

Project Title: O'Dell Creek Revegetation Phase 5 Project

Date: November 8, 2023

Applicability to Project 2188 License Article(s)

The O'Dell Creek Revegetation Phase 5 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. The O'Dell Creek project, and the benefits that have resulted from 17 phases of restoration work in the O'Dell Creek headwaters, are specifically referenced in Article 423. NorthWestern Energy continues to monitor prior phases of work to assess the effectiveness of previously implemented projects, including the benefits to stream temperature, streamflow quantity, avian species richness and numbers, sensitive plants, and acres of restored/enhanced wetlands.

Priority Classification

The O'Dell Creek Revegetation Phase 5 Project classifies as a Priority 2 2188 license project. The project is located on O'Dell Creek, a major cold-water spring creek tributary to the Madison River, within 0.4 miles of the Madison River, and will address limiting factors related to degraded wildlife habitat, wetlands, and aquatic resources.

Project Sponsor(s): NorthWestern Energy, Inc.
Granger Ranches, L.P.
Longhorn Ranch, L.P.
River Design Group, Inc.

Location of Proposed Project

The proposed Revegetation Phase 5 Project is in Madison County approximately five miles south of the town of Ennis, Montana, on the Longhorn Ranch and Granger Ranches, both working cattle ranches. It is located in Sections 20, 21, 28, 29, and 33 of Township 6 South, Range 1 West, and Sections 4 and 9 of Township 7 South, Range 1 West.

Geocodes: 25-0423-33-1-01-01-0000; 25-0423-28-1-01-01-0000; 25-0423-29-1-01-01-0000;
25-0334-04-1-01-01-0000.

Latitude (Center of Project Area): 45.267 **Longitude (Center of Project Area):** -111.731

Total Project Cost: \$24,995

WildTAC Funds Requested for Project: \$24,995

I. Introduction

O'Dell Creek and its spring creek tributaries are important ecological connections to the Madison River, providing a source of cool fresh water to the river as well as a variety of aquatic, riparian and terrestrial habitats that are utilized by a host of plant and animal species. Since 2005, 17 phases of stream and wetland restoration have resulted in the restoration of 16 miles of spring creek and ~900 acres of wetlands in the O'Dell Creek drainage. Since 2019, woody plant revegetation efforts have resulted in the establishment of 7,600 willow cuttings, 846 nursery-grown woody shrubs and trees, and 40 nursery-grown large cottonwood trees throughout the stream and wetland restoration project areas.

Woody riparian vegetation provides stream shading which reduces stream temperatures and improves cover for aquatic species. Over time, woody vegetation on streambanks also provides a source of large woody debris to the stream, which improves fish habitat conditions by promoting pool formation and aquatic habitat heterogeneity. In addition, woody riparian vegetation serves as a seed source for other floodplain areas and provides habitat for a wide range of avian species and small and large mammals. As seen in vegetation reference reaches downstream of the project area, woody vegetation was likely a large component of the O'Dell Creek riparian system prior to anthropogenic modifications including land clearing for grazing and agriculture. This project aims to restore the vegetation component of the ecosystem to the condition it would have been in had habitat degradation not occurred.

II. Objectives

The objective of the O'Dell Creek Revegetation Phase 5 Project is to establish native riparian trees in grouped planting locations on the O'Dell Creek Stream and Wetland Restoration Project area. It builds on the past four phases of revegetation work which occurred between 2019 and 2023 (Figure 1). Previous revegetation work focused on planting willow cuttings in trenches on the floodplain, planting nursery grown containerized plant stock in various sizes across floodplains, establishing large cottonwood tree clusters to provide additional vertical structure and shelter and nesting sites for birds, and building browse exclosure fences around naturally occurring willows.

This O'Dell Creek Revegetation Phase 5 Project installation is proposed on O'Dell Creek floodplains on both Granger and Longhorn Ranches, and specific planting and fencing locations will be selected on-site by the RDG project manager. Proposed work includes planting large cottonwood and willow trees and installing browse exclosure fencing units around naturally occurring willows and water birch on floodplains. In addition, the need to repair fences from previous phases was identified as a priority for 2024, as some fences are compromised from harsh winter conditions. Work in 2023 included fixing them as much as possible, and approximately 500 feet of fence is in need of complete replacement.

Specific objectives of the O'Dell Creek Revegetation Phase 5 project are below.

1. Design and implement a cottonwood and yellow willow planting plan, focusing on large tree stock.
2. Build wildlife browse exclusion cages around trees to exclude ungulates and allow trees to grow without browse pressure for a minimum of five years.
3. Build wildlife browse exclusion fences around existing willows and water birch on O'Dell Creek floodplains that are currently suppressed by deer browse.
4. Repair and replace previously installed wildlife browse exclusion fences.

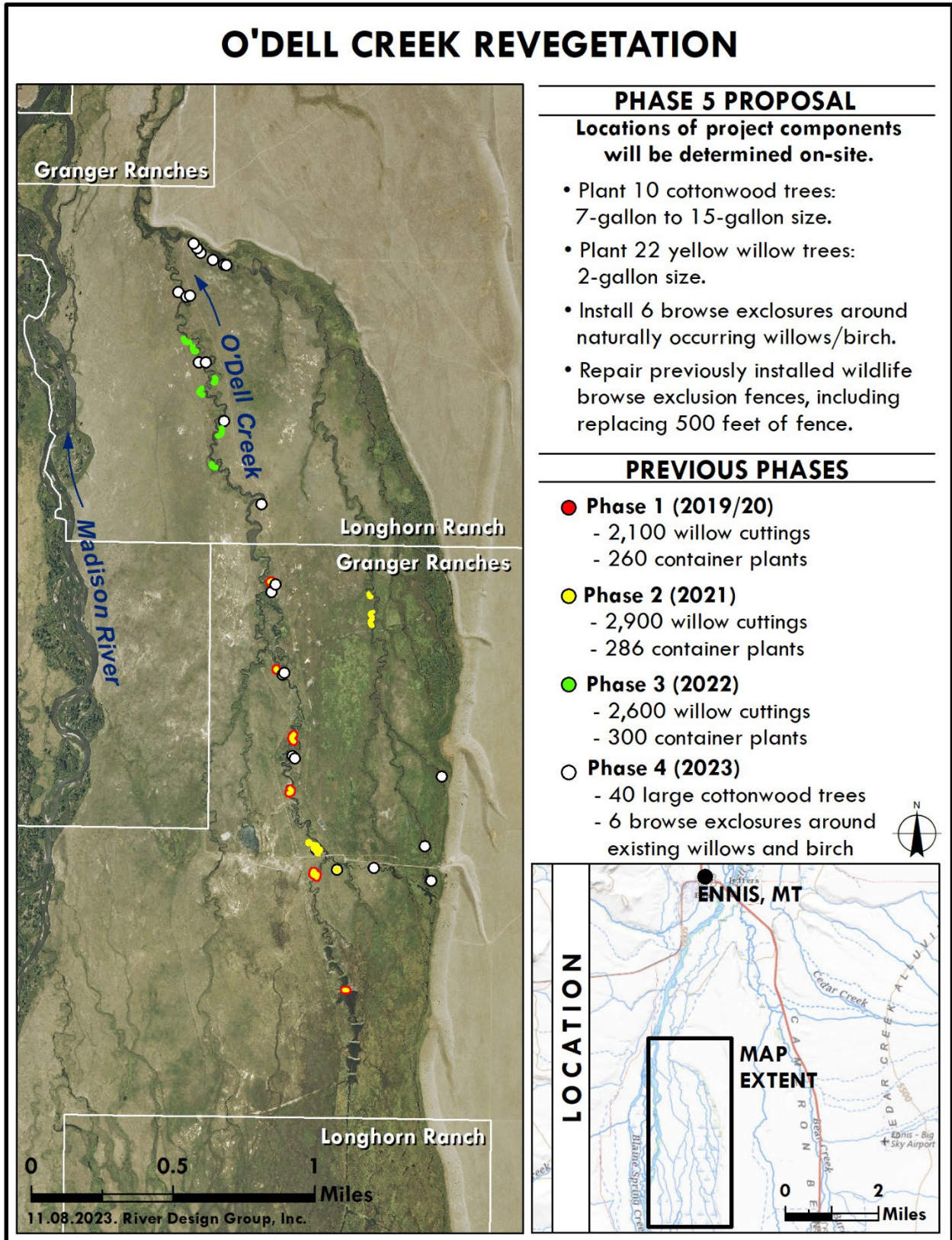


Figure 1. Overview of O’Dell Creek Revegetation Phase 5 proposal elements, with a summary of previous revegetation project phases. Phase 5 work will occur throughout O’Dell Creek floodplains on both Longhorn and Granger Ranches, and specific locations will be determined on-site.

III. Methods

Implementation of the Revegetation Phase 5 project will occur in late September 2023. Ten cottonwood trees, including black cottonwood (*Populus trichocarpa*) and narrowleaf cottonwood (*Populus angustifolia*), and 22 yellow willow (*Salix lutea*) trees will be planted along O’Dell Creek on the Granger and Longhorn Ranches. Browse protection will be welded metal wire fence cages around individual trees, kept upright with three steel T-bars each. Trees will be planted in groups throughout the project area. Specific locations will be determined by the River Design Group project manager on-site, who will ensure that planting locations are appropriate with regard to elevation above creek, groundwater availability, and soil properties.

The RDG project manager will also select appropriate sites to build browse enclosure fencing around existing willows and water birch on O’Dell Creek floodplains, and will ensure all fence repairs and replacements are completed.

IV. Schedule

RDG will oversee project planning efforts by the planting and fencing subcontractor. Planting and fencing site selection by RDG will occur the same week as planting and fence installation to reduce travel costs.

Table 1. Revegetation Phase 5 Project Schedule (2024).

Task	July	Aug.	Sept.
Task 1. Project Management			
Task 2. Project Design			
Task 3. Project Implementation			

V. Personnel

RDG will be responsible for project design and planting oversight. RDG is an approved consultant on NorthWestern Energy’s Qualified Vendor’s List for stream and wetland restoration services. RDG has prepared and implemented all previous phases of stream and wetland restoration on O’Dell Creek except for Stream Restoration Phases 1 and 2, and has designed and implemented Revegetation Phases 1-4. Selita Ammond, Restoration Ecologist, will serve as the project manager.

Implementation of the Revegetation Phase 5 Project will occur with a qualified revegetation contractor such as Forestation, Inc. who implemented Revegetation Phases 2-4. RDG will provide construction oversight during installation to ensure the project meets all specifications.

VI. Budget

The table below includes a not-to-exceed cost estimate to perform the Scope of Work (SOW). The total cost to perform the SOW is \$24,995.

O'Dell Creek Revegetation Phase 5 Cost Estimate	
Task 1 - Project Management	
Coordination with Landowners	375
Total	\$ 375
Task 2 - Project Design	
Planting and Fencing Site Selection	3,750
Total	\$ 3,750
Task 3 - Project Implementation	
RDG Oversight	2,700
Subcontractor	
Project Management	1,125
Labor	7,150
Materials	5,620
Equipment	850
Hauling/Mobilization/Travel Costs	2,255
Total	\$ 19,700
Task 4 - Direct Costs	
Mileage	450
Lodging	520
Per Diem	200
Total	\$ 1,170
Total Cost	\$ 24,995

VII. Deliverables

Planting and fencing site selection will occur on-site, and the project deliverable will be the on-the-ground planting and fencing. Success for the project will be monitored in future years by visually estimating percent survivorship of planted willow cuttings and containerized plants.

VIII. Cultural Resources

Cultural resources will not be impacted as the project will result in minimal ground disturbance.

IX. Water Rights

Streams or wetlands will not be impacted with this project, and Montana water rights laws, policies, and guidelines do not apply.