

Project Summary

Rocky Mountains Cooperative Ecosystem Studies Unit

Project Title: Investigation of Nitrogen Deposition into Loch Vale, Rocky Mountain National Park

Discipline: Natural Resources

Type of Project: Research

Funding Agency: National Park Service

Other Partners/Cooperators: Colorado State University

Effective Dates: 9/1/2008 – 1/31/2013

Funding Amount: \$60,000 (FY08: \$10,000; FY09: \$20,000; FY10: \$10,000; FY11: \$20,000)

Investigators and Agency Representative:

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Project Abstract:

Atmospheric nitrogen deposition has increased significantly in several western National Parks, which are protected under the Clean Air Act Amendments of 1977 as Class 1 areas. The NPS, the Environmental Protection Agency and Colorado Department of Public Health and Environment have entered into an agreement to address the issue of nitrogen deposition and its effects in Rocky Mountain NP. One objective of this agreement states that Rocky Mountain National Park will continue to research and investigate current levels of nitrogen deposition. It is imperative that additional investigation into atmospheric nitrogen deposition and its effects is conducted through 2012. The objectives of this project are to have NPS work with Colorado State University to: 1) collect precipitation samples and analyze for concentrations of nitrate and ammonium, 2) collect and analyze lake and stream water samples at various locations within the Loch Vale watershed, 3) contribute to an archive for historical data, and 4) report the results of analyses to Rocky Mountain National Park and the RM-CESU

Outcomes with Completion Dates:

1. Interim Report Due: October 31, 2013
2. Final Report Due: October 31, 2014
3. One page quarterly updates to ROMO key official
4. An oral presentation will be provided to the ROMO staff and the public during ROMO "science days".

Keywords: nitrogen, atmospheric deposition, National Atmospheric Deposition Program, Rocky Mountain National Park, Loch Vale, Colorado State University