



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: Missouri River Cottonwood Trees, Fence & Irrigation -Tweet

Date: Nov 1, 2023

Explain how this Project addresses a specific Project 2188 License Article(s): License Article 423 requires the development of a plan to monitor and enhance native plants and wildlife populations on the lands and waters associated with the project. The current 5-year plan (2023-2027) states restoration and enhancement of riparian lands and wetlands in the project area has been a primary goal of the wildlife and vegetation enhancement plan since the establishment of the program and the Wildlife TAC in 2000. The program has funded several projects to monitor and restore cottonwood forests along the Missouri River.

Provide justification for Priority 1, 2 or 3 (above) that you selected:

This is a priority 1 project dealing with wildlife habitat enhancement on the mainstem Missouri River.

Project Sponsor (submitted by): NorthWestern Energy

Location of Proposed Project:

Narrative

Geocode (in decimal degrees ex 46.89743) Lat; _____ Long: _____

Total Project Cost: \$94,229

TAC Funds (Cost-Share) Requested for Project: \$94,229

I. Introduction; brief statement of project to be completed with pertinent background information. The natural development cycle of cottonwood trees along the Missouri River in central Montana has been disrupted by main stem dams that buffer high river flows that traditionally would distribute cottonwood seeds. In years when cottonwood seedlings develop along the river bank, they are generally sheared off by ice within a few years. Deer and cattle also impact new seedlings. Beavers can impact seedlings and mature trees. In 2021, NorthWestern Energy staff evaluated characteristics of large cottonwood forests along the Missouri River between Carter Ferry and Coal Banks Landing. The loss of mature trees (40 ft height) was mostly attributed to girdling or toppling by beavers, cut banks sloughing trees into the river and fire. Some of the stable cottonwood forests were located on river benches set back from the river where beavers, bank sloughing and ice shear were non factors.

The Tweet – Shonkin Creek site is a good candidate to develop a mixed tree cottonwood forest for bird habitat because it is relatively close to the Missouri River, but is not vulnerable to ice shear and beavers impacting trees.

NWE investigated the feasibility of enhancing this area for wildlife habitat. The 180 trees would be protected from deer and livestock browsing by high fencing. The low elevation of this site will enhance natural sub irrigation after tree roots develop. The closest power source to operate a water pump is located 1700 feet from the proposed site. The estimate to run power to the proposed well near the planting site was \$24,000. NorthWestern investigated installing the water pump closer to the power source and running water for 1700 feet rather than running power that distance. The cost of this option is about \$10,000.

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

Develop a large stand of viable cottonwood trees along the Missouri River for wildlife habitat.

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

Plant approximately 180 trees within the ~6.5 acre site. Install 8 foot tall mesh fence around the ~6.5 acre site. Install a power source/meter base within 100 feet of the existing power. Dig a well near the river channel edge and bury a vertical culvert to capture ground water. Trench water line 1700 feet from well to tree planting site. Install ~300 foot long line/manifold to supply 3 irrigation lines. Install three ~1,300 foot long irrigation lines from this manifold on the surface each having about 60 bubblers spaced 22 feet apart. Plant trees at this spacing. Conduct annual maintenance that involves a line blowout each fall. Release knapweed weevils in July to help control knapweed in the area.

Landowner will install a separate livestock water tank from the well that is not part of this project.

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

Project would begin in April 2024 and be complete by May 30, 2024.

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

Grant Grisak (NWE) will serve as the project leader to secure materials and/or contractors to perform the work.

VI. Project budget must include amounts for the following:

Irrigation (well, trench, line, drips)	\$38,784
Fence 6.5 acres	\$31,000
Power (meter base, permit)	\$7,500
Trees	\$1,645
Well registration fee (DNRC)	\$150
Knapweed weevils	\$650
Power & maint	\$3,000
Tree planting	<u>\$11,500</u>
Total	\$94,229

Itemized irrigation

Line (ft) 5800	\$15,534
pump	\$3,700
controllers -4	\$1,850
trench 1700	\$3,000
fittings/bubblers (200)	\$2,200
labor/equipment/travel/mob	<u>\$12,500</u>
subtotal	\$38,784

- All cost-share sources and amounts, including estimation of “in-kind” contributions

***NorthWestern Energy TAC funds will not be used for agency overhead on projects that do not fund personnel. Applications for materials and equipment should not contain overhead.**

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 product will be a cottonwood tree forest within a few hundred feet of the Missouri River proper. A project report will chronicle completion of the project. Biennial bird monitoring would be conducted by UofM BEL. Frequent inspections by NWE staff would ensure the project is progressing as intended maintenance

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:

In October 2023 the consulting archaeologist obtained SHPO records for the general project area and determined some resources have been identified in the general area but not on the specific project site. A class III CRM inventory will be performed at the specific project site followed by a report and review by SHPO.

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 9 March 2016.

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

NWE will work with Montana FWP to file a DNRC well log and groundwater use certificate within 60 days of completion of the project. The purpose of the well is for agriculture (irrigation and livestock) use.

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

Manager, Hydro License Compliance

Andrew.Welch@NorthWestern.com

☎ 406-444-8115

☎ 406-565-7549

208 N. Montana Ave

Suite 205

Helena, MT 59601

Tweet's - Shonkin Creek Cottonwood Site

Red polygon - 5.8 acres fenced cottonwood planting site
Well/pump/power - located 1789 ft from planting site
Three zones approx 1300 ft long each
est - 200 trees/drips

Legend

- 2071
- Tweet 1 - 5.8 acres
- Water line - 1789 ft
- well/pump/power

