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

Project Title: Compilation and Development of National Park Service Water Resources Databases and Tools

Project Code: WASO RM-CESU agreement; J2380102500

Type of Project: Technical Assistance

Funding Agency: National Park Service

Partner University: Colorado State University

NPS Agreement Technical Representative :
Dean Tucker, NPS Water Resources Division, 1201 Oak Ridge Drive Suite 250, Fort Collins, CO 80525; 970-225-3516, Dean_Tucker@NPS.GOV

Principal Investigator:
Jim Loftis, A207J Engineering Building; Colorado State University; Fort Collins, CO 80523-1372, Tel: (970)491-2667; fax: (970) 491-7727; loftis@engr.colostate.edu

Start Date of Project: September 25, 2010

End Date of Project: September, 30, 2013

Funding Amount: $224,000

Project Summary:
CSU provided research associates and graduate students to work with the National Park Service Water Resources Division to enhance the development of NPSTORET - a Microsoft Access-based water quality data management system that can be used by anyone interested in managing water quality data in a manner compatible with STORET and WQX - in order to augment the quantity of publicly accessible physical, chemical and biological data in the Environmental Protection Agency's (EPA) STORET Data Warehouse. During the period of this project two significant new versions of NPSTORET were released for NPS and public use. These new versions added substantial new functionality in the areas of data input, storage, analysis, quality assuring, reporting, analysis, and export which helped increase the size of the NPS database in STORET significantly and allowed other organizations to also contribute data on the nation's waters that can be used by states to prepare Clean Water Act assessments.

As part of this project, CSU research associates also assisted in identifying, acquiring, quality assuring, digitizing, and making publicly accessible other physical, chemical, and biological water quality datasets through the EPA's STORET Data Warehouse. A website tracking hydrographic and impairment statistics was also enhanced as part of this effort.

Number of students participating in this project: undergraduates, graduate students, degrees conferred.
Three research associates (including two who were former CSU graduate students) participated

directly in this project. One graduate student was tangentially involved while working on a related thesis.

Lessons Learned from this project:

This agreement provided a mutual benefit to the NPS and CSU. CSU students, staff, and researchers gained invaluable experience, training, and research opportunities while working in close cooperation with WRD staff on real-world issues and concerns. The data uploaded to the EPA STORET Data Warehouse can be downloaded from http://www.epa.gov/storet/dbtop.html. The NPSTORET application can be downloaded from http://nature.nps.gov/water/vitalsigns/vitalsignsmgt.cfm#downloads or http://www.epa.gov/storet/otherapps.html. State regulatory authorities have used these data in their Clean Water Act 305(b) reports and 303(d) lists. The list of users of NPSTORET includes federal agencies, Indian tribes, watershed management groups, private citizens, and others both in the United States and abroad.