



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: 2188 Operations and Personnel (33005/3300500)

Date: October 2024

Explain how this Project addresses a specific Project 2188 License Article(s): Funding is for the wages and operations of FWP 2188 project personnel that identify, develop, assess, monitor, and implement projects that meet the FERC 2188 license conditions.

Provide justification for Priority 1, 2 or 3 (above) that you selected: MFWP 2188 Project Personnel will be involved in all three priority levels.

Project Sponsor (submitted by): -MFWP

Location of Proposed Project: Ennis, Madison River drainage

Narrative: The Ennis Field Office was established to identify, develop, assess, and implement fisheries monitoring and enhancement projects as described in the 6/29/2018 MOA between NorthWestern Energy and FWP and in the FERC 2188 license. This proposal will fund staff time and operations required to comply with 2188 Articles 404, 408, 409, 412, 413, and 412. FWP 2188 project personnel Travis Lohrenz and Jenna Dukovcic will conduct monitoring, enhancement, and reporting activities under the direction of FWP R3 Hydropower Program Supervisor Matt Jaeger.

NorthWestern Energy, FWP, and partners are presently pursuing several large-scale projects to improve spawning and recruitment habitat for Brown and Rainbow Trout in the Madison River. The aforementioned FWP staff will be responsible for project development, implementation, monitoring, and data analysis and reporting. FWP will additionally continue with monitoring specified by the 2188 license, monitoring of ongoing projects, such

as the recovery and protection of native fish species in the Madison Drainage, and the continued fisheries monitoring related to the Hebgen Dam failure in the fall of 2021.

Geocode (in decimal degrees ex 46.89743)	Lat;	Long:
Total Project Cost: \$233,710.74		

TAC Funds (Cost-Share) Requested for Project:

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

  This proposal will fund staff time and operations required to comply with 2188 Articles 404, 408, 409, 412, 413, and 412 as described in the 6/29/2018 MOA between NorthWestern Energy and FWP.
- II. Objectives; explicit statement(s) of what is intended to be accomplished.
   This proposal will fund staff time and operations required to comply with 2188 Articles 404, 408, 409, 412, 413, and 412 as described in the 6/29/2018 MOA between NorthWestern Energy and FWP.
- III. Methods; description of how Project objectives will be accomplished.

  FWP 2188 project personnel Travis Lohrenz and Jenna Dukovcic will conduct monitoring and enhancement activities required to comply with Articles 404, 408, 409, 412, 413, and 412 under the direction of Matt Jaeger FWP R3 Hydropower Program Supervisor.
- IV. Schedule; when the Project work will begin and end. Jan 1, 2025- June 30, 2026
- V. Personnel; who will do the work? Identify Project leader or principal investigator. FWP 2188 project personnel Travis Lohrenz and Jenna Dukovcic will conduct the monitoring and enhancement activities specified in the 6/29/2018 MOA between NorthWestern Energy and FWP under the direction of Matt Jaeger FWP R3 Hydropower Program Supervisor.

- VI. Project budget must include amounts for the following:
  - Direct Labor
  - Travel and Living
  - Materials
  - Other Direct Expenses
  - Direct Overhead\*
  - All cost-share sources and amounts, including estimation of "in-kind" contributions

Staff Monitoring & E	Item nhancement Activities	FTE (33008/330	Hours 00800)	incl	y rate uding nefits	Amount	Amount
TL - 37331	F&W Tech	1.00	2088	\$	40.52		\$ 84,605.76
JD - 37322	F&W Tech	1.00	2088	\$	33.87		\$ 70,720.56
	Travel					\$ 4,000.00	
	Operations					\$15,000.00	
	Subtotal	2.00	4176			\$19,000.00	\$155,326.32
15.31%	Indirect					\$ 0	\$ 23,780.46
	Subtotal	2.00	4176			\$19,000.00	\$179,106.78
Native Species	Management & Hydro	power				-	
MJ	Program Supervisor	0.17	356	\$	57.50		\$ 20,470.00
	Travel					\$ 2,000.00	
15.31%	Indirect					\$ 0	\$ 3,133.96
	Subtotal	0.17	356			\$ 2,000.00	\$ 23,603.96
	Subtotal of	2.17	4532			\$21,000.00	\$202,710.74
	Total						\$223,710.74

<sup>\*</sup>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? Preparation and submission of an annual report to NWE describing the previous year's activities as described in the 6/29/2018 MOA between NorthWestern Energy and FWP and how they meet FERC article requirements. Additional reporting and presentation of data related to the Hebgen gate failure will also occur as needed.
- 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:

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:

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
O 406-444-8115
C 406-565-7549
208 N. Montana Ave
Suite 205
Helena, MT 59601





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:

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**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:

Date: October, 2024
Explain how this Project addresses a specific Project 2188 License Article(s):  Provides office, shop and storage for the FWP 2188 Madison Fisheries program
Provide justification for Priority 1, 2 or 3 (above) that you selected: <b>Provides office, shop, and storage for 2188 operations, which addresses all three priority levels.</b>

Project Sponsor (submitted by): **MFWP** Location of Proposed Project: : **Ennis** 

Project Title: Ennis Office Rent

Narrative: The office will provide a local base of operations for MFWP 2188 fisheries personnel in the Madison Drainage.

Geocode (i	in decimal	degrees	ex 46.89743)	Lat;	Lo	ng:
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Total Project Cost: \$7,200

TAC Funds (Cost-Share) Requested for Project: \$7,200

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

One year office and shop space for MFWP Madison 2188 fisheries personnel

- II. Objectives; explicit statement(s) of what is intended to be accomplished. Provide a local base of operations for 2188
- III. Methods; description of how Project objectives will be accomplished.

Normal billing and payment

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

2025 billing cycle

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

FWP 2188 project personnel

- VI. Project budget must include amounts for the following:
  - Direct Labor
  - Travel and Living
  - Materials
  - Other Direct Expenses
  - Direct Overhead\*
  - 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?
- 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:

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:

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

O 406-444-8115 C 406-565-7549 208 N. Montana Ave Suite 205 Helena, MT 59601





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:

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**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: 2025 Beaverhead-Deerlodge Staff and Technician Funding Request

Date: 11/18/2024

Explain how this Project addresses a specific Project 2188 License Article(s):

This project would partially fund a USFS Fisheries Biologist and Technician to assist MTFWP biologists and NorthWestern Energy staff on multiple projects and monitoring efforts in field season 2025. Dedicated funds for the biologist and technician would prioritize work and data collection on the Madison over other non-essential work elsewhere on the Beaverhead-Deerlodge. Specific goals to achieve include: compiling data points and creating a stream restoration plan along the lower West Fork Madison for a future Recreation and Stream Improvement NEPA project (target FY26 proposal). Other goals include completion of the *West Fork Madison and Elk River Watershed Restoration Action Plan* that will guide future work in the watersheds towards achieving proper functioning condition. Some of the critical work within the Action Plan includes identifying road/stream crossings that inhibit aquatic organism passage and identifying road BMP's needed to limit the delivery of sediment into the stream. Other general duties that address the following articles include: population monitoring for species of special concern (population estimates, presence/absence surveys, nonnative removals, collection of genetic material); fish barrier site identification, reconnaissance, and barrier maintenance; and assist NWE & MFWP fisheries personnel with their 2025 program of work (monitoring and project) as needed in the upper Madison River drainage.

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

Priority 2: The USFS biologist and technician will collect data for ongoing and future priority work while also assisting with projects which meet License Article requirements and PM&E for fisheries populations and their habitats in primary tributaries and provide PM&E for Madison River resources, as directed by USFS, MTFWP and NWE fisheries personnel.

Project Sponsor (submitted by): Jennifer Mickelson, USFS Beaverhead-Deerlodge Watershed Program Manager & Patrick Luckenbill, USFS Fisheries Biologist

Location of Proposed Project: Upper Madison River and associated tributaries (Madison Ranger District)

#### Narrative

Geocode (in decimal degrees ex 46.89743) Lat; _45.346323	Long:111.742144			
Total Project Cost: \$17,711.40				
TAC B-D GS/9 Fisheries Biologist: \$340.27/day x 15 days B-D GS/9 Fisheries Biologist: \$340.27/day x 15 days	=\$5,104.05 =\$5,104.05			
TAC B-D GS/7 Fisheries Technician: \$250.11/day x 15 days B-D GS/7 Fisheries Technician: \$250.11/day x 15 days	=\$3,751.65 =\$3751.65			
TAC Field Gear for Biologist and Technician:	=\$1000			
TAC Funds (Cost-Share) Requested for Project:	=\$9,855.70			

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

The USFS Region 1 has recently undergone considerable budget reductions and modifications with an unclear funding future. Additionally, no temporary seasonal staff will be hired in the watershed program in FY 25 and no permanent seasonal staff will be returning this field season. This will ultimately limit the ability of local resources to dedicate time to a specific project area. The requested funding would dedicate a USFS Fisheries Biologist and a USFS Fisheries Technician to a minimum of 15 days of work within the Madison drainage by offsetting costs that would be incurred by the USFS. This funding method ensures the focus for 15 days is solely within the Madison and dedicated to MADTAC related work.

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

Data collection to supplement future NEPA proposal for Lower West Fork Recreation and Stream Improvement

- -Culvert replacement and fish passage at select locations on FS Road 209
- -Road sediment delivery along Lower West Fork
- -BMP locations along FS Road 209
- -Range improvements in Upper Fox Creek and throughout West Fork Madison
- -Trail modifications throughout the West Fork Madison
- -GPS locations and planning needed for stream rehab within the Lower West Fork

Population and barrier location assessments for identified WCT candidate streams within Madison drainage Assist MTFWP with 2025 field work in the Madison River drainage

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

A Forest Service biologist and technician will work to collect data and outline stream rehabilitation plans for the Lower West Fork Madison Rec and Stream Improvement project while also working cooperatively with NWE and MTFWP crews throughout the FY25 field season to accomplish PM&E projects in the Madison River drainage.

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

Present - November 2025

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

Project lead is a USFS Fisheries Biologist with assistance from USFS Fisheries Technician

VI. Project budget must include amounts for the following:

• Direct Labor =\$8,855.70

Travel and Living

• Materials =\$1000

- Other Direct Expenses
- Direct Overhead\*
- 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 Beaverhead-Deerlodge National Forest plans to complete the *West Fork Madison and Elk River Watershed Restoration Action Plan* by December 2024. Field work will be compiled and shared in a report by November 2025 to further identify specific restoration actions. Additionally, the forest will begin the NEPA process for the Lower West Fork Madison Recreation and Stream Improvement Project in fall 2025.

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:

Not Applicable-cultural resource management is not as part of this 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 9 March 2016.

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

Not Applicable.

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 O 406-444-8115 C 406-565-7549

208 N. Montana Ave Suite 205 Helena, MT 59601

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:

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**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: Emergency/contingency fund

Date: 11/14/2024

Explain how this Project addresses a specific Project 2188 License Article(s): Priority 1: This fund will be used for, but not be limited to, emergency purchasing of equipment, scoping potential stream rehab proposals, and support of 2024 approved proposals.

Provide justification for Priority 1, 2 or 3 (above) that you selected: During ongoing operations and proposal work there are times when this approved proposal would allow for immediate funding of equipment, stream restoration assessments or other conditions that may require immediate attention. This proposal will eliminate (within the \$10,000 limit) the need for TAC approval of a new proposal for spending of TAC funds.

Project Sponsor (submitted by): Jon Hanson

Location of Proposed Project: Within TAC approved proposals.

Total Project Cost: \$10,000

TAC Funds (Cost-Share) Requested for Project: \$10,000

- I. Introduction; Contingency funding to be used in emergency situations
- II. Objectives; To have TAC approved funding for emergency situations as noted above.
- III. Methods; Funding will used for situations as noted above.
- IV. Schedule; Used when needed during 2025
- V. Personnel; NWE will determine and report usage of funding.

## VI. Project budget must include amounts for the following:

Direct Labor
Travel and Living
Materials...yes
Other Direct Expenses...yes
Direct Overhead
All cost-share sources and amounts, including estimation of "in-kind" contributions

VII. Deliverables; describe work product (reports, habitat restoration, etc.) which will result from this Project. Spending will be reported at annual meeting.

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. Generally NA but maybe used for this if needed

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

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. NA

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

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.

Project Title: Madison River-Norris Reach Island Enhancement

DEMONSTRATION PROJECT – PHASE 1 SITE 2 CONSTRUCTION PROPOSAL

Date: November 20, 2024

# Applicability to Project 2188 License Article(s)

The Madison River-Norris Reach Island Enhancement Project will offset impacts to river resources associated with Project 2188 (Madison-Missouri River). The project meets the purpose and intent of License Articles 408, 409 and 412, which require: 1) developing plans to restore and protect important riparian areas; 2) enhancing fish habitat both in main stem and tributary streams to the Madison River, for all life stages of fish; 3) restoring riparian habitat; and 4) protecting and aiding in the recovery of threatened and endangered fish species.

# **Justification for Priority 2 Classification**

This project classifies as a Priority 2 2188 license project. The project is located on the mainstem Madison River between Warm Springs Creek and Black's Ford, approximately 11 miles downstream from Madison Dam (Figure 1). This project expands upon the results of the Madison River Sediment Mobility Assessment (Pioneer Technical Services, 2022) and Madison River – Norris Reach Master Plan and 95% Design Project (RDG, 2024) and will address limiting factors related to spawning and rearing habitat and overall channel complexity in the Norris Reach of the Madison River.

Project Sponsors: NorthWestern Energy, Inc.

Montana Fish, Wildlife & Parks RDG (now part of SWCA)

# **Location of Proposed Project**

The project is located in Madison County approximately 18 miles northeast of the town of Ennis, Montana. The project is located on the Madison River 11 downstream of Madison Dam. The legal description of the project area is Section 2, Township 3 South, Range 1 East. Please refer to Figure 1.

Geocodes: Not Applicable (Madison River)

Latitude: 45°35'59.40°N; Longitude: 111°34'22.04°W

**Total Project Cost:** \$434,710

MadTAC Funds (Cost-Share) Requested for Project: \$434,710

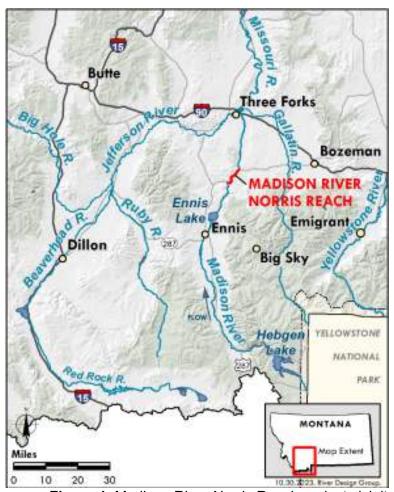


Figure 1. Madison River-Norris Reach project vicinity map.

## I. INTRODUCTION

NorthWestern Energy and Montana Fish, Wildlife & Parks are interested in pursuing instream aquatic habitat enhancement projects on the Madison River. The purpose of these projects will be to enhance mainstem spawning and rearing habitats through the creation and/or enhancement of islands and installation of streambank treatments to reduce current rates of bank erosion and channel enlargement. In 2024, NorthWestern Energy contracted with River Design Group, Inc. to prepare a master plan and 95% design plan set for a demonstration project in the Norris Reach of the Madison River. This project was initiated as part of a comprehensive effort to enhance mainstem spawning and rearing habitat, including:

- 1) constructing new islands;
- 2) enlarging or supplementing existing islands;
- 3) treating eroding streambanks and island margins with vegetated wood matrix structures; and

4) evaluating opportunities to connect riparian wetlands and side channels to the main river.

95% design drawings were completed in 2024 and reviewed and approved by NorthWestern Energy and Montana Fish, Wildlife & Parks. For this proposal, RDG requested assistance from Glacier Excavating, Inc. to develop a construction cost estimate for implementation of Phase 1 / Site 2.

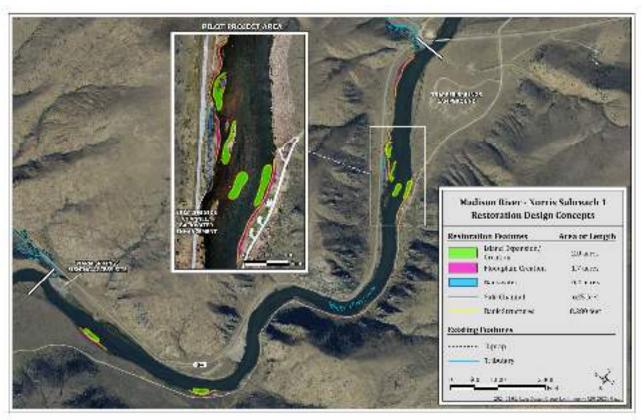
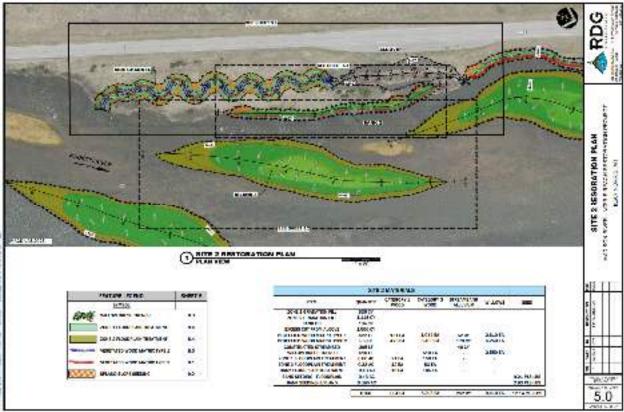


Figure 2. Master Plan design concepts in the Norris Reach of the Madison River.



**Figure 3.** Phase 1 / Site 2 restoration plan. The project includes implementing 1,372 linear feet of Vegetated Wood Matrix bank treatments, constructing Island 3, and constructing 625-feet of floodplain side channel.

## II. Objectives

The following objectives will guide development of this project:

- 1. Create side channel habitat through existing floodplain surfaces.
- 2. Enhance near-bank habitat with wood debris, overhanging cover and vegetation.
- 3. Construct island core and island margins to diversify channel hydraulics and encourage spawning habitat for focal fish species.

## III. Methods

Table 2 includes the project scope and tasks that would be executed with this project. A brief description of the tasks and methods to be used are summarized below.

## **Task 1. Pre-Construction Services**

- Advertise and coordinate on-site bid tour with qualified contractors.
- Rank and review proposals and bids and select contractor in consultation with NWE and Montana Fish, Wildlife & Parks.

Prepare Floodplain Development Permit. This reach of the Madison River is currently in a non-detailed flood study area which requires a standard no-rise hydraulic analysis (1-D model). A detailed flood study is currently being prepared by the DNRC and is scheduled for publication in December 2024. If the updated regulations are adopted, the project area will be mapped Zone AE (detailed flood study area with mapped base flood elevations) and a more detailed analysis including a Conditional Letter of Map Revision and Letter of Map Revision to FEMA will be required.

# Task 2. Implementation

- Implement access, staging, dewatering and erosion control plans.
- Import construction materials (wood, alluvium).
- Provide construction staking and full-time construction management.
- Construct VWM treatments, Island 3, and side channel and alcove habitat.

## IV. Schedule

Table 1 includes the proposed project schedule.

Table 1. 2025 Project Schedule.					
Task	February	March-April	August - September	October	
Task 1. Regulatory Permitting and Solicitation^					
Task 2. Implementation					
Revegetation					

<sup>^</sup> This reach of the Madison River is currently in a non-detailed flood study area which requires a standard no-rise hydraulic analysis (1-D model). A detailed flood study is currently being prepared by the DNRC and may be published in December 2024. If the updated regulations are adopted, the project area will be mapped Zone AE (detailed flood study area with mapped base flood elevations) and a more detailed analysis including a Conditional Letter of Map Revision and Letter of Map Revision to FEMA may be required.

#### V. Personnel

RDG (SWCA) is an approved consultant on NorthWestern Energy's Qualified Vendor's List for river, aquatic habitat, and wetland restoration services. RDG has a 20-year track record designing and implementing large scale restoration projects on behalf of the NorthWestern Energy Technical Advisory Committees and agency partners. John Muhlfeld will serve as the project manager and oversee construction activities on behalf of the design team. Chris Nelson and Selita Ammondt will complete regulatory permit applications. To comply with NorthWestern Energy's Cultural Resource Management Plan, a cultural resources investigation will be conducted for the river segment where the Phase 1 / Site 2 project is proposed to be constructed.

## VI. Budget

Table 2 includes a cost estimate to implement the restoration plan for Phase 1 / Site 2. The cost estimate is based on consultation with Glacier Excavating, Inc., a reputable, regional stream restoration firm with experience working on large, multi-phase and multi-year restoration projects. As part of this proposal, we will schedule a bid tour with multiple firms to generate a range of cost estimates for implementation.

Table 2. Madison River Islands - Phase 1 - Site 2 Implementation					
Task		Cost			
1. Pre Construction Services	\$	12,000.00			
Regulatory Permitting	\$	7,500.00			
Bid Tour and Solicitation	\$	4,500.00			
2. Implementation	\$	416,500.00			
Materials Acquisition, Staging, Dewatering	\$	75,000			
Construction	\$	300,000			
Construction Management	\$	41,500			
Direct Costs	\$	6,210			
Mileage	\$	2,700			
Per Diem	\$	1,170			
Lodging	\$	2,340			
Estimated Project Cost	\$	434,710			
Total TAC Funds Requested	\$	434,710			

## VII. Deliverables

- Joint Permit Application and supplemental submittals.
- Implementation of Phase 1 / Site 2 restoration treatments.

## VIII. Cultural Resources

NorthWestern Energy will coordinate the necessary cultural resources investigations. Cultural resources will be coordinated during the permitting phase of this project, which is anticipated in the winter/spring of 2025.

# IX. Water Rights

Appropriate analysis was performed to demonstrate that the project complies with the intent of Montana DNRC's "Guidance for Landowners and Practitioners Engaged in Stream and Wetland Restoration Activities", issued by the Water Resources Division on March 9, 2016. The guidelines are likely not applicable considering they specifically address wetland projects to ensure restored wetlands should function entirely in the absence of artificial controls and diversions of water that intentionally appropriate water for wetland use. This project will not result in the artificial control or diversion of water, therefore the guidance is likely not applicable.