

Selkirk Wetland Mitigation Reserve



Location: Two Dot, Montana

Client: Montana Department of Transportation

Key Project Elements:

- ❖ Comprehensive Site Analysis
- ❖ Wetland Design & Alternatives Analysis
- ❖ Construction Oversight
- ❖ Revegetation Design and Oversight
- ❖ Stakeholder Coordination

Project Description:

The purpose of the project was to establish a compensatory wetland mitigation site prior to project impacts associated with Montana Department of Transportation (MDT) roadway construction on US Highway 12 in the Upper Musselshell watershed. Restoration Engineering team members led a HAZMAT assessment, cultural resource inventory, environmental wetland evaluation (including a wetland delineation, wetland functional assessment, and fish, wildlife and special resources investigation), geo-technical wetland evaluation (including geologic, soils and groundwater hydrology evaluations), wetland water evaluation (including a water right investigation and water budget analysis), topographic surveys, wetland mitigation site design development, wetland performance standard and credit ratio development, construction oversight, revegetation, as well as permitting and conservation easement documentation.



Natural groundwater hydrology was restored to the site by disabling several deep drainage ditches that had been draining the site for over fifty years. In addition, a surface

water right was converted and dedicated to the project site for supplemental hydrological support. Other project features included removal of fill from existing wetlands, re-establishment of historic swales, construction of embankments (1 ft to 6 ft high) to detain and spread surface water, installation of passive and active water control structures, emergency spillway construction, and development of shallow open water areas to increase site diversity and improve the project functional lift. Through wetland restoration and creation, this site will provide MDT with fifty acres of wetland credits.

We anticipated that the Selkirk site would become quite saline/alkali when the natural hydrology was restored and therefore developed a revegetation plan that included saline-tolerant plant species. To date the Selkirk site has developed into a unique saline-associated wetland.