# NPS

**PROJECT SUMMARY**

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| **Cooperative Ecosystem Studies Unit****Cooperative Agreement Modification** |
| FUNDING AGENCY: **National Park Service** |
| MODIFICATION NO.: **[CESU info only]** | COOPERATIVE AGREEMENT NO.:238099001 Task Order 02-01 | FUNDING AMOUNT: $ **460,000** |
| INVESTIGATORS Dr. Jim Loftis, Department of Civil Engineering, Colorado State University, Fort Collins, CO 80523 |
| PROJECT TITLE: **Continuation of “Inventorying and Monitoring Natural Resources Status and Trends in the National Park System”**  |
| EFFECTIVE DATES**: 05/01/02 through 09/30/03** |
| PROJECT ABSTRACT:The goal of this project is to design, develop, implement, and manage integrated resource databases to assist Parks, Offices, Programs, and others (including non-NPS agencies and organizations) with the use of inventory and monitoring data to better manage park resources. This project will help the NPS Inventory and Monitoring (I&M) Program achieve five long-term goals which define the scope of CESU tasks. * **Baseline Inventories** - Inventories of basic biological and geo-physical natural resource components are currently underway in all natural resources parks. To ensure these data are available to park managers, data management systems will be developed to manage the data sets collected at the park level and provide regional and national summaries of selected inventory items. CESU cooperators play a central role in the research, development, integration, implementation, and population of these diverse information systems.
* **Long-term Monitoring** - Long-term monitoring programs will be implemented in an effort to learn how to monitor changes efficiently and effectively in ecosystem health over various spatial and temporal scales.
* **Decision Support** - Research and development (R&D) studies will create geographic information systems (GIS) and other tools to process I&M field data into management information that can identify alternative courses of management actions, assess trade-offs, and predict outcomes.
* **Integration** - Efforts will be initiated to integrate natural resource I&M with the activities of other decision-making units of the NPS, such as Operations and Interpretation, with the goal of establishing natural resources preservation and protection as an integral part of park management.
* **Partnerships and Cooperation** - The NPS is cooperating with other Federal and state agencies to share resources, achieve common goals, and avoid duplication of effort and expense, including cost-sharing and technology exchange agreements with cooperators conducting I&M projects.

The broad scope of this continuing task agreement includes several distinct projects supported by the CSU Principal Investigator, research associates, and student interns. Significant projects are listed below:* **NPS Species Inventory and Database** - R&D on the NPSpecies, MS Access 97 desktop application to store, manage and disseminate species lists for each park, as well as supporting documentation of species occurrence including references, vouchers and observations. Manage data flow from park staff and cooperators to populate NPSpecies including park-entered data, master data sets containing park codes and taxonomic classification, and match data sets of Federal and State T&E Status and TNC Global Ranks. Contact and acquire voucher data for park units from museum and herbaria. Provide technical support and training to park staff and NPS cooperators on the population and QA of NPSpecies.
* **Natural Resource Bibliography** - R&D web-based and Access-based bibliographic databases. Provide R&D and technical support for Access database. Convert files from multiple formats into Access. Provide technical support and training for NPS staff on system utilization.
* **NPS NR/GIS Metadata Database** – R&D a web-based metadata information system. The system must comply with U.S. Government standards and existing projects including the FGDC Content Standard for Geospatial Metadata and related Biological Profile and the I&M Dataset Catalog.
* **Natural Resource FTP Site** – R&D and implement web-based FTP site search application. R&D data products, formats, file compression, organization, user needs assessments for effective FTP site administration. Process data files and populate FTP site.
* **Climate Inventory** – Research, acquire, convert, and annotate the U.S. National Climate Atlas and post the GIS products to the NR FTP site.
* **Base Cartographic Archive** – R&D data formats and automated computer processing tools and databases for effectively managing and disseminating digital cartographic data.  Process and maintain base cartography inventory GIS files for parks, networks, and local site.
* **Natural Resource Database Template** – R&D desktop database system that incorporates project locations, temporal sampling events, and related field data. Provide technical support to NPS cooperators implementing data collection and management at parks and I&M networks.
* **GIS Support (Theme Manager, Park HQs, Park boundaries)** – Cooperate and provide technical, planning, and R&D support for GIS applications with other developers and GIS users throughout the NPS. R&D primary and secondary geospatial data projects. Provide technical GIS support.
* **Training** - R&D and provide technical support for data management, GIS, and metadata training modules and courses that transfer scientific knowledge and technical expertise to NPS users working with I&M data, information systems, and significant projects listed above.
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| ***List of Key Words:*** *NPS, natural resource management, inventory, monitoring, information system, database, GIS, metadata, research, development, training, geospatial data, species, climate, bibliography, boundary, I&M Network* |
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| ***Annual Report Received:******Final Report Received:******Publications on File:*** |
| ***This Modification is subject to all the provisions included in the Cooperative Agreement, dated 6/22/99.*** |

***Attach any supporting material as necessary.***