Project Title: Upper Missouri River Plains Cottonwood Restoration Project Planning

Date: October 10, 2026

Project 2188 License Article: The proposed project is **Priority 1**: 2188 License project and will meet Article requirements and PM&E for fisheries or wildlife populations and their habitats within the main stem within the main stem of the Missouri River (Hauser Dam to Fort Peck Reservoir). The proposal addresses hydro-dam mitigation requirements to key plains cottonwood wildlife habitat and directly benefits and enhance wildlife populations and their habitat in the main stem of the Missouri River, between Great Falls and Stafford Ferry.

Project Sponsor: Tara Luna (Rocky Mountain Botany LLC)

Location of Proposed Project: Upper Missouri River, central MT, (Cascade and Blaine Counties) (private and county landownerships)

GeoCodes: N47.90577/-110.4559; N47.985.50/-110.32625; N47.876369/-110.47659; N47.76635/-111.84212; N47.73742/-109.39150; N47.73742/-109.39150

Total Project Cost: **$ 8,089.98**

I. Introduction

Northwestern Energy has collaborated with private landowners on the Main stem of the Missouri River to implement plains cottonwood restoration plantings for improving and enhancing wildlife habitat. During 2026, a total of 36 sites selected by the NWE Fishery Biologist were evaluated for planting suitability and to expand the scale and scope of wildlife habitat improvement projects on the Missouri River. Fifteen sites were selected as priority planting sites that include large plantings, smaller plantings and individually caged trees. This project proposal includes 6 priority sites for implementation and will provide an updated cost analysis per site that includes all necessary equipment, labor and nursery stock required for an early spring 2028 planting. The overall goal is to keep planting project costs to minimum, utilize low-cost equipment or methods, use suitable, site adapted nursery stock, and establish plantings based on reference community types and direct wildlife benefits.

Plains cottonwood is a long-lived species that establishes following floods and some sites subjected to river ice movement. Plantings supplement dam effects on cottonwood seedling recruitment and to replace declining mature trees on higher terraces that were once subjected to historical levels of annual and decadal flooding. Plains cottonwood habitat is crucial wildlife habitat that is heavily utilized by avian species for nesting and brooding rearing and provides big game species with shade and cover during hot summer months and droughts. Plains cottonwood plantings some of the only available nesting and cover habitat in some sections of the Upper Missouri River.

II: Objectives:

The overall objective is to ensure that planting sites are adequately prepared with installed infrastructure and irrigation equipment prior to spring 2028 planting. Results of test plantings will be used to plan future additional and more remote planting sites that do not require supplemental irrigation, wells and other equipment and higher implemental costs. Specific objectives include:

-Evaluate and field inspect 6 priority planting sites for 2028 planting in collaboration with landowners and NWE archaeologist;

-Develop an updated cost-analysis per planting site (equipment, labor, transport, nursery stock, fencing) and planting plans that include stock types and shrub species suitable for each planting site;

-Plan Fall 2027 site preparation for infrastructure and labor required at each site;

-Evaluate additional planting sites as alternate planting sites on the properties and/or other properties in the general area;

-Conduct test plantings of 2 low-cost nursery stock types (Salvage and Deep container pole cuttings) on suitable sites and determine survivorship after 1 season w/o supplemental irrigation;

-Coordinate with NWE biologist, growers and nurseries to ensure suitable nursery stock is available for spring 2028 planting; provide seeds and cuttings as required;

III. Methods:

Preliminary agreements between Northwestern and private landowners for project implementation include 4 of the 6 planting sites. All six sites have no recent cottonwood recruitment, lack younger age classes, or occur on river sections with very limited cottonwood habitat. Sites selected for 2028 planting were selected due to lower overall costs required and based on existing infrastructure present (power lines, wells on site). Sites were also selected for road access for equipment and tree transport and other site features, including low terraces on the property for low-cost tree planting tests, that can be implemented on future selected sites. Costs for nursery stock and availability will be determined for 2028 planting dates.

In the event nursery stock is unavailable, the contractor will collect seeds and pole cuttings for nursery production and for availability in Spring 2028. American Plum planting stock, as well as other native shrubs, will be incorporated into planting sites. Cost of shrub plantings will be incorporated into final costs per site.

Six sites are scheduled for planting during early spring 2028 and following any temperature and drought conditions that may develop during El Nino 2027. Plantings may be delayed if growing season conditions during 2028 are strongly predicted to be unsuitable for planting survivorship. Sites scheduled for planting in early spring of 2028 are shown below:

March 2028 planting sites

Site Name	Planting Type	River Mile	Lat/Long	Power Source	Access Road	Prelim. Owner agreement	Site Features	Elevation above base stage
Tall Grass Ranch/Rowe Coulee	Large (250-300 trees)	2057.7 (S) (R	N47.90577/-110.4559	Electric or Solar	Y	Y	Secondary low terrace planting site	TBD
ABN Ranch	Large (250-300 trees)	2040.6 (N) (L)	N47.985.50/-110.32625	Electric	Y	Y	Existing well	10-12 ft (3-3.6 m)
Stafford/Whiskey Ridge	Large (250-300 trees)	1970.5 (S) (R)	N47.73742/-109.39150	Electric	Y	Previous NWE projects	Secondary low terrace planting site	2-3 ft/8 ft (0.7-1.0/2.5 m)
Bailey/BLM*	Small (100-250)	2057.3 (S) (R	N47.876369/-110.47659	Electric or Solar	Y	Y	Secondary low terrace planting site	4 ft (1.2 m)
Stafford Ferry	Small (100-250)	1973.3 (N) (L)	N47.73742/-109.39150	Electric	Y	Pending	Existing well	TBD
Cherry Coulee	Individually Caged trees (50-100)	2085.5 (N) (L)	N47.76635/-111.84212	Solar	Y	Y	Abandoned channel across parcels	8 ft (2.4m)

IV. Schedule:

The contractor will contact the landowner(s) and/or their land managers prior to and upon arrival of scheduled work trips. During each work trip, the contractor will contact the landowners and land manager to inform of arrival, access point and travel route through the property, estimated time at each site and departure. Specific activities performed during each site visit and completion of deliverables are shown below:

Activity	**Month**
Contact landowners; inspect 6 selected sites for planting in 2028; inspect additional planting sites on Missouri River	March
Inspect potential tree salvage sites if NWE personnel are available; assess salvaged trees transport and labor costs; conduct test planting with salvaged trees on low terraces w/o irrigation on 2-3 sites; collect dormant pole cuttings	Early March
Evaluate all sites for required plantings; develop updated cost summary per site; include power line connection services; well installation or hookup, irrigation lines, fencing, well pumps; labor and nursery stock; develop solar panel/pump costs for other remote sites; collect plains cottonwood seeds and deliver to growers	Late March to late April
Inspect test plantings for survivorship and planting site preparation including fence, irrigation installation)	Late August
Deliver final report to NWE TAC Program	Early September

V. Personnel: Tara Luna (Rocky Mountain Botany, LLC) is the project lead.

VI. Project budget with line items amounts

Project Costs	Estimated Cost	Description
Direct Labor	$5,200.00	Site inspections, install test plantings, cost analysis/site; site prep/equipment installation management (130 hours total @ 50.00/hr)
Travel and Living Expenses	$ 2889.98	Mileage=2153 miles (0.76/mile) and per diem rate (178/day) (6-7 days lodging)
Materials	$0.00	
Other Direct Expenses	$0.00	
Direct Overhead	$0.00	
Cost-Share Amounts- in-kind contributions	$0.00	
Total	**$ 8,089.98**	

VII. Deliverables:

A monitoring report will be delivered that includes site evaluation summaries, updated cost analysis per site and recommendations per site. Project success will be demonstrated through development of cost-efficient or low-cost methods to implement cottonwood restoration plantings at these sites. Any new evaluations and other sites previously prioritized for future planting projects between NWE and private landowners, will be scheduled with updated costs and lower cost methods where applicable, for 2028 and 2029 planting. Test results using salvaged tree test plantings will be summarized and used as a future planting technique on suitable sites.

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. Requirements for Cultural Resource Management will be completed by the following:

1) Working directly with Northwestern's staff archaeologist during all site visits and summarizing, reviewing and updating cultural resource assessments previously conducted at 2 of the planting sites;
2) Deliver copy of this TAC proposal to Staff Archeologist;
3) Determine if additional site inspections of the planting sites are needed; consult with archaeologists and private archeology consultants;
4) Select alternate prioritized planting sites if archeological sites are found at planting sites or select another planting site in same general area.

5) Determine additional cultural resources present at the planting site (ie. Cultural plant species) that can be incorporated into the planting design and limit impact to any cultural plant species present at these sites.

IX. Water Rights. The project will comply with all state and private landowner water rights requirements and the State Of Montana DNRC's "Guidance for Landowners and Practitioners Engaged in Stream and Wetland Restoration Activities (2016)." Each finalized planting site will comply with all Montana state water rights and will follow specific guidelines required for existing use at 2 sites and well installation at 3 other planting sites. If water rights and guidelines cannot be followed at the planting site, alternate planting sites or sites that do not require supplemental irrigation, wells and drip lines will be chosen on each private or county property.