

Beattie Gulch Vegetation Restoration Project on the Gallatin National Forest

2011 Accomplishments

The Gallatin National Forest and Yellowstone National park acquired approximately 2,000 acres of abandoned farm lands over the past 20 years along the northern boundary of Yellowstone National park. Four hundred acres of this are targeted for restoration on the Gallatin National Forest. Beattie Gulch is the second in a series of four project areas. Restoration is intended to reduce exotic plants, re-establish native vegetation, and ultimately to restore and enhance wildlife habitat.

Since the turn of the century, a portion of Beattie Gulch had been tilled and irrigated as hayfields and more recently, agriculture production. Agriculture at the site ended after the Forest Service acquired Beattie Gulch from the Royal Teton Ranch through the Rocky Mountain Elk Foundation in 1999. Vegetation at the start of this project was mainly non-native grasses such as cheatgrass and weedy mustard species in previously plowed areas with a mixture of native grasses, forbs and shrubs in relic unplowed areas.

In 2009, contracts for the Beattie project were awarded and native local seed was collected by FS personnel and sent to the USFS Coeur d' Alene Nursery. The project included construction of two wildlife exclosures which were later. Also in 2011, a conservative adaptive reclamation strategy was adopted for this area due to harsh soil and climate conditions. This strategy includes limiting the amount of bare soil exposed at any one time and planting in strips to control wind erosion.

In spring of 2011, the contractor plowed and planted barley on 20 acres, sprayed weeds on 4 acres, and conducted several native grass trials to test revegetation options. Initial barley establishment was good for all strips however abrupt weather changes in June (no precipitation) adversely affected about ½ of the barley. In the fall of 2011, the contractor prepared a seedbed and planted winter wheat on approximately 12 acres, partly in areas where the barley had died out and partly to enlarge the total area being prepared for native grass establishment.

Summary of accomplishments in 2011:

- Plow and plant barley (20 ac)
- Plow and plant winter wheat (12 ac)
- Weed treatments and spot seeding
- Test trials seeding native grasses
- Modification of fencing



Overview of Beattie Gulch Project area



Fence corner prior to fence modifications in 2011



Weedy mustard dominating lower portion of Beattie Gulch prior to project. Native vegetation and coke kilns in background.

Year awarded: 2009

Project completion: 2012

Report number: 2 of 4

Expenditures (through 10/2011): \$121 K (NFN3 funding) obligated to CDA Nursery/contractors

Partners: Northern Region Native Plant Program, Yellowstone National Park, NRCS, USFS Coeur d'Alene Nursery

Contractors: Troy Smith – Arrowhead Excavating (planting) and Menard Construction Inc. (fencing)

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