# CSU/NPS Project Final Report

| **Project Title:** Geographic Information Systems, Remote Sensing, Global Positioning Systems, and Mobile Mapping Research and Development for the NPS GIS Program | **NPS Task Order #: J2551053034** <br><br> **CSU project # 5-32873** |
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| **Principal Investigator Name:** <br> Dr. Jim Loftis <br> Colorado State University – Department of Civil & Environmental Engineering | Office Phone: 970-491-2667 <br> Office Fax:  970-491-7707 <br> Office Email: loftis@engr.colostate.edu |
| **Address:** <br> Department of Civil and Environmental Engineering <br> Colorado State University <br> Fort Collins, CO  80523-1372 | |
| **Federal Project Manager:** <br> Joe Gregson - Chief, Resource Information Services Division, National Park Service | **Additional Federal Project Staff:** <br> Allen Sparks – National Park Service <br> Tim Smith - National Park Service |

## Project Objectives:

1. Conduct in-depth research and provide tactical implementation guidance for integration of web mapping services required by NPS partner GIS project components that lack the ability to manage and provide public access to their program information.
2. Collaborate with affiliates at other universities, non-Federal support groups, and NPS staff to research, compile, integrate, and test new ideas and methods to manage and publish eclectic resource information for easy public access.
3. Investigate and research new methods for capturing and transferring thematic resource data (geospatial, tabular, images, etc.) from multiple (often disparate and widely distributed) sources to enterprise services capable of disseminating dynamic maps and resource/recreation information over the public internet.

## Project Activities:

- Extensive research and development of an enterprise GIS web mapping framework called NPMap to support multiple NPS program requirement for delivering GIS data and linked databases via dynamic, data-driven websites.
- Scoped, researched, and built a web map application for the NPS Abandoned Mine Lands (AML) program using NPMap including complete redevelopment of the AML database, migration of legacy data, and R&D for integrating mobile data collection devices.
- Built a full-featured web map application in support of the NPS Civil War Sesquicentennial project, and researched and developed methods for embedding NPMap-based web map applications into existing web pages.
- Assisted numerous NPS employees, parks, and programs with GIS technical support and EGIS-related questions and issues, providing guidance for database modeling, software installation and maintenance, and web mapping assistance.

- Conducted research and assisted with implementation of GIS data standards and the "Generic Enterprise Model" in support of the NPS EGIS program.  This generic model is intended to be used by parks and programs to hold their geospatial data.
- Assisted various RISD partners with data creation/management/aggregation projects.

**Project Accomplishments:**

- Completed initial R&D and implementation of the NPMap web mapping framework.
- Built multiple web mapping applications using NPMap.
- Transferred technical knowledge and research results to NPS staff and affiliates.
- Supported multiple partners and programs with their data creation and management needs.
- Successfully transitioned ongoing project work into a new CESU task agreement.