

Award Number:
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PROJECT ABSTRACT

Colorado Plateau Cooperative Ecosystem Studies Unit (Cooperative Agreement # H1200-09-0005)

Park: Canyon de Chelly National Monument

Project Title: Year 3 – Restoration of native plant communities following saltcedar and Russian olive removal at Canyon de Chelly

Funding Amount: \$8,623

CPCESU Partner Institution: Colorado State University, Department of Forest, Rangeland, and Watershed Stewardship, Warner College of Natural Resources

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Start Date: September 30, 2010

End Date: June 1, 2012

Abstract:

Canyon de Chelly National Monument has completed a 3-year field testing of removal methods for Russian olive and tamarisk (saltcedar) and is now ready to start implementing larger-scale removals of these invasive woody species. The current project will initiate a 3-year field study to explore various restoration techniques for establishing native vegetation on cut and herbicide-treated saltcedar / Russian olive areas. The project assumptions are: 1) that areas to be restored will have cut and herbicide-treated stumps, 2) that at least portions of these areas will have an existing litter layer on the soil surface that will prevent proper soil-seed contact with a broadcast seeding, 3) that grazing by livestock will be incompatible with restoration for the first year or two after seeding, and 4) that branches from the removed woody plants will be an abundant and utilizable source of surface soil amendment. The proposed experiment will test the following factors: seeding rates, seed mixes, and spreading of fine woody debris. It is expected that the outcome of this work to be the identification of the most successful revegetation prescription resulting in the greatest biomass of native plant species by year 3 of the project.

Keywords: Revegetation, Restoration, Protocols