



**TO:** Colorado Water Conservation Board Members

**FROM:** Linda Bassi, Stream and Lake Protection Section  
Brandy Logan, Stream and Lake Protection Section

**DATE:** November 15-16, 2017 Board Meeting

**AGENDA ITEM:** 31 a-d. Water Plan Grants - Environmental and Recreation  
Initial Consideration

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This item is for consideration only. No action is required at this time.

### Introduction

The Environmental and Recreation grant category started with \$1 million in available funds. In agenda item 30 a-d., staff recommended approval of four grant requests from the first round of applications totaling \$454,284. Approval of those requests would result in \$545,716 available for additional Environmental and Recreation grant requests.

In the second round of applications, the CWCB received six applications totaling \$706,000 and one Intent to Apply totaling \$125,000. After staff met with the applicants, one application was withdrawn, and one was converted to an Intent to Apply. Staff supports the four applications described below, which total \$391,000, leaving \$154,716 available for the third round of applications. The nine applications in the Intent to Apply category now total \$1,125,140.

Applicant	Project Name	Request	% of Project	Staff Support
a. Aurora-Colorado Springs Joint Water Authority	Homestake Arkansas River Diversion Improvements	\$300,000	4% *	\$200,000
b. Colorado Water Trust	McKinley Ditch Project	\$66,000	47%	\$66,000
c. Ducks Unlimited, Inc.	Wellington Wetland Enhancement and Recreation Project	\$50,000	48%	\$50,000
d. Trout Unlimited	Lower Tomichi Water Conservation Project	\$150,000	50%	\$75,000

*\*The requested amount equals 4% of the total cost of the diversion improvements; the requested amount is between 15%-27% of anticipated cost of the boat chute.*

See attached Data Sheets for summaries and locations.

### Staff Review and Comments

#### a. Aurora-Colorado Springs Joint Water Authority - Homestake Arkansas River Diversion Improvements (Support Reduced Funding)

The Aurora-Colorado Springs Joint Water Authority (Authority) has requested grant funding for the boat chute component of the Homestake Arkansas River Diversion Improvements Project. The Homestake



Arkansas River Diversion (ARD), located below the Town of Granite on the Upper Arkansas River, was constructed in 1965 as the original point of diversion for the Homestake Project. Since the 1980s, the ARD has served as a back-up facility and has deteriorated over the years. This multi-objective project includes reconstructing the diversion and intake to provide a reliable river intake, providing fish passage for brown and rainbow trout, and reducing existing risks to recreational users. This grant would fund the additional incremental cost of constructing a boat chute as part of the ARD, which will provide improved navigability through this reach of the Arkansas River between the towns of Granite and Buena Vista. The Authority has coordinated with Colorado Parks and Wildlife and the Arkansas River Headwaters Recreation Area on both the fish passage and recreational aspects of this project.

This project contributes to achieving the Water Plan goals of: (1) protecting and enhancing economic values to local and statewide economies that rely on environmental and recreational water uses; and (2) supporting the development of multipurpose projects and methods that benefit environmental and recreational water needs as well as water needs for communities or agriculture. This project also is an Arkansas Basin Roundtable Basin Implementation Plan IPP based upon the fact that it will improve operation of the intake and diversion owned and operated by Authority for the benefit of the Cities of Colorado Springs and Aurora, and benefits both environmental and recreational needs of Arkansas River basin communities by incorporating fish and boat passages.

Staff supports recommending a \$200,000 grant to Aurora-Colorado Springs Joint Water Authority for Board approval at the January 2018 meeting. This amount is reduced from the requested \$300,000.

#### **b. Colorado Water Trust - McKinley Ditch Project**

In 2014, the Colorado Water Trust (CWT) purchased 1.5 shares of water in the McKinley Ditch and conveyed to the CWCB a permanent right to use those water rights for instream flow (ISF) use under a proposed split-season operation. CWT has requested grant funding for final design and construction of the McKinley Ditch headgate to measure and manage the McKinley Ditch shares for the split-season operation. Project tasks will include constructing and installing a new splitter box and return channel, installing and calibrating turnback structure modifications, and installing a data recording system.

This Project helps achieve the Water Plan's measurable goal of sharing at least 50,000 acre-feet of agricultural water using voluntary alternative transfer methods by keeping agricultural lands in production through a split-season operation of irrigation and ISF use. The Project furthers the Water Plan's Watershed Health, Environment, and Recreation objective by providing additional flows to impaired reaches of the Little Cimarron and Cimarron Rivers, which enhances environmental values and promotes protection and restoration of water quality. Finally, the Project achieves three goals of the Gunnison Basin Implementation Plan: (1) discourage conversion of productive agricultural land to all other uses within the context of private property rights (Project maintains agricultural use on property that was subdivided and on the market for development); (2) quantify and protect environmental and recreational water uses (Project will sustain instream flows through a water right acquisition); and (3) describe and encourage the beneficial relationship between agriculture and recreational water uses (Project will provide flow and ecological benefits to the Little Cimarron River and Cimarron River while keeping agricultural lands in production).

Staff supports recommending a \$66,000 grant to Colorado Water Trust for Board approval at the January 2018 meeting.

#### **c. Ducks Unlimited, Inc. - Wellington Wetland Enhancement and Recreation Project**

Ducks Unlimited (DU) has requested grant funding to restore and enhance a degraded wetland for recreation and wildlife purposes. The project is located on a 50-acre private land parcel just east of

Wellington, CO that is used as a drought reserve grazing site for cattle and horses, and is subject to a no-development deed restriction, ensuring long-term protection. DU's partners on this project include Colorado Parks and Wildlife (CPW), the U.S. Fish and Wildlife Service Partners Program, and the landowner, who has requested CWCB's support for the project. With the grant funds, DU will purchase materials and install necessary water control structures, embankments, and ditching that allow for effective hydrology management, which will result in desired plant species utilized by a variety of wildlife. The project will add wildlife values to a key property surrounded by existing public lands on multiple sides, resulting in habitat connectivity. It also will provide additional recreation opportunities in partnership with CPW, aiding local economies and outdoor education opportunities.

The project furthers the Water Plan goals of: (1) protecting healthy environments by increasing the environmental benefit of the property, particularly utilization by migratory birds; and (2) maintaining agricultural viability; improving the wetland acres will promote more desirable plant species and expand grazable acres that can be used outside of the migratory bird seasons. The project also directly addresses the South Platte Basin Implementation Plan's Environmental and Recreation goals of recognizing the importance of and supporting the development of environmental and recreational projects and multipurpose projects that support water availability for ecologically and economically important habitats and focus areas. The project site is located in the Boxelder Creek drainage, identified as the #20 Key Environmental Focus Area in the South Platte Basin Implementation Plan.

Staff supports recommending a \$50,000 grant to Ducks Unlimited, Inc. for Board approval at the January 2018 meeting.

#### **d. Trout Unlimited - Lower Tomichi Water Conservation Project (Support Reduced Funding)**

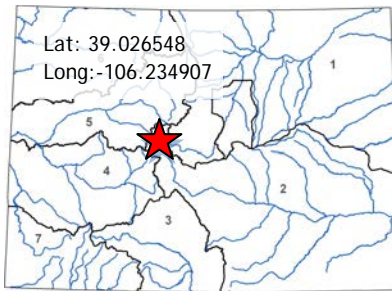
Trout Unlimited (TU) has requested grant funding for a three-year water conservation project that will involve regional coordination to improve environmental and recreational flows through the Tomichi State Wildlife Area (SWA) and reduce agricultural shortages below the SWA. The project will demonstrate how temporary and coordinated split-season agricultural water conservation can provide the flexibility necessary to sustain robust agriculture and healthy streams in the upper Gunnison Basin. TU chose the lower Tomichi Creek region as the demonstration site because existing relationships and past coordination will provide a project that is ready for implementation. Participating water rights will reduce irrigation withdrawals from the stream during critical times, which will benefit stream flows, satisfy downstream water rights and potentially prevent a basinwide call. The method for conserving water is temporary, voluntary, and compensated so the participating water right owners will retain ownership and management of their water rights for existing and future uses.

This project furthers the Water Plan goal of supporting the development of multipurpose projects and methods that benefit environmental and recreational water needs as well as water needs for communities or agriculture by benefitting recreation, tourism, agriculture, and the environment. The project also will help address the Gunnison Basin Implementation Plan Goals 1 and 2 of protecting existing uses and discouraging the conversion of productive agricultural land to other uses within the context of private property rights. Finally, the project approach fits squarely within the Gunnison BIP's statement that ideal solutions to address environmental and recreational needs while preserving existing agricultural uses include temporary and voluntary instream flow leasing arrangements that sustain flows during critical drought periods.

Staff supports recommending a \$75,000 grant to Trout Unlimited for Board approval at the January 2018 meeting. This amount is reduced from the requested \$150,000.



## Water Plan Grant Application



L O C A T I O N	
County/Countries:	Chaffee
Drainage Basin:	Arkansas

D E T A I L S	
Total Project Cost:	\$7,650,000
Water Plan Grant Request:	\$300,000
Other CWCB Funding:	\$0
Other Funding Amount:	\$500,000
Applicant Match:	\$6,850,000
Project Type(s):	Construction & IPP
Project Category(Categories):	Environment & Recreation
Measurable Result:	600 LF of stream restored or protected, 1.37 acres habitat restored, improved fish and boat passage

### Organization

The Aurora-Colorado Springs Joint Water Authority (Authority) is a water authority formed pursuant to Section 29-1-204.2 of the Colorado Revised Statutes. That statute authorizes governmental entities with water ownership or operations responsibilities to contract with each other to develop water resources, systems, or facilities, and drainage facilities.

### Overview

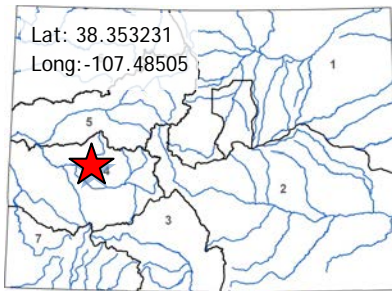
The Homestake Arkansas River Diversion (ARD), located below the Town of Granite on the Upper Arkansas River was constructed in 1965 as the original point of diversion for the Homestake Project. The ARD is a rockfill diversion dam with steel sheet pile and articulated concrete mat armoring at the crest. In the 1980s, the intake pipeline was extended to Twin Lakes and the ARD was retained as a backup facility. Since the 1980s, the diversion dam and intake have deteriorated, including failure of portions of the articulated concrete armoring and erosion of the rockfill. In its current condition, the ARD presents a hazard to navigation due to exposed rebar and sheet pile and powerful hydraulic conditions on the downstream face.

The ARD Improvements Project (Project) will reconstruct the diversion and intake to provide a reliable river intake, provide fish passage for brown and rainbow trout, and reduce risk to recreational users by minimizing entrapment risk and reducing retentive hydraulic conditions. In its current configuration, the Project includes a reconstructed lateral intake, diversion dam, spillway, an engineered fish passage, and appurtenant structures. The project will improve approximately 600 LF of river frontage, and restore approximately 1.37 acres.

This multi-objective project includes a boat chute that will allow for improved navigability through this reach of the Arkansas River. The Authority has worked with Colorado Parks and Wildlife and the Arkansas Headwaters Recreation Area on evaluating the need for improved navigability of the ARD. The Authority has invested significant funding to design the ARD with a boat chute and to analyze the technical feasibility of the project. This grant would fund the additional incremental cost of adding the boat chute to an ARD that has the minimum requirements of a fish passage and spillway. The boat chute comprises approximately 20% of the total project cost. The requested grant funding is less than 5% of the entire project cost that will be covered by the Authority.



## Water Plan Grant Application



L O C A T I O N	
County/Countries:	Montrose & Gunnison
Drainage Basin:	Gunnison

D E T A I L S	
Total Project Cost:	\$140,300
Water Plan Grant Request:	\$66,000
Other CWCB Funding:	\$0
Other Funding Amount:	\$74,300
Applicant Match:	\$0
Project Type(s):	Construction & Other
Project Category(Categories):	Environment & Recreation
Measurable Result:	9.2 miles of stream restored or protected, 857.2 AF of water shared through ATM

### Organization

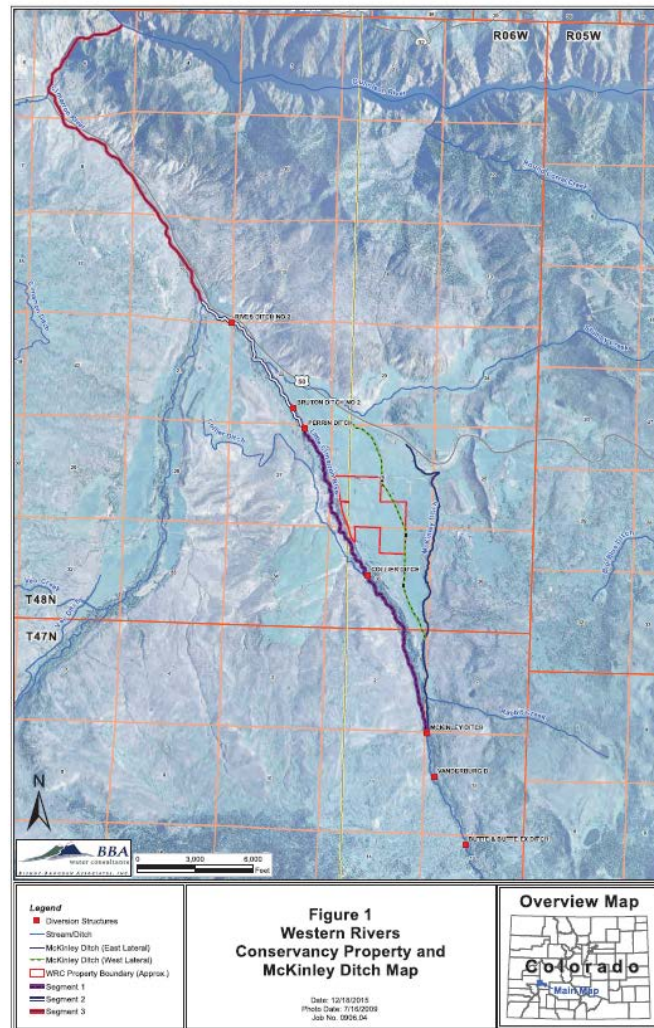
Founded in 2001, the Colorado Water Trust's mission is to restore flows to Colorado's rivers in need. The Trust works directly with water rights owners to find ways of effectively restoring flows to dry rivers using market-based transactions. By innovating within Colorado's water laws, originally designed to take water from rivers, the Trust uses existing legal mechanisms to return water to rivers to keep them flowing strong. Over the past 16 years, the Trust has returned over 6.5 billion gallons of water to nearly 400 miles of rivers and streams.

### Overview

The McKinley Ditch Project is a groundbreaking, collaborative water-sharing agreement between agriculture and the environment. Under this pioneering project, historic lands will continue to be irrigated in the early season (June-July), maintaining the local agricultural heritage. Later in the summer, water will be used to restore flows to a seasonally dry 3.3 mile reach of the Little Cimarron River. This Project will reconnect the upper and lower portions of the Little Cimarron River year round. In 2014, the Colorado Water Trust purchased 1.5 shares of water in the McKinley Ditch and conveyed to the CWCB a permanent right to use those water rights for instream flow use under this proposed split-season operation. The CWCB voted unanimously to accept the offered water rights. Members commended the Water Trust for taking this novel idea from a "conversation to a concept," and for helping the state realize the consumptive/non-consumptive partnerships envisioned by the Water Plan.

The final components of this project are to design and build bypass structures at two locations on the Little Cimarron River and to purchase additional shares in the Ditch. Funding from this grant will be used for final design and construction at the McKinley Ditch to manage the McKinley shares for the split-season operation and to measure and protect the water applied to instream flow use.

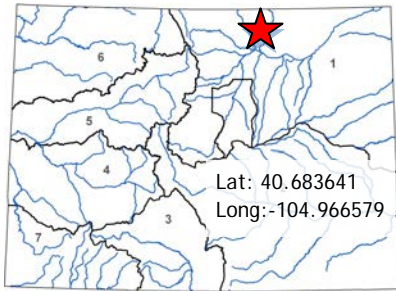




*McKinley Ditch Primary Head Gate and Turnback Structures*



## Water Plan Grant Application



A T I O N	
ABC Reservoir	Larimer
Drainage Basin:	South Platte

D E T A I L S	
Total Project Cost:	\$105,000
Water Plan Grant Request:	\$50,000
Other CWCB Funding:	\$0
Other Funding Amount:	\$0
Applicant Match:	\$55,000
Project Type(s):	Construction
Project Category(Categories):	Environment & Recreation, Agricultural
Measurable Result:	950 acres of restored habitat

### Organization

Ducks Unlimited, Inc. is a member organization structured under section 501(c)(3). The organization was created in 1937 for the conservation of North America's waterfowl and its habitat, DU conserves, restores, and manages wetlands and associated habitats for North America's waterfowl. DU's Colorado Field Office in Fort Collins employs experts in biology, engineering, hydrology, water law, agricultural economics, and land protection.

### Overview

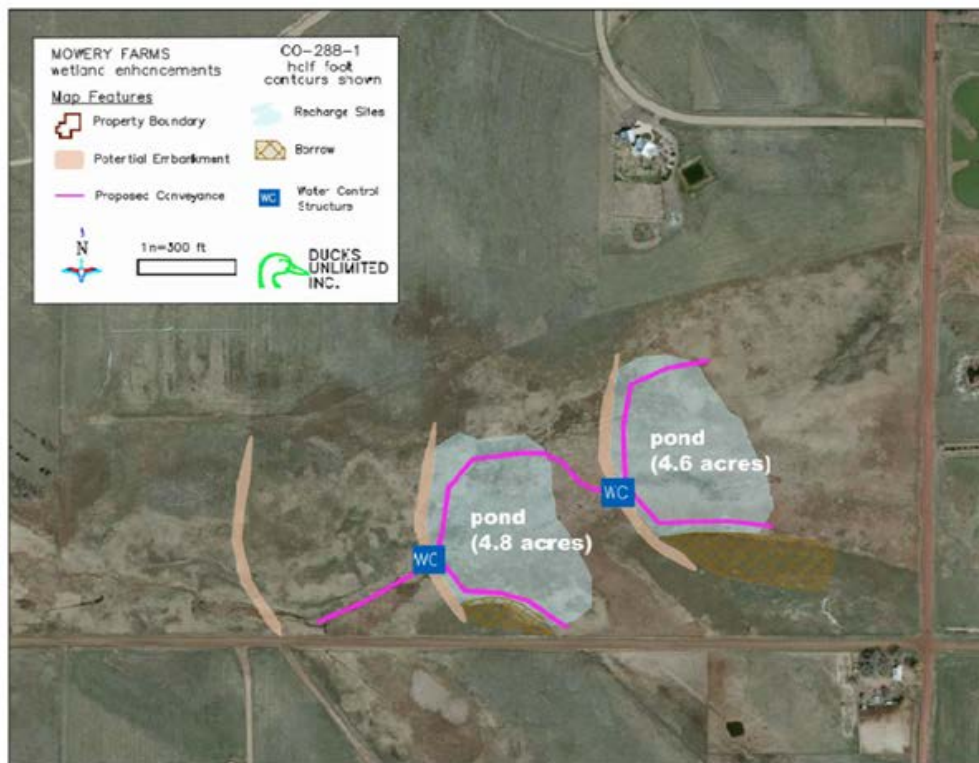
The primary goal of this project is to restore and enhance a degraded wetland for recreation and wildlife purposes. Funding will be used to purchase and install two water control structures, embankments (~4,000 cu. yards), and ditching (~1,250 cu. yards) that will allow for effective hydrology management, resulting in desired plant species utilized by a variety of wildlife. Currently, the subject wetland has become monotypic, dominated by cattails that provide very little value to wetland-dependent species and no recreation opportunities. The proper infrastructure can change this to restore wildlife and recreation values in a highly altered part of the state.

The project will take place on a 50-acre private land parcel just east of Wellington, CO that is used as a reserve pasture for area cattle and horses for grazing and is subject to a no-development deed restriction, ensuring long-term protection. The work will take place within the historic wetland footprint and utilize the natural hydrology, avoiding the need for offsetting depletions and the acquisition of additional water rights. This project will enhance nearly 40 acres of wetlands and 10 acres of uplands on the property, and will be open to limited public hunting and recreation opportunities for youth, veterans, and disabled individuals. The property is surrounded on two sides by public recreation land managed by Colorado Parks and Wildlife, and is only 2 miles from the growing town of Wellington, and 8 miles from Fort Collins. Youth recreation opportunities are critical for these highly urbanized areas.





Site Location

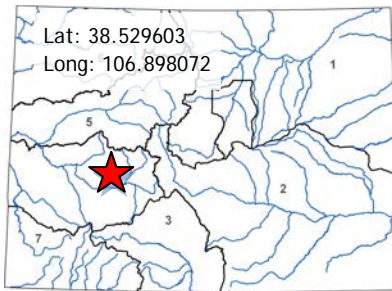


Preliminary Site Design





## Water Plan Grant Application



L O C A T I O N	
<i>County/Countries:</i>	Gunnison
<i>Drainage Basin:</i>	Gunnison

D E T A I L S	
<i>Total Project Cost:</i>	\$300,000
<i>Water Plan Grant Request:</i>	\$150,000
<i>Other CWCB Funding:</i>	\$0
<i>Other Funding Amount:</i>	\$125,000
<i>Applicant Match:</i>	\$25,000
<i>Project Type(s):</i> Study and Water Conservation Program	
<i>Project Category(Categories):</i> Environment & Recreation, Supply & Demand Gap, Conservation & Land Use Planning	
<i>Measurable Result:</i> 1,000 AF of new annual water supply conserved and potentially shared through ATMs, 5 miles of stream restored	

### Organization

Trout Unlimited (TU), the nation's largest coldwater conservation organization, representing more than 150,000 members and volunteers nationwide, including 10,000 in Colorado, has a program in the Upper Gunnison Basin focused on water use solutions that will benefit agricultural operations as well as protect and improve cold water trout habitat.

### Overview

This agricultural water conservation project proposal is located in the upper Gunnison Basin on Tomichi Creek, tributary to the Gunnison River above Blue Mesa Reservoir. This section of Tomichi Creek can experience low flows causing agricultural shortages, increased water temperatures, and less than desirable aquatic habitat. TU coordinated this proposal with six individual land owners, local water leaders, and The Nature Conservancy. This three-year water conservation project will involve regional coordination to improve environmental and recreational flows through the Tomichi State Wildlife Area (SWA), and to reduce agricultural shortages below the SWA. The project will demonstrate how temporary and coordinated split-season agricultural water conservation can provide the flexibility necessary to sustain robust agriculture and healthy streams in the upper Gunnison Basin.

The primary focus of this proposal will be will to reduce local shortages during drought years. The secondary goal is to provide a conservation program template that will be useful in the future.

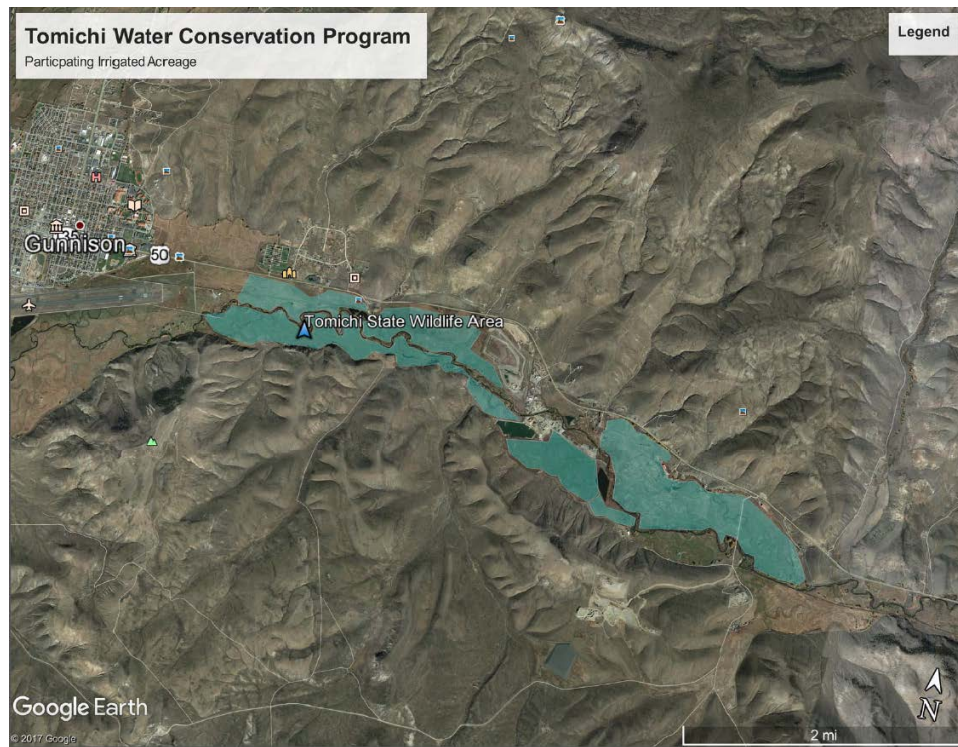
Participating water rights will reduce irrigation withdrawals from the stream during critical times, which will benefit stream flows, satisfy downstream water rights and potentially prevent a basinwide call. The method for conserving water is temporary, voluntary, and compensated so the participating water right owners will retain ownership and management of their water rights for existing and future uses.

The program will provide an example of how temporary, voluntary, and compensated reduction of consumptive use can be used to reduce local watershed shortages during drought years and protect water users from increasing water demands on the Colorado River. This water conservation approach will be transferable to other areas in the upper Gunnison and western Colorado. Documents used for contracting, accounting, verification, and monitoring will be provided as project deliverables to support future innovative water conservation efforts throughout the state.



# Lower Tomichi Water Conservation Project Trout Unlimited

November 2017 Board Meeting  
Initial Consideration



Project Map