

## **Project Summary**

### **Rocky Mountains Cooperative Ecosystem Studies Unit**

**Project Title:** Valuation of Water Resource Benefits from Landsat Imagery

**Type of Project:** Research

**Project Discipline:** Social

**Funding Agency:** USGS

**Other Partners/Cooperators:** Colorado State University

**Effective Dates:** 9/15/2011 - 9/14/2014

**Funding Amount:** \$27,000

**Investigators and Agency Representative:**

**Investigator:** John Loomis, Professor, Agriculture & Resource Economics, Colorado State University, 970-491-2485, john.loomis@colostate.edu

**Agency:** Mara Tongue, USGS Western Geographic Science Center, 345 Middlefield Road, MS 531, Menlo Park, CA 94025; 650-329-4290; mtongue@usgs.gov

**Project Abstract:**

The goals of this project are to identify and learn how water users and their water suppliers utilize Landsat data and images and to better design future Landsat databases and images to maximize their value to the water users and suppliers. Also estimate the economic values different water users and their suppliers derive from Landsat data and images. Will estimate the economic value of Landsat data and images by water user type.

Study methodology will involve: (i) work with USGS to determine specific information the agency desires about water users and their water supplies utilization of Landsat data and imagery; (ii) Using web searches, phone calls to water resource organizations, and the CSU Water Center identify a list of organizations (e.g., water districts, irrigation districts) and government entities (e.g., utilities) that use or supply water; develop a sample design that will allow generalization from the sample to the population of water users; (iii) investigate the appropriate modes of data collection, including hybrid combination modes. (iv) develop approaches to calculate benefits from the valuation information provided by users; (v) develop approaches to generalize the sample benefits to the population of water users.

**Outcomes with completion dates:**

Final report due September 14, 2014

**Keywords:** water resources, Economic Valuing, Landsat Imagery, Colorado State University, USGS