

Rocky Mountains Cooperative Ecosystem Studies Unit
Project Summary

Project Title: Effects of Streamflow and Irrigation on Riparian Vegetation Restoration Efforts in the Colorado River Basin

Task Agreement #: G19AC00419

Modification(s):

Discipline: Natural

Type of Project: Technical Assistance

Funding Agency: USGS

Other Partners/Cooperators: Colorado State University

Student Participation:

Effective Dates: 9/15/2019 – 9/14/2020

Funding Amount: \$49,300

Investigators and Agency Representative:

USGS Contact: Patrick Shafroth; shafrothp@usgs.gov

Investigator: Leroy Poff, Colorado State University Fort Collins, CO; poff@lamar.colostate.edu

Project Abstract: The goal of this project is to statistically analyze relationships between hydrology and riparian vegetation in four discrete USGS datasets describing environmental conditions and vegetation within the Colorado River delta and along the Bill Williams River. Specific objectives are to evaluate and compare the effects of hydrology on riparian plant communities of both natural and restored (active revegetation and irrigation) sites in the Colorado River delta, and on dieback and mortality of mature cottonwood-willow forests, and survival of naturally established and planted cottonwoods along the Bill Williams River. These analyses will increase knowledge of how hydrology is causing degradation of mature forests, and how irrigation and managed flow releases affect riparian plant communities and outcomes of riparian revegetation efforts.