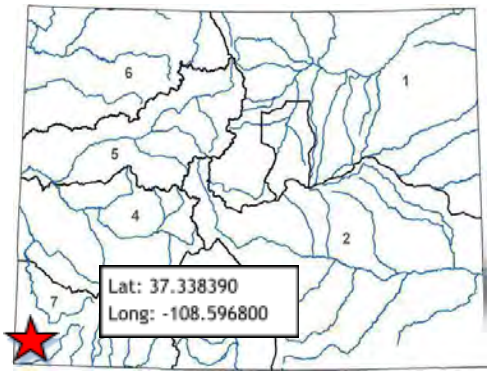
COLORADO
Colorado Water Conservation Board
Department of Natural Resources

Non-Native Phreatophyte Removal Project
Montezuma County
March 2023 Board Meeting

Water Plan Grant Application



DETAILS	
Total Project Cost:	$645,253.25
Water Plan Grant Request:	$295,253.25
Recommended Amount:	$125,000
Other CWCB Funding:	$0
Other Funding Amount:	$270,000
Applicant Match:	$80,000
Project Type:	Construction/Implementation
Project Category:	Watershed Health & Restoration
Measurable Result:	10,560 feet of stream restored; 450 acres of restored habitat

LOCATION	
County:	Montezuma
Drainage Basin:	Dolores and McElmo

Colorado Water Plan Grant funding will support Montezuma County's Non-Native Phreatophyte Removal Project, specifically the hiring of two additional weed department crew members for three years to remove Russian olives and salt cedars from 500 acres of waterways (primarily for agricultural use) in the Hartman Draw/McElmo Creek areas. The project objectives include reducing salinity inputs and nitrogen levels in waterways, reducing irrigation system maintenance costs by eliminating debris, and potentially 1,800 acre-feet of water savings as estimated by the applicant.

Success of the project will be demonstrated by 1) the hiring of two additional crew members, 2) cutting and mulching of Russian olives and salt cedars larger than three inches from 500 acres of waterways, 3) documentation of tree density reduction, trees removed, herbicide applied, and estimated water savings, and 4) crew follow up visits for foliar treatment on any sprouts and identification of other long-term maintenance needs.

The Colorado Water Plan grant request is 46% of the total project cost and other project funding is 54%. Montezuma County phreatophyte removal efforts were funded by previous Water Plan Grants: $25,598 in 2019 and $62,000 in 2020.

Montezuma County has a long-term phreatophyte removal plan. The project is supported by the Southwest Basins Roundtable and its first phase (2019-2022) was highlighted as a success story in the Southwest Basins Implementation Plan.

Funding Recommendation:
Staff recommends partial funding of $125,000 to Montezuma County for the Non-Native Phreatophyte Removal Project. The Montezuma County Non-Native Phreatophyte Removal Project will demonstrate broad-based landowner involvement upon implementation, with 26 properties totaling 375 acres already on the waiting list for county removal efforts. However, the 2023 Colorado Water Plan notes that local phreatophyte removal efforts can complement stream or riparian improvements but large-scale efforts to remove these species requires effective management across jurisdictions. This project addresses a narrow region with no cross-jurisdictional coordination. This project did not score as high in its commitment to collaboration nor in its commitment to restoring or protecting ecological processes as the principal project objectives identified were reducing ditch maintenance and water savings without direct ties to ecosystem function, improved riparian habitat, or complementing other restoration efforts within the reach.

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Water Plan

Water Project Summary

Name of Applicant	Montezuma County
Name of Water Project	Montezuma County Non-Native Phreatophyte Removal Project
Grant Request Amount	**$295,253.25**
Primary Category	$295,253.25
Watershed Health & Recreation	
Total Applicant Match	**$80,000.00**
Applicant Cash Match	$60,000.00
Applicant In-Kind Match	$20,000.00
Total Other Sources of Funding	**$270,000.00**
Colorado Department of Agriculture - Noxious Weed Grant 2022	$80,000.00
National Fish and Wildlife Foundation	$150,000.00
United States Forest Service	$40,000.00
Total Project Cost	**$645,253.25**

Applicant & Grantee Information

Name of Grantee: Montezuma County
Mailing Address: 103 North Chestnut Cortez Colorado 81321
FEIN: 846,000,786

Organization Contact: Travis Anderson
Position/Title: Montezuma County Administrator
Email: tanderson@co.montezuma.co.us
Phone:

Grant Management Contact: Travis Anderson
Position/Title: Montezuma County Administrator
Email: tanderson@co.montezuma.co.us
Phone:

Description of Grantee/Applicant

No description provided

Type of Eligible Entity

- [x] Public (Government)
- [ ] Public (District)
- [ ] Public (Municipality)
- [ ] Ditch Company
- [ ] Private Incorporated
- [ ] Private Individual, Partnership, or Sole Proprietor
- [ ] Non-governmental Organization

☐ Covered Entity
☐ Other

Category of Water Project

☐ Agricultural Projects
Developing communications materials that specifically work with and educate the agricultural community on headwater restoration, identifying the state of the science of this type of work to assist agricultural users among others.

☐ Conservation & Land Use Planning
Activities and projects that implement long-term strategies for conservation, land use, and drought planning.

☐ Engagement & Innovation Activities
Activities and projects that support water education, outreach, and innovation efforts. Please fill out the Supplemental Application on the website.

■ Watershed Restoration & Recreation
Projects that promote watershed health, environmental health, and recreation.

☐ Water Storage & Supply
Projects that facilitate the development of additional storage, artificial aquifer recharge, and dredging existing reservoirs to restore the reservoirs' full decreed capacity and Multi-beneficial projects and those projects identified in basin implementation plans to address the water supply and demand gap.

Location of Water Project

Latitude	37.338390
Longitude	-108.596800
Lat Long Flag	County centroid: Coordinates based on centroid of county boundary
Water Source	McElmo Creek and Hartman Draw
Basins	Southwest
Counties	Montezuma
Districts	

Water Project Overview

Major Water Use Type	Agricultural
Type of Water Project	Construction / Implementation
Scheduled Start Date - Design	2/1/2023
Scheduled Start Date - Construction	12/31/2025

Description

The Non-native Phreatophyte Project exists to eradicate non-native phreatophytes to conserve water and promote healthy ecosystems. Montezuma County Noxious Weed Department (MCNWD) began working on this project in 2019, with the support of partners: Colorado Department of Agriculture, Colorado Water Board Conservation, Southwestern Water Conservation District, Southwest Basin Roundtable, Parks and Wildlife, United States Department of Agriculture, and the Bureau of Land Management (BLM).

The County identified 7,800 acres of land affected by the invasion of Russian olives and/or saltcedars, consuming 12,500 acre-feet per year. In addition, saltcedars raise the salinity of waterways, which results in contamination of the crop fields that are irrigated downstream.

Priority areas for the next five years include publicly and privately-owned properties in McElmo Creek and Hartman Draw, where farmers grow irrigated grass / alfalfa hay fields and orchards. Local ranchers also forage their cattle and other livestock on irrigated land.

Measurable Results

	New Storage Created (acre-feet)
	New Annual Water Supplies Developed or Conserved (acre-feet), Consumptive or Nonconsumptive
	Existing Storage Preserved or Enhanced (acre-feet)
	New Storage Created (acre-feet)
10,560	Length of Stream Restored or Protected (linear feet)
	Efficiency Savings (dollars/year)
	Efficiency Savings (acre-feet/year)
450	Area of Restored or Preserved Habitat (acres)
	Quantity of Water Shared through Alternative Transfer Mechanisms or water sharing agreement (acre-feet)
	Number of Coloradans Impacted by Incorporating Water-Saving Actions into Land Use Planning
	Number of Coloradans Impacted by Engagement Activity

Other

Reduction in ditch maintenance costs, due to reduced debris clogging systems. Potential water savings is too complicated to put a dollar amount on, however it is estimated 5,909.97 will be saved by the end of 2026 (from work done 2019-2025).

Water Project Justification

Colorado Water's Plan

Chapter 7 Highlights the importance of promoting watershed health to ensure Colorado's water future. Montezuma County Noxious Weed Department's Project directly supports watershed health by improving water quality, promoting the diversity of species, promoting the magnitude of water systems, and decreasing fire hazards. Removing non-native species will improve water quality by preventing additional input of nitrogen and salt into the water, reduce debris clogging irrigation systems, and preventing further channel narrowing.

Just as the Colorado Water Plan promotes partnerships for improving watershed health, this project promotes collaborative management within our entire community. The project supports the Colorado Water Plan by conserving water consumed by non-native invasive species to help our community weather ongoing severe drought.

Statewide Water Supply Initiative

As Colorado's population grows, the state must plan to manage limited water supply to mitigate the increasing demand. Our project supports the State's Water Supply Initiative by reducing unnecessary water consumption by invasive species.

Roundtable Basin Implementation Plan

Montezuma County Noxious Weed Department's project fits within the Instream Flow Program by recovering imperiled species by enhancing environmental and recreational economy, protecting healthy environments, and protecting and restoring critical watersheds. Russian olives and saltcedars negatively impact the whole ecosystem of our waterways by pushing out native plant and animal species, promoting mosquito populations,

and decreasing water and soil quality. Protecting and recovering imperiled species requires removing competing invasive species such as non-native Carp. A healthy ecosystem naturally draws environmental and recreational tourism.

Related Studies

Russian olive Biology Identification Distribution Control by Robert Wilson and Mark Bernards Extension Weeds Specialists

Saltcedar and Russian olive Control Demonstration Act Science Assessment by the Us. Department of the Interior and U.S. Geological Survey.

Taxpayer Bill of Rights

N/A