

Colorado State Conservation Board 2008 Matching Grants Project:
Delta Conservation District: Weed Seed-bank Control

What natural resource problem(s) did the project address?

The upper drainages of Coal Creek and Anthracite Creek in the Gunnison National Forest empty into the North Fork of the Gunnison River, which merges with the main Gunnison River near Hotchkiss in Delta County. These upper drainages have infestations of two B-listed state noxious weeds - **yellow toadflax (800 acres)** and **sulphur cinquefoil (50 acres)**. These weeds provide an upstream seed bank to infest the productive irrigated agriculture lands downstream in the Delta Conservation District. The road adjacent to Coal Creek is a corridor (through seeds in soil on vehicles and open wind corridor) for infestations into the West Elk Wilderness and nearby private and public lands. Control of these infestations began in 2006 through partnering efforts of landowners, the US Forest Service and the Delta County Weed program. So far \$135,000 has been invested. Weeds and their seeds are no respecters of land ownership and to be effective in control sustained collaborative efforts are essential.

The Delta Conservation District used CSCB matching Grant funds to add to the ongoing collaborative effort to eliminate these two species as a noxious weed seed bank for agricultural and wilderness areas.

What was achieved?

- **750 acres of yellow toadflax treated and all 50 acres of sulphur cinquefoil**
- Observation of 2008 infestations of **yellow toadflax** indicated a **90% population reduction** since 2006 - better than anticipated.
- Observation of 2008 infestations of **sulphur cinquefoil** indicated a **50% reduction in population** since 2007 - better reduction expected after 2008 treatment due to more optimal treatment conditions
- **Minimal herbicide damage observed to non-target species**
- Control through **herbicide applications** by truck, ATV, horses and airplane carried out **based on testing and monitoring of different treatments from 2001-2007**
- **Private landowners, Paonia State Park and the Bureau of Reclamation land treated.**
- Bureau of Land Management **plant ecologist to conduct follow-up assessment in 2009** (initial survey 2002)
- Delta County Weed program to **monitor the area in 2009** and US Forest Service and Division of Wildlife expected to **fund further required treatments.**



Toadflax infestation before and after treatment



After critical reseeding to promote desirable species



Technology to remove toadflax and sulphur cinquefoil infestations in remote, inaccessible areas.