# **Colorado Water Conservation Board Invasive Phreatophyte Control Program Final Report**

#### Project Title:

Republican River Watershed Riparian Restoration Project (RRWRRP)

#### Submitted to:

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By:

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On:

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#### **Cooperating Partners:**

- 1. Yuma County Pest Control District (YCPCD)
  - 2. Yuma Conservation District
- 3. Natural Resources Conservation Service (NRCS)
  - 4. U.S. Fish and Wildlife Service
    - 5. Colorado Corn
    - 6. Colorado State University
  - 7. Colorado Parks and Wildlife
- 8. Colorado State Parks Bonny Sate Wildlife Area
- 9. Republican River Water Conservation District
  - 10. Private Landowners
  - 11. Pheasants Forever, Inc.

The RRWRRP seeks to eradicate tamarisk and Russian-olive (TRO) along the three forks of the Republican River in Yuma, Washington, and Kit Carson counties. The project began in 2008 and has been performing removal of TRO over the past eight years. The main goal of the project is watershed restoration and enhancement of stream flow. Being awarded the Invasive Phreatophyte Control Program Grant allowed the RRWRRP to target and remove Russian-olive from 135 acres of infested land along the south fork of the Republican River. The site, owned by Bonny Company, is located at 5S 44W sections 20, 29, and 30, just west of HWY 385 in the southernmost part of Yuma County (See attached maps).

Removal work was able to take place in August of 2015. Originally scheduled to start in the spring of 2015, the project was pushed back due to contractor scheduling. Removal was performed by Berghorst Land Clearing. This company has been working with the RRWRRP since the beginning of the project and is one of the top phreatophyte removal companies in the United States. Best management practices utilizing an integrated pest management approach have always been used by the RRWRRP. Berghorst Land Clearing, in most areas, employed mechanical extraction, using grab and cut-stump control methods. Cut surfaces were then treated with herbicide (triclopyr) to prevent any re-sprouts. Judging from previous removal sites, this process is about 85% effective. Berghorst Land Clearing utilized hand-cutting by chainsaw in areas inaccessible or too fragile for machinery, followed by cut surface herbicide treatments. The choice of using the cut-stump control method is the best control method for this project because using this technique prevents harm to non-targeted, native vegetation. Cut trees were then put in slash piles to be burned at a later date as resources and environmental conditions allow.

Once the original removal is completed, observation and awareness are key for long-term riparian restoration. Yuma County Pest Control District will monitor the site for Russian-olive re-sprouts and control by foliage application where necessary. YCPCD will also work with the site landowner (Bonny Company) to control any State of Colorado listed noxious weeds that may be found on location. Native re-vegetation and restoration will occur naturally. However, project partners intend to seed all bareground that was disturbed from the equipment during tree removal to help with the re-vegetation process. There will also be thirty acres of pasture on the property excluded from grazing to promote re-growth. Two large shrub thickets will be planted with native shrubs and some willow pole plantings will be placed on the property.

The quantifiable results that will be seen with the completion of this project are replacing invasive non-native vegetation with native vegetation, changes to the hydrologic condition of the watershed, improvements to the habitat for wildlife along the riparian areas within

the watershed, and enhanced protection of declining species' habitats through the planned efforts to establish native riparian communities and restore natural ecological processes.

### **Pictures**



Bonny Company Property Before Removal



Bonny Company Property After Removal



Bonny Company Property During Removal



Bonny Company Property During Removal

## Maps



