

Project Title: Effects of Drought and Flow Regulation on Growth of Plains Cottonwood along the Wind River, Wyoming

Task Agreement #: G18AC00030

Modification(s):

Discipline: Natural

Type of Project: Research

Funding Agency: USGS

Other Partners/Cooperators: Colorado State University

Student Participation:

Effective Dates: 5/15/2018 – 5/14/2019

Funding Amount: \$37,627.00

Investigators and Agency Representative:

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Project Abstract: The goal of this research is to study the effect of flow variation on growth and isotope chemistry of plains cottonwood trees (*Populus deltoides* subspecies *monilifera*) along the Wind River, Wyoming.

The specific objectives for this research are:

1. Reconstruct Wind River flow from 1790 to present using cottonwood ring widths and stable isotopes.
2. Test the hypothesis that flow declines along the Wind River are reducing cottonwood growth and vigor.