

**Project Title:** A Tool to Support Resource Management Decisions Related to Control of Invasive Tamarix in the Western U.S.

**Task Agreement #:** G19AC00402

**Modification(s):**

**Discipline:** Natural

**Type of Project:** Research

**Funding Agency:** USGS

**Other Partners/Cooperators:** Colorado State University

**Student Participation:**

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

**Funding Amount:** \$48,999

**Investigators and Agency Representative:**

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**Project Abstract:** The principal objective of this research is to create a decision tool for *Tamarix* control and associated riparian restoration that helps the manager to decide which set of restoration actions will achieve different management objectives at particular sites. The decision tree will have two parts: (1) a “management outcome” will consist of a stepwise decision tree with dichotomous splits resulting from yes/no questions, presented sequentially and related to the life-cycle of the plants, characteristics of vegetation, landforms, and other factors. The sequence of questions will lead to a combination of *Tamarix* control approaches and restoration techniques that best apply to the specific environmental and sociopolitical context and goals of the management project. (2) a “management application” will describe the capacity of the different plant community types obtained by different restoration actions and contexts (the output of part one) to fulfill different resource management objectives. Ultimately, the decision tool will help the manager to select the best management strategy for a given site (bottom-up) or to identify the most suitable sites to fulfill certain management objectives (top-down approach), depending on manager needs, in the most cost-effective way.