



## **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: 7 Bar Heart Cottonwood replant and irrigation improvement

Date: 11.11.2024

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 (2017-2022) 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 – Grant Grisak

Location of Proposed Project:

Narrative: The project is located at 7 Bar Heart Ranch which is located near Ulm, Montana approximately 29 miles upstream from Black Eagle Dam (Figure 1). The ranch is comprised of approximately 2,100 acres of land on the north side of the Missouri River that includes 7.19 miles of Missouri river frontage. The ranch raises beef and certified organic hay.

47.406065      Long: -111.503819      T19N, R2E, S17 NE ¼, S8 SE1/4.

Total Project Cost:

TAC Funds (Cost-Share) Requested for Project: \$23,764

I. Introduction; brief statement of project to be completed with pertinent background information.  
This project was funded in 2023 (2023-10) for fencing, well development, power, trees and irrigation. The project was delayed by about 9 months due to extensive permitting requirements by Cascade County Planning Department for Floodplain permitting despite no other regulatory agency claiming jurisdiction on the project (L&C Conservation District, DNRC, ACOE, FWP, FWS). As such, the trees secured for this project had to be replanted in 5 gallon containers to prevent root binding and watered daily at the Black Eagle hydro project site. Finally, in October 2023, the trees were planted after fall dormancy. Two forms of stress (fall drought, girdling by meadow voles) contributed to very low survival. In spring 2024, only 14 trees had survived the winter and most of those were experiencing severe girdling by voles. A replant of 34 trees occurred in May 2024 which resulted in immediate severe girdling despite non-toxic repellent efforts (plastic base protectors and castor oil repellent). Irrigation effectiveness was negatively influenced by the highly restrictive well requirements and very low water year.

This proposal is to modify the irrigation system by installing a 1700 gallon cistern (below grade) for primary irrigation service and modify the well delivery system with a simple pump/float switch system to feed the cistern. Secondly, cottonwood trees and chokecherry shrubs will be replanted and bases protected from vole girdling with both HDPE base wraps and metal wire mesh buried below grade. This deterrence method is recommended by several sources including the State of Nebraska (Vantassel et al. 2011). Approximately, 150 large bare root cottonwood trees would be replanted to help accelerate the establishment that has been delayed. Approximately 25 chokecherry shrubs would be planted using the same methods.

II. Objectives; explicit statement(s) of what is intended to be accomplished.  
Overall objective is to develop large area stand of cottonwood trees and riparian shrubs for wildlife habitat.

III. Methods; description of how Project objectives will be accomplished.  
Replant deceased trees.  
Install two forms of protection against vole girdling (HDPE corrugated protectors, metal hardware mesh).  
Modify irrigation system for reliability with high volume sub-grade reservoir, float switch, pump, plumbing, electrical.

IV. Schedule; when the Project work will begin and end.  
Most of this work would be completed before the 2025 growing season begins; likely before April 2025.

V. Personnel; who will do the work? Identify Project leader or principal investigator.  
Jonas sprinklr and Fertilizer LLC was the primary contractor on the first irrigation project. NWE would hire Jonas Sprinkler and Fertilizer LLC to modify the existing irrigation system, replant trees and install tree base protection. A local contractor would be either sub contracted by Jonas or directly hired by NWE to bury the cistern and help tie into existing infrastructure.

VI. Project budget must include amounts for the following:

- Direct Labor Tree planting materials, labor, equipment and mobilization - \$6,785  
Irrigation upgrades - materials, labor, equipment and mobilization – \$5,379
- Travel and Living
- Materials 1700 gallon AST-1700-1W cistern with access lid and inspection cover = \$2,850  
100 – bare root trees = \$2,000
- Other Direct Expenses
- Direct Overhead\*
- All cost-share sources and amounts, including estimation of “in-kind” contributions

Cistern install – equipment, labor, mobilization - \$6,750

Total materials, labor, equipment, mobilization - \$23,764

**\*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?  
Self-supporting mature or developing stand of cottonwood trees and riparian shrubs as wildlife habitat approximately 8 acres in area.

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:

CRM inventory was performed on this site in 2023 and no resources were identified that would be impacted by the project. The minor modifications described here would be consistent with the original plan.

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:

No changes in water rights as described in the original application and project plan.

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

- [Andrew.Welch@NorthWestern.com](mailto:Andrew.Welch@NorthWestern.com)
- [Jon.Hanson@Northwestern.com](mailto:Jon.Hanson@Northwestern.com)
- [Grant.Grisak@Northwestern.com](mailto: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*

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References:

Vantassel, S.M, S.E. Hygnstrom, D.M. Ferraro. 2011. Controlling Vole Dammage. Neb Guide G887. University of Nebraska – Lincoln Extension. Institute of Agriculture and Natural Resources.