

Project Summary
Rocky Mountains Cooperative Ecosystem Studies Unit

Project Title: Planning, Implementation, and Monitoring of the Lower Halstead Meadow Wetland Restoration Project

Discipline: Natural
Type of Project: Technical Assistance
Funding Agency: National Park Service
Other Partners/Cooperators: Colorado State University
Effective Dates: 7/1/2010- 12/31/2014
Funding Amount: \$57,205

Investigators and Agency Representative:

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Project Abstract: During the summer and fall of 2011 Sequoia and Kings Canyon National Parks will perform earthwork to restore natural wetland ecosystem processes to Lower Halstead Meadow. The work will involve filling a large erosion gully with soil and organic matter to recreate the natural meadow topography, eliminating channelized flow and restoring a sheet flow hydrologic regime which can support the water table near the soil surface. During the spring of 2012 the newly restored ground surface will be planted with native wetland plants. The earthwork will be completed by earthwork contract who will use heavy equipment including excavators, bulldozers, and dump trucks, and will involve the excavation, transport, and placement of 15,000 cubic yards of sediment. A separate contractor will propagate and install ~80,000 native plant seedlings in the spring of 2012. Gully filling operations will be conducted concurrently with a Federal Lands Highway Program (FLHP) project that will remove culverted road-fill that crosses Halstead Meadow and replace it with a 6-span bridge. The bridge construction and Lower Halstead restoration are being designed to tie into the restored Upper Halstead Meadow. When complete the projects will have achieved the restoration of all of Halstead Meadow, down to an existing historic check dam, allowing sheet flow to move under the bridge from the Upper to Lower Meadow without causing potentially erosive flow concentration.

Outcomes with Completion Dates: December 31, 2014

- (1) Final Contract Specifications and Drawings: 8/15/2010
- (2) Pre- and Post-Construction Surveys: 11/1/2011
- (3) Preliminary Monitoring Report: 12/31/2013
- (4) Final Report: 12/31/2014

Keywords: Wetland Restoration, Lower Halstead Meadow Wetland, Sequoia and Kings Canyon National Parks, Colorado State University