Cost-Share Proposal Form for NorthWestern Energy Project 2188 TAC Funds

Project 2188 (Madison-Missouri River) License proposed Protection, Mitigation and Enhancement (PM&E) projects should relate to an effect from the continued operation of one or more of NorthWestern Energy's (NorthWestern) nine hydro developments (Hebgen, Madison, Hauser, Holter, Black Eagle, Rainbow, Cochrane, Ryan and Morony Dams). PM&E projects are required to reduce or offset impacts to river resources from the continued operation of the hydro developments. 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:

Restoring Rowe Coulee Phases Four-Six (2027-2029): Monitoring & Maintenance

Date:

10/19/2026

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

License Article 423 focuses on developing a vegetation and wildlife monitoring and enhancement plan that includes specific goals, objectives, and standards to enhance native plants and wildlife populations on the lands and waters associated with the project. A Low-Tech Process-Based Restoration (LTPBR) project was implemented on Rowe Coulee over three years (2024-2026) utilizing previously awarded NWE Wild TAC funds. The project impacted nearly two miles of degraded stream on Rowe Coulee, a direct tributary to the Missouri River. The project goals included raising the water table, reducing stream bed incision, and dissipating stream energy at peak flows, all of which ultimately work to improve water quality, quantity, and fish and wildlife habitat. After three years, the system is showing signs of improvement. Rowe Coulee's footprint has increased, reengaging historic seasonal wetlands and mesic meadows whose processes help to retain water longer into the growing season. Phases four through six focus on maintaining the 112 low-tech structures installed over 2 miles of stream and bolstering monitoring/search efforts, as the ecological response to the work has been nothing short of encouraging. To fully achieve the project's original goals, maintenance and monitoring are pivotal to overall success. The project's structure will meet License Article 423 goals and ultimately help restore a degraded intermittent tributary of the Missouri River and improve aquatic and terrestrial habitat quality throughout the treated reaches.

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

The Rowe Coulee restoration project is classified as a Priority 2 project because Rowe Coulee is a direct tributary to the Missouri River through intermittent flows. The project area starts just upstream of the confluence with the Missouri River and extends upstream along Rowe Coulee for about two miles. Overall, the project will focus on maintaining a restoration site and increasing monitoring efforts to capture and build on the encouraging results for local fish and wildlife populations from the 2024-2026 restoration project.

Project Sponsor (submitted by):

Montana Conservation Corps (Applicant), Montana Fish Wildlife & Parks (Sponsor), Tall Grass Ranch, LLC (Sponsor)

Location of Proposed Project:

- **Narrative:** The proposed project will take place on Tall Grass Ranch, southwest of Loma, MT, in Chouteau County, to continue restoring a two-mile stretch of Rowe Coulee upstream of its confluence with the Missouri River. Rowe Coulee is an intermittent stream with high spring flows that provides seasonal habitat for numerous migratory and nonmigratory birds, mule deer, white-tailed deer, bats, fish, and amphibians, including several Montana Species of Concern.
- **Geocode**:19-3620-27-1-01-01-0000, 19-3620-28-01-01-0000
- **Lat, Long:** 47.89388, -110.44848

Total Project Cost:

	Year 1 (2027)	*Year 2 (2028)*	*Year 3 (2029)*	*3-Year Total*
Total Requested NWE Funds: *Project Supplies + Project Labor +Tech. Assist.+Admin*	**$4,145.32**	**$16,077.82**	**$16,077.82**	**$36,300.97**
Total Project Match:	$15,425.60	$2,225.60	$2,225.60	**$19,876.80**
Project Total:	$19,570.92	$18,303.42	$18,303.42	**$56,177.77**

TAC Funds (Cost-Share) Requested for Project:

	Year 1 (2027)	*Year 2 (2028)*	*Year 3 (2029)*	*3-Year Total*
Total Requested NWE Funds: *Project Supplies + Project Labor +Tech. Assist.+Admin*	**$4,145.32**	**$16,077.82**	**$16,077.82**	**$36,300.97**

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

<u>Rowe Coulee History:</u>

Rowe Coulee flows through a U-shaped valley encompassing additional ephemeral drainages and springs. Rowe Coulee's flow source is snowmelt and high precipitation events, resulting in annual, intermittent flows. Rowe Coulee flows for approximately two miles through Tall Grass Ranch, LLC before it empties into the Missouri River. The project area is divided into two parcels (1.3 stream miles .7 stream miles), with portions of Rowe Coulee also flowing through DNRC State Lands and neighboring private lands (See Figure 6). The landowner has been in contact with neighbors on the adjacent lands to update them on the project's progress. The project sponsors will look to communicate with DNRC about the potential to combine restoration efforts for a more significant landscape-level impact on Rowe Coulee.

Tall Grass Ranch, LLC, has also partnered with Montana Audubon and the Avian Science Center at the University of Montana over the years and has established Riparian and Avian transects and Point-Count data on this property. These transects provide an essential baseline for future avian and riparian monitoring. Annual audio surveys for Yellow- and Black-billed Cuckoos on the ranch have shown that Black-billed Cuckoos utilize the riparian habitat on Rowe Coulee.

Tall Grass Ranch, LLC acquired the property 10+ years ago and has since proactively implemented sustainable grazing management practices and installed new riparian fences. This has created limited disturbance and allowed the system to rest and recover from previous overgrazing and poor land management. Before the restoration project, Rowe Coulee showed signs of rebounding after decades of degradation, with sediment deposition where rock crossings were present and new inset floodplains forming with intact riparian vegetation. However, despite recent land management changes, long-term drought conditions and historic degradation pressures have left Rowe Coulee unable to fully sustain its natural processes or manage its energy effectively throughout most of the system. (See Figure 1). The main channel was incised and disconnected from its floodplain, lacking sinuosity and connectivity, with upland vegetation encroaching into the riparian area. (See Figure 2)



Figure 1: (pre-restoration) A lowered water table is indicated by encroaching upland vegetation into the floodplain/riparian area.



Figure 2: (pre-restoration) The main channel of Rowe Coulee is disconnected from its floodplain by a narrow, straight, incised channel

A low-tech process-based restoration (LTPBR) project was implemented on Rowe Coulee from 2024 to 2026 (Phases one through three), using NWE Wild TAC funds in conjunction with funds from MT Fish, Wildlife and Parks-Migratory Wetland Bird Program. Low-tech process-based restoration is defined as protecting, enhancing, and/or restoring normative rates and magnitudes of physical, chemical, and biological processes that sustain river and floodplain ecosystems. A total of 112 low-tech structures were installed across 4 reaches, impacting two miles of stream. The project utilized two primary structures: Beaver-Dam Analogs (BDA's) and Post-Assisted Log Structures (PALS). Beaver Dam Analogs (BDAs) mimic natural beaver dams by slowing energy flows and trapping sediment. BDAs are channel-spanning structures constructed with untreated wooden posts and filled with natural materials similar to what beavers use in the area. Post-Assisted Log Structures (PALS) mimic natural wood accumulation in streams and are constructed from woody materials of various sizes, held together with untreated wooden posts. PALS share qualities with BDAs by slowing energy flows and trapping sediment; however, they are often used to induce more meandering and connectivity in a system. The structures were selected primarily to address a specific stream impairment: stream incision. The goal of the 112 installed structures was to raise the water table, increase the historic mesic/wetland footprint of the stream, improve stream habitat quality, and increase the diversity and quality of fish and wildlife habitat for Rowe Coulee. After each year, the structures showed positive signs of reaching that goal: sediment deposition was active in front of the structures, pool formation increased, stream length and width showed visual signs of lengthening, and bumble bees and painted turtles became more abundant. (Figure 3-5).



Figure 3: MCC Crew members observed an abundance of painted turtles throughout Rowe Coulee during the 2026 field season. Bumble Bees are being monitored for their increased presence on Rowe Coulee.



Figure 4: (Left) is an image of an eroded bank; (Right) is the same streambank after low-tech structures were installed. Note the sediment deposition.



Figure 5: (Left) a BDA structure right after installation in June 2025. (Right) the same BDA one year later, June 2026.

Project partner MT-FWP monitored phases one through three (2024-2026) to assess the efficacy of the LTPBR technique. Monitoring efforts included a short-term focus on gathering baseline data on stream structure and function, vegetative communities, and the presence/abundance of key wildlife species anticipated to benefit from this restoration work.

The following baseline monitoring protocols were implemented for phases one-three (2024-2026);

- Width/depth ratio measurements at each structure location (pre-installation)
- Cross-section vegetation analysis at every third structure and within the inset floodplain
- Two greenline vegetation surveys in each reach
- Permanent photo points
- Avian surveys were conducted utilizing Audio Recording Units (ARUs) and point-count surveys.
- Bat surveys were conducted using an acoustic monitor placed on site for a two-week window during the summer, when bat activity was expected to be highest.

Proposed Project: Restoring Rowe Coulee Phases Four-Six (2027-2029)

Project phases four-six for Rowe Coulee will include maintaining the 112 existing low-tech structures throughout Rowe Coulee and continuing and enhancing species-specific and habitat monitoring efforts. The Rowe Coulee restoration project launched in 2024 and is funded by the NWE-Wild TAC program, which fostered a partnership between Montana Conservation Corps (MCC) and Montana Fish, Wildlife and Parks (MTFWP). The unique partnership blends two primary project components, with MCC leading implementation and MTFWP leading monitoring, and has collectively initiated the revitalization of Rowe Coulee. Continued support from the NWE-Wild TAC program is pivotal to the project's overall success, as ongoing maintenance and monitoring are needed to reach the long-term goals of restoring Rowe Coulee, a direct tributary to the Missouri River that provides miles of vital habitat for fish and wildlife.

Maintenance:

The low-tech, process-based restoration approach implemented at Rowe Coulee strives to restore natural stream processes and improve the system's capacity to develop and maintain functional channel and floodplain features. Depending on the severity of degradation, recovery can occur over multiple years as the system responds to newly established structures and associated changes in sediment transport, flow distribution, and channel morphology. Initial implementation creates the conditions that support these processes; however, ongoing maintenance is key to adapting to observed changes within the stream corridor.

In Rowe Coulee, early signs of recovery such as bed aggradation, active channel widening, and increased pool persistence are key signs that ongoing maintenance is essential. These observations indicate that the existing structures are influencing sediment deposition and channel morphology, providing an opportunity to build upon positive restoration outcomes. Continued maintenance is necessary to support these developing processes and improve connectivity between the channel and adjacent floodplains. In areas where sediment has accumulated upstream of structures, the next phase of implementation will focus on increasing opportunities for streamflow to access and saturate existing floodplains. Additionally, observed channel widening presents an opportunity to further enhance stream processes by lengthening existing structures to increase pool volume and persistence. These targeted maintenance efforts will build upon these initial changes and support further development of stream and floodplain processes to improve water quality and conditions that benefit both aquatic and terrestrial species.

Montana Conservation Corps restoration field crews will conduct three maintenance hitches over the project period, with one hitch planned each year to revisit Rowe Coulee and assess changing site conditions. During these hitches, crews will evaluate existing structures, identify areas needing additional maintenance, and make targeted modifications to support continued channel and floodplain development. This work will build upon the initial restoration efforts while supporting improvements to aquatic and terrestrial habitat, water quality, and stream corridor function. Annual site visits will also provide opportunities to observe changes over time and guide maintenance needs as the system continues to respond to restoration efforts.

Monitoring:

Although low-tech restoration has increased markedly in recent years, the long-term effects of these structures on measurable habitat characteristics such as vegetative production, structure, or composition still need to be determined. To date, few studies have examined the effects of implementing this restoration method within prairie ecosystems. However, preliminary results from an LTPBR project were recently released by the MT Department of Environmental Quality (DEQ); they showed a 122% reduction in sediment load, a 59% reduction in nitrogen load, a 79% reduction in phosphorus load, and increased groundwater levels. While the DEQ preliminary study pointed toward positive effects of these structures, long periods are often needed to see effects at the landscape and watershed level. The restoration work that was conducted on Rowe Coulee offers a distinct opportunity to evaluate these structures at a much finer scale and with a much larger volume of structures than existing studies.

Initial baseline monitoring efforts were implemented during phases one to three (2024-2026). Phases four to six will continue collecting data on both species-specific and habitat factors and add two new protocols. To determine a statistically significant outcome, more data needs to be collected over a longer period. This is directly related to the restoration method of choice; LTPBR works to restore natural processes, which ultimately takes time to show results within a system. For example, one objective is to track a shift in plant biodiversity, and it can take years to see vegetative changes. This is standard and needs to be considered. As the habitat improves, we expect wildlife use to increase in response.

The following monitoring methods will be implemented in phases four-six to build off of the initial baseline monitoring efforts:

- Evaluating bird community composition and activity levels through deploying AudioMoth (ARU) units and conducting point-count surveys
- Documenting bat presence and relative activity levels.
- Contributing to the Bumble Bee Atlas effort with Xerces Society.
- Collecting width/depth ratio measurements at each structure location
- Conducting a cross-section vegetation analysis and greenline vegetation surveys
- Collecting photo points at established locations

The following are new monitoring protocols that will be implemented with the continued support of NWE-Wild TAC:

Assessing soil moisture and temperature as indicators of habitat condition.

- **Equipment:** TMS Extreme Dataloggers by TOMST - microclimate sensors measuring soil moisture, soil temperature, and ambient temperature at 15-minute intervals.
- **Design:** Deploy transects of TOMST tms4 sensors (6 sensors per transect) with a control transect upstream of the most upstream BDA, and a treatment transect a few meters upstream of the most downstream BDA in the continuous BDA set.
- **Purpose**: to answer the following research questions: 1) Do LTPBR structures increase primary productivity in riparian areas (ex: more soil moisture on the land, more riparian vegetation), 2) buffer the effects of extreme weather events (droughts, heat, precipitation), thereby contributing to climate resilience, and 3) increase biodiversity and species richness of the restored area?

Assessing hydrologic factors as indicators for the water table, baseflow, and floodplain connection

- **Equipment**: HOBO Water Level Loggers - sensors that measure stage height, baseflow persistence, and seasonal hydrograph shifts.
- **Design:** Deploy one HOBO sensor in a control transect upstream, deploy one HOBO sensor directly upstream from a Beaver Dam Analog to measure pool size, deploy one HOBO sensor downstream with a buffer from the last low-tech structure to measure base flow/discharge.
- **Purpose**: to answer the following research questions: 1) Is water staying on the landscape for longer periods of time? 2) Is there a correlation between stream flow fluctuations and riparian and wetland plant production and abundance?

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

The following objectives have been developed for the Rowe Coulee restoration project in conjunction with the project partners and landowner:

- Conduct maintenance on Beaver Dam Analogs throughout all four project reaches on Rowe Coulee to ensure the following long-term restoration goals are met:
    - Further decrease in erosion rates and channel incision
    - Further encouragement of aggradation throughout the system
    - Further enhancement of pool size and channel width
    - Further promotion of structurally sound BDA's to ensure pool size stays constant, and the water table continues to rise
    - Further BDA functionality for riparian habitat enhancement (increase in vegetation production and biodiversity)
    - Further sustain the BDA's function to increase water quality and quantity
- Conduct maintenance on Post-Assisted Log Structures throughout all four project reaches on Rowe Coulee to ensure the following long-term restoration goals are met:
    - Further enhance reconnection to the historical floodplain
    - Further improve stream channel complexity and connectivity
    - Sustain the fill material for PAL structures to enrich aquatic habitat
- Sustain habitat and species-specific monitoring efforts to obtain measurable short-term and long-term outcomes
    - Continued migratory bird, bat, and bumble bee surveys
    - Continued riparian habitat assessment surveys and tracking of stream morphology changes
    - Introduce a hydrologic component to monitoring to measure long-term changes in streamflow
    - Introduce a soils component to monitoring to measure soil moisture and temperature as indicators of habitat condition.

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

The project lead and partners will complete the pre-construction notifications necessary to apply for the Nationwide 27 Section 404 permit with the Army Corps of Engineers. Maintenance on the two miles and 112 structures of Rowe Coulee will occur over three years (2027-2029) by working across the four established project reaches (See Figure 6). The project lead will monitor the structures' functionality and ability to continue promoting natural processes annually and develop a maintenance plan for implementation. The MCC restoration field crew will maintain the low-tech structures using locally sourced natural materials, such as willow, conifer, sod, rock, and wood posts. Monitoring factors will be predetermined and monitored annually throughout the three-year treatment period. Project Partner MT-FWP will lead on-the-ground monitoring efforts.



Figure 6: The four project reaches are identified via colored polygons.

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

Restoring Rowe Coulee Phase Four-Six: Monitoring & Maintenance																	
Task	2026	Fall	2027	Winter	Spring	Summer	Fall	2028	Winter	Spring	Summer	Fall	2029	Winter	Spring	Summer	Fall
Contact partners, solidify partnership roles, and finalize work plan		X		X					X	X				X			
Project plans/permits				X	X				X	X				X	X		
LTPBR Project Maintenance						X					X					X	
Project monitoring						X					X					X	
Analyse Data							X		X			X		X			X
Reporting							X					X					X
Assess success of project and any "future-work" discussion							X		X			X		X			X

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

- **Autumn Holzgen - Montana Conservation Corps:** Autumn has worked closely with various stakeholders throughout the proposed project area over the last four years. She has received training in wet meadow/mesic restoration activities. She has spent the last 7+ years working with landowners and local groups to implement restoration projects by writing project plans and securing the necessary permits and maintenance agreements. Autumn will be the overall project manager and will be responsible for project communications, scheduling, and reporting.
- **Montana Conservation Corps - Restoration Field Crew:** The Restoration Field Crew is a part of the Montana Conservation Corps (MCC) long-standing field crew program. The field crew comprises four adult AmeriCorps members who MCC staff manage and train in specific leadership and technical skills. The field crew will have the necessary vehicles, tools, and equipment to implement the restoration project. Additionally, the crews will be trained to obtain the knowledge required to implement LTPBR projects.
- **Montana Fish, Wildlife and Parks Non-Game Biologists:** Non-Game Biologists will provide technical assistance with planning and communication, as well as provide capacity to lead the on-the-ground monitoring efforts (data collection, management, and analysis).
- **Robert Hazlewood - Tall Grass Ranch, LLC (Landowner):** Landowner of Tall Grass Ranch, LLC; retired Senior Staff Biologist, U.S. Fish and Wildlife Service, Ecological Services Division. Rob has an extensive background working with migratory birds and their habitats, restoring, protecting, monitoring, and enhancing natural wetlands and riparian habitats in the Western United States and internationally. Rob will help guide project planning, implementation, and monitoring.

VI. Project budget with line items including amounts for the following:

Restoring Rowe Coulee Phase Four-Six: Maintenance & Monitoring (2027-2029)					
Project Supplies					
Purpose	**Calculation**	*Year 1 (2027)*	*Year 2 (2028)*	*Year 3 (2029)*	*3-Year SubTotal*
Monitoring Equipment (ARU)	4 ARU's x $189	$756.00	$0.00	$0.00	$756.00
Monitoring Equipment (MicroClimate Sensors)	3 Sensors x $195	$585.00	$0.00	$0.00	$585.00
Monitoring Equipment (HOBO Sensors)	3 Sensors x $385	$1,155.00	$0.00	$0.00	$1,155.00
Project Materials (Untreated Wood Posts)	300 posts x $2 per post	$0.00	$600.00	$600.00	$1,200.00
	Project Supplies Subtotal:	**$2,496.00**	**$600.00**	**$600.00**	**$3,696.00**
Project Labor					
Purpose	**Calculation**	*Year 1 (2027)*	*Year 2 (2028)*	*Year 3 (2029)*	*3-Year SubTotal*
MCC - Restoration Field Crew	2 weeks x $6,300 per week	$0.00	$12,600.00	$12,600.00	$25,200.00
	Project Labor Subtotal:	**$0.00**	**$12,600.00**	**$12,600.00**	**$25,200.00**
Technical Assistance					
Purpose	**Calculation**	*Year 1 (2027)*	*Year 2 (2028)*	*Year 3 (2029)*	*3-Year SubTotal*
MCC Staff: Autumn Holzgen	$37.57 per hour x 40 hours	$1,502.80	$1,502.80	$1,502.80	$4,508.40
	Technical Assistance Subtotal:	**$1,502.80**	**$1,502.80**	**$1,502.80**	**$4,508.40**
Admin Rate					
Purpose	**Calculation**	*Year 1 (2027)*	*Year 2 (2028)*	*Year 3 (2029)*	*3-Year SubTotal*
MCC Federally Approved Admin Rate	(Project Labor + Technical Assistance) * 9.75%	$146.52	$1,375.02	$1,375.02	$2,896.57
	Admin Rate Subtotal:	**$146.52**	**$1,375.02**	**$1,375.02**	**$2,896.57**
Project Match					
Purpose	**Calculation**	*Year 1 (2027)*	*Year 2 (2028)*	*Year 3 (2029)*	*3-Year SubTotal*
*MTFWP Migratory Bird Wetland Funding Program-Project Labor	2 weeks x $6,300 per week	$12,600.00	$0.00	$0.00	$12,600.00
*MTFWP Migratory Bird Wetland Funding Program-Tech.Assist	$37.57 per hour x 40 hours	$1,502.80	$1,502.80	$1,502.80	$4,508.40
*MTFWP: Migratory Bird Wetland Funding Program-Project Materials	300 posts x $2 per post	$600.00	$0.00	$0.00	$600.00
Tall Grass Ranch, LLC: Robert Hazlewood (Landowner)	$36.14 per hour x 20 hours	$722.80	$722.80	$722.80	$2,168.40
	Project Match Subtotal:	**$15,425.60**	**$2,225.60**	**$2,225.60**	**$19,876.80**

*Notes: *Pending Final Approval*. Volunteer hourly rate is determined using the Independent Sector Volunteer Rate. MCC Crew in-kind match is based on national service participant living stipend subtracted from the Independent Sector Volunteer Rate for each year (which is currently accepted as in-kind match by the BLM, NPS, BoR, USFWS and NRCS).*		*Year 1 (2027)*	*Year 2 (2028)*	*Year 3 (2029)*	*3-Year Total*
	Total Requested NWE Funds: *Project Supplies + Project Labor +Tech. Assist.+Admin*	**$4,145.32**	**$16,077.82**	**$16,077.82**	**$36,300.97**
	Total Project Match:	$15,425.60	$2,225.60	$2,225.60	**$19,876.80**
	Project Total:	$19,570.92	$18,303.42	$18,303.42	**$56,177.77**

***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.**

Budget Narrative:

Year 1-3 (2027-2029): The total cost to implement the project is **$56,177.77**

- Montana Conservation Corps will provide **$17,708.40** in cash match.
    - MCC has a standing agreement with MT-FWP through their Migratory Wetland Bird Program to fund the next phases of work on Rowe Coulee.
    - MT-FWP will primarily fund the necessary project labor ($12,600), technical assistance ($1,502.80), and project materials ($600) needed to complete phase four (2027).
    - MT-FWP will assist MCC in funding Autumn Holzgen time ($3,005.60) spent managing the project (40 hrs. year year) for phases five–six (2028–2029)
- Landowner, Rob Hazlewood, will provide 60 total hours as an in-kind match, totaling **$2,168.40**
- Montana Conservation Corps is requesting **$36,300.97** in funding from the NWE Wild-TAC Program
    - MCC is requesting $25,200 total from 2028-2029 to fund 4 weeks of the Restoration Field Crews' labor to implement the necessary maintenance on the low-tech structures
    - MCC is requesting $2,496 to purchase the necessary monitoring equipment. MCC will own the equipment and utilize the MT-FWP partnership and capacity to implement the monitoring protocols. This amount is a one-time purchase needed in 2027 to support the project's longevity.
    - MCC is requesting $1,200 ($600 a year, 2028-2029) to purchase two bundles of untreated posts to support the project's material needs for maintaining low-tech structures.
    - MCC is requesting $4,508.40 ($1,502.80 per year) to cover Autumn Holzgen's time (40 hr. per year) spent managing the project, crews, reporting, and overall communications.

- MCC is requesting $2,896.57 to cover overhead (tech assistance + project labor)

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?

Over time, low-tech restoration structures will raise the water table, improve water quality and quantity, expand the historic mesic/wetland footprint of Rowe Coulee, increase the diversity and quality of aquatic and terrestrial habitat, and make the land more resilient to drought. Low-tech restoration efforts promote mesic and riparian areas, which retain soil moisture later in the growing season and support diverse plant, invertebrate, and animal species. The property and immediate area support several documented Species of Concern, such as the great blue heron, long-billed curlew, sage thrasher, hoary bat, townsend's big-eared bat, eastern red bat, and spiny softshell. Blue sucker, pallid sturgeon, sauger, and sturgeon chub have been observed in the main stem of the Missouri River within three miles of the Rowe Coulee confluence. The proposed work will also benefit the Rowe Coulee-Missouri River confluence, where a large backwater forms and provides seasonal habitat for various shorebirds, amphibians, and fish species. Willow and cottonwood regeneration have begun at the confluence, and further regeneration will occur in Rowe Coulee by slowing future high runoff events and raising the water table.

Project deliverables will include the following:

Reporting:

- Montana Conservation Corps will submit an annual progress report summarizing completed work, assessing the performance of existing structures, and providing monitoring updates.

Low-tech Structure Maintenance:

- Montana Conservation Corps, Restoration Field Crews will implement 6 weeks of maintenance work on the 112 low-tech structures throughout all four reaches of Rowe Coulee; 2 weeks of labor per year (2027-2029)

Monitoring Restoration Impacts:

- MT- FWP Non-Game Biologists will follow the approach outlined below to establish baseline conditions and track long-term trends, recognizing that ecological changes may take considerable time to become apparent:
    - Long-term habitat monitoring at set points along treated reaches through:
        - Photo series taken from set points to document conditions before and after (3, 6, and 9 years later).
        - Plant ID and classification using Daubenmire frames at set points before and after (3, 6, and 9 years later).
    - Microclimate monitoring (using a treated site and control site for comparison)
        - Deploying TOMST dataloggers to look at soil moisture and soil temperature for at least the first 5 years. We will evaluate how often to repeat this afterward.
    - Avian community monitoring
        - Deploying Autonomous Recording Units (ARUs) to assess bird community and activity levels for the first 5 years and every 5 years after.
        - Conduct point counts across the project area within the first 2 years to establish a bird species list.
    - Bat monitoring
        - Deploy specialized ARUs to document bat presence and activity levels in the first year and every 5 years after.
    - Bumble bee monitoring
        - Contribute to Bumble Bee Atlas efforts while also documenting bumble bee species using the project area for the first 5 years and every 5 years after.

- Montana Conservation Corps-AmeriCorps members will assist MT-FWP in monitoring as follows:
    - Take measurements of stream depth and width at set points along treated reaches (yearly).
    - Deploy HOBO loggers to document hydrological changes over time. (using a treated site and control site for comparison)

VIII. Cultural Resources. Cultural Resource Management (CRM) requirements for any activity related to this Project must be completed and documented to NorthWestern 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 NorthWestern representative for further information or assistance from NorthWestern's staff archaeologist. Applications submitted without this section completed will be held by the TAC, without any action, until the information has been submitted.

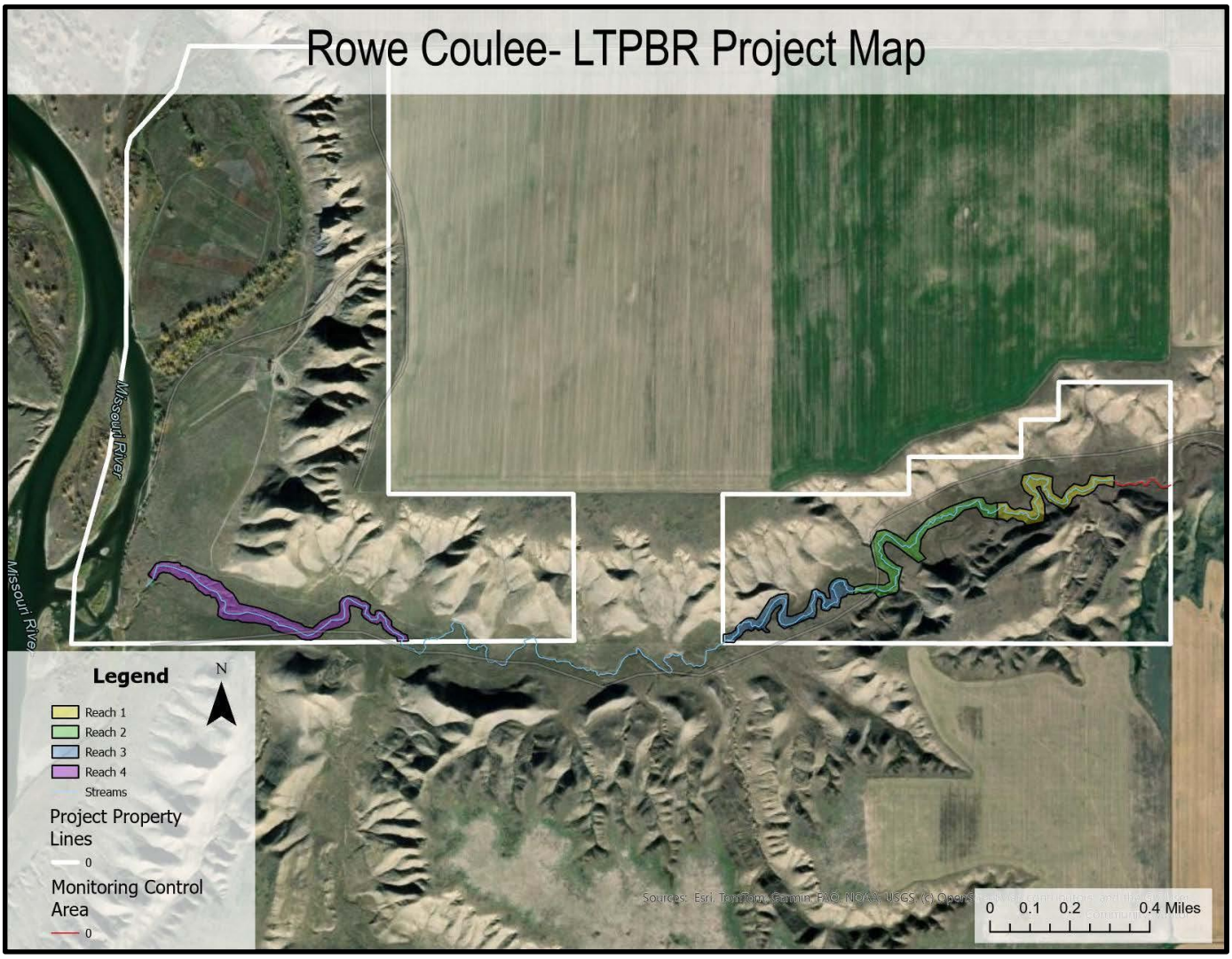
Summarize here how you will complete requirements for Cultural Resource Management:

A new fence funded by the BLM and NWE was constructed on the property in 2013 just south of and parallel to Rowe Creek. A CRM was conducted for the fence construction. If further CRM documentation is required for the proposed work on Rowe Creek, we will provide it.

IX. Water Rights. For projects that involve development, restoration, or enhancement of streams or 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.

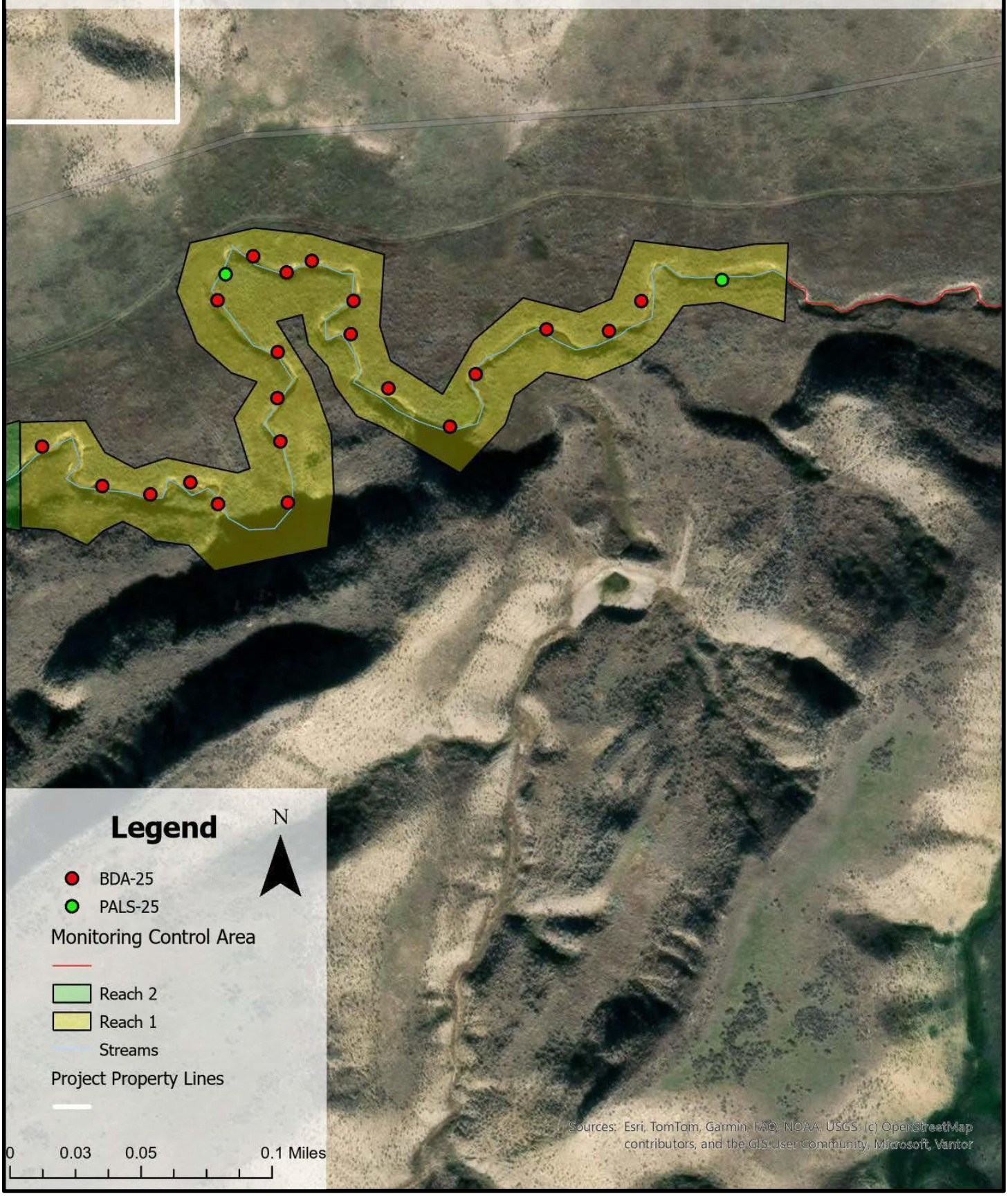
Summarize here how you will comply with Montana water rights laws, policies and guidelines:

The use of low-tech structures, such as Beaver Dam Analogs (BDA's), has been written into the Montana DNRC's Guidance for Landowners and Practitioners Engaged in Stream and Wetland Restoration Activities document, under Stream Restoration Projects #3 - Beaver Dam Analogs. Within this statement, it is stated that "So long as beaver analogs do not use control gates, culverts, head gates, ditches, or pipelines, they typically do not require a water right." The Rowe Coulee Restoration project will comply with this statement by following the Natural Resources Conservation Service guidelines for properly installing BDAs and PALS. Additionally, all low-tech structures will use natural materials, be strategically placed by a trained project manager, and be implemented by a trained Restoration Field Crew. The landowner and field crew will also perform routine maintenance on the low-tech structures to ensure they continue to function properly.


Rowe Coulee- LTPBR Project Map
Missouri River
Missouri River
Legend
N
Reach 1
Reach 2
Reach 3
Reach 4
Streams
Project Property Lines
0
Monitoring Control Area
0
Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, (c) Openst
0 0.1 0.2 0.4 Miles

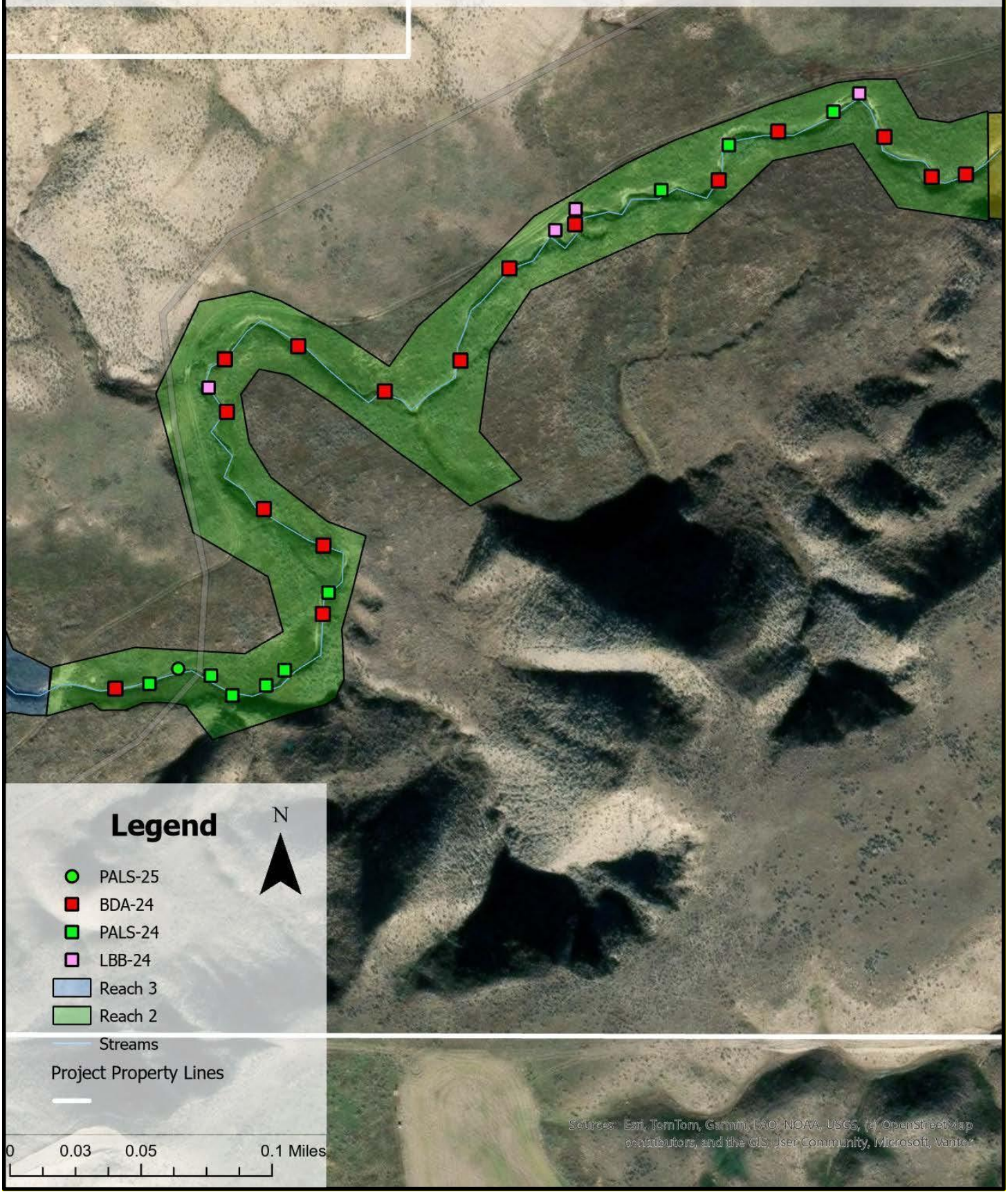
Rowe Coulee- LTPBR Project Map

Reach 1



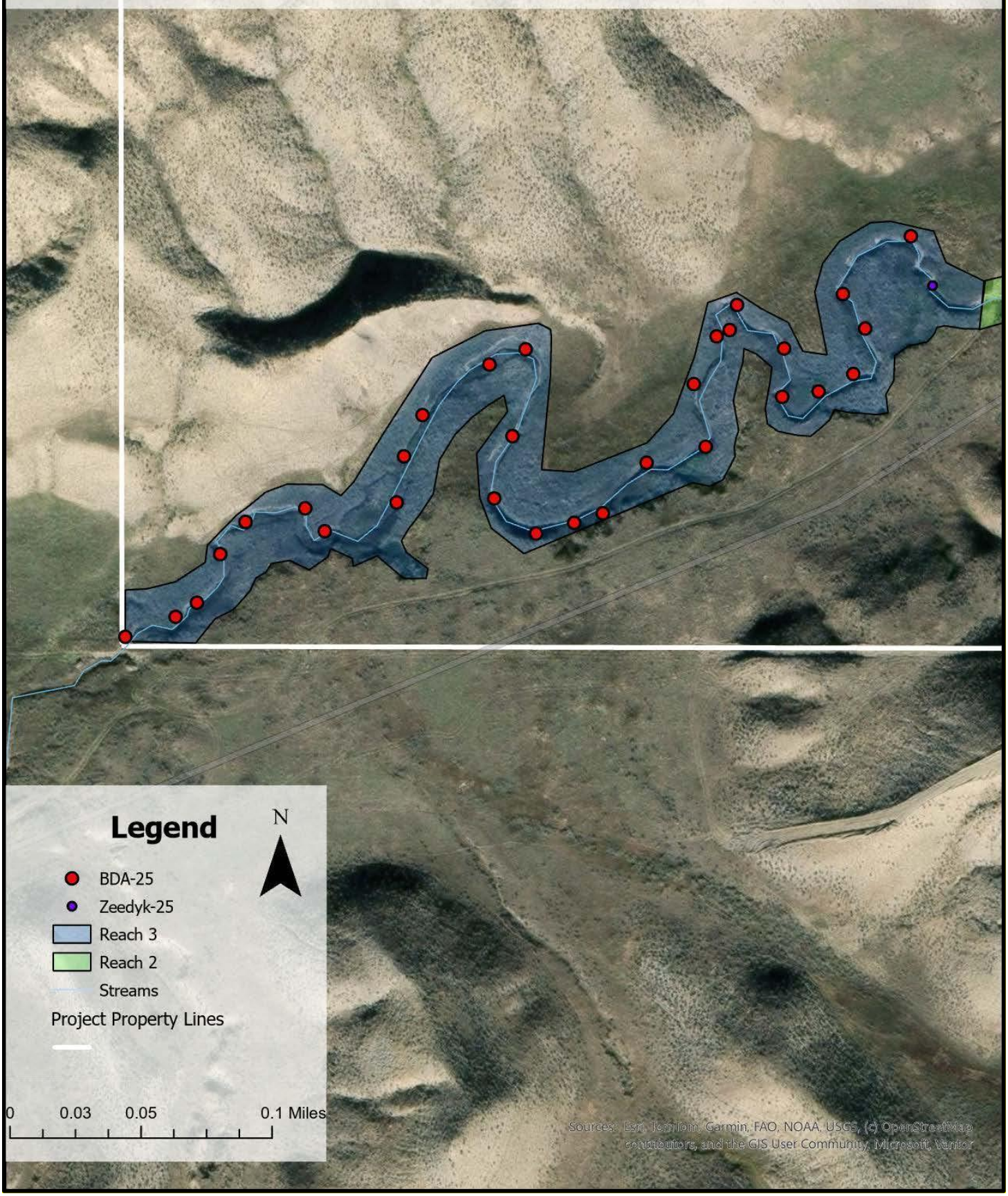
Rowe Coulee- LTPBR Project Map

Reach 2



Rowe Coulee- LTPBR Project Map

Reach 3



Rowe Coulee- LTPBR Project Map

Reach 4

