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Park/NPS Unit: DINO—Dinosaur National Monument

Title of Project: Phase II—Inventory and Comparison of Aquatic Macroinvertebrates in the Green and

Yampa Rivers within Dinosaur National Monument, 2011-2012

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

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CESU Partner: Utah State University (USU)

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Project Dates:

Start Date: June 30, 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 (DINO). Consequently, this hydrologic event represents a unique opportunity to compare and contrast the hydrogeomorphic and subsequent ecological responses of a regulated (Green River) and unregulated (Yampa) river to a historic flood. For example, a similar study on the Green River below Flaming Gorge Dam identified significant shifts in macroinvertebrate assemblages (e.g., increased relative abundance of historic native taxa) following the 1999 high flow event of ~11,000 cfs; This would be the first significant high flow event captured by contemporary macroinvertebrate monitoring throughout DINO. Therefore, we seek to build upon a 10-year aquatic macroinvertebrate data set to quantify the response and recovery of aquatic macroinvertebrates to the flood event. This project would complement existing efforts to quantify status and trends in historic and contemporary macroinvertebrate assemblages, with specific emphasis on the remediating effects of the largely unregulated Yampa River on the Green River (CESU Cooperative Agreement Number: H1200-09-0005; Task Agreement No.: USUCP-38).