

## Project Summary

### Rocky Mountains Cooperative Ecosystem Studies Unit

**Project Title:** Digital Information Services Research and Development for the NPS  
Resource Information Management Program, GIS Division, 2007-2008

**Discipline:** Natural  
**Type of Project:** Technical Assistance  
**Funding Agency:** National Park Service  
**Other Partners/Cooperators:** Colorado State University  
**Effective Dates:** 9/28/2007- 9/30/2010  
**Funding Amount:** \$498,000

#### Investigators and Agency Representative:

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#### Project Abstract:

The CSU cooperators will work with NPS to provide R&D and implementation support for integration of web mapping services required by partner GIS project components, such as Civil War sites of interest and facilities asset locations with dynamically linked digital images and documents into a common, web services-based system. Assistance with this project will include focused stakeholder and workflow requirements analyses, workflow documentation, and research, development, and implementation of related spatial and non-spatial metadata, data, and applications. A separate project area included in this task is to compile, integrate, test, and provide training support for managing digital imagery in support of asset inventory and geospatial database projects (e.g., building footprints, maintained landscapes and other Facilities Management and Fire Program initiatives). The third task will provide research support for the NPS GIS Program and focus on the field data collection of vegetation, facility asset, and other resource data for use in enterprise systems and geospatial applications. The vegetation data will support evaluation and validation of mapping data developed from remotely-sensed imagery. The field data will be in the form of latitude / longitude location of the field unit, tabular data, textual information, and photographs. This effort will investigate, research, develop, test, and document software requirements and applications for capturing and transferring GPS and digital image field data from mobile devices to enterprise geodatabases running on centralized servers. Software planning, development, and testing will be a significant part of this work but will require substantial input and interaction with NPS personnel. Data that are captured via these systems will be ported to various GIS, image services, and other database applications.

Outcomes and Completion dates: Research reports and recommendations, IT systems and workflow plans, detailed user technical documentation, and identified application extension(s), due September 30, 2010

**Keywords:** GIS, geographic information system, web mapping, digital imagery, geodatabases, geospatial mapping, NPS-Resource Information Management Division, Colorado State University