

Project Summary

Rocky Mountains Cooperative Ecosystem Studies Unit

Project Title: Analysis of Soils at the NPS Weippe Prairie Site

Discipline: Natural

Type of Project: Technical Assistance

Funding Agency: National Park Service

Other Partners/Cooperators: University of Idaho

Effective Dates: 8/1/2007 - 12/1/2010

Funding Amount: \$15,980

Investigators and Agency Representative:

NPS Contact: Jason Lyon, Nez Perce NHP, 39063 US Highway 95, Spalding, Idaho 83540, (208) 843-7017,

Jason_lyon@nps.gov

Investigator: Paul McDaniel, University of Idaho, P.O. Box 442339, Moscow, Idaho 83844-2339, (208) 885-7012, pmcdaniel@uidaho.edu

Project Abstract: The Nez Perce National Historical Park Resource Management Program (NEPE) and the University of Idaho Department of Plant, Soil, and Entomology; Soil and Land Resources Division (UI) will work together to assess the nature and physical condition of the soils at the National Park Service (NPS) Weippe Prairie study site. With the strong cultural and historical ties to the Nez Perce and its association with the Lewis and Clark expedition, the camas plant plays an important role in NEPE's long-term management strategies for the Weippe Prairie site.

The NPS Upper Columbia Basin Network Inventory and Monitoring Program (UCBN), in cooperation with NEPE staff, have developed a camas monitoring protocol for implementation on the Weippe Prairie site. This protocol specifically targets the existing site camas populations and has been designed to provide the park with status and trend information on the health of this focal species. As a contribution to this monitoring effort, NEPE is interested in better understanding the nature and condition of the soils of the Weippe Prairie site. Specifically, how the condition of the soils and available soil moisture potentially impact camas populations. Install soil moisture/temperature probes in 5 locations across the Weippe Prairie site. These probes will measure moisture content and temperature in the soil profile (the locations of the probes will be selected through consultation between the PI and NEPE/UCBN staff). At the locations designated for moisture probe installation, soil characterization work will be conducted. This will entail a description of each soil including pH; organic carbon and nitrogen; percentage sand, silt, and clay; exchangeable bases; cation exchange capacity; and clay mineralogy. The researchers will install five shallow monitoring wells to determine the impact of irrigation ditches on subsurface hydrology. These wells will be placed perpendicular to the drainage ditch to ascertain what impact the ditch feature may be having on surface and subsurface water flow. UI researchers will install, maintain, download, and process all data collected in the field by the monitoring equipment used in this study.

Outcomes with Completion Dates: Installation of moisture/temperature and subsurface water monitoring stations. Two annual summary reports and a final summary reports. The final report is due by December 20, 2009.

Keywords: camas, soils, Nez Perce NHP, Weippe Prairie, soils, hydrology, University of Idaho

For Administrative Use Only:

Date Annual Report Received:

Date Final Report Received:

Publications, etc. on file: