Rocky Mountains Cooperative Ecosystem Studies Unit
Project Summary

**Project Title:** Restore Degraded Peatlands and Wet Meadows to Enhance Ecological Integrity and Resilience at Florissant Fossil Beds National Monument

**Discipline:** Natural
**Type of Project:** Technical Assistance and Research
**Funding Agency:** National Park Service
**Other Partners/Cooperators:** Colorado State University
**Student Participation:** Yes, Intern
**Effective Dates:** June 1, 2020 to December 31, 2023
**Funding Amount:** $278,913

**Investigators and Agency Representative:**
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**Project Abstract:**
Project Goals – The project will protect from further degradation and restore a total of 69-acres of wet meadow adjacent to the Hornbek Homestead within Florissant Fossil Beds National Monument. Dams that currently divert surface flows and displace historic wet meadow habitat there will be removed, and that material will be used to backfill the incised channels (gullies) in the meadow. Previously collected data from the pilot project indicate these gullies are lowering the water table throughout the area, and by filling the gullies the water table will come back up to the ground surface seasonally, restoring suitable conditions for reestablishment of native wet meadow vegetation.

Project Objectives – The overall objective for the valley is to restore natural water flow paths and wetland hydrologic regimes. These wetlands have had altered hydrologic conditions for many years, and the restoration of these water levels will promote native wetland vegetation while limiting the spread of invasive weeds. This project will expand the approach developed in the 2012 pilot project by removing the largest dam in the area (Figure 1), which contains 3,334 cubic yards of material. This material will be used to completely fill the eroded channels in the valley. Hydrologic monitoring would include manual biweekly depth to water table measurements in the 49 monitoring wells and in any new monitoring wells that will be installed, as well as the installation of 10 automated loggers to record water table depths every 6 hours. Survival of the planted seedlings, as well as the clonal spread of the plants, would be monitored in 100 marked plots. Surveys of exotic plant invasion would occur monthly and staff from FLFO would eradicate and control exotic plants using herbicide where needed. Several NPS Rocky Mountain Inventory and Monitoring (ROMN) program long term wetland monitoring plots are also within and near the proposed restoration site.