

Project Completion Report Rocky Mountains Cooperative Ecosystem Studies Unit (RM-CESU)

Project Title: Soil Resources Inventory Project

Project Code (such as UMT-72 and/or the “J” number): J2370070162, Mod 003

Type of Project (Research, Technical Assistance or Research): Technical Assistance

Funding Agency: National Park Service

Partner University: Colorado State University

NPS Agreements Technical Representative (with complete contact information):

Pete Biggam
NPS Soils Program Manager
Geologic Resources Division
P.O. Box 25287
Denver, CO 25287
303-987-6948
pete_biggam@nps.gov

Principal Investigators (with complete contact information):

Dr. Indy Burke, Department of Forest, Rangeland, and Watershed Stewardship, Colorado State University, Fort Collins, CO 80523, 970.491.1620;
indy@warnercnr.colostate.edu

Judith M. Daniels, Department of Forest, Rangeland, and Watershed Stewardship, Colorado State University, c/o NPS-GRD, PO Box 25287, Denver, CO 80225; 303.969.2091;
Judith_Daniels@partner.nps.gov

Start Date of Project: July 1, 2008

End Date of Project: September 30, 2010

Funding Amount: \$217,720

Number of Students Involved, and Type of Student (Undergraduate, Graduate, Post Doctorate): No students were involved, but there was 3 Research Associates involved

Project Summary, including descriptions of project deliverables, work accomplished and/or major results. If the information is restricted (e.g. location of endangered species or cultural resources), indicate the title and location of the final report.

The goal of this project was to support the NPS Soil Resources Inventory and 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.

The major objectives of the project were to:

1. To design, develop, implement, and manage effective and efficient data management strategies to accommodate the current and emerging needs of the NPS Soil Resources Inventory;
2. To design, develop, and implement decision-support systems to facilitate 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;
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.

The products of this project were:

1. A soil database management and archival system was designed and developed and is currently accommodating all soil resource inventory data and information collected throughout the NPS Soil Resources Inventory. This database management system is currently being used to produce national, regional, network, and park assessments of the status of the Soil Resources Inventory in the NPS.
2. The decision support system and GIS tool "NPS Soil Tools" was developed and has now been successfully implemented within the NPS. NPS Soil Tools are a set of ArcGIS tools developed by the Soil Resources Inventory team to meet the emerging needs of non-soil scientists, allowing them to access and better understand the soils data that is available within the NPS. NPS Soil Tools are being used in coordination with the ongoing Interagency efforts of the Soil Data Mart (SDM), Soil Data Viewer (SDV), and Web Soil Survey (WSS), and is used in the evaluation of new soil mapping techniques being pursued on NPS lands where access is severely limited, or where wilderness designations preclude the use of traditional soil mapping techniques.