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

Project Title: Status and Trends of Impaired, Threatened, and Outstanding National/State

Resource Waters

Project Code: WASO J 2380-09-2502

Type of Project: Technical Assistance

Funding Agency: National Park Service

Partner University: Colorado State University

NPS Agreement Technical Representative (with complete contact information):

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Start Date of Project: September 1, 2009

End Date of Project: September, 30, 2012

Funding Amount: \$232,100

Project Summary:

CSU provided research associates and graduate students to work with the National Park Service Water Resources Division on a project to make physical, chemical, and biological water quality data collected by NPS staff, contractors, and cooperators widely available to the public and state regulatory authorities for assessment under the Clean Water Act by uploading the data to the Environmental Protection Agency's (EPA) STORET Warehouse. Two research associates worked exclusively on identifying, obtaining, digitizing, reformatting, quality assurance/quality control, and uploading datasets to STORET. As a result, the NPS' water quality database in STORET now contains 5.875,528 results for 5,114 physical, chemical, or biological characteristics from 48,592 monitoring locations in support of 1,189 different projects conducted in or near 263 units of the National Park System. This continues to represents one of the largest sources of data in the EPA's STORET Data Warehouse and is a treasure trove for states, federal and other governmental agencies, watershed organizations, academia, private entities, and the public for performing water resources assessments. This allows the data to serve a greater public purpose than just the National Park Service's reason for collecting the data. This project also supported the enhancement 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.

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 STORET 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 the data in 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.