Project Title: **LOWER MOORE CREEK 319 GRANT APPLICATION - PHASE 1 CONSTRUCTION**
LOWER MOORE CREEK RESTORATION PROJECT

Date: **November 18, 2024**

Applicability to Project 2188 License Article(s)

The Lower Moore Creek Stream and Wetland Restoration Project will offset impacts to river resources associated with Project 2188 (Madison-Missouri River). The project meets the purpose and intent of License Article 423, which requires development of a vegetation and wildlife monitoring and enhancement plan intended to enhance native plants and wildlife populations on Project 2188 wildlife habitats adjacent to the Madison River. Specifically, NorthWestern Energy is successfully enhancing Project 2188 wildlife habitats through funding aimed to protect, restore, and enhance riparian, wetland, and upland habitats on private lands. In recent years, NorthWestern Energy, Montana Department of Environmental Quality (MDEQ), and Madison Conservation District, and private landowners have planned, designed, and implemented restoration projects in the Moore Creek watershed. In 2022 and 2023, NorthWestern Energy, Inc. provided funding to complete final design and engineering for the Lower Moore Creek Restoration Project located on the Valley Garden Ranch and the Middle Moore Creek Restoration Project, which was successfully implemented in the fall of 2024. This funding request furthers restoration efforts on Lower Moore Creek by providing funding to prepare and submit a 319 grant application to MDEQ for implementation of Reach 1 on the Valley Garden Ranch. The grant application would be prepared and submitted in 2025, with an anticipated implementation date of 2026 pending funding appropriation.

Justification for Priority 2 Classification

The Lower Moore Creek Restoration Project classifies as a Priority 2 2188 license project. The project is located on Moore Creek, a tributary to Ennis Lake, within 0.3 miles of the Madison River, and will address limiting factors related to degraded wildlife, wetland and aquatic resources.

Project Sponsor(s): NorthWestern Energy, Inc.
Valley Garden
Madison Conservation District
River Design Group, Inc. (now part of SWCA)

Location of Proposed Project

The project is located in Madison County approximately three miles south of the town of Ennis, Montana. The project is located on State of Montana School Trust Land, leased by Granger Ranches, LLC for livestock pasture. The legal description of the project area is Sections 16 and 17, Township 6 South, Range 1 West. Please refer to Figure 1.

Geocodes: 25-0510-15-1-01-01-0000
Latitude: 45.3932434 N; **Longitude:** -111.7197147

Total Project Cost: $10,460

WildTAC Funds (Cost-Share) Requested for Project: $10,460

I. INTRODUCTION

Moore Creek and its riparian and wetland environments are important ecological resources to the Madison River. Originating in the Gravelly Range north and west of Ennis, Montana, Moore Creek flows approximately 16 miles to its confluence with Ennis Lake and the Madison River. In partnership with NorthWestern Energy and state and federal agencies, Valley Garden Ranch is interested in pursuing restoration of the vast wetland complexes and spring creek channels that once characterized floodplain and riparian environments. Reach conditions are characterized by high channel entrenchment, eroding streambanks, and high width-to-depth ratio channel geometry. The purpose of this project is to improve aquatic habitat conditions of Moore Creek and associated riparian wetland functions. This will be accomplished by restoring appropriate channel and floodplain dimensions by lowering channel width-to-depth ratios, lower high terraces to bankfull elevation to encourage establishment of emergent wetland vegetation, and reshaping portions of the reach with riffle, pool, run and glide habitat features. New floodplain surfaces supporting emergent and scrub-shrub wetland communities will be created in over-widened channel areas.

Specifically, the goals of this project include:

1) improving aquatic, riparian, and terrestrial habitat diversity for fish and wildlife;

2) establishing riffle and pool sequences and reducing channel width-to-depth ratios;

3) creating a complex matrix of variable depth wetlands in over-widened channel sections;

4) converting areas within the existing upland herbaceous plant communities to wetlands by creating new, lower floodplain surfaces adjacent to O'Dell Creek;

5) constructing shallow emergent to deep open water wetland habitats for the benefit of Trumpeter Swans, waterfowl and avian species; and

6) reclaiming the expansive ditch system to restore wetland hydrology and constructing larger shallow emergent to deep open water wetlands.

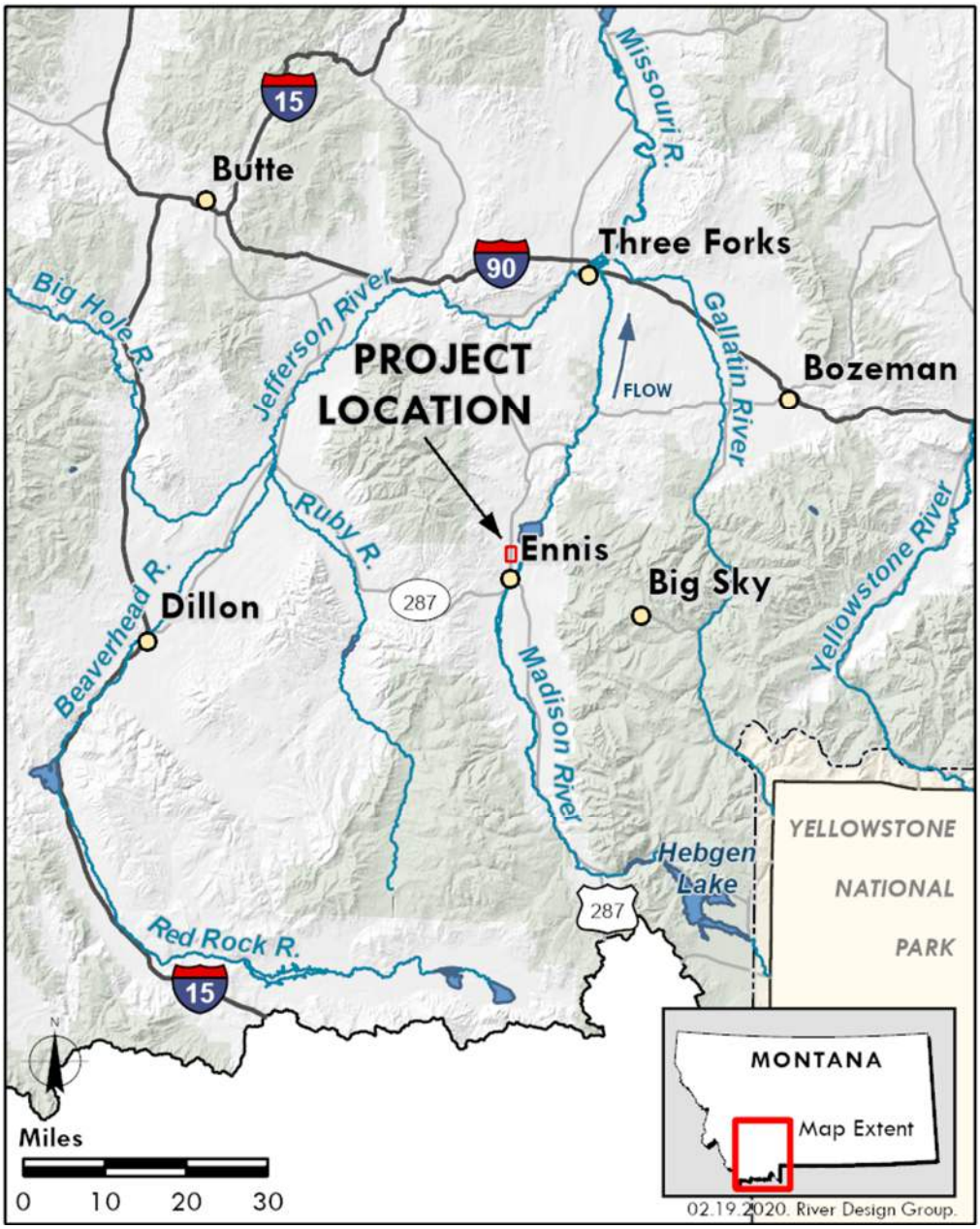

Figure 1. Lower Moore Creek Restoration Project Vicinity Map.

II. Objectives

The following objectives have been developed for the project:

1. Prepare 319 grant application to MDEQ for Phase 1 / Reach 1 construction implementation.
2. Prepare project monitoring plan to demonstrate project effectiveness.
3. Attending 319 rank and review meeting to present project and funding requst.

III. Methods

This cost-share proposal is to author a 319 grant application to MDEQ for cost-share construction funding for Phase 1 of the lower Moore Creek Restoration Project. RDG (now part of SWCA) authored the Middle Moore Creek 319 grant application in 2023 under contract with NorthWestern Energy. The grant was awarded which provided a significant cost-share match for implementation of the fall 2024 project on Middle Moore Creek.

IV. Schedule

The following project schedule has been developed for a spring 2025 grant application and presentation schedule (Table 1).

Table 1. Project schedule.

Task	February	March	April
Task 1. Prepare Draft and Final 319 Applications			
Task 2. Presentation to MDEQ			

V. Personnel

Similar to past phases of restoration on Moore Creek, the project will be implemented under the auspices of a diverse group of stakeholders including NorthWestern Energy, Madison Conservation District, and Valley Garden Ranch. As a team, we have established a track record of successful collaboration on numerous projects in the Madison River valley. Our continued collaboration and history working on this project underscores the importance we place on offering a team that will continue to be compatible with the community and stakeholders.

SWCA (formerly RDG) is an approved consultant on NorthWestern Energy's Qualified Vendor's List for stream and wetland restoration services. John Muhlfeld will serve as the project manager and technical lead on behalf of the design team.

VI. Budget

Table 2 includes a not-to-exceed cost estimate to perform the Scope of Work (SOW). The total cost to perform the SOW is $10,460.

Table 2. Lower Moore Creek Restoration Project cost estimate.		
Task		**Cost**
1. Prepare Draft and Final 319 Grant Applications	**$**	**6,200.00**
Consultation with MDEQ	$	800.00
Draft 319 Grant Application	$	3,600.00
Final 319 Grant Application	$	1,800.00
2. Presentation to MDEQ	**$**	**3,400.00**
Attend 319 Grant Rank and Review Committee Meeting	$	3,400
Direct Costs	**$**	**860**
Mileage	$	350
Per Diem	$	135
Lodging (3 Person Crew for Three Nights)	$	375
TOTAL TAC FUNDS REQUESTED	**$**	**10,460**

VII. Deliverables

Project deliverables will include the following:

- Draft and final 319 grant application to MDEQ.
- Attendance at 319 rank and review committee meeting to present the proposal.

VIII. Cultural Resources

Not applicable – no ground will be disturbed.

IX. Water Rights

Not applicable. The project was designed with guidance provided by the Montana DNRC guidelines for stream and wetland restoration projects.