

Project Summary
Rocky Mountains Cooperative Ecosystem Studies Unit

Project Title: Developing Quantitative Relationships in Wetland Hydrology and Vegetation Community Composition; Application to Long Term Monitoring and Assessment of Wetland Integrity

Discipline: Natural
Type of Project: Research
Funding Agency: National Park Service
Other Partners/Cooperators: Colorado State University
Effective Dates: 8/1/2011 - 12/31/2013
Funding Amount: \$33,045

Investigators and Agency Representative:

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Project Abstract: Colorado State University will work with Rocky Mountain I&M Network to:

1. Analyze existing ROMO wetland pilot data (1-3 year hydrographs, peak season DTW and vegetation community data) within four sentinel complexes for statistical relationships among hydrology and vegetation. Use these models to define reference conditions and thresholds in these relationships as possible;
2. Analyze existing ROMO wetland pilot data (peak season DTW and vegetation community data) within 140 sites across the park for statistical relationships among hydrology and vegetation at larger scales.
3. Compile historical hydrology and vegetation data from 3 to 4 wetland complexes (at least Moraine Park, Big Meadows, Kawuneeche Valley). Apply to models relating vegetation and hydrology
 - a. Optionally, collect small amounts of additional vegetation and hydrology data at a subset of the historical sites to complete the timeline at these sites.

Outcomes with Completion Dates: Brief (1-2 page) interim reports, summarizing progress to date, will be due to Park, I&M network and RM-CESU on:

- December 1, 2011
- June 1, 2012
- December 1, 2012

And every six months after that until final report is received and accepted.

Keywords: wetlands, hydrology, vegetation community, Rocky Mountain National Park, Rocky Mountain I&M Network, Colorado State University