Project Summary
Rocky Mountains Cooperative Ecosystem Studies Unit

Project Title: Evaluating and reporting landscape context and condition of parks

Discipline: Natural
Type of Project: Technical Assistance
Funding Agency: National Park Service
Other Partners/Cooperators: University of Idaho
Effective Dates: 7/14/2008-12/31/2010
Funding Amount: $100,000 (FY08:$50,000; FY09:$50,000)

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Project Abstract: The overall goal of this project is to provide parks and I&M Networks with an assessment of the landscape-scale condition or 'health' of national park units. Assessments from the data and measures developed by this project will be used to address questions such as: (1) At the park level, which measure or measures indicate a broad-scale threat to park resources?, (2) How does the landscape-scale context of a park compare to others in an NPS region, or to all NPS units evaluated by the project?, (3) For all parks in a region (or the entire system), which measure or measures most commonly suggest a serious threat to park resources?

To achieve this goal, we will centralize acquisition and processing of GIS-based data to economically and efficiently identify, evaluate, and report a small suite of information-rich measures of landscape dynamics and provide these to all I&M parks to meet the basic need of identifying trends in landscape dynamics at the park and national levels. These 'core' measures will be generated for all I&M parks from existing data available from regional- and national-scale datasets. Examples of potential measures include population density, road density, and area of broad land cover types. Many networks have discovered that there is considerable cost and effort involved in learning how to acquire, process, and interpret these types of data, and it will be much more efficient and practical to centrally process these data sets and deliver them to all parks. We expect that the products of this project will meet the basic needs for most parks for tracking changes in landscape dynamics, but some networks will probably conduct more detailed or sophisticated analyses at finer scales to address other network-specific needs.

Outcomes with Completion Dates: Due by December 31, 2010, (1) Draft set of GIS indicators, data sources, and metrics, (2) One or more GIS data layers for each selected and developed indicator, along with the underlying data, (3) SOP-like documents describing the steps necessary to process raw (acquired) data and evaluate the developed indicators, and (4) A template I&M Network-specific report with evaluated indicators and their interpretation, developed in collaboration with NPS I&M staff.

Keywords: NPS-Inventory and Monitoring Program, University of Idaho, landscape analysis, indicators, GIS layers