

Project Summary

Rocky Mountains Cooperative Ecosystem Studies Unit

Project Title: Soil Resources Inventory Project

Discipline: Natural
Type of Project: Technical Assistance
Funding Agency: National Park Service
Other Partners/Cooperators: Colorado State University
Effective Dates: 7/1/2008 - 9/30/2010
Funding Amount: \$217,720

Investigators and Agency Representatives:

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Project Abstract:

The goal of this project is to design, develop, implement, and support the Soil Resources Inventory database to assist the NPS Inventory and Monitoring Program, Networks, Regions, Parks, System Support Offices, Program Centers, Technical Divisions, and others (including non-NPS agencies and organizations) with the use of soils data and information to better manage park resources, as well as implement a tracking system to assess the current status of the development of the Soil Resources Inventory Database.

The purpose of this project is to create the resource data management and information framework or infrastructure and the analytical tools that will enable the NPS to fulfill its mission of ensuring that park resources remain unimpaired for the enjoyment of both present and future generations. This project is intended to enable the NPS to analyze and manage soil resources in parks. Information and data will be collected, stored, archived, analyzed, and disseminated to foster temporal and spatial analysis at all levels of the NPS. Questions that could be answered will vary depending on the level of analysis. For example, a park may utilize the Soil Resources Inventory database (SRI) to determine priorities for restoring disturbed lands. Program Offices may use the data on soils to assist in the development of Desired Future Conditions (DFC), or within the concepts of Resource Stewardship plans. Soil interpretations may also be used to determine potential damage to soil resources from visitor impacts and planned park development activities. To answer these types of questions (and their many variants) the data and information must be current, accurate, accessible, and properly formatted for the analytical tools. This project will help ensure that the data are able to address these issues.

The major objectives of this project are 1) To design, develop, implement, and manage effective and efficient data management structures to accommodate the current and emerging needs of the NPS Soil Resources Inventory, 2) To design, develop, and implement decision-support systems to support the use of the Soil Resources Inventory products to respond to emerging soil resource management issues within the NPS, 3) To produce national, regional, network, and park assessments of the status of the Soil Resources Inventory in the NPS, and 4) To provide GIS and remote sensing technical assistance on the use of the Soil Resources Inventory products and to coordinate with the NPS Soils Program Coordinator to evaluate the use of new technology in the mapping of soils on NPS lands.

Outcomes with Completion Dates:

Soil Resources Inventory Database, Soil Resources Inventory Decision Support Tools, Status Maps, Soil Interpretive Products, and Soil Resources Inventory website. Specifically:

1. Appropriate database management and archival systems will be designed, developed, implemented, and managed to accommodate all soil resource inventory data and information collected throughout the NPS.
2. Decision-support systems responsive to the needs of the NPS Soil Resources Inventory will be designed, developed, implemented and managed, in coordination with the Interagency efforts of the Soil Data Viewer (SDV).

Keywords: soil resource inventory, database, Soil Data Viewer (SDV), Geologic Resources Division, Colorado State University, Inventory and Monitoring