Water Supply Reserve Account – Grant and Loan Program Water Activity Summary Sheet March 16-17, 2016 Agenda Item 14(n)

Co-Applicants:	Western Slope Conservation Center / Trout Unlimited				
Fiscal Agent:	Western Slope Conservation Center				
Water Activity Name:	North Fork of the Gunnison Environmental/Recreation and Irrigation Infrastructure Assessment and Planning				
Water Activity Purpose:	Multipurpose				
County:	Gunnison/Delta				
Drainage Basin:	Gunnison				
Water Source:	Gunnison River and tributaries				
Amount Requested/Source of Funds:	\$27,000Gunnison Basin Account\$30,000Statewide Account\$57,000Total Grant Request				
Matching Funds:	Basin Account Match ($$27,000$) = 47.3% of total grant request (meets 5% min); Applicant/3 rd Party Match ($$66,000$) = 53.6% of total grant request Basin Account & Applicant Match ($$93,000$) = 163% of total grant request (meets 25% min) (refer to <i>Funding Summary/Matching Funds</i> section)				

Staff Recommendation:

Staff recommends approval of up to \$27,000 from the Gunnison Basin Account; and \$30,000 from the Statewide Account to help fund the project titled: North Fork of the Gunnison Environmental/Recreation and Irrigation Infrastructure Assessment and Planning.

Water Activity Summary: WSRA funds, if approved, will be expended to fund the project titled: North Fork of the Gunnison Environmental/Recreation and Irrigation Infrastructure Assessment and Planning. The North Fork of the Gunnison is a major tributary to the Gunnison River that provides irrigation water for agricultural producers from the small town of Somerset to Rogers Mesa, west of Hotchkiss. Upstream of major diversions, the North Fork supports a healthy fishery and at periods of high flow the river can support recreation as well. Unfortunately, the river is heavily impacted by diversions for agriculture, leaving the river dry or seriously impaired through the middle of the watershed during the height of the irrigation season. Simultaneously, ditch and canal companies struggle to maintain and effectively use their infrastructure, much of it out-of-date and in need of repairs. While some irrigation infrastructure, including delivery canals, have been upgraded to address salinity issues, most canals have not changed in the past 100 years.

In a collaborative effort to better understand the watershed, assess irrigation infrastructure needs, and address water supply along with environmental flow needs, Trout Unlimited (TU), Western Slope Conservation Center (WSCC), and the North Fork Water Conservancy District (NFWCD) have

joined forces on the creation of a Stream Management Plan (SMP). The proposed SMP will build upon previous modeling, engineering, assessments, and master planning efforts that have been completed by individual irrigation companies and conservation organizations including Trout Unlimited. The planning process will rely heavily on feedback from irrigators and water users throughout the watershed to identify projects and determine feasibility. The partners intend for the plan to serve as a valley-wide planning resource that can be used to address structural and supply issues irrigation water users face while improving flows and habitat in the North Fork. Creation of this SMP will provide the opportunity for a wide range of water users to collaborate on projects that will improve both consumptive and non-consumptive needs.

Project Objectives

- 1. Reduce administrative and physical water shortages
- 2. Improve watershed health
- 3. Identify important values related to water for a variety of water users in the North Fork
- 4. Identify and rank important irrigation infrastructure projects
- 5. Create realistic flow and environmental targets and goals
- 6. Protect existing uses and values
- 7. Establish flow targets for varying runoff regimes
- 8. Establish ranked inventory of non-consumptive and consumptive projects associated with the North Fork of the Gunnison
- 9. Create productive dialogue amongst all water users about water resource management in the North Fork

Discussion: This project serves multiple purposes and aligns with the goals and actions identified in the Gunnison Basin Implementation Plan. Additionally, this project was identified as a Tier 1 project in the Gunnison BIP.

This project also aligns with critical actions identified in Colorado's Water Plan:

A1: "Support and assist the basin roundtables in moving forward priority municipal, industrial, environmental, and agricultural projects and methods identified in their BIPs through technical, financial and facilitation support when requested by a project proponent and the pertinent BRT."

D3: "Provide grants, loans, and technical support to update and improve Colorado's aging agricultural infrastructure, especially where improvements provide multiple benefits."

F6: "Provide technical and financial support to local stakeholder groups to develop watershed master plans for watersheds that are critical to consumptive or nonconsumptive water supply and quality."

Issues/Additional Needs: No issues or additional needs were identified.

Threshold and Evaluation Criteria:

The application meets all four Threshold Criteria.

Tier 1-3 Evaluation Criteria:

This project has under gone review and evaluation and staff has determined that it satisfies the Evaluation Criteria. Please refer to WSRA Application for applicant's detailed response.

Funding Sources	Cash	In-kind	Total
Project Partners	\$19,000	\$19,500	\$39,500
CWCB Stream Management Plan Funds	\$27,500	\$0	\$27,500
Subtotal Matching Funds	\$46,500	\$19,500	\$66,000
WSRA Gunnison Basin Account	\$27,000	n/a	\$27,000
WSRA Statewide Account	\$30,000	n/a	\$30,000
Total Project Costs	\$103,500	\$19,500	\$123,000

Funding Summary/Matching Funds:

CWCB Project Manager: Brent Newman

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.

The Gunnison Basin Roundtable 501 Palmer Street Delta, CO 81416

February 9, 2016

Mr. Craig Godbout Water Supply Management Section COLORADO WATER CONSERVATION BOARD 1313 Sherman St., Room 718 Denver, CO 80203

Re: WSRA Grant Request: Western Slope Conservation Center – North Fork of the Gunnison Environmental/Recreation and Irrigation Infrastructure Assessment and Planning

Dear Mr. Godbout:

This letter is presented to advise you that the grant application submitted by Western Slope Conservation Center for \$27,000 from Basin Account funds and \$30,000 in Statewide Account funds from the Water Supply Reserve Account for the North Fork of the Gunnison Environmental/Recreation and Irrigation Infrastructure Assessment and Planning project was reviewed by the Gunnison Basin Roundtable and its Project Screening Committee and was approved by a unanimous vote of the Gunnison Basin Roundtable during our meeting on February 1, 2016.

This water activity meets the provisions of Section 37-75-104(2), Colorado Revised Statutes. The requirements/language from the statute is provided in Part 3 of the Criteria and Guidelines. This project is identified as a Tier 1 project in the Gunnison Basin Implementation Plan.

This activity furthers basin-wide consumptive and non-consumptive needs for the Gunnison Basin in that it has multiple beneficiaries and achieves objectives of improving irrigation deliveries, maintaining recreational opportunities, and achieving healthy riparian attributes.

Sincerely,

Frank J. Kugel Vice Chair

cc: Hugh Sanburg (e-mail) Tom Alvey (e-mail)



COLORADO WATER CONSERVATION BOARD

WATER SUPPLY RESERVE ACCOUNT APPLICATION FORM



North Fork of the Gunnison Environmental/Recreation and Irrigation Infrastructure assessment and planning

Name of Water Activity

Western Slope Conservation Center

Name of Applicant

Alex Johnson

Amount from Statewide Account:

\$30,000

\$27,000

\$57,000

Amount from Basin Account(s):

Total WSRA Funds Requested:

Approving Basin Roundtable(s)

(If multiple basins specify amounts in parentheses.)

Application Content

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Required Exhibits

- A. Statement of Work, Budget, and Schedule
- B. Project Map
- C. As Needed (i.e. letters of support, photos, maps, etc.)

Appendices – Reference Material

- 1. Program Information
- 2. Insurance Requirements
- 3. WSRA Standard Contract Information (Required for Projects Over \$100,000)
- 4. W-9 Form (Required for All Projects Prior to Contracting)

Instructions

To receive funding from the Water Supply Reserve Account (WSRA), a proposed water activity must be approved by the local Basin Roundtable **AND** the Colorado Water Conservation Board (CWCB). The process for Basin Roundtable consideration and approval is outlined in materials in Appendix 1.

Once approved by the local Basin Roundtable, the applicant should submit this application **with a detailed statement of work including budget and schedule as Exhibit A** to CWCB staff by the application deadline.

WSRA applications are due with the roundtable letter of support 60 calendar days prior to the bi-monthly Board meeting at which it will be considered. Board meetings are held in January, March, May, July, September, and November. Meeting details, including scheduled dates, agendas, etc. are posted on the CWCB website at: <u>http://cwcb.state.co.us</u> Applications to the WSRA Basin Account are considered at every board meeting, while applications to the WSRA Statewide Account are only considered at the March and September board meetings.

When completing this application, the applicant should refer to the WSRA Criteria and Guidelines available at: <u>http://cwcb.state.co.us/LoansGrants/water-supply-reserve-account-grants/Documents/WSRACriteriaGuidelines.pdf</u>

The application, statement of work, budget, and schedule **must be submitted in electronic format** (Microsoft Word or text-enabled PDF are preferred) and can be emailed or mailed on a disk to:

Craig Godbout - WSRA Application Colorado Water Conservation Board 1580 Logan Street, Suite 200 Denver, CO 80203 <u>Craig.godbout@state.co.us</u>

If you have questions or need additional assistance, please contact Craig Godbout at: 303-866-3441 x3210 or <u>craig.godbout@state.co.us</u>.

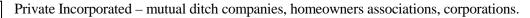
1.	Applicant Name(s):	Weste	Western Slope Conservation Center					
	Mailing address:		Box 1612 ia, CO 81428					
	Taxpayer ID#:	84-072	28032					
	Primary Contact:	Alex	Johnson	Position/Title:	Director			
	Email:		Director@thecons	ervationcen	ter.org			
	Phone Numbers:	Cell:	(970)527-5307	Office:	same			
	Alternate Contact:	Cary	Denison	Position/Title:	Manager			
	Email:	cdens	sion@tu.org					
	Phone Numbers:	Cell:	970-596-321	Office:	same			

Part I. - Description of the Applicant (Project Sponsor or Owner);

2. Eligible entities for WSRA funds include the following. What type of entity is the Applicant?

Public (Government) – municipalities, enterprises, counties, and State of Colorado agencies. Federal agencies are encouraged to work with local entities and the local entity should be the grant recipient. Federal agencies are eligible, but only if they can make a compelling case for why a local partner cannot be the grant recipient.

Public (Districts) – authorities, Title 32/special districts, (conservancy, conservation, and irrigation districts), and water activity enterprises.



Private individuals, partnerships, and sole proprietors are eligible for funding from the Basin Accounts but not for funding from the Statewide Account.



3. Provide a brief description of your organization

Trout Unlimited is the nation's largest coldwater conservation organization with over 150,000 members nationwide and over 10,000 here in Colorado. TU has a strong presence in the Gunnison Basin including the North Fork of the Gunnison watershed. Cary Denison is from the North Fork Valley originally and well acquainted and informed about the irrigation and environmental needs related to the river. TU has been working with the NFWCD and the Fire Mountain Canal and Reservoir Company, the largest diverter on the North Fork, for more than three years now on projects aimed at improving the diversion structure for the canal and improving operations of the canal through structural improvements. TU recently completed the Relief Ditch Diversion Modification, a \$760,000 project located on the Gunnison downstream from the confluence with the North Fork. TU also played an integral part in securing \$8 million in funding from the NRCS through the RCPP program which will be used to improve on and off farm irrigation efficiency within the North Fork and other water conservation districts.

The Western Slope Conservation Center is a 38-year-old grassroots 501(c)3 nonprofit based in Paonia, Colorado. Their mission is to build an active and aware community to protect and enhance the lands, air, water and wildlife of the Lower Gunnison Watershed. Our three program areas are watershed stewardship, public lands advocacy, and community education and engagement. WSCC has managed multiple river restoration projects on the North Fork including the recent restoration and improvement project of a former gravel mining operation site at what is now known as the Paonia River Park. WSCC also plays an integral role in the watershed and community by providing water quality assessments and outreach events. Because of WSCC's history and community role the organization will primarily be assisting with the environmental and recreation assessment.

The North Fork Water Conservancy District was established in 1962 after the completion of the Paonia Reservoir Project that was created to provide supplemental water to irrigated lands in the North Fork drainage. NFWCD has assisted local water users within its boundaries by providing technical and legal support on water related issues. Recently the NFWCD has partnered with the Colorado River District and others on the development of the RCPP project as well as on future management and planning efforts related to Paonia Reservoir. NFWCD will be provide the critical role of enlisting support and interest from the agricultural community in the North Fork.

- If the Contracting Entity is different then the Applicant (Project Sponsor or Owner) please describe the Contracting Entity here. The contracting entity for this grant application is Trout Unlimited.
- 5. Successful applicants will have to execute a contract with the CWCB prior to beginning work on the portion of the project funded by the WSRA grant. In order to expedite the contracting process the CWCB has established a standard contract with provisions the applicant must adhere to. A link to this standard contract is included in Appendix 3. Please review this contract and check the appropriate box.

x	The Applicant will be able to contract with the CWCB using the Standard Contract
	The Applicant has reviewed the standard contract and has some questions/issues/concerns. Please be aware that any deviation from the standard contract could result in a significant delay between grant approval and the funds being available.

6. The Tax Payer Bill of Rights (TABOR) may limit the amount of grant money an entity can receive. Please describe any relevant TABOR issues that may affect the applicant.

Part II. - Description of the Water Activity/Project

1. What is the primary purpose of this grant application? (Please check only one)

X	Nonconsumptive (Environmental or Recreational)							
X	Agricultural							
Х	Municipal/Industrial							
X	Needs Assessment							
	Education							
x	Other Explain: Water Quality Improvement							

- 2. If you feel this project addresses multiple purposes please explain.
- 3. Is this project primarily a study or implementation of a water activity/project? (Please check only one)

Х	Study	Implementation
		 1

4. To catalog m	. To catalog measurable results achieved with WSRA funds can you provide any of the following numbers?						
	New Storage Created (acre-feet)						
	New Annual Water Supplies Developed, Consumptive or Nonconsumptive (acre-feet)						
	Existing Storage I	Existing Storage Preserved or Enhanced (acre-feet)					
	Length of Stream Restored or Protected (linear feet)						
	Length of Pipe/Canal Built or Improved (linear feet)						
	Efficiency Savings (acre-feet/year OR dollars/year – circle one)						
	Area of Restored or Preserved Habitat (acres)						
	Other Explain:	Water management improvement					

Water Supply Reserve Account – Application Form Revised December 2011

This project will not directly improve water resources during the period of the project but rather will provide guidance to water users on how improvements can be made that will make marked improvements to water resources.

4. To help us map WSRA projects please include a map (Exhibit B) and provide the general coordinates below:

Latitude:	38deg.	51′	54″N	Longitude:	107deg.	35′	16″W	
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5. Please provide an overview/summary of the proposed water activity (no more than one page). Include a description of the overall water activity and specifically what the WSRA funding will be used for. A full Statement of Work with a detailed budget and schedule is required as Exhibit A of this application.

Trout Unlimited (TU), Western Slope Conservation Center (WSCC), and the North Fork Water Conservancy District (NFWCD) are collaborating to create a Stream Management Plan for the North Fork of the Gunnison, a major tributary to the Gunnison River that supplies irrigation water to approximately 15,000 acres near the towns of Paonia and Hotchkiss and recreational opportunities and healthy riparian attributes. The proposed SMP will build upon previous modeling, engineering, assessments, and master planning efforts that have been completed by individual irrigation companies and conservation organizations including Trout Unlimited. In the management planning process the river needs and irrigation needs will be evaluated separately then combined to analyze specific sections or reaches of the North Fork River. Irrigators and water users will be interviewed and structural and environmental deficiencies will be physically inspected. The management plan will identify potential projects that can address major needs in each section. The partners intend for the plan to serve as a valley-wide planning document that can help address the structural issues irrigation water users face while improving flows and habitat in the North Fork. Creating this SMP will provide the opportunity for a wide range of water users to collaborate on projects that will improve both consumptive and non-consumptive needs for users of the North Fork.

This project will complete two projects identified by the Gunnison Basin Roundtable: Inventory of Irrigation Infrastructure Improvement needs for Upper North Fork and Environmental/Recreation Project Identification and Inventory for the North Fork.

Part III. - Threshold and Evaluation Criteria

1. <u>Describe how</u> the water activity meets these **Threshold Criteria.** (Detailed in Part 3 of the Water Supply Reserve Account Criteria and Guidelines.)

a) The water activity is consistent with Section 37-75-102 Colorado Revised Statutes.¹ Yes, the proposed project is consistent with the referenced Section of the Colorado Revised Statutes and will continue to protect the use of senior water rights in the State of Colorado.

¹ 37-75-102. Water rights - protections. (1) It is the policy of the General Assembly that the current system of allocating water within Colorado shall not be superseded, abrogated, or otherwise impaired by this article. Nothing in this article shall be interpreted to repeal or in any manner amend the existing water rights adjudication system. The General Assembly affirms the state constitution's recognition of water rights as a private usufructuary property right, and this article is not intended to restrict the ability of the holder of a water right to use or to dispose of that water right in any manner permitted under Colorado law. (2) The General Assembly affirms the protections for contractual and property rights recognized by the contract and takings protections under the state constitution and related statutes. This article shall not be implemented in any way that would diminish, impair, or cause injury to any property or contractual right created by intergovernmental agreements, contracts, stipulations among parties to water cases, terms and conditions in water decrees, or any other similar document related to the allocation or use of water. This article shall not be construed to supersede, abrogate, or cause injury to vested water rights or decreed conditional water rights. The General Assembly affirms that this article does not impair, limit, or otherwise affect the rights of persons or entities to enter into agreements, contracts, or memoranda of understanding with other persons or entities relating to the appropriation, movement, or use of water under other provisions of law.

b) The water activity underwent an evaluation and approval process and was approved by the Basin Roundtable (BRT) and the application includes a description of the results of the BRTs evaluation and approval of the activity. At a minimum, the description must include the level of agreement reached by the roundtable, including any minority opinion(s) if there was not general agreement for the activity. The description must also include reasons why general agreement was not reached (if it was not), including who opposed the activity and why they opposed it. Note- If this information is included in the letter from the roundtable chair simply reference that letter.

c) The water activity meets the provisions of Section 37-75-104(2), Colorado Revised Statutes.² The Basin Roundtable Chairs shall include in their approval letters for particular WSRA grant applications a description of how the water activity will assist in meeting the water supply needs identified in the basin roundtable's consumptive and/or non-consumptive needs assessments.

Yes, the proposed activity is consistent with the referenced section of the Colorado Revised Statutes and in no way impair any contractual or property rights related to the use of irrigation water.

d) Matching Requirement: For requests from the Statewide Fund, the applicants is required to demonstrate a 20 percent (or greater) match of the request from the Statewide Account. Statewide requests must also include a minimum match of 5 percent of the total grant amount from Basin Funds. Sources of matching funds include but are not limited to Basin Funds, in-kind services, funding from other sources, and/or direct cash match. Past expenditures directly related to the project may be considered as matching funds if the expenditures occurred within 9 months of the date the application was submitted to the CWCB. Please describe the source(s) of matching funds. (NOTE: These matching funds should also be reflected in your Detailed Budget in Exhibit A of this application)

Matching funds and In-kind contributions are being provided by Trout Unlimited, The Conservation Center, and North Fork Water Conservancy District. We are well within the match requirement as reflected in the Project Budget in Exhibit A.

² 37-75-104 (2)(c). Using data and information from the Statewide Water Supply Initiative and other appropriate sources and in cooperation with the on-going Statewide Water Supply Initiative, develop a basin-wide consumptive and nonconsumptive water supply needs assessment, conduct an analysis of available unappropriated waters within the basin, and propose projects or methods, both structural and nonstructural, for meeting those needs and utilizing those unappropriated waters where appropriate. Basin Roundtables shall actively seek the input and advice of affected local governments, water providers, and other interested stakeholders and persons in establishing its needs assessment, and shall propose projects or methods for meeting those needs. Recommendations from this assessment shall be forwarded to the Interbasin Compact Committee and other basin roundtables for analysis and consideration after the General Assembly has approved the Interbasin Compact Charter.

2. For Applications that include a request for funds from the **Statewide Account**, <u>describe how</u> the water activity/project meets all applicable **Evaluation Criteria.** (Detailed in Part 3 of the Water Supply Reserve Account Criteria and Guidelines and repeated below.) Projects will be assessed on how well they meet the Evaluation Criteria. **Please attach additional pages as necessary.**

Evaluation Criteria – the following criteria will be utilized to further evaluate the merits of the water activity proposed for funding from the Statewide Account. In evaluation of proposed water activities, preference will be given to projects that meet one or more criteria from each of the three "tiers" or categories. Each "tier" is grouped in level of importance. For instance, projects that meet Tier 1 criteria will outweigh projects that only meet Tier 3 criteria. WSRA grant requests for projects that may qualify for loans through the CWCB loan program will receive preference in the Statewide Evaluation Criteria if the grant request is part of a CWCB loan/WSRA grant package. For these CWCB loan/WSRA grant packages, the applicant must have a CWCB loan/WSRA grant ratio of 1:1 or higher. Preference will be given to those with a higher loan/grant ratio.

- 1. Tier 1- Promotes Collaboration/Cooperation and Meeting Water Management Goals and Identified Water Needs:
 - A. This project is being forwarded with the cooperation and assistance from the organizations and individuals that support irrigation and environmental/recreation
 - B. Project will help meet several identified needs both consumptive and non-consumptive.
- 2. Tier 2- Facilitating Water Activity Implementation:
 - C. This project will help identify irrigation improvement projects that can address other water supply issues.

Tier 3-Project Provides Statewide Value:

- D. The implemented project will provide valuable information about the benefits related to on-farm irrigation efficiency in western Colorado.
- E. The information from this project can be used to address the growing demand and limited supply problems throughout the state.
- F. Results of this project will address water quality concerns on the Gunnison River related to native species conservation including the Colorado Pikeminnow and Razorback Sucker, which are endangered species, as well the Roundtail Chub, Flannelmouth and Bluehead suckers which are species of special concern in the Gunnison and Colorado River.
- G. This project will provide valuable, farmer-tested research data to agricultural producers, governmental organizations and water managers.
- H. This project will address both consumptive and non-consumptive needs by evaluating how improvements to irrigation infrastructure and irrigation water management can address both current and future water demands.

Part IV. – Required Supporting Material

1. **Water Rights, Availability, and Sustainability** – This information is needed to assess the viability of the water project or activity. Please provide a description of the water supply source to be utilized, or the water body to be affected by, the water activity. This should include a description of applicable water rights, and water rights issues, and the name/location of water bodies affected by the water activity.

Trout Unlimited and partners will be working with agricultural producers throughout the North Fork Valley. This project will not have an effect on the water right.

2. Please provide a brief narrative of any related studies or permitting issues.

All work will be done on private lands. No wetlands or waters of the United States will be filled or impacted.

REPORTING AND FINAL DELIVERABLE

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 statement 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 will contain photographs, summaries of meetings and engineering reports/designs.

PAYMENT

Payment will be made based on actual expenditures and invoicing by the applicant. Invoices from any other entity (i.e. subcontractors) cannot be processed by the State. The request for payment must include a description of the work accomplished by major task, and estimate of the percent completion for individual tasks and the entire water activity in relation to the percentage of budget spent, identification of any major issues and proposed or implemented corrective actions. The last 5 percent of the entire water activity budget will be withheld until final project/water activity documentation is completed. 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 help promote the development of a common technical platform.

The above statements are true to the best of my knowledge:

Signature of Applicant: Print Applicant's Name: Alex Johnson Project Title: North Fork of the Gunnison Environmental/Recreation and Irrigation Infrastructure assessment and planning Date: 1/4/16

Return an electronic version (hardcopy may also be submitted) of this application to:

Scope of Work

Grantee: Trout Unlimited Primary Contact: Cary Denison, 125 Colorado Ave. Suite D. Montrose, CO 81403 Phone: 970-596-3291 Project Name: North Fork Integrated Water Management Plan and Assessment Grant Request Amount: \$27,500 Funding Source: Stream Management Plan Grant Introduction and Background

The North Fork of the Gunnison is a major tributary to the Gunnison River that provides irrigation water for agricultural producers from the small town of Somerset to Rogers Mesa, west of Hotchkiss. Upstream of major diversions, the North Fork supports a healthy fishery and at periods of high flow the river can support recreation as well. Unfortunately, the river is heavily impacted by diversions for agriculture, leaving the river dry or seriously impaired through the middle of the watershed during the height of the irrigation season. Simultaneously, ditch and canal companies struggle to maintain and effectively use their infrastructure, much of it out-of-date and in need of repairs. While some irrigation infrastructure, including delivery canals, have been upgraded to address salinity issues, most canals have not changed in the past 100 years.

In a collaborative effort to better understand the watershed, assess irrigation infrastructure needs, and address water supply along with environmental flow needs, Trout Unlimited (TU), Western Slope Conservation Center (WSCC), and the North Fork Water Conservancy District (NFWCD) have joined forces on the creation of a Stream Management Plan (SMP). The proposed SMP will build upon previous modeling, engineering, assessments, and master planning efforts that have been completed by individual irrigation companies and conservation organizations including Trout Unlimited. The planning process will rely heavily on feedback from irrigators and water users throughout the watershed to identify projects and determine feasibility. The partners intend for the plan to serve as a valley-wide planning resource that can be used to address structural and supply issues irrigation water users face while improving flows and habitat in the North Fork. Creation of this SMP will provide the opportunity for a wide range of water users to collaborate on projects that will improve both consumptive and non-consumptive needs.

This project will complete two tier one projects identified in the Gunnison Basin IPP list.

Initiation of the proposed North Fork Integrated Water Management Plan and Assessment is subject to the successful application for funding from the CWCB SMP and Water Supply Reserve Account (WSRA) funding programs, as well as the approval of the board of directors of the NFWCD and WSCC.

Project Objectives

- 1. Reduce administrative and physical water shortages
- 2. Improve watershed health
- 3. Identify important values related to water for a variety of water users in the North Fork
- 4. Identify and rank important irrigation infrastructure projects
- 5. Create realistic flow and environmental targets and goals

- 6. Protect existing uses and values
- 7. Establish flow targets for varying runoff regimes
- 8. Establish ranked inventory of non-consumptive and consumptive projects associated with the North Fork of the Gunnison
- 9. Create productive dialogue amongst all water users about water resource management in the North Fork

Tasks

Each of the following tasks will build on previous studies and analysis related to irrigation infrastructure and watershed health. To reduce time and cost project proponents will encourage and assist contractor to use previously gathered data to complete each of the following tasks.

1. Environmental and Recreation Needs Assessment

Description of Task

Within this task, project proponents and contractors will analyze the overall health of the watershed. This assessment and inventory will compile data related to specifics about the health and ecological function of various sections of the river.

Method/Procedure

The contractor will divide the river into segments based on reach, flow, irrigation demands and general health. Within each segment the contractor will complete field assessments that evaluate status of vegetative habitat, instream habitat, lateral and vertical stream stability, sediment deposition, noxious and invasive week, with depth analysis and other applicable analysis. Each segment will be analyzed using R2 Cross methodology to determine minimum stream flow requirements. This data will be evaluated against aerial imagery and previous watershed assessment to highlight major changes or trends within each reach. The contractor will perform a series of interviews with water users and residents to capture values, concerns and interests related to recreation in and health of the watershed.

<u>Deliverable</u>

This task will produce maps of each segment of the river that highlight major characteristics and points of concern. A narrative of each segment including the characteristics and impairments will be coupled with the map. The results of the R2 Cross study along with flow recommendations for a range of hydrologic conditions for each reach will be included in this section of the report. Based on the interview processes a list of environmental goals and concerns will be compiled.

2. Irrigation Infrastructure Inventory and Assessment

Description of Task

Under this task, project partners and contractors will assess and each of the major irrigation ditches and canals along the North Fork within the stretch from Paonia Reservoir to the confluence with the Gunnison River. The analysis will evaluate current condition, operations, demand and

water shortages, recent improvements and level of planning and engineering completed for each ditch.

Method/Procedure

This task will be accomplished through evaluation of aerial imagery, diversion records, water rights information, on-site investigations, and interviews with water users and managers. Each ditch will be analyzed by its crop demand to water supply ratio and by the efficiency with which it delivers water and the presumed efficiency of water application. Transit loss information will be calculated based on soil types and comparisons to transit loss of other area irrigation structures. Vital personnel such as ditch managers and staff along with water users will be interviewed on each ditch and canal. Return flow and current water management information will be gathered. Analysis and information gathering will vary from between diversions depending on the size and perceived needs of each diversion.

<u>Deliverable</u>

A summary of each diversion will be created that will provide a map of each point of diversion along with important infrastructure or deficiencies, and points of return flow. This summary will include information about the efficiency of the ditch, points of concern, goals of the ditch company and water users, and previous planning and improvement efforts.

3. Information Synthesis

Description of Task

This task will include combining and comparing the information from the environmental/recreation and irrigation assessments to highlight important overlaps for areas of possible improvement.

Method/Procedure

Each segment from the environmental and recreation analysis will be overlapped with diversion and return flow information from the irrigation infrastructure assessment. Flow target information will be combined with status quo diversion information as a baseline for improvements. Target flows by segment and available hydrology will then be evaluated based on information from the irrigation infrastructure analysis.

<u>Deliverable</u>

This task will provide mapped and highlighted area of the river system that are impaired and affected by a diversion or water use that can be implemented to improve water management for all users.

4. Watershed Planning and Recommendations Description of Task

This task will focus on synthesizing deliverables from previous tasks into a usable plan that will identify projects and processes to address deficiencies in the irrigation infrastructure and river health and function.

Method/Procedure

The data collected in previous tasks will be synthesized into a report that will include segment maps as well as specific information about irrigation and non-consumptive demands and projects that can meet those demands. This report will also provide recommendations based on opportunities, overlap of needs and project feasibility.

<u>Deliverable</u>

This task will produce a planning document for the water users of the North Fork that will assist in future water project planning. More specifically this task will create a list of recommendations driven by data from the analysis that will explain in detail what projects and actions will protect and improve water resources and values for multiple users in the North Fork of the Gunnison River.

5. Project Management and Administration

Description of Task

Overseeing day to day operations and progress related to the project while administering support and financial oversight.

Method/Procedure

Project management team will include staff from WSCC, TU, and NFWCD who will jointly select and hire contractors, based on a competitive selection process, to complete the tasks related to the project. Selected contractor will respond directly the management team who will make decisions related to completion and success of the project.

<u>Deliverable</u>

Project managers will provide the CWCB with status and final reports including the findings of the Stream Management Plan.

Task	Description	Target Start Date	Target Completio n Date	CWCB WSRA Fund	CWCB Stream Managem ent Plan	Other Funding Cash/Source	In-Kind Contribution/ Source	Total
1	Environmental/Rec reation Needs Assessment	May, 2016	September , 2016	15,000	8,000	10,000/ WSCC	2,000/ TU, WSCC	30,000
2	Irrigation Infrastructure	April,	September	20,000	8,000	5,000/	2,000/	35,000

Budget and Timeline

	Inventory and Assessment	2016	, 2016			NFWCD	TU,NFWCD	
3	Information Synthesis	Septe mber, 2016	November , 2016	5,000	4,000	1,500/ TU	1,000/ NFWCD, WSCC, TU	11,000
4	Watershed Planning and Recommendations	Nove mber, 2016	December , 2016	12,000	5,000	2,000/ NFWCD,W SCC,TU	1,000 NFWCD, WSCC, TU	20,000
5	Project Management and Administration	April, 2016	January 2017	5,000	2,500	0	13,500/ NFWCD,WSCC, TU	13,500
	TOTALS			\$57,000	\$27,500	\$19,000	\$19,500	\$123,000