Rocky Mountains Cooperative Ecosystem Studies Unit Project Summary

Project Title: Evaluate wood loads in Yosemite National Park watersheds to support resources protection, Merced River restoration activities and provide surface and groundwater support for in-park stewardship

Task Agreement #: P18AC00520

Discipline: Natural

Type of Project: Technical Assistance/Research

Funding Agency: National Park Service

Other Partners/Cooperators: Colorado State University

Student Participation: Yes

Effective Dates: 5/1/2018 – 9/30/2020 **Funding Amount:** \$70,000

Investigators and Agency Representative:

NPS Contact: Alan C. Ellsworth Chief, Aquatic Systems Branch National Park Service Water Resources Division 1201 Oakridge Dr. Suite 250 Fort Collins, CO 80525

Phone: (970) 225-3518 Fax. (970) 225-9965

Investigator: Dr. Ellen Wohl Department of Geosciences Colorado State University

1482 Campus Delivery Fort Collins, CO 80523-1482 Phone: (970) 491-5298 Fax: (970) 491-6307

Ellen.Wohl@colostate.edu

Project Abstract:

Project Goals – Results of the study will be used to inform federal land managers and developers in determining alternative approaches for managing in-stream and floodplain timber to protect mission sensitive resources and/or avoid development in areas that may be at risk. Scientific based assessments will be provided to parks lacking internal capacity to interpret complex water resource issues through on-site reviews or determinations based on known hydrologic function. Information will be developed through CSU managed scientific investigations that encourage a better understanding of water resources and aquatic systems.

Project Objectives – The primary objectives of this project are to develop science and technology expertise through Colorado State University to: (1) compare stream geomorphological parameters and dynamics as they are affected by in-stream wood and logjams between the developed Merced River Valley and the relatively undeveloped Little Merced Valley; (2) provide timely information for national parks to help determine successful practices for natural resource protection, infrastructure resiliency, and restoration of natural floodplain processes; (3) provide park units with information on how river and stream function and flooding may affect infrastructure and riparian habitat summer and fall of 2018. All data would be analyzed in the fall and winter of 2018-2019 and a report and presentation prepared for park staff in the spring of 2019

Keywords: wood loads, log jams, floodplain, Merced River, geomorphology, restoration Colorado State University, Yosemite National Park, National Park Service