

## **Project Summary**

### **Rocky Mountains Cooperative Ecosystem Studies Unit**

**Project Title: Assessment of Native Species Tolerance and Plant Performance**

**Type of Project: Research**

**Project Discipline: Natural**

**Funding Agency: Bureau of Reclamation**

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

**Effective Dates: 5/15/2007 - 8/31/2009**

**Funding Amount: \$91,136 (FY07: \$48,836; FY08 \$39,418)**

**Investigators and Agency Representative:**

**Investigator: Scott Nissen, Professor, Bioagricultural Sciences and Pest Management, Colorado State University, 970) 491-3489, Scott.Nissen@ColoState.edu**

**Project Abstract:**

This project will be conducted through a cooperative research study on 30 native shrub, forb, and grass species. The evaluation will focus on qualifications of a) charcoal banding (herbicide safener or deactivation) efficacy at varying rates of application; b) tolerance of native species to lateral and vertical herbicide movement through soils beneath charcoal safener treatments; c) tolerance of native species to over-sprayed herbicide as secondary treatment for control of understory invasive species following native species establishment; and d) rate of dissipation of herbicide in native soils. This information will enable more effective assessment of possible effects to and interactions between seeded species and herbicides applied for suppression of invasive species.

**Outcomes with completion dates:**

Final report due 8/31/2009

**Keywords: herbicide application, invasive species, native species, Colorado State University, Bureau of Reclamation**