



Date of Issuance: June 2, 2022

DESERT CONSERVATION PROGRAM PROJECT COMPLETION SUMMARY:

**VIRGIN RIVER WEED MANAGEMENT 2020/21**

**2017-NPS-1720A**

The work for the above referenced project has been completed. Below is a summary of project related information.

**The purpose of the above referenced project was:**

The purpose of this project was to conduct inventories of non-native vegetation and weed treatment on the Clark County Desert Conservation Program (DCP) Virgin and Muddy River Properties. The main intent of the work effort was to focus on the recently acquired parcels within the Virgin River Reserve Unit by Clark County due to their value and/or potential value to meet actions addressed in the Multiple Species Habitat Conservation Plan. The goal of this project was to support vegetation management and maintenance activities along the Virgin and Muddy River for enhancement of native riparian species of concern of the Multiple Species Habitat Conservation Plan. Non-native invasive plants and other weeds are commonly known to degrade ecological habitats, alter potential desirable native plant community recovery, reduce overall potential for wildlife diversity and increase wildfire potential including fire frequency and intensity. Some weeds are categorized by the State of Nevada as noxious, which land owners are required by law to control. It is important to note that it is most effective to control weeds early before they become well established and develop seed banks making it difficult for long term control. This approach is referred to in weed management as early detection rapid response. Weed management is a vital component of not only being a good land steward and neighbor within a community but is a critical step toward restoring lands for maximizing native species habitats.



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## **The major accomplishments or findings of this project include:**

Tamarisk (*Tamarix ramosissima*) is the most common weed species occurring in all of the Virgin River Units. There are other high priority Nevada State listed Noxious Weeds present within some of the units including Malta starthistle (*Centaurea melitensis*), tall whitetop (*Lepidium latifolium*), camelthorn (*Alhagi maurorum*) and athel tamarisk (*Tamarix aphylla*). Initial treatment of the large athel trees in the unit was implemented using the frill cut method. Post treatment monitoring of these athel trees was conducted in January 2021 and was about 50% effective with partially live and dead branches. The tall whitetop treatments in the Mormon Mesa Units were effective and will take continued monitoring and treatment vigilance.

The 3-4 acre tamarisk mastication site on the Mormon Mesa Unit did have some tall whitetop establishing along the western edge of the unit but was treated with herbicide and should also be monitored and re-treated as necessary. In 2020 most of the native trees have survived and recolonized dominance of the site however camelthorn was observed in lower amounts and should be monitored and treated in the future as necessary. Tamarisk treatments were conducted on resprouts at the masticated sites in the Riverside and Mormon Mesa Units. These sites are recovering well with native shrubs including arrow weed and quailbush. Tamarisk control has also occurred at the Bunkerville West and Muddy River Unit F sites.

Some excellent native plant recovery has occurred at the 5 small tamarisk removal clearings (A/B/C/D/E) at the Virgin River Mormon Mesa Unit. These sites have recovered with a variety of native wetland and riparian plant species with great diversity. Aquatic species that have established naturally include *Juncus acutus* and *Anemopsis californica*. Goodings willow and *Salix exigua* have formed dense thickets that have surface water/marsh type habitats under the canopy.

Another additional accomplishment included the collection of salt grass (*Distichlis spicata*) for growing out in the NPS Lake Mead NRA (Song Dog) native plant nursery to be outplanted at the future Muddy River Units restoration projects.

We also want to report on successes at some of the Muddy River Riparian Units. There has been a dramatic recovery of desirable native plants from natural recovery and our transplanting and seeding of native species back in April of 2016 in Unit A and B. This native species establishment has also attributed to the reduction of weeds by competition with desirable perennial plant cover increasing.

For more information about this project and/or for other Project Reports or Symposium Reports, please visit our [website](#)

If you have any questions about this project please contact DCP Project Manager Caryn Wright at (702) 455-2972.

