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Park/NPS Unit: Parks of the Southern Colorado Plateau I&M Network

Title of Project: Geomorphic and Vegetation Mapping in the Riparian Corridors of Canyon de Chelly National Monument Using Airborne High Resolution LiDAR and Multispectral Imagery

Administered through the: Colorado Plateau Cooperative Ecosystem Studies Unit Cooperative Agreement Number H1200-09-0005

CESU Partner: Utah State University

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NPS Funding

Is this funded using a reimbursable account number? If yes, IMR contracting needs a copy of the Interagency Agreement.

Project Dates:

Start Date: May 23, 2011

End Date: July 31, 2012

PROJECT ABSTRACT:

This project will provide natural resource managers with a detailed status of the major riparian corridors of Canyon de Chelly National Monument. These datasets will complement and add value to several existing NPS activities. The main products of this project are:

- LiDAR elevation datasets including ground surface elevation, digital elevation models, and point clouds representing heights of bare earth, low vegetation and high vegetation
- Maps of major riparian land cover types including cottonwood, willow, tamarisk, Russian olive, herbaceous vegetation, stream, and unvegetated areas
- Multispectral imagery
- Summary report describing the methods, products, and accuracy assessment.

From these products, SCPN and CACH personnel will be able to create many derived products such as the total percent cover of different vegetation types, the width of the riparian corridor, the distribution and heights of

different geomorphic surfaces (channel, floodplains, terraces), and general relationships between the vegetation types and the geomorphic surfaces.