# Project Summary Rocky Mountains Cooperative Ecosystem Studies Unit

Project Title: GIS and Data Management Research, Development, and Technical Support to
the Natural Resource Program Center
Discipline: Natural Resources
Type of Project: Technical Assistance
Funding Agency: National Park Service
Other Partners/Cooperators: Colorado State University
Effective Dates: 9/1/2006- 9/30/2007
Funding Amount: \$703,944
Investigators and Agency Representative:
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#### Project Abstract:

Colorado State University will assist the Natural Resource Program Center (NRPC) in developing geospatial and tabular databases with related tools and information systems to support the NPS mission and resource management decision-making based on sound and available scientific data and information. This will allow the NRPC to continue providing the latest technology and applications for acquisition and dissemination of scientific data and information to NPS managers and the public. This work will include:

- R&D (research and development) of geospatial databases and Internet mapping services
- R&D and support of enterprise relational database management systems and related web applications
- R&D and support of desktop databases and user applications
- R&D web services and application interfaces to support interoperability of NRPCand NPS-wide information systems and information technology resources
- R&D, QA/QC, processing, and analysis of geospatial and natural resource data into maps, reports, and other information products needed by NPS resource managers.

### Additional tasks to be included in this project are:

<u>Climate Interface</u>: A CSU research associate and graduate research assistant will work on this task. The climate data interface obtains data and metadata from multiple local, regional, and national databases and delivers integrated data products to a range of clients. The climate data application will be used by parks and I&M networks to manage, store, analyze, and disseminate climate inventory and monitoring information in national park units.

<u>Watershed Condition Assessment GIS Support:</u> A student intern will develop datasets and procedures for preparing geospatial data required for systematic evaluation of watershed conditions in parks throughout the system.

<u>I&M Network ArcIMS Development:</u> CSU research associates will work with seven I&M Network data managers to determine the best approach to develop and maintain an internet map service that could serve baseline analytic needs of most networks.

### Outcomes with Completion Dates:

Investigators Annual Report - 9/30/2007
Final Report - 9/30/2007

**Keywords:** technical assistance, NPS-Natural Resource Program Center, Colorado State University, research associates, GIS, database management, inventory and monitoring, watershed condition assessments

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