

May 19, 2023

North Dakota Industrial Commission
Attn: Outdoor Heritage Fund Program
State Capital 14th Floor
600 E. Boulevard Ave. Dept. 405
Bismarck, ND 58505-0840

RE: Outdoor Heritage Fund Grant Application – Katz Dam Fish Passage Project
McLean County Water Resource Board

Dear Outdoor Heritage Fund Advisory Board,

Enclosed is our Outdoor Heritage Fund Grant Application Request for support of the first phase of the Painted Woods Creek Fish Passage Project. The McLean County ND Water Resource Board (WRB) has been planning a fish passage program for Painted Woods Creek for five years, including developing concept and preliminary designs for several locations and holding partnership meetings with other agencies and private partners. The lower reaches of Painted Woods Creek have 4 blockages to fish and aquatic organism passage, including the Katz Dam, the WRD would like to eliminate. At this point in time there is construction work being planned for Katz Dam involving improvement of safety conditions there. It will be very advantageous to add fish passage to the project now because of economies of scale that would occur. There are mutual activities that can be shared between both projects. Eliminating the blockage to fish passage at Katz Dam will open up 11 more miles of the stream to sport fishing for walleye and northern pike. Our program goals for this Project overlap strongly with the directives of the Outdoor Heritage Fund project, including developing, enhancing, conserving and restoring wildlife and fish habitat on private and public lands. We look forward to a successful outcome from your review.

Sincerely,


Lynn Oberg

McLean County Water Resource Board

obergm@westriv.com

Outdoor Heritage Fund Grant Application



Instructions

After completing the form, applications and supporting documentation may be submitted by e-mail to ndicgrants@nd.gov. It is preferred that only electronic copies are submitted.

You are not limited to the spacing provided, except in those instances where there is a limit on the number of words. If you need additional space, please indicate that on the application form, answer the question on a separate page, and include with your submission.

The application and all attachments must be received by the application deadline. You may submit your application at any time prior to the application deadline. **Applicants are strongly encouraged to submit applications prior to the deadline for staff review in order ensure that proposals will be complete when submitted on deadline date.** Incomplete applications may not be considered for funding.

Please review the back of this form to determine project eligibility, definitions, budget criteria, and statutory requirements.

Project Name Katz Dam Fish Passage

Name of Organization McLean County Water Resource District

Federal Tax ID#

Contact Person/Title Lynn Oberg, Board Chair

Address 1201 22S Avenue SW

City Washburn

State ND

Zip Code 58577

E-mail Address obergm@westriv.com

Web Site Address (If applicable) mcleancountnd.gov

Phone 701 400 7793

List names of co-applicants if this is a joint proposal

MAJOR Directive:

Choose only one response

Directive A. Providing access to private and public lands for sportsmen, including projects that create fish and wildlife habitat and provide access for sportsmen;

Directive B. Improving, maintaining and restoring water quality, soil conditions, plant diversity, animal systems and by supporting other practices of stewardship to enhance farming and ranching;

Directive C. Developing, enhancing, conserving and restoring wildlife and fish habitat on private and public lands; and

Directive D. Conserving natural areas and creating other areas for recreation through the establishment and development of parks and other recreation areas.

Additional Directive:

Choose all that apply

Directive A.

Directive B.

Directive C.

Directive D.

Type of organization:

State Agency

Political Subdivision

Tribal Entity

Tax-exempt, nonprofit corporation.

Abstract/Executive Summary.

Summarize the project, including its objectives, expected results, duration, total project costs and participants. (no more than 500 words)

The McLean County ND Water Resource Board (WRB) has been planning a fish passage program for Painted Woods Creek for five years, including developing concept and preliminary designs for several locations and holding partnership meetings with other agencies and private partners. The Painted Woods Creek watershed lies within parts of McLean and Burleigh County North Dakota and has a watershed area of 305 square miles. The stream discharges to the Missouri River approximately 5 miles south of Washburn. There is an abundant and diverse fish community in the Missouri River near the mouth of Painted Woods Creek. However, there are a series of 4 barriers to fish passage in the lower portion of Painted Woods Creek that block fish migration up the creek and the WRD would like to eliminate all of them. Katz Dam is the farthest downstream of the complete barriers to fish passage in the watershed. Providing fish passage around Katz Dam would open 11 more miles of the stream to game species found in the Missouri River.

In 2021 the WRB started addressing a safety issue at Katz Dam, which is located a short distance upstream from US Highway 83. Katz Dam has a spillway that creates a dangerous hydraulic roller at higher flows. A final design was developed for modifying the spillway to eliminate this safety issue. The safety improvement work was completed with funding from McLean County and the Department of Water Resources. In 2022 the WRB determined it would be advantageous to add fish passage to the project. It is believed that joining the two projects will result in efficiencies and cost savings related to sharing costs such as mobilization, and having greater quantities of materials both projects need such as riprap, which should garner lower bid prices. The two projects are compatible from the standpoint that the safety improvements involve modifying the spillway, while the fish passage would be constructed around one side of the spillway.

Finding funding for fish passage has been one of the challenges. Work on the safety project completed to date has been supported by McLean County and grants from the Department of Water Resources. However, more funding is needed for design and construction of the fish passage facilities. The WRB believes that receiving funding from the Outdoor Heritage Fund provides the path forward needed to make the proposed project a reality.

The priority species targeted by the project are walleye and northern pike, which are native to North Dakota. Both species are known to survive in lower Painted Woods Creek to sizes targeted by sports fisherman. The Department of Game and Fish stocks northern between Painted Woods Lake and the Katz Dam on a regular basis. Trophy walleye have been occasionally caught between Painted Woods Lake and Katz Dam. There is good survival of these priority species in lower areas of the stream below Katz Dam. The proposed project will reopen the habitat throughout a much greater area than allowed by the present stocking program and infrequent extreme flooding of the Missouri River.

Project Duration:

Indicate the intended schedule for drawing down OHF funds.

Construction would begin in September 2023, with final completion by November 3, 2023. Vegetative restoration of the site may require work in the spring of 2024 to ensure plant survival. The WRB intends to draw down the funds between September 2023 and June 2024.

Permits required prior to construction are in review including the USACE 404 permit and Department of Resource Construction permit. Permit applications were submitted in 2022 for the Katz Safety Improvement Project. The USACE 404 permit was issued at that time, and the review of the Katz Safety Improvement Project was near complete. The permit applications need to be resubmitted to include the Katz Dam fish bypass. A design for the fish passage is needed to allow resubmittal of permit applications.

Amount of Grant request: \$ 112,572.75

Total Project Costs: \$ 150,097.00

Note: in-kind and indirect costs can be used for matching funds.

Amount of Matching Funds: \$ 37,524.25

A minimum of 25% Match Funding is required. Indicate if the matching funds will be in-kind, indirect or cash. Please provide verification that these matching funds are available for your project. Note that effective as of July 1, 2015 no State General Fund dollars can be used for a match unless funding was legislatively appropriated for that purpose.

Amount of Match	Funding Source	Type of Match (Cash, In-kind or Indirect)
\$ 37,524.25	McLean County Water Resource Board	Cash
\$		
\$		
\$		
\$		
\$		

Certifications

- I certify that this application has been made with the support of the governing body and chief executive of my organization.
- I certify that if awarded grant funding none of the funding will be used for any of the exemptions noted in the back of this application.

Narrative

Organization Information – Briefly summarize your organization’s history, mission, current programs and activities.

Include an overview of your organizational structure, including board, staff and volunteer involvement. (no more than 300 words)

The McLean County Water Resource Board (WRB) is a political subdivision of the State. The WRB is governed by a three-member board of managers appointed by the McLean County Commission. The WRB has the responsibility within McLean County to manage, conserve, protect, develop and control waters of the state for the benefit of the public. It is the policy of the WRB to provide management, conservation, protection, development and control of water resources, to work cooperatively with other resource agencies to strengthen and mutually support related programs, and protect and promote the health, safety and general welfare of the people of North Dakota.

The WRB manages a variety of programs including those related to drainage permits, maintaining, protecting and controlling streamflow, protection and maintenance of water bodies, managing flooding problems, protection and maintenance of water quality, biodiversity and construction impacts, and operation and maintenance of dams owned by the county, such as Katz Dam.

McLean County has approximately 9,771 residents that rely on farming, coal mining and power industries. The WRB has limited resources to conduct legislatively mandated duties. Management activities of the WRB are supported by a 1.74 mil levy which in 2021 generated a budget of \$146,865.80 to support a variety of activities. Important and ongoing projects include the Katz Dam Safety Improvement Project, Phase 2 bypass channel at Painted Woods Lake, Fort Mandan Flood Control Project, Turtle Creek Watershed Plan, control of cattail blockage of drainage at multiple locations, and the management of Yanktonai Dam, which is rated as having significant hazard. The WRB is voluntary and has no staff, but does obtain financial management services from the McLean County Auditor. To accomplish program goals the WRB retains professional services for engineering needs when necessary.

The fish passage project at Katz Dam has strong local support, particularly with the proximity of the Missouri River fishery and is an important project to the WRB. The location is along US Highway 83, a major north-south route between Bismarck and Minot, providing access to sport fishing regionally. Combining fish passage with the Katz Dam Safety Improvement Project provides a cost-effective means of completing this important project.

Purpose of Grant – Describe the proposed project identifying how the project will meet the specific directive(s) of the Outdoor Heritage Fund Program

Identify project goals, strategies and benefits and your timetable for implementation. Include information about the need for the project and whether there is urgency for funding. Indicate if this is a new project or if it is replacing funding that is no longer available to your organization. Identify any innovative features or processes of your project. Note: if your proposal provides funding to an individual, the names of the recipients must be reported to the Industrial Commission/Outdoor Heritage Fund. These names will be disclosed upon request.

For tree/shrub/grass plantings: provide a planting plan describing the site design, planting methods, number of trees/shrubs by species and stock size, grass species and future maintenance. A statement certifying that the applicant will adhere to USDA-NRCS tree/shrub/grass planting specifications along with the name of the governmental entity designing the planting may be substituted for a planting plan.

For projects including Section 319 funding: provide in detail the specific best management practices that will be implemented and the specific projects for which you are seeking funding.

For projects including fencing: A minimum cost share of 40% by the recipient is preferred. Include detailed information on the type of fencing to be installed, whether funding is requested for boundary fencing, new or replacement of existing fencing, and/or cross fencing.

Purpose of Project and Grant

The fish passage project at Katz Dam directly addresses the objectives of the Outdoor Heritage Fund Directive C. Reestablishing fish and aquatic organism passage at Katz Dam directly contributes to the restoration, enhancement and conservation of aquatic species in North Dakota. This would be the first of four fish passage projects the WRD wants to complete. The McLean County WRB has been organizing a fish passage program for four locations on Painted Woods Creek, including Katz Dam, for over five years. Work completed includes developing concept and preliminary designs for several

locations and holding partnership meetings with other agencies and private partners. Finding funding for fish passage has been one of the challenges. Work completed to date has been supported by McLean County and State Water Commission funds. However, more funding is needed for completion of designs and for construction of the fish passage facilities. The WRB believes that receiving funding from the Outdoor Heritage Fund will provide the path forward needed to make the proposed project Katz Dam a reality.

Painted Woods Creek discharges to the Missouri River approximately 5 miles south of Washburn and there is an abundant and diverse fish community at this confluence. However, there are a series of 4 barriers to fish passage in the lower portion of Painted Woods Creek that block fish migration up Painted Woods Creek, including Katz Dam, which is the downstream most complete aquatic organism blockage. Providing fish passage at Katz Dam would reopen the aquatic habitat for an 11-mile-long reach of Painted Woods Creek, allowing a much greater area of the stream to benefit from the present stocking program and infrequent extreme flooding of the Missouri River. Trophy walleye and northern have been caught between Painted Woods Lake and Katz Dam. Walleye pike are known to congregate below Katz Dam in the spring spawning season and north pike spawning migration is blocked as well. As identified by the Painted Woods Creek fish passage program, it is the goal of the project to open up a 11-mile reach of lower Painted Woods Creek to greater trophy fishing for both walleye and northern pike.

Is this project part of a Comprehensive Conservation Plan? Yes No

If yes, provide a copy with the application.

Note: Projects involving buildings and infrastructure will only be considered if part of a Comprehensive Conservation Plan. Please refer to the "Definitions" section at the back of the form for more details.

Management of Project – Provide a description of how you will manage and oversee the project to ensure it is carried out on schedule and in a manner that best ensures its objectives will be met.

Include a brief background and work experience for those managing the project.

The Board, as project sponsor, has retained Ulteig Engineers (Ulteig) to complete engineering design, construction oversight and permitting for this project. Ulteig also assists with stakeholder engagement. Ulteig has completed the design and permitting for the Katz Dam Safety Improvement Project. Their experience includes a variety of water resource engineering and fish passage projects including concept development, feasibility, environmental review, design, permitting and construction oversight with successful completion on time and within budget. Ulteig will provide bid preparation and construction engineering services for the project, including having regular meetings with the contractor, observation of construction activities, managing the schedule, reviewing compliance with the plans, specifications, and contract documents, and holding the contractor accountable for the use of taxpayer funds for completion of the project on time and within budget.

Evaluation – Describe your plan to document progress and results.

Please be specific on the methods you will utilize to measure success. Note that regular reporting, final evaluation and expenditure reports will be required for every grant awarded.

The WRB will develop a formal construction management plan for the project, including records and invoice management aspects. A monthly progress report will be submitted to the Outdoor Heritage

Fund that would also include copies of the invoices accrued and proposed activities until the next progress report.

Financial Information

Project Budget – Use the table below to provide an itemized list of project expenses and describe the matching funds being utilized for this project.

Indicate if the matching funds are in the form of cash, indirect costs or in-kind services. The budget should identify all other committed funding sources and the amount of funding from each source. **A minimum of 25% match funding is required.** An application will be scored higher the greater the amount of match funding provided. (See Scoring Form.)

Certain values have been identified for in-kind services as detailed under “Budget Information” at the back of this form. Refer to that section and utilize these values in identifying your matching funds.

NOTE: No indirect costs will be funded. Supporting documentation for project expenses, including bids, must be included or application will be considered incomplete.

Project Expense	OHF Request	Applicant's Match Share (Cash)	Applicant's Match Share (In-Kind)	Applicant's Match Share (Indirect)	Other Project Sponsor's Share	Total Each Project Expense
Design	\$15009.70	\$16986.30	\$	\$	\$	\$
Construction	\$97563.05	\$20537.95	\$	\$	\$	\$
	\$	\$	\$	\$	\$	\$
	\$	\$	\$	\$	\$	\$
	\$	\$	\$	\$	\$	\$
	\$	\$	\$	\$	\$	\$
Total Costs	\$112572.75	\$37524.25	\$	\$	\$	\$

Note: Costs for seeding, fencing, pipelines, wells, and cover crops cannot exceed NRCS Field Office Tech Guide without justification. Projects involving perimeter fencing must follow NRCS eligibility standards.

Budget Narrative – Use the space below to provide additional detail regarding project expenses.

An Engineers Opinion of Probable Cost for the construction and individual bid items is found in Appendix B. This work is based on information developed through the associated Katz Dam Safety Improvement Project being supported by the Department of Water Resources at a 75 percent cost share. Cost share is applied to all project costs combined rather than individual items because all individual costs are required for completion of the project. The expenses outlined in the request do not include legal and administrative fees, as the McLean WRB expects to cover them on its own.

Sustainability – Indicate how the project will be funded or sustained in future years.

Include information on the sustainability of this project after OHF funds have been expended and whether the sustainability will be in the form of ongoing management or additional funding from a different source.

The fish passage is an armored side channel with a rock lining that both provides suitable conditions for fish passage and protection against scour and erosion. It will not require ongoing regular

maintenance. The design allows flood events to flow over the principal spillway without damage. If necessary the WRB will fund future maintenance of the project through their general fund.

Partial Funding – Indicate how the project will be affected if less funding is available than that requested.

If funding from the Outdoor Heritage Fund is not obtained, the project may be delayed until such time that sufficient funding is secured. It is possible that the WRB may not be able to afford the project. Anticipated benefits to provide walleye and northern pike to an additional 11 miles of Painted Woods Creek would be delayed or not occur.

Partnership Recognition - If you are a successful recipient of Outdoor Heritage Fund dollars, how would you recognize the Outdoor Heritage Fund partnership? * *There must be signage at the location of the project acknowledging OHF funding when appropriate.*

The WRB will provide signage at the facility identifying the names of all the project sponsors. The signage with the Outdoor Heritage Fund listed as a project sponsor will be viewed and appreciated by all who visit. The WRB would also complete a media campaign centered on the project and the Outdoor Heritage Fund would be singled out as a critical partner in the project.

Awarding of Grants - Review the appropriate sample contract for your organization on the website at <http://www.nd.gov/ndic/outdoor-infopage.htm>.

Can you meet all the provisions of the sample contract? Yes No

If there are provisions in that contract that your organization is unable to meet, please indicate below what those provisions would be:

ABOUT OHF:

The purpose of the North Dakota Outdoor Heritage Fund is to provide funding to state agencies, tribal governments, political subdivisions, and nonprofit organizations, with higher priority given to projects that enhance **conservation** practices in this state by:

Directive A. Providing access to private and public lands for sportsmen, including projects that create fish and wildlife habitat and provide access for sportsmen;

Directive B. Improving, maintaining and restoring water quality, soil conditions, plant diversity, animal systems and by supporting other practices of stewardship to enhance farming and ranching;

Directive C. Developing, enhancing, conserving and restoring wildlife and fish habitat on private and public lands; and

Directive D. Conserving natural areas and creating other areas for recreation through the establishment and development of parks and other recreation areas.

EXEMPTIONS

Outdoor Heritage Fund grants may not be used to finance the following:

- Litigation;
- Lobbying activities;
- Any activity that would interfere, disrupt, or prevent activities associated with surface coal mining operations; sand, gravel, or scoria extraction activities; oil and gas operations; or other energy facility or infrastructure development;
- The acquisition of land or to encumber any land for a term longer than twenty years; or
- Projects outside this state or projects that are beyond the scope of defined activities that fulfill the purposes of Chapter 54-17.8 of the North Dakota Century Code.

OHF funds may not be used, except after a finding of exceptional circumstances by the Industrial Commission, to finance:

- A completed project or project commenced before the grant application is submitted;
- A feasibility or research study;
- Maintenance costs;
- A paving project for a road or parking lot;
- A swimming pool or aquatic park;
- Personal property that is not affixed to the land;
- Playground equipment, except that grant funds may be provided for up to 25% of the cost of the equipment not exceeding \$10,000 per project and all playground equipment grants may not exceed 5% of the total grants per year (see Definitions/Clarifications for how this will be calculated);
- Staffing or outside consultants except for costs for staffing or an outside consultant to design and implement an approved project based on the documented need of the applicant and the expenditures may not exceed 5% of the grant to a grantee if the grant exceeds \$250,000 and expenditures may not exceed 10% of the grant to a grantee if the grant is \$250,000 or less (see Definitions/Clarifications for how this will be calculated);
- A building except for a building that is included as part of a comprehensive conservation plan for a new or expanded recreational project (see Definitions/Clarifications for definition of comprehensive conservation plan and new or expanded recreational project); or
- A project in which the applicant is not directly involved in the execution and completion of the project.

The goal of the Industrial Commission is that at a minimum 15% of the funding received for a biennium will be given priority for recreation projects that meet Directive D.

The following projects are not eligible for funding, unless there is a finding of exceptional circumstances by the Industrial Commission include:

- Construction or refurbishment of indoor/outdoor ice rinks,
- Construction or refurbishment of indoor/outdoor athletic courts and sports fields,
- Other substantially similar facilities.

- Infrastructure that is not part of a comprehensive conservation plan.
- Projects not meeting a minimum funding request of \$2,500.

Budget Information

In-kind services used to match the request for Outdoor Heritage Fund dollars shall be valued as follows:

- Labor costs \$15.00 an hour
- Land costs Average rent costs for the county as shown in the most recent publication of the USDA, National Agricultural Statistics Services, North Dakota Field Office
- Permanent Equipment Any equipment purchased must be listed separately with documentation showing actual cost. (For example: playground equipment)
- Equipment usage Actual documentation
- Seed & Seedlings Actual documentation
- Transportation Mileage at federal rate
- Supplies & materials Actual documentation

More categories will be added as we better understand the types of applications that will be submitted. We will use as our basis for these standards other State and Federal programs that have established rates. For example, the North Dakota Nonpoint Source Pollution Management Program has established rates. If your project includes work that has an established rate under another State Program, please use those rates and note your source.

Definitions/Clarifications:

Building - Defined as "A structure with a roof either with walls or without walls and is attached to the ground in a permanent nature."

Comprehensive Conservation Plan - Defined as "A detailed plan that has been formally adopted by the governing board which includes goals and objectives--both short and long term, must show how this building will enhance the overall conservation goals of the project and the protection or preservation of wildlife and fish habitat or natural areas." This does not need to be a complex multi-page document. It could be included as a part of the application or be an attachment.

New and Expanded Recreational Project means that the proposed building cannot be a replacement of a current building. The proposed building must also be related to either a new or expanded recreational project--either an expansion in land or an expansion of an existing building or in the opportunities for recreation at the project site.

Playground equipment calculation - Only the actual costs of the playground equipment (a bid or invoice showing the amount of the equipment costs must be provided) - cannot include freight or installation or surface materials or removal of old equipment, etc.

Staffing/Outside Consultants Costs - If you are requesting OHF funding for staffing or for an outside consultant, you must provide information in your application on the need for OHF funding to cover these costs. For example, if you are an entity that has engineering staff you must explain why you don't have sufficient staff to do the work or if specific expertise is needed or whatever the reason is for your entity to retain an outside consultant. If it is a request for reimbursement for staff time then a written explanation is required in the application of why OHF funding is needed to pay for the costs of that staff member(s)' time. **The budget form must reflect on a separate line item the specific amount that is being requested for staffing and/or the hiring of an outside consultant.** This separate line item will then be used to make the calculation of 5% or 10% as outlined in the law. Note that the calculation will be made on the grant less the costs for the consultant or staff.

Maintenance – Activities that preserve or keep infrastructure in a given existing condition, including repairs. Repair means to restore to sound condition after damage, to renew or refresh; except repairs due to damage caused by Acts of God.

Scoring of Grants

Oral Presentation. Please note that you will be given an opportunity to make a ten-minute Oral Presentation at a meeting of the Outdoor Heritage Fund Advisory Board. These presentations are strongly encouraged.

Open Record. Please note that your application and any attachments will be open records as defined by law and will be posted on the Industrial Commission/Outdoor Heritage Fund website.

All applications will be scored by the Outdoor Heritage Fund Advisory Board after your ten-minute oral presentation. The ranking form that will be used by the Board is available on the website at <http://www.nd.gov/ndic/outdoor-infopage.htm> .

Awarding of Grants

All decisions on requests will be reported to applicants no later than 30 days after Industrial Commission consideration. The Commission can set a limit on duration of an offer on each application or if there isn't a specific date indicated in the application for implementation of the project, then the applicant has until the next Outdoor Heritage Fund Advisory Board regular meeting to sign the contract and get the project underway or the commitment for funding will be terminated and the applicant may resubmit for funding. Applicants whose proposals have been approved will receive a contract outlining the terms and conditions of the grant.

Responsibility of Recipient

The recipient of any grant from the Industrial Commission must use the funds awarded for the specific purpose described in the grant application and in accordance with the contract. The recipient cannot use any of the funds for the purposes stated under Exemptions on the first page of this application.

If you have any questions about the application, the Commission can be reached at 701-328-3722 or outdoorheritage@nd.gov.

Revised: November 4, 2019, April 12, 2023

Appendix A

Project Location Figure

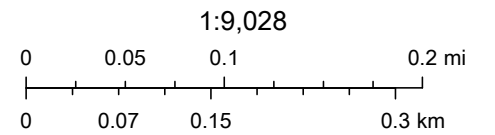
ND GIS Hub Explorer



June 1, 2021

Image

- Red: Band_1
- Green: Band_2



Appendix B

Engineers Opinion of Probable Construction Cost

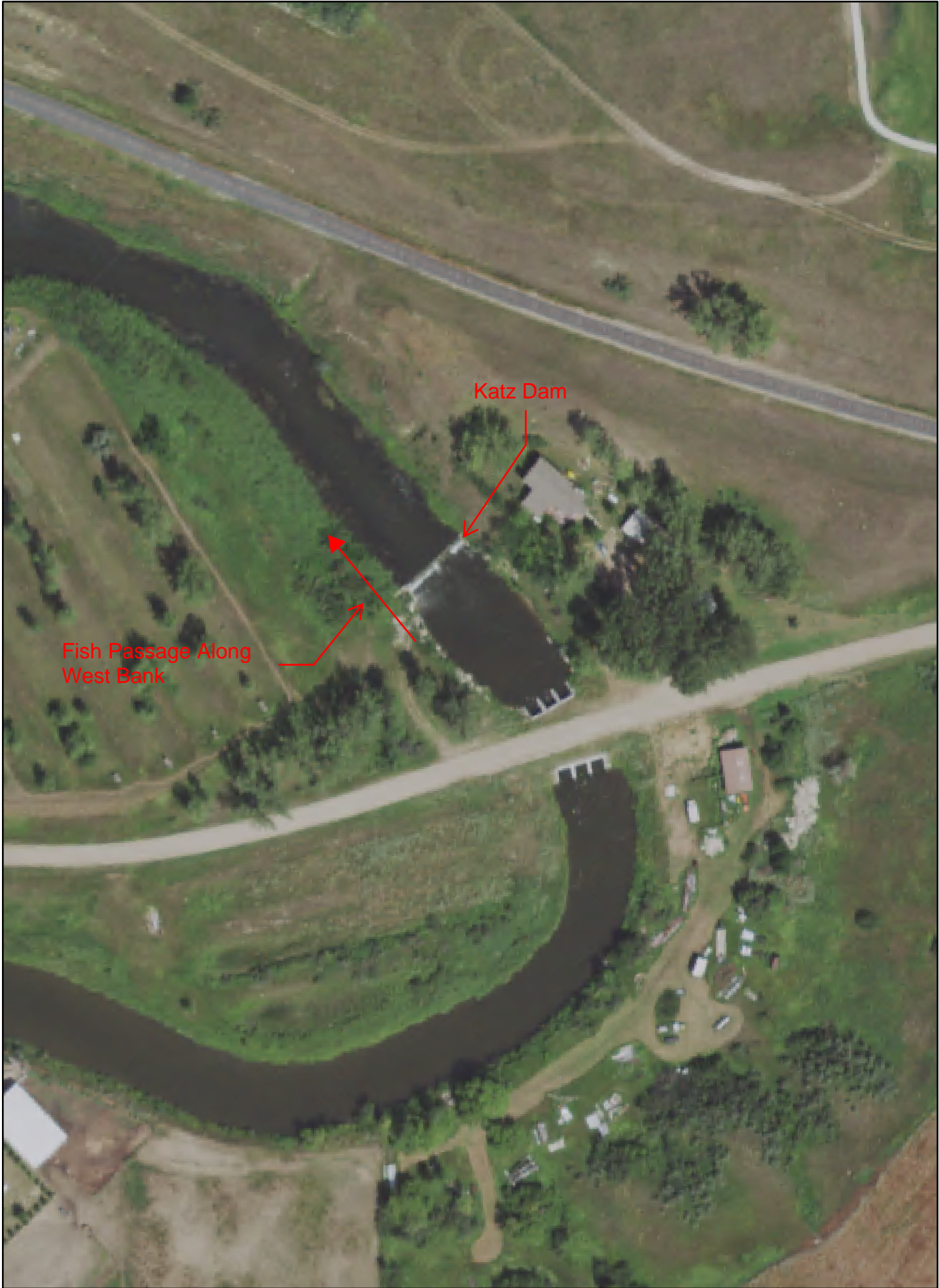
Opinion of Probable Construction Cost

Project: **Katz Dam Fish Passage**

Item Number	Specification	Code	Quantity	Unit	Unit Price	Total Price
1	201	330 Clearing and Grubbing	1	LS	\$ 2,000.00	\$ 2,000.00
2	203	101 Common Excavation	950	CY	\$ 10.00	\$ 9,500.00
3	203	109 Topsoil	20	CY	\$ 5.00	\$ 100.00
4	203	118 Topsoil Placement	500	SY	\$ 12.00	\$ 6,000.00
5	203	125 Remove & Salvage Topsoil	500	SY	\$ 12.00	\$ 6,000.00
6	251	1000 Restoration Seeding	0.2	Acre	\$ 6,000.00	\$ 1,200.00
7	255	101 Erosion Control Blanket Type 1	500	SY	\$ 3.00	\$ 1,500.00
8	256	100 Rip Rap Grade I	300	CY	\$ 95.00	\$ 28,500.00
9	256	200 Rip Rap Grade II	20	CY	\$ 70.00	\$ 1,400.00
10	264	112 Fiber Rolls 12-inch	33	LF	\$ 2.50	\$ 82.50
11	302	120 Aggregate Base Class 3	15	Ton	\$ 29.00	\$ 435.00
12		Boulders (3-4 ft Nominal Diameter)	32	EA	\$ 600.00	\$ 19,200.00
13		Construct Opening in Wing Wall	1	LS	\$ 10,000.00	\$ 10,000.00
14	702	100 Mobilization	1	LS	\$ 7,500.00	\$ 12,500.00
Subtotal						\$ 98,417.50
Construction Summary						
10% Construction Contingency						\$ 9,841.75
Total Estimated Construction Cost						\$ 108,259.25
Engineering Design and Construction Oversight						\$ 27,196.00
Survey						\$ 4,800.00
Total Estimated Improvement Cost						\$ 150,097.00

Appendix C

Site Photos



Katz Dam

Fish Passage Along West Bank

0 50 100 200 Feet

1 inch = 125 feet



View From Upstream on East Bank



View of West Bank from Downstream of Katz Dam. The fish passage will follow the west bank around the dam.