Douglas, Otter Tail, Beltrami, Pope, Marshall, Le Sueur, Freeborn, Mower, Rice, Faribault, Kandiyohi, Goodhue, Redwood, Meeker, Wabasha, Fillmore, Wright, Washington, Scott, Carver, Dakota, Murray, Stearns, Wilkin, Olmsted, Lac qui Parle, Clay, St. Louis, Roseau and Clearwater.

Eco regions in which work will take place:

- Northern Forest
- Forest / Prairie Transition
- Prairie
- Metro / Urban
- Southeast Forest

Activity types:

- Restore
- Enhance

Priority resources addressed by activity:

- Habitat

Narrative

Abstract

The Minnesota Department of Natural Resources (MNDNR) will complete six fish passage projects to reconnect reaches of habitat for fish and other aquatic life, restore reaches of eight different rivers, creating over 17 miles of diverse habitat, and enhance 365 acres of riparian and terrestrial habitat on Aquatic Management Areas. The footprint of fish passage projects is small, but projects will reconnect over 290,000 acres of lake and river habitat. Stream projects were selected from a statewide list, prioritized by factors such as ecological benefit, scale of impact, urgency of completion, and local support.

Design and Scope of Work

The Minnesota Department of Natural Resources (MNDNR) annually updates a statewide list of stream habitat projects. Submissions come both from MNDNR staff and from partner organizations. Projects are prioritized based on scale-of-impact, urgency, local support, and critical habitat for rare species. Based on this list, MNDNR and our partners are proposing six fish passage projects and eight channel restorations, leveraging over \$2,100,000.

Access to different habitats is critical for fish and other aquatic organisms to complete various life stages. The habitats they use to spawn, live as juveniles, over-winter, and feed as adults may all be different. These habitats can be fairly unique, such as high-gradient riffles favored by many spawning fish, and may be miles apart. When dams or other obstructions prevent aquatic life from reaching ideal habitat, they are forced to use less optimal locations that can reduce their success. In some cases this leads to the complete loss of sensitive species upstream of a barrier. Modifying or removing the barriers through our six proposed fish passage projects would have a footprint of 6 acres, but create upstream access to over 290,000 acres of lake and river habitat. This will benefit fish such as Walleye, Northern Pike, and Brook Trout present in these rivers, as well as five mussel species classified as threatened or special concern.

Streams naturally form habitat through the meandering of the river. Deeper, slower habitat is created by scour into the bed of the river around the outside of bends, while faster water and a rockier bottom is found in the straight sections in between. Wood, overhanging vegetation, and boulders serve as cover and current breaks for fish. In degraded sections of river, these natural processes are disrupted. Some reaches have been artificially straightened, preventing the meandering that forms diverse habitat. In other places, streams have become surrounded by tall banks that prevent high flows from spilling out onto a floodplain. When floods are trapped within the stream channel, the river erodes the banks. This not only mobilizes tons of sediment that degrades downstream habitat, but results in a wide, shallow channel during low-flow periods that is avoided by adult fish. Channel restoration projects will address these issues by using Natural Channel Design methods, which bases design on a reference location with high-quality habitat. Working with partners, we will restore over 17 miles of habitat on eight streams. These restored reaches also will connect upstream and downstream reaches of quality habitat.

We propose to enhance 365 acres of riparian habitat and associated uplands on 30 Aquatic Management Areas (AMA). The DNR manages these lands to protect critical shoreline habitat used by spawning fish, waterfowl, wading birds, reptiles and amphibians. Uplands in these parcels provide a buffer to protect water quality, and habitat for more terrestrial species. Our enhancement work includes shoreline plantings, invasive species control, and prescribed burns. Projects are selected based on management guidance documents that have been written for each AMA.

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?

The Rock Dam and Bucks Mill Dam projects are key components to Lake Sturgeon restoration efforts in the Red River basin. Lake Sturgeon are an important game species and also listed as a species of Special Concern in Minnesota. Dams that blocked migrations to spawning habitat, overharvest, and poor water quality contributed to the extirpation of Lake Sturgeon from the Red River basin in the early 1900's. Lake Sturgeon reintroduction in the Red River basin has been ongoing for 20 years and mature fish are being captured during spring surveys now. However, barriers such as these dams, block upstream migrations of mature Lake Sturgeon on the Red Lake River and Pelican River. Removing the Rock Dam and Bucks Mill Dam barriers to fish passage are key to restoring a naturally reproducing population of Lake Sturgeon in the Red River basin.

There are 68 species of greatest conservation need that utilize headwaters to large streams, including birds, turtles, frogs, fish, and insects. Stream habitat projects are not designed with one species in mind, but instead are intended to benefit multiple functions and habitats of the river both within the stream and in the riparian area, which will have benefits for rare species.

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 projects on our list have local support that may not be present in the future if public sentiment were given time to change, which can happen with dam removal or modification projects. Matching funds are currently available for \$2,107,500 of our projects. Completing these projects would take advantage of those funds while they are available.

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:

Science-based targeting was used to identify, design, and prioritize restoration and enhancement projects included in this proposal. Projects were prioritized based on multiple criteria, including scale-of-impact, critical habitat, technical feasibility, and compatibility with other resource initiatives. Projects that benefit or reconnect areas of high or outstanding biological significance or lakes of biological significance are targeted and prioritized.

Our proposal features projects intended to reduce fragmentation. Dams and other obstructions in rivers fragment areas of suitable habitat, similar to when pieces of prairie are separated by large areas of row-crop farmland. By removing or modifying barriers in streams, we will allow fish and other aquatic life to move between different patches of habitat that may be critical for their life-processes, such as spawning. Connectivity also expands fishing opportunities by acting as a conduit for recolonization after catastrophic events such as drought happen in one portion of a watershed. We have prioritized fish passage projects that connect large areas of high-quality habitat.

Similarly, our stream channel restoration projects target reaches of river where habitat is poor due to past alterations. Lengths of poor habitat can themselves act as barriers to animal movement, where a fish may choose not to migrate through a reach without adequate depth or cover to reach more suitable habitat upstream. Restoring the stream channel removes that "barrier" of poor habitat that fragments the stream. In the process, we also create high-quality habitat within the formerly degraded reach.

Which two sections of the Minnesota Statewide Conservation and Preservation Plan are most applicable to this project?

- H5 Restore land, wetlands and wetland-associated watersheds
- H6 Protect and restore critical in-water habitat of lakes and streams

Which two other plans are addressed in this proposal?

- Minnesota DNR Strategic Conservation Agenda
- Red River of the North Fisheries Management Plan

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

The DNR's Strategic Conservation Agenda includes strategies to identify priority land and waters at greatest risk, and manage lands and waters for ecosystem health and resilience. Our proposal will address each of these initiatives through our prioritization of projects, and the management actions we will take.

The Red River of the North Fisheries Management plan includes goals to re-establish a self-sustaining population of Lake Sturgeon, reconnect the Red River and its tributaries, and rehabilitate habitat in the watershed to support viable native fish populations. The Rock Dam, Bucks Mill Dam, South Branch of the Buffalo River, Roseau River, and Whiskey Creek projects all work toward those goals by restoring and enhancing connectivity and in stream habitat.

Which LSOHC section priorities are addressed in this proposal?

Forest / Prairie Transition

- Protect, enhance, and restore wild rice wetlands, shallow lakes, wetland/grassland complexes, aspen parklands, and shoreland that provide critical habitat for game and nongame wildlife

Metro / Urban

- Enhance and restore coldwater fisheries systems

Northern Forest

- Protect shoreland and restore or enhance critical habitat on wild rice lakes, shallow lakes, cold water lakes, streams and rivers, and spawning areas

Prairie

- Protect, enhance, or restore existing wetland/upland complexes, or convert agricultural lands to new wetland/upland habitat complexes

Southeast Forest

- Protect, enhance, and restore habitat for fish, game, and nongame wildlife in rivers, cold-water streams, and associated upland habitat

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 fish passage and channel restoration projects included in this proposal represent opportunities to make major and lasting positive changes for those streams. Fish passage projects such as at the Rock Dam project have the

potential to create access to high-quality upstream habitat for species that are currently blocked, which includes game fish and state-listed mussel species. A defined project done in one location can benefit several of miles of river upstream, and the benefit will last in perpetuity. Little to no follow-up maintenance is needed. Similarly, our stream channel restoration projects would restore previously-altered reaches of river back to high quality habitats. This not only creates habitat within the project area, but also makes it easier for fish and other aquatic life to move between upstream and downstream habitats. All of this enhanced connectivity makes for much healthier and resilient populations.

What other fund may contribute to this proposal?

- Clean Water Fund

Does this proposal include leveraged funding?

Yes

Explain the leverage:

The Whiskey Creek project has \$712,000 in matching funds (\$372,000 from National Water Quality Initiative and \$340,000 from BWSR).

The Roseau River project has \$700,000 in matching funds (\$466,667 from Red River Watershed Management Board and \$233,333 from Roseau River Watershed District).

The South Branch of the Buffalo River project has \$695,500 in matching funds from BWSR and Buffalo Red River Watershed District.

All leverage committed to projects included in this proposal are cash commitments from a variety of federal, state, and local sources.

Per MS 97A.056, Subd. 24, Please explain whether the request is supplanting or is a substitution for any previous funding that was not from a legacy fund and was used for the same purpose.

This request is an acceleration of DNR aquatic habitat work to a level not attainable but for the appropriation.

Non-OHF Appropriations

Year	Source	Amount
2015	Game and Fish, Heritage Enhancement, and Federal Grants	\$3,596,000
2016	Game and Fish, Heritage Enhancement, and Federal Grants	\$3,267,000
2017	Game and Fish, Heritage Enhancement, and Federal Grants	\$3,681,500
2018	Game and Fish, Heritage Enhancement, and Federal Grants	\$4,094,900
2019	Game and Fish, Heritage Enhancement, and Federal Grants	\$3,811,900
2020	Game and Fish, Heritage Enhancement, and Federal Grants	\$4,124,800

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

MNDNR has multiple potential avenues that could be used for ongoing maintenance of projects, including the Game and Fish fund which is supported by license sales, the Heritage Enhancement account funded by taxes on lottery

tickets, funds raised through the sale of Trout Stamps, people who volunteer to help the department with projects, and future potential OHF appropriations.

Actions to Maintain Project Outcomes

Year	Source of Funds	Step 1	Step 2	Step 3
Annual	Game and Fish	Inspect Project	Control Invasives	Make instream adjustments as needed

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

The estimated abundances below provide general averages for potential aquatic indicator species in Minnesota. These averages are generated from available data and published sources, and do not capture the variability inherent in populations of fish and mussels. Natural populations, including healthy populations with good habitat, vary among locations, and also rise and fall within lakes and rivers. Most fish surveys conducted by DNR produce an index of abundance (catch per unit effort) rather than a population estimate. For the Kingsbury Creek and Tischer Creek projects we expect to raise the brook trout abundance to 40 lbs/acre. For the Rock Dam, Roseau River, Lake Sakatah, Florida Creek, Cascade Creek, Bucks Mill Dam, South Branch of the Buffalo River, Eden Lake, Lake Sarah, Skandia WMA, and Whiskey Creek projects, we expect to support northern pike at 10 adults/acre, and mussels at 8000/acre.

How will the program directly involve, engage, and benefit BIPOC (Black, Indigenous, People of Color) and diverse communities:

The DNR Aquatic Habitat Restoration and Enhancement proposal has the following specific ties to BIPOC and diverse communities:

- Projects included in this proposal provide benefits at the watershed scale. These benefits extend well beyond the footprint of each individual project and benefit all Minnesotans.
- Tribal partners have been significant partners in efforts to restore Lake Sturgeon in the Red River basin. Multiple projects included in this proposal contribute to these efforts.
- DNR has closely coordinated with Red Lake Band on the Rock Dam project. The band is strongly supportive of this initiative and a Letter of Support from the Red Lake Band is attached to this proposal.

DNR’s OHF projects aim to serve all Minnesotans. At the same time, we are bringing more focus in all our work to BIPOC and diverse communities. The Minnesota DNR has adopted advancing diversity, equity and inclusion (DEI) as a key priority in its 2020-22 strategic plan. The plan focuses on increasing the cultural competence of our staff, creating a workforce that is reflective of Minnesota, continuing to strengthen tribal consultation and building partnerships with diverse communities.

The OHF funds high quality habitat projects that provide ecosystem services like clean water and carbon sequestration that support environmental justice. OHF also supports public access and recreational opportunities on these lands. OHF projects and outcomes benefit BIPOC and diverse communities through recreational opportunities that are close-to-home, culturally responsive and accessible to Minnesotans with disabilities.

The DNR has diversity, equity and inclusion strategies that benefit all OHF projects:

- Multilingual and culturally specific hunting and fishing education programs take place on public lands.
- All hiring is equal opportunity, affirmative action, and veteran-friendly. Contracting seeks out Targeted Group, Economically Disadvantaged and Veteran-Owned businesses.
- Public engagement seeks out BIPOC voices and involves diverse communities. Outreach and marketing of projects has this focus as well.

- Partnerships are at the center of all projects. Tribes in particular are consulted in all pertinent areas of the DNR's work, under EO 19-24.

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 restoration and enhancement activity on permanently protected land per 97A.056, Subd 13(f), tribal lands, and/or public waters per MS 103G.005, Subd. 15?

Yes

Where does the activity take place?

- AMA
- County/Municipal
- Public Waters
- WMA
- Other : Tribal Lands

Land Use

Will there be planting of any crop on OHF land purchased or restored in this program?

No

Other OHF Appropriation Awards

Have you received OHF dollars in the past through LSOHC?

Yes

Approp Year	Approp Amount Received	Amount Spent to Date	Leverage Reported in AP	Leverage Realized to Date	Acres Affected in AP	Acres Affected to Date	Complete/Final Report Approved?
2020	\$3,790,000	\$344,881	\$929,600	\$847,300	44	0	No
2021	\$2,790,000	\$26,100	\$929,600	\$1,273,600	44	0	No
2013	\$525,000	\$5,249,800	-	\$2,502,900	14,025	1,849	Yes
2014	\$2,560,000	\$2,483,200	\$250,000	\$660,000	1,440	2,507	Yes
2012	\$3,480,000	\$3,480,000	-	\$2,736,400	359	224	Yes
2016	\$2,074,000	\$2,073,100	\$85,000	\$104,400	14	15	Yes
2015	\$4,540,000	\$4,481,800	-	\$405,100	1,263	1,418	Yes
2018	\$2,834,000	\$1,362,900	-	\$210,000	1,440	6	No
2017	\$2,466,000	\$2,155,800	\$1,003,000	\$1,151,000	1,263	16	No
2019	\$3,208,000	\$302,200	\$279,000	\$417,000	959	16	No

Timeline

Activity Name	Estimated Completion Date
Design of fish passage and channel restoration projects	March 2024
Permitting and environmental review of fish passage and channel restoration projects	December 2024

Construction of fish passage and channel restoration projects	September 2026
Vegetation maintenance on fish passage and channel restoration projects	June 2027

Budget

Totals

Item	Funding Request	Antic. Leverage	Leverage Source	Total
Personnel	\$2,097,500	-	-	\$2,097,500
Contracts	\$10,349,800	\$2,107,500	National Water Quality Initiative grant, Red River Watershed Management Board, Roseau River Watershed District, and BWSR grants	\$12,457,300
Fee Acquisition w/ PILT	-	-	-	-
Fee Acquisition w/o PILT	-	-	-	-
Easement Acquisition	-	-	-	-
Easement Stewardship	-	-	-	-
Travel	\$10,000	-	-	\$10,000
Professional Services	\$468,800	-	-	\$468,800
Direct Support Services	\$200,300	-	-	\$200,300
DNR Land Acquisition Costs	-	-	-	-
Capital Equipment	-	-	-	-
Other Equipment/Tools	-	-	-	-
Supplies/Materials	\$100,000	-	-	\$100,000
DNR IDP	-	-	-	-
Grand Total	\$13,226,400	\$2,107,500	-	\$15,333,900

Personnel

Position	Annual FTE	Years Working	Funding Request	Antic. Leverage	Leverage Source	Total
AMA Enhancement Specialists	3.0	5.0	\$1,117,500	-	-	\$1,117,500
Stream Restoration Specialist	1.0	5.0	\$550,000	-	-	\$550,000
Stream Restoration Interns	0.5	4.0	\$130,000	-	-	\$130,000
Stream Restoration Coordinator	1.0	2.0	\$300,000	-	-	\$300,000

Amount of Request: \$13,226,400

Amount of Leverage: \$2,107,500

Leverage as a percent of the Request: 15.93%

DSS + Personnel: \$2,297,800

As a % of the total request: 17.37%

Easement Stewardship: -

As a % of the Easement Acquisition: -

Describe and explain leverage source and confirmation of funds:

Whiskey Creek project: National Water Quality Initiative

Roseau River project: Red River Watershed Management Board water quality fund and Roseau River Watershed District

South Branch of Buffalo River project: National Water Quality Initiative and Clean Water Grants

Does this proposal have the ability to be scalable?

Yes

If the project received 70% of the requested funding

Describe how the scaling would affect acres/activities and if not proportionately reduced, why?

Projects come from a prioritized list. With partial funding, we would fund only the top projects from our list that fit within the amount allocated. At 70% funding, we estimate that we would still be able to achieve approximately 75% of our initial acres of restoration and enhancement.

Describe how personnel and DSS expenses would be adjusted and if not proportionately reduced, why?

Personnel would reduce to 70-80% of the requested amount. Staff time would focus on completing project design and construction oversight.

Direct Support Services is determined by a standard DNR process taking into account the amount of funding and the number of allocations made with that funding.

If the project received 50% of the requested funding

Describe how the scaling would affect acres/activities and if not proportionately reduced, why?

Projects come from a prioritized list. With partial funding, we would fund only the top projects from our list that fit within the amount allocated. At 50% funding, we estimate that we would still be able to achieve approximately 70% of our initial acres of restoration and enhancement.

Describe how personnel and DSS expenses would be adjusted and if not proportionately reduced, why?

Personnel would reduce to 50-65% of the requested amount. Staff time would focus on completing project design and construction oversight.

Direct Support Services is determined by a standard DNR process taking into account the amount of funding and the number of allocations made with that funding.

Personnel

Has funding for these positions been requested in the past?

Yes

Please explain the overlap of past and future staffing and position levels previously received and how that is coordinated over multiple years?

Funding for the positions included in this request were previously funded in our ML18 and ML 20 appropriations. Once the personnel funds from those appropriations are extinguished, we will shift to charging salary to this appropriation.

Contracts

What is included in the contracts line?

100% of contracts are for R/E work.

Travel

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

All travel line costs will be used for mileage, food, and lodging.

I understand and agree that lodging, meals, and mileage must comply with the current MMB Commissioner Plan:

Yes

Direct Support Services

How did you determine which portions of the Direct Support Services of your shared support services is direct to this program?

DNR calculates the program's fair share to pay for support costs directly related to and necessary for the appropriation, and an internal Service Level Agreement (contract) guarantees each program will receive the services for the calculated amount.

Federal Funds

Do you anticipate federal funds as a match for this program?

No

Output Tables

Acres by Resource Type (Table 1)

Type	Wetland	Prairie	Forest	Habitat	Total Acres
Restore	0	0	0	201	201
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	370	370
Total	0	0	0	571	571

Total Requested Funding by Resource Type (Table 2)

Type	Wetland	Prairie	Forest	Habitat	Total Funding
Restore	-	-	-	\$7,923,200	\$7,923,200
Protect in Fee with State PILT Liability	-	-	-	-	-
Protect in Fee w/o State PILT Liability	-	-	-	-	-
Protect in Easement	-	-	-	-	-
Enhance	-	-	-	\$5,303,200	\$5,303,200
Total	-	-	-	\$13,226,400	\$13,226,400

Acres within each Ecological Section (Table 3)

Type	Metro/Urban	Forest/Prairie	SE Forest	Prairie	N. Forest	Total Acres
Restore	28	0	0	166	7	201
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	18	63	12	93	184	370
Total	46	63	12	259	191	571

Total Requested Funding within each Ecological Section (Table 4)

Type	Metro/Urban	Forest/Prairie	SE Forest	Prairie	N. Forest	Total Funding
Restore	\$2,847,800	-	-	\$4,670,400	\$405,000	\$7,923,200
Protect in Fee with State PILT Liability	-	-	-	-	-	-
Protect in Fee w/o State PILT Liability	-	-	-	-	-	-
Protect in Easement	-	-	-	-	-	-
Enhance	\$77,500	\$2,963,700	\$51,700	\$1,150,700	\$1,059,600	\$5,303,200
Total	\$2,925,300	\$2,963,700	\$51,700	\$5,821,100	\$1,464,600	\$13,226,400

Average Cost per Acre by Resource Type (Table 5)

Type	Wetland	Prairie	Forest	Habitat
Restore	-	-	-	\$39,418
Protect in Fee with State PILT Liability	-	-	-	-
Protect in Fee w/o State PILT Liability	-	-	-	-
Protect in Easement	-	-	-	-
Enhance	-	-	-	\$14,332

Average Cost per Acre by Ecological Section (Table 6)

Type	Metro/Urban	Forest/Prairie	SE Forest	Prairie	N. Forest
Restore	\$101,707	-	-	\$28,134	\$57,857
Protect in Fee with State PILT Liability	-	-	-	-	-

Protect in Fee w/o State PILT Liability	-	-	-	-	-
Protect in Easement	-	-	-	-	-
Enhance	\$4,305	\$47,042	\$4,308	\$12,373	\$5,758

Target Lake/Stream/River Feet or Miles

17 Miles

Outcomes

Programs in forest-prairie transition region:

- Rivers and streams provide corridors of habitat including intact areas of forest cover in the east and large wetland/upland complexes in the west ~ *For the Bucks Mill Dam and Eden Lake Dam projects, we will compare warmwater fish communities before and after project completion. We will also compare catch rates for critical species before and after project completion as indicators of population density changes. Our AMA enhancement program will monitor all projects to insure that outcome goals are being met by looking at the diversity and abundance of native plant species that are supported by project sites as compared to pre-project.*

Programs in metropolitan urbanizing region:

- Improved aquatic habitat indicators ~ *For the Cascade Creek and Tischer Creek Dam projects, we will evaluate instream habitat and use routine fish surveys to gauge changes to the fish community to compare to pre-project data. Our AMA enhancement program will monitor all projects to insure that outcome goals are being met by looking at the diversity and abundance of native plant species that are supported by project sites as compared to pre-project.*

Programs in the northern forest region:

- Improved aquatic habitat indicators ~ *For the Kingsbury Creek project, we will evaluate instream habitat as well as brook trout populations to assess success. For the Rock Dam project, warmwater fish communities will be assessed before and after project completion. Our AMA enhancement program will monitor all projects to insure that outcome goals are being met by looking at the diversity and abundance of native plant species that are supported by project sites as compared to pre-project.*

Programs in prairie region:

- Other ~ *The Whiskey Creek, Florida Creek, Roseau River, Skandia WMA, and South Branch of the Buffalo River channel restoration projects in this region will improve in-channel and riparian habitat. We will use metrics that evaluate instream and floodplain habitat to assess our success. For the Lower Sakatah Lake Dam and Lake Sarah Dam fish passage projects, we will use routine fish surveys to gauge changes to the fish community, and compare with pre-project data.*

Programs in southeast forest region:

- Rivers, streams, and surrounding vegetation provide corridors of habitat ~ *Our AMA enhancement program will monitor all projects to insure that outcome goals are being met by looking at the diversity and abundance of native plant species that are supported by project sites as compared to pre-project.*

Parcels

Sign-up Criteria?

No

Explain the process used to identify, prioritize, and select the parcels on your list:

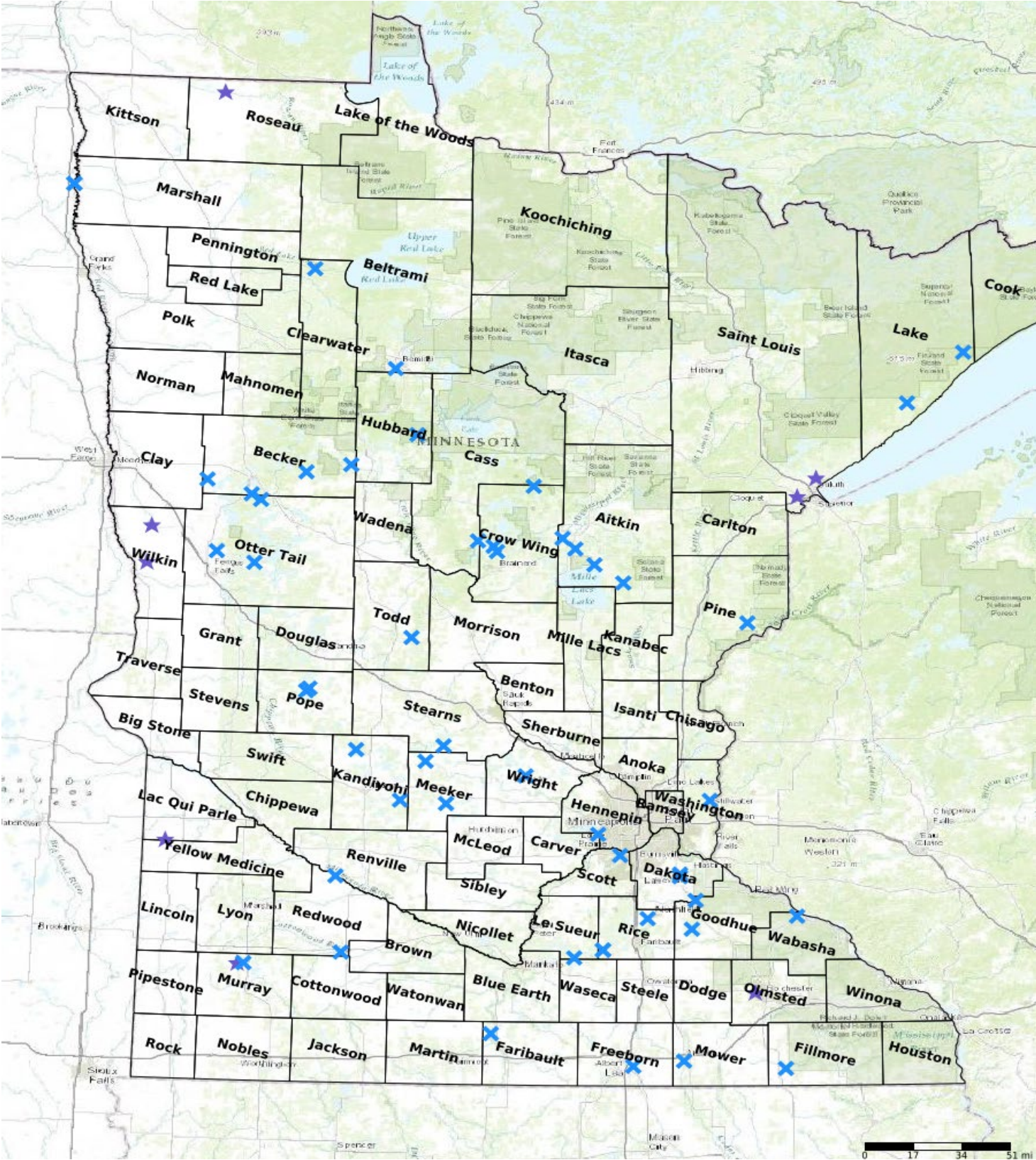
MN DNR uses a prioritized list to select stream habitat projects for submission. Project submissions are solicited from MN DNR staff as well as partner organizations. Criteria used to rank projects includes the scale of impact, critical habitat for rare species, the urgency of completing the project, feasibility, and local support. From that list we select the highest-ranked projects that we feel could be completed during the life of the OHF appropriation. AMA Enhancement projects are selected based on management guidance documents that have been written for each AMA.

Restore / Enhance Parcels

Name	County	TRDS	Acres	Est Cost	Existing Protection
Spirit Lake AMA	Aitkin	04627224	2	\$2,000	Yes
Cedar Lake AMA	Aitkin	04727232	2	\$2,000	Yes
Mille Lacs AMA	Aitkin	04526224	1	\$1,000	Yes
Straight River AMA	Becker	14036235	20	\$10,000	Yes
Bucks Mill Dam	Becker	13841234	1	\$2,000,000	Yes
Toad Lake AMA	Becker	13938216	20	\$4,000	Yes
Upper Cormorant Lake AMA	Becker	13843205	15	\$6,000	Yes
Preece Point AMA	Beltrami	14633230	10	\$6,000	Yes
Lotus Lake AMA	Carver	11623201	3	\$6,500	Yes
Grassy Point AMA	Cass	13529221	15	\$20,000	Yes
Whiskey Creek	Clay	13346218	20	\$588,000	Yes
Rock Dam - Red Lake River	Clearwater	15238223	1	\$350,000	Yes
North Long Lake AMA	Crow Wing	13428209	20	\$10,000	Yes
Roosevelt Lake AMA	Crow Wing	13826204	105	\$10,000	Yes
Bertha Moody Lake AMA	Crow Wing	13528232	40	\$15,000	Yes
Vermillion River AMA	Dakota	11418220	5	\$6,500	Yes
South Branch of the Vermillion AMA	Dakota	11418229	10	\$10,000	Yes
Miltona Lake AMA	Douglas	15750230	15	\$8,000	Yes
Blue Earth River AMA	Faribault	10428228	10	\$7,500	Yes
Etna Creek AMA	Fillmore	10213236	15	\$7,500	Yes
Juglans Woods AMA	Freeborn	10221225	10	\$7,500	Yes
Gemini AMA	Goodhue	11217207	10	\$11,500	Yes
Little Cannon River AMA	Goodhue	11018201	5	\$5,000	Yes
Lester River AMA	Hubbard	14232232	5	\$5,000	Yes
Little Knife River AMA	Kanabec	04424228	30	\$15,000	Yes
Games Lake AMA	Kandiyohi	12235232	5	\$1,000	Yes
Elizabeth Lake AMA	Kandiyohi	11833203	10	\$10,000	Yes
Florida Creek	Lac qui Parle	11645232	44	\$1,000,000	Yes
Manitou River AMA	Lake	05806209	20	\$10,000	Yes
Split Rock River AMA	Lake	05509216	100	\$15,000	Yes
Francis Lake AMA	Le Sueur	10924235	6	\$7,500	Yes
Sakatah Lake AMA	Le Sueur	10922217	17	\$15,000	Yes
Frank Rose AMA	Marshall	15750230	30	\$5,000	Yes
Minniebelle Lake AMA	Meeker	11831212	4	\$1,000	Yes
North Fork of the Crow River AMA	Meeker	12132224	2	\$1,000	Yes
Cedar River AMA	Mower	10218215	16	\$25,000	Yes
Lake Sarah Dam	Murray	10841221	1	\$370,000	Yes
Skandia WMA	Murray	10841219	11	\$300,000	Yes
Cascade Creek	Olmsted	10614205	19	\$1,500,000	Yes

East Lost Lake AMA	Otter Tail	13341211	20	\$10,000	Yes
Lake Seven AMA	Otter Tail	13740207	15	\$8,000	Yes
Jewett Lake AMA	Otter Tail	13443223	15	\$8,000	Yes
Barnes Springs AMA	Pine	04118212	40	\$15,000	Yes
Glenwood Headquarters AMA	Pope	12538202	20	\$8,000	Yes
Pelican Lake AMA	Pope	12538210	10	\$5,000	Yes
Sanborn AMA	Redwood	10936227	23	\$15,000	Yes
Whispering Ridge AMA	Redwood	11436232	40	\$15,000	Yes
Cannon River - Dundas AMA	Rice	11120215	12	\$7,000	Yes
Canon River - Lower Lake Sakatah Dam	Rice	10922217	1	\$300,000	Yes
Roseau River	Roseau	16343224	38	\$1,800,000	Yes
Eagle Creek AMA	Scott	11521218	5	\$10,000	Yes
Kingsbury Creek	St. Louis	04915210	7	\$555,500	Yes
Tischer Creek	St. Louis	05014203	9	\$1,000,000	Yes
Eden Lake Dam	Stearns	12231223	1	\$375,000	Yes
Dohn Lake AMA	Todd	12932230	5	\$1,000	Yes
Miller Creek AMA	Wabasha	11112209	15	\$7,500	Yes
Brown's Creek AMA	Washington	03020221	2	\$6,500	Yes
South Branch of the Buffalo River	Wilkin	13546205	54	\$500,000	Yes
Ramsey Lake AMA	Wright	12026218	4	\$6,500	Yes

Parcel Map



- Protect in Easement
- ▲ Protect in Fee with PILT
- ▲ Protect in Fee W/O PILT
- ★ Restore
- ✕ Enhance
- ⊕ Other



Aquatic Restoration and Enhancement—Phase 6

Summary

Diverse habitat is critical to sustaining quality fish populations in lakes and rivers. The Minnesota Department of Natural Resources (MNDNR) will complete six fish passage projects to restore habitat connectivity for fish and other aquatic life, and restore reaches of eight different rivers, creating over 17 miles of diverse aquatic habitat. Though the actual footprint of fish passage projects is relatively small, these projects will reconnect approximately 290,000 acres of lake and river habitat. Aquatic habitat projects were selected from a statewide list, prioritized by factors such as ecological benefit, scale of impact, urgency of completion, and local support. On Aquatic Management Areas, MNDNR will enhance 365 acres of riparian and terrestrial habitat.

Project Partners

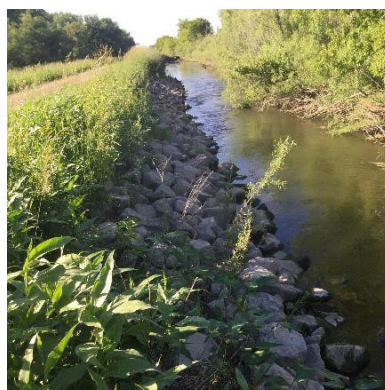
- Buffalo Red River Watershed District
- Red Lake Band
- Roseau River Watershed District
- South St. Louis Soil and Water Conservation District
- Pelican River Watershed District
- U.S. Fish and Wildlife Service

Projects in Progress



Whiskey Creek

- Restores over 20 miles of a straightened river to a meandering stream
- Will reestablish a 340 foot wide healthy riparian corridor along the restored stream
- Federal, state, and local match
- Partnership with the Buffalo Red River Watershed District



Florida Creek Phase I

- Will restore over 10 miles of historic channel
- Will create quality habitat for 24 species of fish including rare species and species of special concern



Roseau River Phase II

- Restores State Ditch 51 back to original channel
- Adds 12.5 miles of stream habitat
- Partnership with Roseau River Watershed District



Total Request \$13,226,400
Leverages \$2,107,500 in match



Tischer Creek

- Reconnect 3.5 miles of stream habitat
- Support from Hartley Nature Center, Trout Unlimited, and Arrowhead Fly Fishers



Kingsbury Creek

- Restoration of approximately 0.6 miles of straightened river
- Restores floodplain connectivity
- Partnership with South St. Louis Soil and Water Conservation District



Cascade Creek

- 8,350 ft of channel restoration
- Will improve habitat for 18 species of fish
- Benefit turbidity and fish impairments



South Branch Buffalo Phase I

- Large scale restoration plan to restore 18 miles of ditch
- 23 species of fish will benefit from restoration
- Partnership with BRRWD



Bucks Mill

- Partnership with USFWS and supported by Pelican River WD and Melissa and Sallie Lake Associations
- Fish passage will benefit 23 species of fish



AMA Enhancement

- Critical buffer habitat for both terrestrial and aquatic species
- Shoreline plantings, invasive species control, and prescribed burns



Rock Dam

- 1 of only 2 remaining barriers on the Red Lake River
- Tribal collaboration
- 60 species of fish will benefit from fish passage

Questions?

Jamison Wendel, Stream Habitat Supervisor,
Minnesota Department of Natural Resources
jamison.wendel@state.mn.us

Project Name	Project Type	Project Type	Resource Potential	Scale of Impact	Critical Habitat	Invasive Species	Community Support/Acceptance	Timing	Technical Feasibility	Compatibility with other initiatives	Professional Judgement	Total Score	DNR Share of Project Cost	Total Project Cost	Current Contact and Year Submitted	Partners	Region	Township	Range(s)	Section(s)
Whiskey Creek Phase III	Channel Restoration	10	10	10	7	9	5	5	4	3	5	68	\$500,000	\$6,180,000	Kristine Altrichter, BRRWD (2019)	BRRWD, DNR	1	133	46	18
Florida Creek Phase I	Channel Restoration	10	10	10	8	9	5	5	2	3	5	67	\$1,000,000	\$3,000,000	Brady Swanson, EWR (2020)	LqP Yellow Bank, LqP SWCD, BWSR, USFWS, DNR	4	116/117	45/45	20, 29, 32, 33 and 4,5,8,9
Roseau River Phase II	Channel Reconnection	10	10	10	7	9	5	4	4	3	5	67	\$1,800,000	\$7,200,000	Tracy Halstengard, Roseau River WSD (2021)	Roseau River WD, DNR	1	163	42/43/44	19,20/14,21-24/6,14-16,22
Rock Dam	Dam Modification	8	9	10	10	9	4	4	3	3	5	65	\$250,000	\$2,300,000	Nick Kludt, FAW (2021)	USACE, Red Lake Nation, DNR	1	152	38	23
Cascade Creek	Channel Restoration	10	8	10	8	9	4	4	4	3	5	65	\$1,500,000	1,750,000	Nick Proulx, (2022)	Olmsted County, City of Rochester	3	106	14	5
Bucks Mill Dam	Dam Modification	8	9	7	10	8	5	4	4	3	5	63	\$2,000,000	\$2,500,000	Nick Kludt, FAW (2020)	Becker County, Pelican River Watershed District, USFWS, DNR	1	138	41	34
Kingsbury Creek	Channel Restoration	10	7	7	8	9	4	4	4	3	5	61	\$355,540	\$871,000	Ann Thompson, St. Louis SWCD (2019)	MPCA, South St. Louis SWCD, City of Protor, DNR	2	49	15	10
Buckingham Creek	Fish Passage and Channel Restoration	9	8	5	8	9	4	5	4	3	3	58	\$1,500,000	\$1,500,000	John Lindgren, FAW (2022)	USEPA, GLRI, Golf Course, City of Duluth, DNR	2	50	14	28
South Branch of the Buffalo	Channel Restoration	7	7	10	9	9	5	3	4	3	0	57	\$500,000	\$15,000,000	Kristine Altrichter, BRRWD (2021)	BRRWD, DNR	1	135/136	46/47	4-6/18-20,29-31/2,12-13
Tischer Creek Dam	Fish Passage and Channel Restoration	9	9	6	8	8	4	4	2	3	3	56	\$1,000,000	\$1,000,000	John Lindgren, FAW (2012)	DNR, Hartely Nature Center, City of Duluth	2	50	14	2, 3
Lower Sakatah Lake Dam - Cannon River	Dam Modification	9	9	7	7	9	4	3	3	3	2	56	\$300,000	\$300,000	Craig Soupir, FAW (2021)	DNR	4	109	22	17
Eden Lake Dam	Dam Modification	8	7	5	7	9	4	5	5	2	3	55	\$375,000	\$375,000	Nicola Blake-Bradely, EWR (2019)	Lake Association, DNR	3	122	31	23
Lake Sarah Dam	Dam Modification	8	7	1	9	9	5	4	4	2	5	54	\$370,000	\$370,000	Justin Hoffmann, Murray County (2021)	Murray County, DNR	4	108	41	21
Skandia WMA	Channel Restoration	10	7	3	7	9	4	3	3	3	4	53	\$300,000	\$300,000	Bill Schuna, FAW (2022)	DNR, Ducks Unlimited	4	108	41	19, 30
Lime Lake Dam	Dam Modification	8	8	1	6	9	5	4	4	2	2	49	\$550,000	\$1,050,000	Justin Hoffmann, Murray County (2021)	Murray County, DNR	4	106	40	32
Sand Lake Dam	Dam Modification	8	7	2	7	9	4	3	4	2	0	46	\$250,000	\$250,000	Dana Dostert and REU, EWR (2018)	DNR	2	60	18	28
Rapidan Dam	Dam Modification	10	10	10	10	8	4	5	4	3	5	69	\$300,000,000	\$30,000,000	Todd Kolander, EWR (2021)	Excel Energy, DNR	4	107	27	5
Upper Buffalo River	BRRWD	10	10	10	10	9	5	3	4	3	3	67	\$2,000,000	\$2,000,000	Kristine Altrichter, BRRWD (2021)	BRRWD, DNR	1	141	41/42	7,18/11-16
Sylvan Dam and Gull River	Removal and Channel Restoration	10	10	10	10	9	3	2	3	3	5	65	TBD	TBD	Eric Altena, FAW (2022)	Morrison SWCD, TNC, USFWS, Camp Ripley DOD, DNR	3	133	29	30
Whiskey Creek	Channel Restoration	10	9	10	9	9	5	2	4	3	3	64	\$3,500,000	\$3,900,000	Kristine Altrichter, BRRWD (2017)	BRRWD, DNR	1	137	46	18-23
Outer Tail River (LOTR)	Channel Restoration	10	10	10	10	9	3	1	4	3	4	64	\$30,000,000	\$30,000,000	Nick Kludt, FAW (2014)	BRRWD, USACE, DNR	1	143	45	33, 32, 31+
Wild Rice River	Channel Restoration	10	10	10	8	9	5	1	4	3	4	64	\$46,000,000	\$46,000,000	Nick Kludt, FAW (2015)	USACE, DNR	1	144	46	29, 30
N. Br. Whitewater	Channel Restoration	10	10	10	7	9	4	3	4	3	3	63	\$1,400,000	\$1,400,000	Jeff Weiss, EWR (2018)	DNR	3	107	12	16,21
Orwell Dam	Fishway	9	10	10	10	8	3	2	3	3	0	58	\$1,250,000	\$4,600,000	REU, EWR (2021)	USACE, DNR	1	132	44	26
Lac qui Parle River	Channel Restoration	9	10	10	8	8	4	2	4	3	2	60	TBD	TBD	Chris Balfany, Yellow Medicine County (2022)	Yellow Medicine County, DNR	4	115	46	14, 15, 22, 23
S. Trib of Whiskey Creek	Channel Restoration	10	7	10	7	9	5	2	4	3	0	57	\$2,250,000	\$2,500,000	Kristine Altrichter, BRRWD (2017)	BRRWD, DNR	1	137	46	14,15,23,24,25,36
Ganz Dam	Dam Modification	10	8	9	9	10	3	1	2	3	0	55	TBD	TBD	Nick Kludt, FAW (2021)	DNR	1	139	47	9
Elizabeth Dam/Pelican River	Dam Modification	4	9	9	8	9	2	2	3	3	5	54	\$451,000	\$451,000	Jim Wolters, FAW (2017)	DNR	1	134	43	32
Northcote Dam	Dam Removal	8	9	7	10	8	3	1	2	3	0	51	TBD	TBD	Nick Kludt, FAW (2021)	DNR	1	162	49	16
Cannon River- Malt-O-Meal Dam	Dam Modification	4	8	9	8	8	1	1	1	1	0	41	\$500,000	\$2,300,000	Ian Chisholm, EWR (before 2010)	City of Northfield, DNR	4	111	20	1

Not requesting funding for ML2023*

- Tie breakers:
1. Timing
2. Resource Potential
3. Critical Habitat

RED LAKE BAND of CHIPPEWA INDIANS

RED LAKE NATION HEADQUARTERS



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ROBERT "CHARLIE" REYNOLDS

ADVISORY COUNCIL:
7 HEREDITARY CHIEFS

PO Box 550, Red Lake, MN 56671

Phone 218-679-3341 • Fax 218-679-3378

Henry Drewes
Minnesota Department of Natural Resources
2115 Birchmont Beach Road NE
Bemidji, MN 56601

May 26, 2021

Dear Henry:

My staff and I have recently reviewed the Minnesota Department of Natural Resources proposal to assist in the modification of the Rock Dam, which is located within the Red Lake Reservation, and we fully support this effort. This is one of the shared goals of our Departments, to restore connectivity of our riverine waterways, which have been fractured over the past 100 years. Many aquatic species rely on these waterways for seasonal movements and spawning migrations. Our lake sturgeon restoration efforts in the watershed are well on their way, and dam modification is one way we can continue to assist the rehabilitation of this species.

The Rock Dam was constructed in 1950's by the Army Corp of Engineers (ACOE) to mitigate damages that had occurred upstream by channelizing a section of the Red Lake River below the Red Lake Dam. This low head dam, did raise the water level behind the dam, but created a public safety drowning hazard, and cutoff the migration pathway of many fish species that live within this section of the Red Lake River. We have had preliminary discussions with the Minnesota Department of Natural Resources (MNDNR), ACOE, and the U.S. Fish and Wildlife Service (USFWS) to discuss our intentions to evaluate the feasibility of modifying this structure to allow for fish passage. We are in the planning stages of this effort at this time, but our partners are excited about the potential of this project.

We fully support this project and welcome the technical expertise and any monetary support that your agency may contribute to the success of this restoration work. In the end, it is the resource that wins, when agencies collaborate together with a common goal in mind. If you have any additional questions or concerns, please contact me or Pat Brown at 218-679-3959.

Sincerely,

Allen Pemberton
Red Lake DNR Director
Red Lake Band of Chippewa Indians
218-679-3959
apemberton@redlakenation.org