

**Water Supply Reserve Account – Grant and Loan Program
Water Activity Summary Sheet
Agenda Item 17d**

Applicant: Delta Conservation District

Water Activity Name: North Fork of the Gunnison Invasive Weed Removal

Water Activity Purpose: Nonconsumptive Activity

County: Delta

Drainage Basin: Gunnison

Water Source: North Fork of the Gunnison

Amount Requested: \$20,000

Source of Funds: \$20,000 Gunnison Basin Fund

Staff Recommendation
Staff recommends approval of up to \$20,000 from the Gunnison basin account to help fund the North Fork of the Gunnison Invasive Weed Removal Project contingent upon resolution of the items listed in the issues/additional needs section below.

Water Activity Summary: The project is located on the North Fork of the Gunnison River above the Town of Paonia and below the Paonia Dam. Phase I of the project will include inventory by an on-the-ground survey of Tamarisk and Russian Olive along and on both sides of an approximate 19 acre stretch of land on the North Fork of the Gunnison River above the Town of Paonia. Following the survey, removal of the Tamarisk and Russian Olive will be accomplished with work crews employing mechanical eradication and herbicidal treatment. Disposal of slash will be done by appropriate means, including chipping. Revegetation with native species will follow where native vegetation is not present. Retreatment of the project area will be conducted in the following year. Phase II will extend the project area north of the River Park to the Paonia Reservoir Dam by completing a survey identifying the invasive species, density and size along the river bank. Our team will use the work success of Phase I as an educational tool to inform the landowners about the project. The survey results will size the project area north of the River Park. The description of the project tasks are provided below.

Phase One:

Task One: Complete an area survey of Tamarisk and invasive weeds. Our team will conduct a survey of invasive weeds in the project area using volunteers to record species, density and size.

Task Two: Employ the Western Colorado Conservation Corps (WCCC) to do mechanical eradication of Tamarisk and Russian Olive trees including herbicide application with assistance from the Delta County Weed Coordinator. WCCC will chip the slash. Native revegetation will be accomplished with volunteers. Our team will remove and/or treat invasive regrowth.

Phase II

Task One: Define property ownership and meet with the landowners. The proposed project envisions no cost to participating landowners. Direct communication with the Delta County Weed Coordinator indicated that landowners are amenable to removal of invasive species if done at no cost to the landowners. Secondly during

a recent project sponsored by Painted Sky RC&D to introduce Tamarisk beetles to kill Tamarisk on private land, more landowners expressed interest than there were beetles available.

Task Two: Upon obtaining landowner permission, a survey of the land will initially identify species, density and size by location. The survey will size the project area north of the River Park. Our team will leverage the success of Phases I and II by seeking separate grant funding to continue the project. Mechanical eradication and herbicide application will be employed utilizing a WCCC team.

Additional funding is being sought through the submission of grant applications to the Colorado River Water Conservation District and the Colorado State Weed Coordinator's Weed Management Fund. Volunteer participation by the NWCC and DCD and project management will complete the matching funding. Separate future grant funding will seek to extend the project to the Paonia Dam and downstream toward the Confluence with the Gunnison River.

Discussion: This project appears to meet the needs identified in the Gunnison basin roundtable's non-consumptive needs assessment and helps to increase the public's access to the river corridor. The applicant is also able to provide significant matching funds (\$40,000) for this project from the Colorado River District, the Colorado State Weed Management Fund and the Delta conservation District and the NWCC. Staff would like to indicate that if future invasive species removal projects were planned that the applicant inquire into the CWCB's Phreatophyte Control Cost Sharing Program.

Issues/Additional Needs: None

Reporting and Deliverables: All products, data and information developed as a result of this grant must be provided to the CWCB in hard copy and electronic format as part of the project documentation. This information will in turn be made widely available to Basin Roundtables and the general public and will help promote the development of a common technical platform.

In accordance with the revised WSRA Criteria and Guidelines, staff would like to highlight additional reporting and final deliverable requirements. The specific requirements are provided below.

Reporting: The applicant shall provide the CWCB a progress report every 6 months, beginning from the date of the executed contract. The progress report shall describe the completion or partial completion of the tasks identified in the scope of work including a description of any major issues that have occurred and any corrective action taken to address these issues.

Final Deliverable: At completion of the project, the applicant shall provide the CWCB a final report that summarizes the project and documents how the project was completed. This report may contain photographs, summaries of meetings and engineering reports/designs.

Engineering: All engineering work (as defined in the Engineers Practice Act (§12-25-102(10) C.R.S.)) performed under this grant shall be performed by or under the responsible charge of professional engineer licensed by the State of Colorado to practice Engineering.

EXHIBIT B EVALUATION CRITERIA

TIER 1: Meeting Water Management Goals and Identified Water Needs.

c. Agricultural Water Shortages:

The proposed Tunnel Reconstruction Project will implement the Gunnison Basin Roundtable Assessment for the preservation of agricultural use for the 171 members of the North Delta Irrigation Company (NDIC) by allowing water to again flow through the tunnel that has failed. Without this project these members will have no reliable source of irrigation water for their crops which include beans, corn and alfalfa. This project will ensure that there is no agricultural water shortage in the area served by the North Delta Irrigation Company. The water right owned by NDIC is for 49.675 feet with a headgate in the Gunnison River and an adjudication date of June 23, 1914.

Rehabilitation and Maintenance of Existing Infrastructure:

The tunnel that has failed is 1450 feet long and was dug by hand and completed in 1901 through a layer of shale. Over the years this layer of shale has started to fail caused by the flow of water and exposure to air and the tunnel has far exceeded its useful life. At the end of July 2011 a portion of this tunnel, approximately 40 feet in length, collapsed and blocked all water flow through the tunnel, creating an emergency situation. The Board of Directors of NDIC explored alternate means of delivery of its water right including pumping water out of the Gunnison River, boring a new tunnel, lining the tunnel with steel tunnel liner, using concrete box tunnel construction and using HDPE pipe. Pumping and boring a new tunnel were eliminated as choices as the cost of pumping would be prohibitive and the cost of boring a new tunnel would be prohibitive in addition to the problem that NDIC does not have an easement for boring. The steel tunnel lining system is comparable in price to the HDPE but was eliminated from consideration due to its limited life. The box tunnel method was eliminated due to the concern of its stability. NDIC has determined that the method of slip lining the tunnel with HDPE pipe is the best method available under the circumstances. This tunnel reconstruction project is absolutely essential for the flow of water to the 171 members of NDIC downstream.

Efficiency:

The grade through the tunnel is virtually flat for the first half of the tunnel and then there is a slight downhill grade for the second half of the tunnel. Slip lining the tunnel with HDPE pipe will greatly increase the flow of water through the tunnel.

TIER 2: Facilitating Water Activity Implementation.

- d. Funding from the GBRT and Statewide Account will reduce the uncertainty that the Tunnel Project will be implemented. Without this funding this project cannot proceed. Other funding is not available.
- e. The applicant is planning on borrowing \$800,000.00 from the Colorado Water Conservation Board as its matching funds.

TIER 3: The Water Activity addresses other issues of statewide value and maximize benefits.

- f. As mentioned above in Tier 1 this project is necessary to sustain agriculture in the area served by the NDIC canal.
- i. Sustaining agriculture provides a high level of benefit to Colorado in relationship to the funds requested.