

2025 Cost-Share Proposal Form for NorthWestern Energy (NWE) Project 2188 TAC Funds

Project 2188 (Madison-Missouri River) License Protection, Mitigation and Enhancement (PM&E) projects are required to offset impacts to river resources from the continued operation of one or more of NWE's nine hydro developments (Hebgen, Madison, Hauser, Holter, Black Eagle, Rainbow, Cochrane, Ryan and Morony Dams). PM&E projects need to be prioritized toward in-river or on-the-ground measures that directly benefit fisheries and/or wildlife populations and their habitats:

Priority 1: 2188 License projects which meet License Article requirements and PM&E for fisheries or wildlife populations or their habitats within the main stem Madison River (Hebgen Reservoir to Three Forks) or Missouri River (Hauser Reservoir to Fort Peck Reservoir)

Priority 2: 2188 License projects which meet License Article requirements and PM&E for fisheries or wildlife populations or their habitats in primary tributaries or on adjacent lands and, in doing so, provide PM&E for Madison River (Hebgen Reservoir to Three Forks) or Missouri River (Hauser Reservoir to Fort Peck Reservoir) resources.

Priority 3: 2188 License PM&E projects which meet License Article requirements by providing scientific or other tangible PM&E benefits to Madison-Missouri River fisheries or wildlife populations or their habitats. These projects must be located in the greater Missouri River drainage upstream from Fort Peck Reservoir, but not necessarily located on the main stem Madison River or Missouri River or their adjacent lands or primary tributaries.

All TAC project proposals must include the following information:

Project Title: North Fork Sheep Creek – fish passage construction

Date: 10/9/2025

Explain how this Project addresses a specific Project 2188 License Article(s):
Provide justification for Priority 1, 2 or 3 (above) that you selected:

FERC License 2188, Article 416 (3), states NorthWestern Energy should “....Propose additional measures to minimize fish loss and to mitigate for avoidable and unavoidable impacts...These measures may include but will not be limited to: 1. Spawning and rearing habitat enhancement projects in the reservoir and in tributaries to the reservoir and tailwaters...”

This is a Priority 2 project as it is a primary tributary to the Missouri River.

This project would provide upstream fish passage by constructing plunge pool steps at what is now a six-foot waterfall on North Fork Sheep Creek which is a tributary to Sheep Creek, which is a primary tributary to the Missouri River utilized for spawning. The passage construction would take place on private property approximately five miles upstream of the confluence of the north and south forks of Sheep Creek. The project would allow access to approximately three miles of potential spawning and rearing habitat above the waterfall, particularly for rainbow trout from the Missouri River, which currently make spawning runs up to the base of the waterfall in the spring.

Project Sponsor (submitted by):

Adam Geik – Montana Fish, Wildlife and Parks – Fisheries Biologist

Location of Proposed Project: North Fork Sheep Creek south of Cascade, MT

Narrative

This project will allow upstream passage of fish to potential spawning and rearing habitat, particularly rainbow trout from the Missouri River which currently cannot pass the waterfall at typical runoff flows. Step pools will be constructed below a waterfall in a bedrock chute to provide shorter jumping height and resting areas for fish attempting to move upstream. Passage will open up approximately three miles of potential spawning and rearing habitat.

Geocode (in decimal degrees ex 46.89743) Lat; 47.14044

Lon: -111.72882

Total Project Cost: \$25,000

TAC Funds (Cost-Share) Requested for Project: \$25,000

I. Introduction; brief statement of project to be completed with pertinent background information.

The project was brought to attention by a private landowner on North Fork Sheep Creek who noticed that large rainbow trout (presumably from the Missouri River) were not able to pass a waterfall for about the previous ten years. Apparently, the waterfall was passable in some years prior to 2015 when the landowner observed fish ascending the falls and large fish present upstream of the falls. It is unknown whether the structure of the waterfall changed or if timing and amount of spring runoff have changed or both have changed causing the waterfall to become unpassable in most years.

We propose to construct step pools by anchoring concrete to the sides and bottom of the bedrock chute below the waterfalls. Natural rock material will also be used to construct the step pools and make the appearance as natural as possible. It is expected that the step pools would allow upstream passage to spring spawning rainbow trout from the Missouri River and provided additional spawning and rearing habitat.

At the November 2021 MoTAC Meeting, the TAC approved \$148,668 for replacement and repair of bridges within the Sheep Creek drainage. An additional \$54,852 were awarded for replacement of a concrete ford with a bridge in South Fork Sheep Creek at the November 2022 meeting. These projects were proposed by FWP and NorthWestern, and highlight the importance of Sheep Creek as a spawning tributary and protecting and enhancing available habitat in this drainage.

II. Objectives; explicit statement(s) of what is intended to be accomplished.

1. Construct steps below waterfall

III. Methods; description of how Project objectives will be accomplished.

Block stream flow above the waterfall and pump water around to create a dry work area below the waterfall. Construct two concrete steps that will be anchored into the bedrock streambed. Supplement with natural rock as necessary to create flows and pools conducive to upstream fish passage.

IV. Schedule; when the Project work will begin and end.

The project is anticipated to be completed in 2026 when stream flows are low. The project will take about 5 days.

V. Personnel; who will do the work ? Identify Project leader or principal investigator.

Adam Geik – MTFWP Fisheries Biologist – Project Leader - Responsible for coordination with agencies, landowners, and consultant, obtaining permits, MEPA, and monitoring success of the project.

Allen McNeal – Restoration Consultant – Responsible for design and cost estimate, coordination of contractors, and construction oversight.

Contractor – Stream Works, if available.

VI. Project budget must include amounts for the following:

Water pumps (2) and generators (2) - \$500/day each = \$5,000

Concrete = \$4,000

Concrete mixer = \$2,000

Mileage = \$2,000

Labor – \$100/hour x 120 hours = \$12,000

Total = \$25,000

VII. Deliverables; describe work product (reports, habitat restoration, etc.) which will result from this Project. How will “success” for this project be monitored or demonstrated?

The deliverable would be an altered natural barrier that allows passage of spawning rainbow trout from the Missouri River access to approximately three miles of potential spawning and rearing habitat upstream of the current waterfall barrier on North Fork Sheep Creek. The project would benefit the fishery on the Missouri River by increasing spawning and rearing potential in the system. Success of the project will be demonstrated by documenting passage of spawning rainbows over the constructed step structure, documenting spawning redds upstream of the structure, and documenting presence of rainbow trout fry in the section of North Fork Sheep Creek above the structure.

A report will be submitted documenting the work and monitoring.

VIII. Cultural Resources. Cultural Resource Management (CRM) requirements for any activity related to this Project must be completed and documented to NWE as a condition of any TAC grant. TAC funds may not be used for any land-disturbing activity, or the modification, renovation, or removal of any buildings or structures until the CRM consultation process has been completed. Agency applicants must submit a copy of the proposed project to a designated Cultural Resource Specialist for their agency. Private parties or non-governmental organizations are encouraged to submit a copy of their proposed project to a CRM consultant they may have employed. Private parties and non-governmental organizations may also contact the NWE representative for further information or assistance. Applications submitted without this section completed, will be held by the TAC, without any action, until the information has been submitted.

Summarize here how you will complete requirements for Cultural Resource Management:

A cultural resource survey will be completed by an independent contractor prior to any construction activities if needed. It is recommended this be incorporated into the annual MoTAC cultural resources proposal.

IX. Water Rights. For projects that involve development, restoration or enhancement of wetlands, please describe how the project will comply with the Montana DNRC's "Guidance for Landowners and Practitioners Engaged in Stream and Wetland Restoration Activities", issued by the Water Resources Division on 9March2016.

Summarize here how you will comply with Montana water rights laws, policies and guidelines:

There would be no changes to water rights as a result of the channel maintenance. The project will not alter the amount of water that flows in the stream.

All TAC Project proposals should be 7 pages or less and emailed (as a WORD file) to each of:

- Andrew.Welch@Northwestern.com
- Jon.Hanson@Northwestern.com
- Grant.Grisak@Northwestern.com

Further questions about TAC proposals or Project 2188 license requirements or related issues may be addressed to: Andy Welch, Leader Hydro License Compliance, NorthWestern Energy, 1315 N Last Chance Gulch, Helena, MT 59601; 406-444-8115 (office); 406-565-7549 (cell); Andrew.Welch@northwestern.com.



Photo 1. Natural fish barrier waterfall on North Fork Sheep Creek, May 2025.



Photo 2. Looking upstream to the natural fish barrier waterfall on North Fork Sheep Creek. Notice the bedrock stream channel. May 2025.

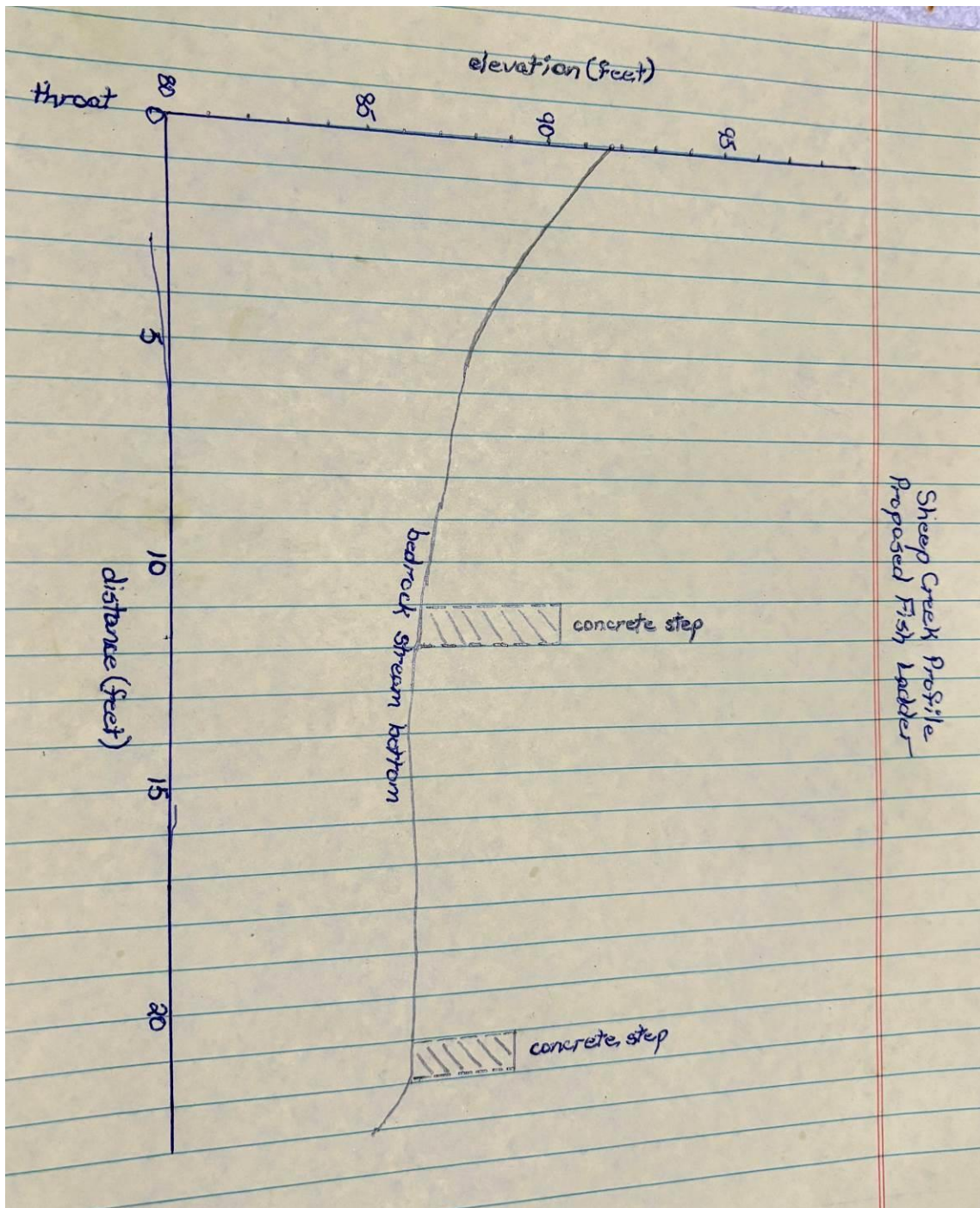


Figure 1. Plan drawing for the concrete steps.