Project Summary Rocky Mountains Cooperative Ecosystem Studies Unit

Project Title: Soil Analysis of the Northern Portion of 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: 8/1/2010 - 11/30/2013

Funding Amount: \$15,096

Investigators and Agency Representative:

NPS Contact: Jason Lyon, Integrated Resources Program Manager, Nez Perce National Historical Park, P.O. Box 1000, Spalding, ID 83540; 208-843-7017; jason_lyon@nps.gov

Investigator: Paul McDaniel, Professor of Soil Science, Dept. of Plant, Soil, & Entomological Science, University of Idaho, Moscow, Idaho 83844-2339; 208-885-7012; paulm@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.

Background

The Weippe Prairie is a site of national historic significance where in 1805 members of the Lewis and Clark expedition made first contact with the Nez Perce people. The Nez Perce were on the prairie gathering camas bulbs to replenish their food stores for the upcoming fall and winter months at the time of contact. As a lasting commemoration to the 200-year anniversary of the Lewis and Clark bicentennial, the NPS acquired this 274-acre property in 2003.

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.

In the summer of 2007 the NPS entered into a cooperative agreement with the UI to analyze and study soils of the Weippe Prairie site with the hope of better understanding the role of soils in camas populations at the site. From the analysis and monitoring conducted over the past three years we've determined that soil chemistry is likely not an impacting factor in overall camas density but the relations between near surface soil moisture, overall site hydrology, and internal drainage features are not completely understood. To better understand these aspects and their interactions with camas density at the Weippe Prairie site, the NPS and UI wish to build and expand upon that existing effort.

Outcomes with Completion Dates: September 30, 2013

Keywords: University of Idaho, Nez Perce National Historical Park, Weippe Prairie, camas, soil study