

Project Summary
Rocky Mountains Cooperative Ecosystem Studies Unit

Project Title: Air quality and air pollution sources in several western National Parks

Discipline: Natural

Type of Project: Research

Funding Agency: National Park Service

Other Partners/Cooperators: Colorado State University

Student Involvement: Yes, 2 GRAs

Effective Dates: 9/1/2016 - 9/30/2018

Funding Amount: \$458,698

Investigators and Agency Representative:

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Project Abstract: The overarching goal for this project is to improve understanding of the sources, transport, atmospheric transformation, deposition, and impacts of air pollutants in U.S. National Parks. Project efforts are designed to complement measurements from routine monitoring networks (e.g., IMPROVE, AMon, NADP, CASTNet, NPS Ozone Monitoring) to provide more detailed characterization of air quality problems in particular parks and regions, and to identify key gaps associated with current air quality and deposition monitoring strategies.

During the upcoming year, CSU plans work on several research fronts. These include (1) completion of analysis and publication of findings from the 2013/14 field experiments in Theodore Roosevelt National Park and surrounding areas of the Bakken shale region, (2) completion of analysis and publication of findings from the summer 2014 FRAPPE deployment in Rocky Mountain National Park (RMNP), (3) analysis of ongoing monitoring of reactive nitrogen species concentrations and deposition in RMNP, and (4) design and deployment of a new pilot-scale VOC monitoring effort to better understand source contributions and ozone formation chemistry in parks of the SW U.S.

Keywords: Colorado State University, NPS-Air Resources Division, air quality