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

Project Title: Southeast Coast Network Database Program

Project Code : CSURM-213; J2114110007

Type of Project: Technical Assistance

Funding Agency: National Park Service

Partner University: Colorado State University

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Start Date of Project: March 15, 2011

End Date of Project: December 31, 2013

Funding Amount: $188,154

Project Summary,

Database Programmer:

- Completed enhancements to vegetation database in MS Access to improve QA/QC and reporting functionality for data collected in 2009 and 2010.

- Completed enhancements to SQL Server to house vegetation community monitoring data as additions to the protocol were implemented in the field. Developed and implemented web-based applications for uploading vegetation community data and editing those data, as needed. For data collected in 2011 and 2012.

- Extensive revisions were made to the species lookup table to remain up to date with the currently accepted taxonomy. It was decided that the species table would remain frozen at this stage until an automated way to update the table was developed.

- Made revisions to the Shorebird monitoring protocol InfoPath forms based on discussions between Park and Network staff. Also added data certification procedures to shorebird components of SQL server database.

- Completed enhancements to the fixed-station water quality monitoring protocol in SQL server, including additional QA/QC procedures that facilitate data certification when the internet connection is slow.

- Developed and deployed enhancements to SQL Server data management system for the amphibian monitoring protocol – to support the use of automated recording devices (ARD) and changes in protocol for using these devices.

- Developed and implemented data storage requirements for Tide monitoring protocol in SQL server.

- Worked with SECN data manager to add data management workflows and procedures documentation to long-term monitoring protocols described above. In addition to develop and complete database technical documentation for the amphibian, landbird, salt marsh elevation and estuarine water quality monitoring protocols.

- Served as technical point of contact with contract staff working on the SECN data exploration tool and the SECN metadata generation tool (add-ons to the SQL server data management system).

- Reviewed and deployed the SECN data exploration tool and the SECN metadata generation tool (add-ons to the SQL server data management system).

Publicly Available Products
- Amphibian database documentation: https://irma.nps.gov/App/Reference/Profile/2185544
- Amphibian database user manual" https://irma.nps.gov/App/Reference/Profile/2197067
- Landbird database documentation: https://irma.nps.gov/App/Reference/Profile/2188804
- Landbird database user manual: https://irma.nps.gov/App/Reference/Profile/2188739
- Salt marsh database documentation: https://irma.nps.gov/App/Reference/Profile/2184275
- Fixed-station database documentation: https://irma.nps.gov/App/Reference/Profile/2192680
- Fixed station database user manual: https://irma.nps.gov/App/Reference/Profile/2192731
- Coastal assessment database documentation: https://irma.nps.gov/App/Reference/Profile/2192729

<u>Remote Sensing Specialist</u>

- Draft of MOCR veg map report was reviewed by WASO and final draft report and products are complete.

- Accuracy assessment for FOSU complete.

- Photointerpretation of aerial imagery for CAHA, CALO, and FOPU is in draft form, and photointerpretation at FOSU is complete.

- In FY12, the vegetation mapping reports and final products were completed for MOCR and FOSU. MOCR plans to use their completed vegetation map as a guide for vegetation restoration activities in the park and for locating areas likely to contain exotic plant species.

- Draft maps for CALO, CAHA, FOPU, FOFR, and CUIS have been completed.

Publicly Available Products
- FOSU vegetation map: https://irma.nps.gov/App/Reference/Profile/2185181
- MOCR Vegetation Map: https://irma.nps.gov/App/Reference/Profile/2185180

<u>Number of students participating in this project</u>:

There have been 2 Research Associates with this project since its inception. No degrees conferred.

<u>Lessons Learned from this project:</u>

Time management and planning are key to a successful data management program. Data management touches the work of all Network staff and for a growing program; the needs for systems development or enhancement, typically outweigh a balanced work schedule. It is only through ongoing planning that the Network is able to ensure that we can prioritize work in a way that meets staff needs, as well as keeping a reasonable work load.