

Project Summary
Rocky Mountains Cooperative Ecosystem Studies Unit

Project Title Appalachian Highlands Inventory and Monitoring Network Water Quality Analysis

Discipline: Natural Resources
Type of Project: Technical assistance
Funding Agency: National Park Service
Other Partners/Cooperators: Colorado State University
Effective Dates: 7/8/2010 - 12/31/2012
Funding Amount: \$11,750

Investigators and Agency Representative:

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Project Abstract: Water quality samples will be submitted to the CSU Soil, Water and Plant Testing Laboratory through the U.S. Forest Service Air Resources Management Laboratory (ARML). Monitoring soil water quality provides insight into responses to various land management regimens and captures early indicators of the effects of climate change and increased air pollution. Surface waters of all Appalachian Highlands Inventory and Monitoring Network (APHN) parks exhibit moderately acidic to circumneutral pH and are typically poorly buffered. This lack of buffering capacity renders APHN waters highly susceptible to degradation by acidic input, and park waters have been adversely affected by acid precipitation in the Blue Ridge highlands and by acid mine drainage on the Cumberland Plateau. Working collaboratively with the CSU Lab allows APHN to build a collaborative relationship with the Lab, which has a common interest in the broad scale ecological health of protected areas in the National Park system. Collaborating on water chemistry and ecological analyses allows us to help characterize the range of conditions at local and regional scales. This project will allow students and faculty at CSU to have access to real world data for analyses and education.

Outcomes with Completion Dates: December 31, 2012

Keywords: Appalachian Highlands Inventory and Monitoring Network Colorado State University, water samples