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**Park/NPS Unit:** DINO—Dinosaur National Monument  
**Title of Project:** Evaluate the Geomorphic Role of Large Floods on the Yampa and Green Rivers in Dinosaur National Monument

**Administered through the:**

- Colorado Plateau Cooperative Ecosystem Studies Unit Cooperative Agreement Number H1200-09-0005  
 Desert Southwest Cooperative Ecosystem Studies Unit Cooperative Agreement Number H1200-10-0001  
 Rocky Mountains Cooperative Ecosystem Studies Unit Cooperative Agreement Number H1200-09-0004

**CESU Partner:** Utah State University (USU)

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**Funding Information:**

**Amount Funded:** \$13,500

**Project Dates:**

**Start Date:** July 25, 2011

**End Date:** June 30, 2013

**PROJECT ABSTRACT:**

Near record snowpack will likely produce the largest flood events in over a decade on the Green and Yampa rivers through Dinosaur National Monument. The purpose of this task agreement is to provide sufficient funding to USU (J. Schmidt and R. Manners) to enable the USU geomorphology lab to participate fully in 2011 post-flood field investigations on the Yampa and Green Rivers in Dinosaur National Monument. Manners and Schmidt will prepare a brief report describing results in the Yampa and middle Green Rivers to fulfill the requirements of this task agreement. This work will build upon work described in USUCP-22, USUCP-30 and USUCP-34; Schmidt and Manners have submitted a draft final report to the NPS (April 2011) in fulfillment of the above task agreements. This new task agreement provides for an addendum to that work in what has become a very unusual hydrologic year for both the Yampa and the Green Rivers.

The specific questions that will be addressed in this task agreement include:

- What is the geomorphic impact of a large snowmelt flood on the upper Green River in the Canyon of Lodore, on the Yampa River, and on the middle Green River in Dinosaur Monument?
- What is the role of riparian vegetation in mediating, or exacerbating, the geomorphic impact of a large flood?
- What are the spatial patterns of erosion and deposition? Can we provide a mechanistic explanation for the observed patterns?

A larger scope of work under development with multiple partners will result in a range of reports and data products, which will be described more fully in new task agreements and interagency agreements that will fund and scope that work. The reports that come out of the larger effort will be related to this work, but are not necessary to satisfy the reporting requirements for this task agreement.