



COLORADO

**Colorado Water
Conservation Board**

Department of Natural Resources

1313 Sherman Street
Denver, CO 80203

P (303) 866-3441
F (303) 866-4474

John Hickenlooper, Governor

Robert Randall, DNR Executive Director

James Eklund, CWCB Director

TO: Colorado Water Conservation Board Members

FROM: Chris Sturm, Stream Restoration Coordinator

DATE: January 24, 2017

AGENDA ITEM: 20. Colorado Watershed Restoration Program - Application for Funding Consideration

Background: The Colorado Watershed Restoration Program (CWRP) is designed to provide planning and project implementation funding for watershed and stream restoration and protection efforts. This includes stream management planning. The program supports applicants committed to collaborative approaches to restoring and protecting the ecological processes that connect land and water. The CWRP guidance document and application was approved by the Board in September of 2008. The Board approved revisions to the program in May 2012 and July 2015. The latest revision requires board approval for applications greater than \$100,000.

Discussion: Staff received twelve applications by the November 4, 2016 deadline. The applications were reviewed by a committee comprised of CWCB staff. One application is recommend for funding greater than \$100,000. It was submitted by the Upper Gunnison River Water Conservancy District and is entitled, "Upper Gunnison Basin Watershed Assessment and Management Planning: Initial Steps for Ohio Creek, East River, and the Lake Fork Sub-basins". The funding request is \$175,000. The proposed match funding is \$397,800, of which \$360,000 is cash. Project partners also include Trout Unlimited, High County Conservation Advocates, and Lake Fork Valley Conservancy.

The application objectives include:

- Identification of key stakeholders, values, and watershed resources in the sub-basins
- Identification of data gaps to determine assessment needs in the sub-basins
- Consumptive and non-consumptive assessments at sub-basin levels
- Implementation of demonstration projects to improve efficiency and watershed health
- Development of watershed best management practices based on previous objectives

The application aligns with objectives in the Gunnison Basin Roundtable Implementation Plan and the Colorado Water Plan. It is intended to improve water security for all water users by protecting existing uses, meeting user shortages, and maintaining healthy riverine ecosystems.

Staff recommendation: Staff recommends that the Board approve a non-reimbursable expenditure up to \$175,000 from the Colorado Watershed Restoration Program for the purpose of providing match funding to the Upper Gunnison River Water Conservancy District's application.



Upper Gunnison Basin Watershed Assessment and Management Planning: Initial Steps for Ohio Creek, East River, and the Lake Fork Sub-basins



Prepared by:

Upper Gunnison River Water Conservancy District
210 West Spencer, Suite B
Gunnison, CO 81230

Submitted to:

Colorado Water Conservation Board
ATTN: Chris Sturm
1313 Sherman St., Room 721
Denver, CO 80203
chris.sturm@state.co.us

1.0 PROJECT PROPOSAL SUMMARY SHEET

Project Title:	<i>Upper Gunnison Basin Watershed Assessment and Management Planning: Initial Steps for Ohio Creek, East River, and the Lake Fork Sub-basins</i>
Project Location:	Ohio Creek, East River, and Lake Fork Sub-basins of the Upper Gunnison Basin
Grant Type:	Watershed Restoration Program: Stream Management Planning
Grant Request Amount:	\$175,000
Cash Match Funding:	\$360,000
In-kind Match Funding:	\$37,800
Project Sponsor:	Upper Gunnison River Water Conservancy District
Contact:	Frank Kugel 210 West Spencer, Suite B Gunnison, CO 81230 Phone: (970) 641-6065 Email: fkugel@ugrwcd.org

Project Summary:

The Upper Gunnison Watershed Assessment and Stream Management Plan is intended to improve water security for all water uses in the Upper Gunnison Basin, by protecting existing uses, meeting user shortages, and maintaining healthy riverine ecosystems in the face of future demands and climate uncertainty, as laid out in the Gunnison Basin Roundtable Implementation Plan (GBIP) and the Colorado Water Plan (CWP). Baseline and future needs assessment information will be compiled from the eight sub-basins, resulting in a comprehensive watershed management plan for the Basin that recognizes the complex interactions between environmental, agricultural, municipal, and recreational uses of water.

Work to be completed as part of this funding request includes assessment and planning tasks in three of the eight sub-basins of the Upper Gunnison: Ohio Creek, East River, and the Lake Fork River, as follows:

- 1) stakeholder outreach to gather the range of water user needs and values;
- 2) initial sub-basin mapping and data compilation;
- 3) identification of informational gaps in non-consumptive and consumptive uses;
- 4) implementation projects that demonstrate water use efficiencies or other watershed best management practices in each sub-basin; and,
- 5) development of options, working with stakeholders, to address water shortages and other land management issues, both current and potential in light of changing climate conditions.

Total budget, including all grants and in-kind contributions is \$572,800. Requested amount from the CWCB Watershed Restoration Program is \$175,000.

2.0 PROJECT BACKGROUND

2.1 Target Basin and Water Uses

The Upper Gunnison River Basin is an important headwaters area of the Gunnison River, a major tributary of the Colorado River (Figure 1). Major watersheds within the Upper Gunnison Basin include the East River, Ohio Creek, Taylor River, Tomichi Creek, Cochetopa Creek, Cebolla Creek, and the Lake Fork of the Gunnison, along with other smaller tributaries contributing to the Blue Mesa Reservoir. In addition, about twenty heavily-used miles of the Gunnison River main stem, from Almont to Blue Mesa Reservoir, are included as a sub-basin. Each of these has unique qualities, a distinct set of uses, and specific needs for a future defined by water scarcity. All of them have environmental needs that – being headwaters streams – are important to the entire Colorado River Basin. Primary water uses in the Upper Gunnison Basin include the following:

- *Agriculture*, primarily for irrigated hay and pasture meadows with rights to approximately 95% of the of the Basin's water resources;
- *Water-based recreation* such as rafting, kayaking, flat water boating, fishing, and skiing.
- *Domestic uses* that include towns and cities, housing subdivisions, private wells, and public service utilities;
- *Traditional industrial uses* such as mining, geothermal, and hydropower energy production, geothermal future of water use in the Upper Gunnison Basin. Blue Mesa Dam hydropower rights are a basin-wide factor in planning;
- *Watershed ecosystems* that require a certain quantity and quality of flowing water to sustain healthy ecosystem functions.

2.2 The Need for Watershed Assessment and Stream Management Planning

This proposal represents the desire of the UGRWCD and its partners to begin the work laid out in the Gunnison Basin Roundtable Implementation Plan (GBIP) and the Colorado Water Plan (CWP). The proposed Upper Gunnison Watershed Assessment and Stream Management Plan is intended to improve water security for all water uses in the Upper Gunnison Basin, by protecting existing uses, meeting user shortages, and maintaining healthy riverine ecosystems in the face of increased future demand and climate uncertainty. Once baseline and future needs assessment information is compiled from the eight sub-basins, planning partners will approach watershed and stream management planning holistically, acknowledging the complex interactions between environmental, agricultural, municipal, and recreational uses of water. Resulting watershed management plans will be adaptive by nature, recognizing the importance of accommodating existing and future consumptive use needs, incorporating emerging climate factors, while striving to maintain or improve the current state of aquatic ecosystem health.

Each sub-basin is unique enough to warrant its own needs assessment for incorporation into a comprehensive Upper Gunnison Watershed Management Plan. The following factors need to be taken into account in each sub-basin needs assessment:

- *Current Use and Identified Conservation, Efficiency or Other Projects and Processes (IPPs):*
- *Anticipation of Future Population Growth:* State Water Supply Initiative (SWSI) projections indicate that the human population of the Upper Gunnison Basin will grow from approximately 16,000 now to 25,000 to 32,000 by mid-century (60-100% increase), depending on numerous geographic, economic and cultural factors.
- *Water Supply Losses from Climate Change:* Preliminary research reveals that impacts of climate change to our basin may be significant. Potential impacts include earlier spring

runoff peaks, lower summer flows due to higher crop evapotranspiration rates, and a decrease in water supplies from 5 to 20 percent by 2070.

- *Geopolitical Colorado River Basin Issues:* Another dry period in the Colorado River Basin equivalent to the 2000-2006 drought would bring strong pressure from large junior water users (Denver Water's Roberts Tunnel, the Fry-Ark Project, etc.) upon agriculture to lease or sell water senior to the 1922 Colorado River Compact, to meet urban and Lower Basin needs, with the implied threat of eminent domain if the water is not forthcoming. This warrants a need for agricultural users in places like the Upper Gunnison Basin to determine the true value of water here, both for economic and ecological needs, and plans and costs for interrupted supply scenarios.

3.0 GOALS AND OBJECTIVES

3.1 Long-term Goals and Objectives

The long-term goal of this effort is to enhance resilience of agricultural, municipal, and recreational water uses and improve stream ecosystems in the Upper Gunnison Basin. The Upper Gunnison Basin watershed planning process (to be finished beyond this initial funding request) has two broad objectives:

- 1) Assess and quantify environmental, agricultural, municipal, recreational, and industrial needs/uses, and where those needs are unmet under current and future conditions.
- 2) Develop watershed management and implementation plans that can be used to manage shortages, sustain existing uses, and maintain healthy stream ecosystems in the face of increased demands and climate uncertainty.

The long-term planning and implementation effort will result in the following benefits upon completion:

- 1) *Better understanding of spatial and temporal water availability gaps* under existing water management conditions.
- 2) *Creation of specific models for each major tributary of the Upper Gunnison Basin* for managing future water use in a way that best fulfills existing uses, ecological function, and sub-basin-specific priorities and adapts to future changes in the hydrological cycle.
- 3) *Access to funding for infrastructure improvement.* By identifying infrastructure needs in the assessment process, stakeholders will be more readily able to access sources of funding from the UGRWCD, Gunnison Basin Roundtable, State Water Supply Reserve Account, and other state resources that become available for CWP implementation.
- 4) *Greater grassroots determination of how we manage our watershed resources.* Working collaboratively to improve watershed health will maximize our self-determination in watershed use, avoiding ESA and CWA enforcement issues.
- 5) *High functioning riparian areas and forage.* High functioning riparian areas increase water storage and percolation, elevate saturation zones, dissipate storm energy, and enhance vertical and lateral channel stability.
- 6) *Improved fisheries that will enhance recreation and increase leasing opportunities.* Enhancing these fisheries could provide additional recreational economic opportunities on both private and public lands.
- 7) *Healthy ecosystems.* Protecting watershed health provides a range of ecosystem services, including cleaner drinking water, fertile soils, productive nutrient cycles, and intangible benefits.

3.2 Long-term Planning Timeline

The following table summarizes the timeline for completion of the Upper Gunnison Basin Watershed Management Assessment and Planning process, by sub-basin (beyond scope of this funding request):

Sub-Basin	Phase	2017	2018	2019	2020	2021
Ohio Creek	I					
East River	I					
Lake Fork	I					
Cebolla	II					
Tomichi	II					
Cochetopa	II					
Taylor	III					
Main Stem	III					
Basin Wide Planning	IV					

3.3 Objectives for this Funding Request

This particular grant request to CWCB is for the first phase of the planning process described above, initially focusing on Ohio Creek, East River, and the Lake Fork of the Gunnison. Once these assessments are complete, similar assessments will be performed for the other major tributaries to the Upper Gunnison Basin (contingent on future funding sources).

Specific objectives for Phase I (2017-2020) are the following:

- 1) Identify key stakeholders and their values and uses of watershed resources in the initial sub-basins of Ohio Creek, East River, and the Lake Fork.
- 2) Working with stakeholders, identify data gaps to determine assessment needs for these sub-basins, including stakeholder ideas for water use efficiencies and other watershed management best practices.
- 3) Address information gaps through consumptive and non-consumptive assessments.
- 4) Demonstrate water use efficiency or other watershed best management practices with on the ground pilot sites in all three sub-basins.
- 5) Provide a comprehensive range of watershed best practices based on assessment, demonstrations, and stakeholder input, to be used for subsequent sub-basin and basin-wide planning.

3.4 Phase I Sub-Basins: Ohio Creek, East River and the Lake Fork of the Gunnison River

Ohio Creek Watershed: Ohio Creek is a tributary to the Gunnison River flowing southeast through a valley of irrigated mountain meadows and productive ranches. Ohio Creek originates near Ohio Pass and is fed by major tributaries like Castle Creek, Mill Creek, Carbon Creek, and Pass Creek until it joins the Gunnison River just north of the City of Gunnison. In the last several decades the Ohio Creek Valley has seen an increase in residential development and a surge of new property owners attracted by the agricultural and recreational attributes of this beautiful mountain valley. Water from Ohio Creek is used primarily to irrigate approximately 10,000 acres. This watershed has very limited storage potential and experiences high flows in the spring and low flows later in the season, starting in July, which has been a long-standing problem in the sub-basin. Trout

Unlimited and the UGRWCD have initiated assessment work with stakeholders to identify potential projects that can reduce shortages, improve watershed health, and protect existing uses, now and in the future. Participants identified a number of possible treatments, such as diversion, ditch and stock pond improvements, channel restoration, and water conservation measures. In response, UGRWCD funded a channel and ditch improvement project that has been used to demonstrate multiple objectives of improved flow returns to the river while still meeting irrigation flow requirements, constructed in 2015.

East River Watershed: The East River begins at Emerald Lake above the Town of Crested Butte. Major tributaries to the East River include the Slate River, Brush Creek, and Cement Creek. The East River joins the Taylor River to form the Gunnison River at Almont, Colorado. The East River watershed is home to historic mining activities (including several problematic abandoned mines), grazing units, irrigated pasture, irrigated hay meadows, recreational trails, fishing, skiing at Crested Butte Mountain Resort, and the Rocky Mountain Biological Laboratory. Crested Butte, located on the upper end of the East River watershed, has experienced significant growth in the last twenty years. Local stakeholders have invested substantial resources to supply water for the new homes and the growing community, and in addressing ecosystem and recreational needs on the East River, primarily in regards to water quality issues, riparian degradation, and bank stabilization. The Coal Creek Watershed Coalition has completed watershed planning efforts for Coal Creek and the Slate River to address mining-related water quality concerns. As a result, major remediation work has taken place at the Standard and Daisy Mines. The Town of Crested Butte and irrigators have also partnered with High Country Conservation Advocates to secure funding for local water efficiency and conservation projects, including diversion reconstructions and piping projects. Additional environmental needs assessments have also been conducted. The local land trust is very active in bringing several private lands under conservation. These efforts by local stakeholders can contribute to additional environmental assessment work as proposed here.

Lake Fork Watershed: The Lake Fork of the Gunnison River watershed flows into the lower portion of Blue Mesa Reservoir near Sapinero. Its major tributary is Henson Creek, which meets the Lake Fork in the Town of Lake City. This area is home to historic mining activities, with many abandoned workings contributing significant heavy metal loading to streams. Land use in the lower Lake Fork is primarily irrigated pasture and hay meadows and grazing, although increasingly these agricultural lands are being sub-divided and developed. Although population is low year-round, large numbers of visitors are drawn to the area as part of the BLM Alpine Triangle Recreation Management Area. Lake San Cristobal, Colorado's second largest natural lake, is a major attraction. Restoration and conservation activities are well under way in the upper watershed. To date, ten mine sites have been remediated, including the Hough Mine, a major contributor of metal loading to Henson Creek, through a broad stakeholder partnership. The LFVC has also been restoring the river channel in the vicinity of the Town of Lake City. The Town of Lake City has recently invested substantial funds to replace the Town's water lines, which were losing 70% through leakage. The Town, Hinsdale County, and the UGRWCD also placed a water retention structure at the outlet of Lake San Cristobal to provide 950 acre-feet of augmentation water. The wetlands at the inlet of Lake San Cristobal are now protected through conservation easements.

These rivers are currently over-appropriated and water shortages are already evident. Urgent work needs to be done in all three sub-basins to determine collaborative management strategies to address environmental, recreational, agricultural, and municipal water needs in light of changing hydrology, increasing population, development, and recreational use.

4.0 ORGANIZATIONAL CAPACITY

UGRWCD will be the project applicant, providing oversight of the assessment and planning process, and assisting in the coordination of representatives from the agricultural, municipal,

industrial, recreational, and environmental water interests. UGRWCD is uniquely positioned to serve in this capacity because its primary mandate is to be an active leader in all issues affecting the water resources of the Upper Gunnison Basin. The UGRWCD's Statement of Mission and Values, Goals and Objectives reflect the values and actions laid out in State and regional water planning efforts (Attachment A). The UGRWCD Board of Directors has formally sanctioned a Watershed Management Planning Committee (WMPC), composed of both UGRWCD board members and additional watershed partners. The Committee has prepared and approved a Framework for Watershed Management Planning upon which this proposal is based and which is consistent with action directives in the Colorado State Water Plan, and in the Gunnison Basin Implementation Plan. In addition, UGRWCD has made substantial financial commitments in the past year and for the initial phase of assessment and planning work and will continue to commit funds throughout the planning and implementation process.

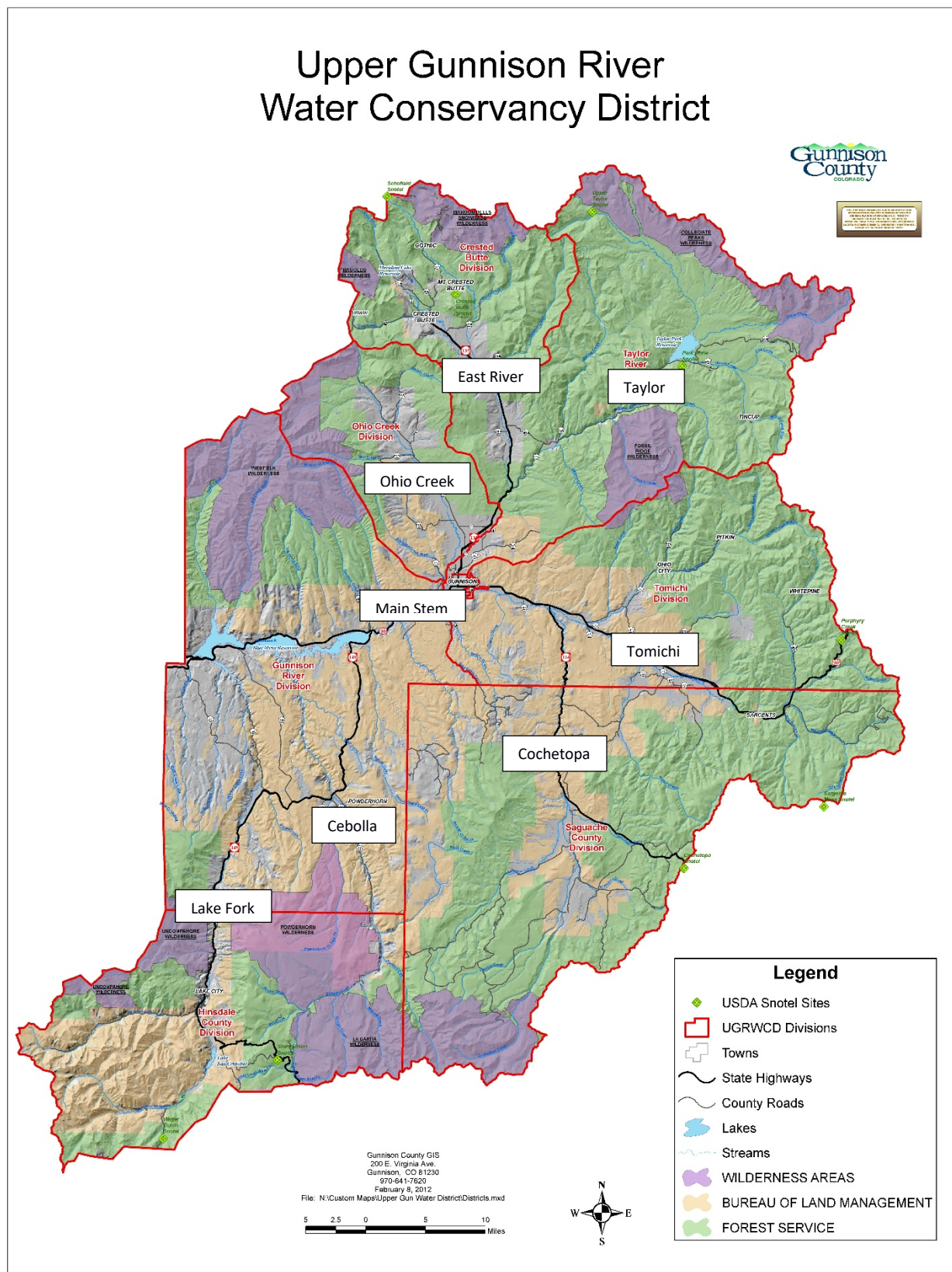
The UGRWCD WMPC will provide technical and fiduciary oversight for all phases of the project. UGRWCD will appoint sub-basin coordinators who will be people familiar with the sub-basin and its inhabitants and interact with the major water users. A complex sub-basin may warrant more than one coordinator – i.e., one to work with agricultural users, another to work with municipal and industrial users, etc. For this initial phase, key implementation partners will be Trout Unlimited, High Country Conservation Advocates, and the Lake Fork Valley Conservancy, each serving as liaison in their respective sub-basins of interest (Ohio Creek, East River, and the Lake Fork). For Ohio Creek, Jesse Kruthaupt from Trout Unlimited will be the coordinator. Jesse is ideal for this position, having grown up on a ranch in the valley, and having solid working relationships with many ranchers here. Julie Nania from HCCA will be one coordinator for the East River, and Camille Richard, LFVC, for the Lake Fork of the Gunnison, who will also assist the UGRWCD with grant administration. Additional coordinators will be sought from the Gunnison County Stock Growers Association to assist with outreach. The success of the project will be evaluated using the Monitoring and Evaluation Framework found in Attachment B.

UGRWCD will work closely with local, state and federal agencies and local organizations working in the Basin, including the basin municipalities, counties, NRCS, USFS, BLM, CPW, the Gunnison Conservation District, the Gunnison Basin Climate Working Group, the Gunnison Sage Grouse Working Group, and other relevant entities. These partners will help provide data and information relevant to the assessment effort and also participate in stakeholder forums to include their perspectives in the assessment and planning process. Graduate students from local universities (Western State Colorado University and Colorado Mesa University) will also assist in the process as appropriate, through coursework and research.

5.0 BUDGET AND MATCH

Total estimated cost for assessment and planning for the Basin will be in the range of \$750,000 over the proposed five-year timeline. Total cost for this initial phase described in the Scope of Work is estimated to be \$572,800, with final assessment and demonstration project costs dependent on data gap identification and design specifications. Additional funding would be necessary to consolidate and implement an over-arching Upper Gunnison Basin Watershed Management Plan and its implementation. UGRWCD has budgeted \$150,000 for fiscal year 2017 and plans to commit this same amount for ensuing years. UGRWCD will also provide all legal analysis and staff to oversee project implementation as an in-kind service. Other match commitments include 720 hours of staff time from High Country Conservation Advocates and 540 hours from Trout Unlimited, valued at \$37,800, and a future grant of \$60,000 from CWCB's Water Supply Reserve Account to cover demonstration project construction. A detailed project budget is in the attached Scope of Work.

Figure 1. Map of Upper Gunnison River Basin and its Sub-Basins



SCOPE OF WORK

GRANTEE: Upper Gunnison River Water Conservancy District

PRIMARY CONTACT: Frank Kugel

ADDRESS: 210 West Spencer, Suite B
Gunnison, CO 81230

EMAIL: fkugel@ugrwcd.org

PHONE: (970) 641-6065

PROJECT NAME: Upper Gunnison Basin Watershed Assessment and Management Planning: Initial Steps for Ohio Creek, East River, and the Lake Fork Sub-basins

GRANT AMOUNT: \$175,000

INTRODUCTION AND BACKGROUND

The Upper Gunnison River Basin is an important headwaters area of the Gunnison River, a major tributary of the Colorado River. Major watersheds within the Upper Gunnison Basin include the East River, Ohio Creek, Taylor River, Tomichi Creek, Cochetopa Creek, Cebolla Creek, and the Lake Fork of the Gunnison, along with other smaller tributaries contributing to the Blue Mesa Reservoir. In addition, about twenty heavily-used miles of the Gunnison River main stem, from Almont to Blue Mesa Reservoir, are included as a sub-basin. Each of these has unique qualities, a distinct set of uses, and specific needs for a future defined by water scarcity. Primary water uses and functions in the Upper Gunnison Basin include agriculture, recreation, domestic and industrial, and provision of ecosystem services.

The Upper Gunnison Watershed Assessment and Stream Management Plan is intended to improve water security for all water uses in the Upper Gunnison Basin, by protecting existing uses, meeting user shortages, and maintaining healthy riverine ecosystems in the face of future demands and climate uncertainty, as laid out in the Gunnison Basin Roundtable Implementation Plan (GBIP) and the Colorado Water Plan (CWP). Baseline and future needs assessment information will be compiled from the eight major sub-basins, resulting in a comprehensive watershed management plan for the Basin that is adaptive and that recognizes the complex interactions between environmental, agricultural, municipal, and recreational uses of water. Each sub-basin is unique enough to warrant its own needs assessment for incorporation into a Watershed Management Plan for the Basin. Key issues to consider include current uses, future population growth, water supply losses from climate change, the geopolitics of the Colorado River Basin, and future conservation needs that balance future demand with ecosystem health.

This funding request is for initial assessment and stakeholder outreach efforts for three sub-basins: East River, Ohio Creek, and the Lake Fork River. Once these assessments are complete, similar steps will be performed for the other major tributaries to the Upper Gunnison Basin (contingent on future funding sources), ultimately culminating in a plan that lays out realistic implementation strategies to meet future conditions.

OBJECTIVES

Specific objectives for this funding request (2017-2020) are the following:

- 1) Identify key stakeholders and their values and uses of watershed resources in the initial sub-basins of Ohio Creek, East River, and the Lake Fork.
- 2) Working with stakeholders, identify data gaps to determine assessment needs for these sub-basins, including stakeholder ideas for water use efficiencies and other watershed management best practices.
- 3) Address information gaps through consumptive and non-consumptive assessments.
- 4) Demonstrate water use efficiency or other watershed best management practices with on the ground pilot sites in all three sub-basins.
- 5) Provide a comprehensive range of watershed best management practices based on assessment, demonstrations, and stakeholder input, to be used for subsequent sub-basin and Basin-wide planning.

TASKS

TASK 1 - Stakeholder Outreach

Description of Task

Stakeholder engagement is key to successful watershed management and therefore the first and most essential task, as it starts from the beginning of the assessment and planning process. This task runs concurrent with other tasks because stakeholder input is sought for all aspects of the project, from data gathering to planning to implementation. The primary objectives of this task are twofold: the first will be to identify different stakeholders' perception of personal and sub-basin assessment and implementation needs under current conditions; then to identify needs they perceive based upon projected changes for the future, including ideas on how to achieve this.

Watershed level issues are complex and cover a wide range of ecosystems and interests. Bringing people together to discuss tough issues such as water shortages and to generate new ideas for improved efficiency requires a facilitated process that transforms perspectives across the board. This requires client-centric facilitated coaching where targeted outcomes and suitability of results are held by the clients themselves, rather than driven by the facilitator, who is there to merely guide the process, not the content. In this type of multi-stakeholder milieu, learning is transformative, creating new paradigms, beliefs and values held by the group or groups, and targeting multi-level objectives that they identify. It is imperative that the facilitators are relatively neutral entities that all stakeholders accept and trust.

Method/Procedure

A multi-faceted process will be developed to identify our key stakeholders and engagement strategies so that their values and ideas are heard and acted upon, and that they have a sense of ownership in the assessment, planning and implementation process. The sub-basin coordinators will be the primary implementation agent to identify and work with stakeholders. For events where multi-interest groups will be convening together, such as community meetings to discuss watershed information and gaps, and/or to identify options for best management practices, UGRWCD will hire an outside facilitation group or individual to help guide the process, working with the UGRWCD Board, Watershed Management Planning Committee, sub-basin coordinators, and partners.

The engagement process may involve the following steps:

- 1) The Watershed Management Planning Committee and coordinators will prepare an initial stakeholder engagement strategy, working with the Community Foundation of the Gunnison Valley's STEP Program. They provide up to 12 hours of free consulting services to local organizations and also provide a list of effective facilitators from the region.
- 2) The Committee and partners will then prepare a preliminary list of stakeholders and initiate contact. This will involve sending out general notices to this list informing them of the assessment and planning endeavor and encouraging their involvement.
- 3) Part of the assessment will be to provide paper and electronic surveys regarding their values and perceptions about water use and other ecosystem services. See Attachment C for a report from Trout Unlimited on initial assessment work in Ohio Creek as an example.
- 4) Based on interest, form sub-basin user committees who help sub-basin coordinators oversee the stakeholder engagement process, data analysis, and options formulation. This may not be needed in all sub-basins. This is a good approach where there is distrust in the process, and peer to peer networks prove to be more effective in outreach.
- 5) Based on results of surveys, continue conversations with targeted groups and individuals regarding basin issues, information gaps, potential pilot projects, and possible long-term solutions for each sub-basin. This is relationship building and requires nurturing, not just a public meeting or two. Sub-basin coordinators will take the lead to ensure that these relationships are built and maintained throughout the process, supported by the facilitator when issues become complex and require more professional oversight. Professional facilitation will be used for community meetings where diverse interests are at the table.
- 6) Conduct study tours for Gunnison Basin residents (including those from other sub-basins not included in this initial phase) to sites where innovative practices have been done to protect watershed assets and improve water use efficiency. These will include existing sites as well as pilot projects to be developed as part of this funding request (see Task 3). Examples include improved ditch diversions, river restoration, wetland improvements, integrated wildlife/grazing practices, and other conservation measures. These tours help build peer to peer networks for information exchange and ideas sharing.

Deliverables

Results of this process will be a stakeholder driven set of options to improve watershed health in each sub-basin while protecting existing uses that are sustainable given future climate scenarios. These options will be part of a comprehensive report to submit to CWCB, which includes data analysis (see Tasks 2 and 3) and will form the basis for the basin-wide watershed plan targeted for 2021. The ultimate deliverable of this task is that we build an effective coalition of stakeholders who are committed to sustainable and adaptable uses of our water and terrestrial resources, practices that are in tandem with a future of water scarcity. These coalitions will be key to ensuring effective implementation of any sub-basin plan.

TASK 2 - Initial Sub-Basin Mapping and Data Compilation

Description of Task

The two primary objectives of this task are to collect and synthesize existing information, while identifying needs for additional information. The UGRWCD, with assistance of a consulting firm, interns, and graduate students (the latter two supervised by professionals), will construct a detailed map of each sub-basin under assessment and compile existing information about the usage and health of sub-basin ecosystems. This effort will provide necessary information that can be used when engaging in stakeholder outreach and as a foundation for sub-basin management planning.

Given this, stakeholder identification and involvement in the data/information compilation and gap identification process will be critical (See Task 1 for stakeholder engagement methods).

Method/Procedure

Preliminary mapping and data/information collection will identify the following:

- a) Water collection region (headwaters areas, where streams form with no significant human withdrawals).
- b) Multi-year water supply trends through analysis of precipitation, temperature, flow, and SNOTEL data.
- c) Current use trends including decreed in-stream and consumptive use rights, and for other watershed needs.
- d) Areas with significant agricultural irrigation withdrawals, head gates, and significant diversions. This would be determined using water rights tabulations and diversion records.
- e) Areas with significant human concentrations (incorporated towns/cities, unincorporated communities with organized water/sanitation districts, P.U.D.s and legal subdivisions, educational facilities, unofficial settlements with five or more structures, etc.). Tabulate populations, describe water collection and waste disposal systems.
- f) Industrial areas and activities (ski areas, active mines, abandoned mines with water concerns, multi-user energy installations, snow cat/helicopter ski services, commercial rafting areas, commercial flatwater usage, etc.). Tabulate water use/impacts as closely as possible.
- g) Areas with individual recreational use (whitewater boating, flatwater boating, fishing, swimming, river-walks, etc.). Estimate numbers where possible.
- h) Areas with significant environmental concerns (instream flow problems, fishery concerns, riparian degradation, water quality concerns, etc.). Describe thoroughly and mark accurately on the map.
- i) Legal framework (water rights and other legal constraints affecting watershed management).
- j) Existing innovations that demonstrate best management practices for watershed health (diversion structures, river restoration, flood mitigation, etc.).
- k) Data/information gaps.

Deliverables

A report will be prepared summarizing the map and data/information collected and gaps identified. In addition, concise user-friendly outreach materials will be developed, such as brochures, presentations, and/or videos, for use in stakeholder outreach, both within and across sub-basins.

TASK 3 - Address Informational Gaps in Non-consumptive and Consumptive Use

Description of Task

The primary objective in Task 3 is to address information gaps identified from Tasks 1 and 2 to provide a comprehensive picture of the sub-basin in terms of consumptive and non-consumptive uses. Once completed, these inventories, combined with existing data analysis, will accurately portray our water use needs and status of watershed health. Projected changes in precipitation and temperature patterns that may impact water availability and runoff will be assessed with an eye towards how those changes may impact existing uses and watershed health.

Watershed and stream assessments will be conducted to provide foundation information for stakeholders to make informed decisions about watershed needs and priorities and to address environmental and recreational concerns as per the CWP¹. The scope of these assessments will be informed by the uniqueness of the basins and by stakeholder input. Elements for consideration include: water supply gaps for consumptive water uses, how climate impacts may influence water availability, low flow concerns for stream ecosystems, water quality issues, recreational needs, riparian habitat degradation, stream geomorphology, access issues, administrative calls, irrigation infrastructure needs, and return flow influences. Ultimately, the scope of assessments will be influenced by watershed attributes, existing studies, and stakeholder concerns. Ideally these assessments will be used to identify stakeholders concerns while providing accurate information to inform stream management planning efforts.

Method/Procedure

Two basic types of inventories will be used to determine basin needs:

Consumptive Use Inventory: The primary objective of the consumptive use inventory is to protect existing consumptive uses. In addition to this overarching objective, the inventory may help address shortage concerns, identify infrastructure needs, and identify areas where improved infrastructure could improve water management or riparian habitat and forage. A consumptive use inventory should include these elements:

- a) Historic diversion records and projected future diversion needs to maintain existing uses.
- b) New undocumented areas that experience shortages.
- c) Infrastructure that is in need of improvement.
- d) Ditch locations that need to be corrected in the state records.
- e) Legal framework.
- f) Consumptive uses for riparian areas in need of restoration or improvement.

Non-Consumptive Use Inventory: During the non-consumptive use assessment process, the objective is to identify and quantify environmental and recreational needs. Elements for consideration include: how climate impacts may influence water availability, low flow concerns for stream ecosystems, stream morphology issues, water quality issues, recreational needs, and riparian habitat degradation. This inventory should include these elements:

- a) Assessing existing physical conditions of stream reaches, including geomorphic and riparian conditions.
- b) Quantifying current flows for river ecosystems, boating, or other needs in the watershed.
- c) Quantifying specific numeric flow recommendations (or ranges of flow) and physical conditions and assessing the potential for channel reconfiguration to support environmental and recreational values (CWP) under future climate change scenarios. A range of flow modeling tools will be assessed to determine most appropriate model for our basin conditions.
- d) Assessing water quality impairment issues.

¹ Chapter 7 (Water Resource Management & Protection) of the Colorado Water Plan asks for “watershed management planning,” which appears to encompass all water uses. Chapter 6.6 (Environmental and Recreational Projects and Methods) asks for “stream management planning” with a clear focus on addressing environmental and recreational needs.

Deliverables

A comprehensive report will be prepared that summarizes all current and inventoried data analysis. As with Task 2, this information will be presented in user-friendly formats to facilitate Basin planning.

TASK 4 – Implement projects that demonstrate water use efficiencies or other watershed best management practices in each sub-basin.

Description of Task

Potential demonstration projects will be identified during Tasks 1 and 2, projects deemed viable by assessment results and supported by landowners. These projects will demonstrate multiple objectives to meet consumptive and non-consumptive needs. Project might include ditch repair, stream channel reconfiguration, wetland enhancements, coordinated irrigation, or other conservation practices, depending on identified need. These sites will be used to educate stakeholders from all sub-basins.

Method/Procedure

Projects will be designed by appropriate technical professionals who can provide detailed drawings and cost estimates that meet all federal and state permitting requirements. Projects will be constructed by a contractor who is fully insured and bonded.

Deliverables

Deliverables will include submittal of two hard copies of design report and drawings as well as an electronic copy, with maps delivered in AutoCAD format. Report includes details cost estimates for construction. A short report summarizing construction work will be submitted.

TASK 5 – Identify a range of options for improved water use efficiency and other watershed best management practices.

Description of Task

Working with stakeholders, UGRWCD will compile all potential innovations that were identified during the assessment phase, resulting in a comprehensive list of options for each sub-basin to use in developing their multi-objective plans. These outputs will be used in basin-wide planning, as well as for outreach with stakeholders from other sub-basins.

Method/Procedure

The following steps will be taken to move the basin-wide planning process forward:

- a) Present results of assessments and pilot testing in a series of appropriate stakeholder forums to identify and prioritize options for improving water use efficiency and ecosystem health in each sub-basin as well as with those interested from other sub-basins.
- b) Prepare follow-up strategy and proposals for assessment/planning and implementation for Tomichi, Cochetopa, Cebolla, Taylor sub-basins and the Gunnison main stem, working with stakeholders from these areas who are identified and involved in previous tasks.

Deliverables

A final options document will be prepared for use in Basin planning. As with Tasks 2 and 3, information will be presented in user-friendly media formats for use in stakeholder engagement activities.

TASK 6 – Project Coordination and Administration

Description of Task

This task involves the coordination of project activities by UGRWCD and sub-basin coordinator staff. It includes fulfillment of reporting requirements and efficient and timely financial reports.

Method/Procedure

- 1) Completion of CWCB contract.
- 2) Consultant contracting and scheduling.
- 3) Stakeholder outreach coordination and scheduling.
- 4) Project reports submitted semi-annually and one final project report.
- 5) Prepare quarterly reimbursement requests (or as needed).
- 6) Collect and make available all data, summaries, assessment results and project reports to the general public through establishment of a repository at the UGRWCD office.

Deliverables

Deliverables include: timely and effective reports and financials, which include five semi-annual reports and one final report (March 2020). Reimbursement requests will be made quarterly, or more frequently during times of high expenditures, if necessary.

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

PROJECT TIMELINE

Task	2017	2018	2019	2020
Task 1. Stakeholder engagement - initial stakeholder identification and outreach				
Task 1. Stakeholder engagement – information gap identification and demonstration project ideas				
Task 1. Study tours				
Task 2. Initial Mapping and Data/ Information Compilation				
Task 3. Follow-up assessments				
Task 4. Demonstration projects				
Task 5. Options identification with stakeholders				
Task 5. Follow up assessment/ planning and implementation proposals				
Task 6. Project Coordination and Management				

BUDGET TABLE

Description	Target Start Date	Target Completion Date	Unit	# units	Cost/unit	TOTAL	CWCB Funds	Cash Match		In-kind Match	
								UGRWCD (confirmed)	CWCB WSRF (unconfirmed)	HCCA	Trout Unlimited
Task 1. Stakeholder Engagement	Mar 2017	Dec 2019				\$26,700	\$10,000	\$16,700	\$0	\$0	\$0
Facilitation Consultant(s)			LS	1	\$10,000	\$10,000					
community meeting costs			meeting	9	\$300	\$2,700					
travel (mileage, lodging etc)			LS			\$6,000					
Outreach costs (publications, mailing, etc)			LS	1	\$5,000	\$5,000					
study tour expenses (bus rental, lunch, etc)			each	3	\$1,000	\$3,000					
Task 2. Mapping and Data Compilation	Mar 2017	Dec 2018				\$77,500	\$12,500	\$65,000	\$0	\$0	\$0
Consultant(s)			LS			\$40,000					
Two graduate student fellowships/year			each	4	\$5,000	\$20,000					
VISTA Volunteer			each	2	\$5,000	\$10,000					
GIS data technician/intern			each	1	\$5,000	\$5,000					
Publication Costs (various media)			LS			\$2,500					
Task 3. Follow-up Inventories	May 2017	Sep 2019				\$130,000	\$55,000	\$75,000	\$0	\$0	\$0
Geomorphology and riparian studies			estimate			\$30,000					
Water quality and temperature			estimate			\$15,000					
Flow modelling			estimate			\$50,000					
Consumptive studies			estimate			\$20,000					
Report Compilation			estimate			\$10,000					
Publication/Outreach costs			LS			\$5,000					
Task 4. Demonstration Projects (one per sub-basin)	Jun 2017	Sep 2018				\$215,000	\$55,000	\$100,000	\$60,000	\$0	\$0
Design Consultants			estimate			\$15,000					
Project Construction			estimate			\$200,000					
Task 5. Options Identification and Prioritization	Jan 2019	Dec 2019				\$5,000	\$2,500	\$2,500	\$0	\$0	\$0
Staff and facilitation costs covered under Tasks 1 & 6											
report and summary publication costs			LS			\$5,000					
Task 6. Project Coordination and Administration	Mar 2017	Mar 2020				\$118,600	\$40,000	\$40,800	\$0	\$21,600	\$16,200
Lake Fork Sub-basin Coordinator/Project Management/Admin			hour	1500	\$45	\$67,500					
Ohio Creek Sub-basin Coordinator			hour	540	\$30	\$16,200					
East River Sub-basin Coordinator			hour	720	\$30	\$21,600					
Additional outreach coordinators			hour	400	\$25	\$10,000					
Office supplies and equipment			LS			\$3,300					
TOTAL						\$572,800	\$175,000	\$300,000	\$60,000	\$21,600	\$16,200

LIST OF ATTACHMENTS

- A. UGRWCD Statement of Mission, Values, Goals, Objectives and Targeted Actions 2016
- B. Monitoring and Evaluation Framework
- C. Ohio Creek Assessment Report
- D. Project Coordinator Resumes
- E. Letters of Financial Commitment and Support
 - 1. High Country Conservation Advocates – commitment letter
 - 2. Trout Unlimited – commitment letter
 - 3. Lake Fork Valley Conservancy – support letter
 - 4. Gunnison Conservation District – support letter
 - 5. Town of Lake City – support letter
 - 6. Vickers Ranch – support letter
 - 7. Eagle River Ranch – support letter

UPPER GUNNISON RIVER WATER CONSERVANCY DISTRICT MISSION AND VALUES
Adopted by the Board of Directors September 28, 2015

Mission Statement.

To be an active leader in all issues affecting the water resources
of the Upper Gunnison River Basin.

This mission statement reflects the following values held by the District's Board of Directors.

Values Statements.

The Board opposes any new transfers of water from the Gunnison River and its tributaries upstream of Blue Mesa Dam to other basins because such transfers would interfere with existing beneficial uses of water, damage economic stability, and reduce environmental quality within the District.

The Board supports wise land use policies by local governments to protect the water resources of the basin.

The Board regards irrigation, flood control, municipal and industrial uses, ecological needs, recreational opportunities, and aesthetic values to be important matters for the District and the public it serves and advocates achieving a balance among competing uses of water within the District to minimize conflict among them.

The Board is committed to managing and funding effective monitoring, protection and restoration programs in order to maintain high water quality standards as a necessary part of a healthy economy and environment in the District.

The Board accepts the preponderance of scientific evidence indicating that warmer temperatures are already having effects in the District on quantity and timing of precipitation, evaporative losses, forest health and timing of spring peak runoff, and other effects that will increase in the future; it is therefore necessary to adapt the Board's planning assumptions to such changed conditions.

The Board strongly supports irrigated agriculture in the District because of its economic and environmental contributions to the community and because of the cultural and social values of farming and ranching.

The Board believes that the District must participate in statewide planning processes to address challenges like climate change, drought, population pressure, water shortages, and projects and programs to address those challenges; and in those statewide processes, the District must be a strong and consistent voice guarding against inequitable and unmitigated damage to Western Slope interests.

The Board is aware of the close relationship between many water issues, energy issues and agriculture issues and acknowledges a responsibility to treat them in policy-making decisions and action steps as interrelated. The Board recognizes the need for collaborative efforts with partners to develop positions regarding legislation that has a nexus with water.

The Board recognizes that effective water management requires attention to the health and viability of the entire watershed and the groundwater moving through the land and interacting with the surface waters.

GOALS, ACTION ITEMS, ONGOING TASKS FOR 2016
Adopted by the Board of Directors September 28, 2015

Introduction

Goals are numbered for identification, but all goals have equal priority unless specifically noted otherwise. The means to accomplish the Board's goals are divided into two categories: Action Items and Ongoing Tasks. Action Items are specific activities that are intended to be completed, or to have substantial progress accomplished, within the year for which they are identified. Ongoing Tasks are activities that the District staff is engaged in on a continuing basis from year to year. The Action Items and Ongoing Tasks have been assigned a priority as follows: Priority 1 - Imperative in achieving the principles outlined in the Mission Statement; Priority 2 - Strongly supports achievement of the Mission Statement principles, but not imperative to the mission; Priority 3 - Supports achievement of the Mission Statement, but to be done as time and budget allow.

Goal 1 Protect Upper Gunnison Basin water resources, and local uses of those resources, from new or expanded transmountain diversions, or other statewide plans or projects that would impinge on those water resources and uses.

Ongoing Tasks to be Performed in Pursuit of Goal 1.

- a) Continue to participate in relevant water banking discussions. [Priority 1]
- b) Continue to actively monitor the implementation of the State Water Plan and express questions or concerns to the Gunnison Basin Roundtable. [Priority 2]
- c) Monitor implementation of the April, 2012 Record of Decision for the Aspinall Unit Operations Final Environmental Impact Statement and activities related to the December, 2009 Final Gunnison River Basin Programmatic Biological Opinion. [Priority 3]
- d) Participate in the Water for the 21st Century Act process; in particular the development of the needs assessments and project development activity of the Gunnison Basin and other Western Slope Roundtables. [Priority 1]
- e) Monitor the use of the Statewide Water Supply Initiative Report findings by state and local entities, Basin Roundtables and the Interbasin Compact Committee. [Priority 2]
- f) Participate in legislative and regulatory activities, including those of the Colorado Water Congress. [Priority 1]
- g) Continue to actively oppose any new transbasin diversion or expansion of any existing transbasin diversion from the Gunnison River Basin. [Priority 1]

h) Actively participate in efforts to develop risk management strategies for new transbasin diversion from the Colorado River system. [Priority 1]

Goal 2 Protect existing and future decreed water uses within the Upper Gunnison River Basin from calls from senior water rights whose points of diversion are located downstream of Blue Mesa Reservoir.

Action Items to Accomplish Goal 2.

a) Develop a strategy for protection of present perfected rights to the beneficial use of waters within the Upper Gunnison Basin that could be impacted by a physical shortage of water in the Colorado River system. [Priority 1]

b) Change the use of the Taylor Park Reservoir second fill water right to include replacement water to avoid or mitigate a Gunnison Tunnel call for the benefit of water users in the Upper Gunnison Basin. [Priority 1]

Ongoing Tasks to be Performed in Pursuit of Goal 2.

a) Prepare and submit Aspinall Subordination Agreement Annual Report. [Priority 1]

b) Continue to identify ways to improve administration spreadsheet reliability. [Priority 2]

c) Participate in and monitor activities relating to the Colorado River Compact of 1922 and the Upper Colorado River Basin Compact of 1948, particularly any State of Colorado proposed actions in response to intrastate shortage allocations and the seven state shortage criteria. [Priority 1]

d) Watch for opportunities to acquire senior water rights. [Priority 3]

Goal 3 Maintain, and where possible, improve the water supply that is physically available in individual sub-basins in the District.

Action Items to Accomplish Goal 3.

a) Develop and prioritize an inventory of irrigation infrastructure needs in the sub-basins of the District as reflected in the Gunnison Basin Implementation Plan, including strategies to address future water shortages. [Priority 1]

b) Include in the inventory opportunities for mini-hydropower and water supply projects with local individuals and entities. [Priority 1]

c) Cooperate with others in continuing and improving snowpack measuring and monitoring devices and weather stations in the basin. [Priority 1]

- d) Seek out and evaluate, on a case-by-case basis, other new water projects and partnerships for development by the District. [Priority 2]
- e) Pursue partnership in water storage opportunities with Colorado Parks and Wildlife to be completed by the end of 2016. [Priority 1]
- f) Investigate groundwater storage opportunities for enhancing water supplies. [Priority 2]
- g) Pursue development of a collaborative water conservation plan with the seven municipal water providers in the District. [Priority1]
- h) Assist constituents in improving water supply and making the existing supply more reliable and efficient by making funding for such activities available through the District Grant Program. [Priority 1]

Ongoing Tasks to be Performed in Pursuit of Goal 3.

- a) Coordinate with the District's Upper Gunnison River Water Activity Enterprise in conducting activities in pursuit of this goal. [Priority 2]
- b) Coordinate and cooperate equally with Hinsdale County and the Town of Lake City in the sale of Lake San Cristobal water through the Lake San Cristobal Water Activity Enterprise. [Priority 2]
- c) Coordinate the Taylor Local Users Group process and work with the other partners to the 1975 Taylor Park Reservoir Operation and Storage Exchange Agreement to manage Taylor Park Reservoir releases. [Priority 1]
- d) Coordinate and annually assess the Gunnison County cloud seeding program. [Priority1]
- e) Contribute financially to the Rocky Mountain Biological Laboratory weather stations to the extent that the stations can produce information useful to the District in accomplishing its goals. [Priority 1]
- f) Participate financially, in cooperation with other sponsors, in the Dust on Snowpack Research to the extent that the study can produce information useful to the District in accomplishing its goals. [Priority 1]
- g) Continue support of the Wet Meadows project. [Priority 1]
- h) Develop and adopt policies relating to administration and utilization of the RICD water right. [Priority 2]

Goal 4 Protect existing water supplies for in-channel and flatwater recreational purpose, and improve public awareness of public access concerns.

Action Item to Accomplish Goal 4

Work with all stakeholders to create maps and other tools (including signage) to identify existing public access areas. [Priority 1]

Ongoing Task to be Performed in Pursuit of Goal 4.

- a) Continue to support the Gunnison River Festival as an effort to promote the use of the Recreational In-Channel Diversion (RICD) water right. [Priority 1]
- b) Annually assess policies relating to administration and utilization of the RICD water right. [Priority 3]

Goal 5 Improve instream water supplies for environmental purposes.

Action Item to Accomplish Goal 5

- a) Collaborate with stakeholders within local watersheds to identify, inventory and prioritize environmental projects and programs for maintaining or improving the environmental quality of the Upper Gunnison Basin, including the probability of reduced flows due to natural or cultural impacts. [Priority 1]
- b) Identify any additional reaches within the Basin for riparian or aquatic assessment. [Priority 2]

Ongoing Tasks to be Performed in Pursuit of Goal 5.

- a) Coordinate with the Colorado Water Conservation Board and others on instream flow water rights within the Upper Gunnison Basin in support of environmental water use needs. [Priority 2]
- b) Continue to work with others to adapt to diminishing water supplies due to climate change in order to enhance the riparian environment. [Priority 1]

Goal 6 Protect water quality in a manner that is consistent with the District's other responsibilities, including protecting and encouraging the beneficial use of water within the District.

Ongoing Tasks to be Performed in Pursuit of Goal 6.

- a) Evaluate the need for future studies based on the results of the 2009-2010 baseline assessment of macroinvertebrates, including the data collected in 2013. [Priority 1]
- b) Continue to evaluate the results of the riparian assessments performed in 2010 for designated stream segments within the basin to assist in making water quality decisions. [Priority 2]
- c) Continue partnerships with Gunnison County, the City of Gunnison and Western State Colorado University in improving the existing aquatic environment on lower Tomichi Creek. [Priority 1]
- d) Contribute to and facilitate the USGS water quality monitoring program with multiple other local stakeholders. [Priority 1]
- e) Provide facilitation for the cooperative effort among the District, and the Upper Gunnison water quality monitoring stakeholders to participate in the triennial review of basin water quality standards and other appropriate rulemakings. [Priority 1]
- f) Support local watershed coalition activities, including current efforts in the Lake Fork headwaters and Coal Creek/Slate River. [Priority 1]
- g) Get periodic updates from the coalitions on the remediation of the Superfund of the Standard Mine and Hinsdale County pre-Superfund action. [Priority 2]
- h) Maintain communications with Gunnison County on the UMTRA Superfund project to protect groundwater users due to contamination of groundwater southwest of Gunnison. [Priority 3]
- i) Continue to assist with funding streamflow gaging on Slate River, Coal Creek, Tomichi Creek, Lake Fork, Henson Creek, and Ohio Creek, with the possibility of adding temperature sensors. [Priority 1]
- j) Work with other organizations and agencies to develop a long-term riparian restoration project for the Gunnison River from North Bridge to the Gunnison Whitewater Park. [Priority 1]
- k) Encourage use of the grant program for projects that improve the existing aquatic environment. [Priority 1]

Goal 7

Pursue education of and input from constituents within the District on the value of basin water resources, including development of an outreach program promoting the District and its activities.

Action Item to Accomplish Goal 7.

- a) Work with educators in the District to develop and sustain water education programs that will be more age appropriate. [Priority 1]
- b) Provide funding through mini-grants to develop and sustain local water education programs such as Project WET. [Priority 1]
- c) Create presentation based on materials in Appendix B of the Strategic Plan, and have available on District website. [Priority 2]

Ongoing Tasks to be Performed in Pursuit of Goal 7.

- a) Maintain the District website to keep the public advised of District activities and resources. [Priority 1]
- b) Maintain distribution of the brochure tied to the website and make sure the information is explained and easily accessed on the website. [Priority 1]
- c) Develop a more active relationship with local and regional media. [Priority 1]
- d) Promote water conservation awareness and implementation through “Water Wise” and other conservation programs. [Priority 1]
- e) Participate in local parades and events to create public awareness of the District. [Priority 3]
- f) Evaluate the internship program and make recommendations based on the findings. [Priority 1]
- g) Reevaluate the scholarship program. [Priority 3]
- h) Initiate and help coordinate participatory educational events. [Priority 1]

Goal 8 Serve as an active and collaborative leader, locally and regionally, in addressing current and future impacts of climate change.

Action Items to be Performed in Pursuit of Goal 8.

- a) Begin a coordinated analysis of challenges facing the Upper Gunnison Basin from the already-changing regional climate in partnership with land management agencies, university faculty and stakeholder groups [Priority 1]
- b) Make information available to riparian landowners and communities establishing 1)

the need for riparian repair and river-corridor enhancement, and 2) the availability of grant funds to do such work. [Priority 1]

- c) Explore partnering with local entities and individuals to support sustainable agricultural diversity strategies. [Priority 1]
- d) Provide funding for projects to demonstrate agricultural diversity, especially crops that can be grown profitably and sustainably, while consuming less water than traditional crops. [Priority 1]
- e) Continue to participate in local headwaters climate change research and activities. [Priority 2]
- f) Explore cost of converting the District office to an energy-neutral building. [Priority 1]
- g) Actively coordinate with the counties, local municipalities and local power providers on climate change resolutions, solutions and programs to adapt to climate change within the District and the State. [Priority 2]

Goal 9 Annually update the Strategic Management Plan during the budget process.

Administrative Tasks. [Priority 2]

- a) Continue to improve budget spreadsheets.
- b) Continue to utilize technology to its greatest advantage in performing District activities and achieving District goals.
- c) Continue to enhance data availability for both the public and District employees by expanding internet and intranet capabilities.
- d) Continue to encourage employee development opportunities through funding commitments to training.
- e) Complete the scanning and digitizing of the District's records and provide protection for the electronic version.
- f) Provide administrative oversight and management for any Water Supply Reserve Account funded projects that the District sponsors.
- g) Develop an orientation program with senior staff and Education Committee for new board members.

Attachment B: Monitoring and Evaluation Framework

Target Outputs	Outcomes	Outcome Indicators/Mean of Verification
TASK 1. Stakeholder Engagement		
<ul style="list-style-type: none"> Initial list of stakeholder groups and strategy for outreach Outreach materials reach majority of stakeholders Sub-basin assistant coordinators identified Information gaps assessed and identified by stakeholders 	<ul style="list-style-type: none"> A coalition of active and diverse stakeholders who will initiate innovations for watershed health and water use efficiency Conflict resolution regarding competing water and land uses Increased funding commitments for implementation from local governments and other stakeholders 	<ul style="list-style-type: none"> 5-10% return rate on mailed surveys Stakeholder satisfaction with process/ interviews and workshop evaluations Percentage of stakeholders engaged in each sub-basin/sign-up sheets At least one representative of each stakeholder interest group in each sub-basin is actively participating in process/meeting documentation Amount of funding pledges from various stakeholder groups for follow-up work
TASK 2 - Initial Sub-Basin Mapping and Data Compilation		
<ul style="list-style-type: none"> Comprehensive report that summarizes findings User-friendly outreach materials that effectively show results Information gaps identified for follow-up assessment Creation of a central geodatabase for information gathered 	<ul style="list-style-type: none"> Understanding of current State of Knowledge for each sub-basin A single clearing house of information making it easier to see sub-basin trends Coordinated effort to identify information gaps from a multi-stakeholder perspective More credible information that is better accepted by Basin communities 	<ul style="list-style-type: none"> Satisfaction with reports and outreach materials/interviews and workshop/tour evaluations Multi-stakeholder acceptance of results/surveys and interviews Number of follow-up assessments identified
TASK 3 - Address Informational Gaps in Non-consumptive and Consumptive Use		
<ul style="list-style-type: none"> Comprehensive report that summarizes findings to augment State of Knowledge report above User-friendly outreach materials that effectively show results Additional information added to geodatabase 	<ul style="list-style-type: none"> Comprehensive identification of consumptive and non-consumptive needs for the sub-basins Information provides scientific basis for watershed innovations that are acceptable to stakeholders 	<ul style="list-style-type: none"> Satisfaction with reports and outreach materials/interviews and workshop evaluations Multi-stakeholder acceptance of results/surveys and interviews Information supports innovation design/review of follow-up implementation plans

Target Outputs	Outcomes	Outcome Indicators/Mean of Verification
TASK 4 – Demonstration Projects		
<ul style="list-style-type: none"> Design plans for at least one demonstration project per sub-basin At least one demonstration project completed for each sub-basin 	<ul style="list-style-type: none"> Projects show demonstrative effects that meet multiple objectives (as identified in assessment process) Other stakeholders express interest to adopt similar practices after observing results 	<ul style="list-style-type: none"> Projects meet design objective demonstrative effect that meets multi-use objectives/monitoring protocols dependent on objectives of projects Satisfaction of stakeholders affected by projects/interviews Perceptions of participants visiting projects/ tour evaluations
TASK 5 – Identify Options for Improved Watershed Management/Water Use Efficiency		
<ul style="list-style-type: none"> A comprehensive list of options to be used for Upper Gunnison Basin planning, generated via an inclusive stakeholder process 	<ul style="list-style-type: none"> Conflicts over perceived competing water uses are partially resolved through the options identification process Options identified are acceptable to the majority of affected stakeholders Options listed form the basis for future prioritization for the Basin plan 	<ul style="list-style-type: none"> Satisfaction with options listed/surveys, interviews, workshop evaluations
TASK 6 – Project Management and Coordination		
<ul style="list-style-type: none"> Reimbursement requests Semi-annual and final reports Follow-up grant proposals 	<ul style="list-style-type: none"> UGRWCD and partners gain valuable experience in basin assessment and planning process management Leveraging of future funding with successful project implementation 	<ul style="list-style-type: none"> Timely reporting and release of funds for reimbursements Follow-up funding requests successful/amount and scope of work Amount of local financial pledges to support follow-up work

Ohio Creek Inventory Summary

September 26, 2016

Background

The Upper Gunnison River Water Conservancy District has coordinated with stakeholders to perform a general inventory for irrigation infrastructure improvement needs and environmental project needs on Ohio Creek. The assessment process on Ohio Creek is a test case to develop strategies to perform similar assessments on other tributaries to the Upper Gunnison River.

The following document will summarize the input received (to date) from water users, landowners, and land managers on Ohio Creek. The inventory process will remain open for additional input from stakeholders, however, the first round of funding for the overarching Upper Gunnison assessment will be sought the beginning of November. Receiving input prior to November 1st, 2016 will be extremely useful for planning and future project coordination.

General Watershed Overview

The Ohio Creek valley consists of upland forests and shrub lands and lower elevation irrigated meadows, pastures, and riparian forests adjacent to stream channels and irrigation ditches. Several subdivisions are located within the watershed but the majority of private land use is agricultural. Water from Ohio Creek is used primarily for irrigation with approximately 10,000 irrigated acres. The Ohio Creek also provides for recreational, environmental, and aesthetic values for the community. During the inventory process these uses were identified as important on 11.9 miles of Ohio Creek. None of these segments are open to public access.

According to accounts from landowners and water users water supply shortages are experienced on Ohio Creek during late June, early July, thru the September. The degree of water shortages vary year to year depending on precipitation and climatic conditions. Some interest was expressed during interviews for improved water forecasting tools specific to Ohio Creek as well as research on historic and current water availability estimates.

The interconnectivity of water uses on the Ohio Creek watershed is a critical theme that many stakeholders brought up during interviews. Examples include:

- Surface and subsurface flow of irrigation water between adjacent properties
- Irrigation returns from ditches and meadows in the upper end of the valley provide for some base flows later in the season. (volumes and timing not quantified)
- Changes in land use and management will continue to effect historic flow patterns (roads, houses, multiple small parcels vs. one large, change of ownership)

The relationship between irrigation water use and environmental, recreation, and aesthetic values in the Ohio Creek Valley are also closely tied. Examples include:

- Riparian areas near ditches, wetlands, and meadows provide for wildlife habitat and scenic open spaces for residents and visitors
- Diversions provide positive or negative effects to channel stability and instream habitat
- Irrigation returns flows improve base flows to the creek later in season

Inventory Results

Table 1 represents irrigation infrastructure improvement projects. All of the projects listed in the table will improve the water user's ability to access irrigation water and effectively deliver water to the crop. Please note, diversion reconstruction projects can also be categorized as environmental projects (i.e. channel restoration) if aquatic habitat and channel stability are considered in design and construction. This list of projects is the first step to inventory infrastructure needs as described in **Goal 3, Action Item a: Develop and prioritize an inventory of irrigation infrastructure needs in the subbasins of the District as reflected in the Gunnison Basin Implementation Plan, including strategies to address future water shortages. [Priority 1]**

Table 1: Irrigation Improvement Needs

Project Type	Number of sites	Linear Ft	Estimated Costs	Reduce water shortages?
Diversion Reconstruction	8	N/A	\$220,000	Yes
Combine rights to one POD and Ditch	2	N/A	N/A	
Flumes or improved measuring devices	4	N/A	\$4000	Yes
Ditch Control Structures 24-48in.	23	N/A	\$18,000	Yes
Ditch Control Structures 12-24in	32	N/A	\$15,000	Yes
Ditch Maintenance (cleaning)	3	11,200	\$17,000	Yes
Ditch Piping or Lining	5	17,400	\$350,000	Yes

Gated Pipe	2	5,300	\$26,500	Yes
Stock Pond Improvement	2	N/A	N/A	Yes

Table 2 includes three specific environmental project types that have the potential to improve instream habitat and channel stability. In general, increasing channel overhead cover and the transforming to a narrower deeper channel will reduce impacts to water quality and aquatic life during periods of low flows and higher air temperatures. The following table is in response to the project segment of ***Goal 5, Action Item a: Collaborate with stakeholders within local watersheds to identify, inventory and prioritize environmental projects and programs for maintaining or improving the environmental quality of the Upper Gunnison Basin, including the probability of reduced flows due to natural or cultural impacts. [Priority 1]***

Table 2- Environmental project needs

Project Type	Number or Sites	Linear Ft	Estimated Costs	Reduce impacts of water shortages?
Bank Stabilization	8	2,250	\$80-\$150/ft	Yes
Active Channel Restoration	2	7,500	\$80-\$150/ft	Yes
Passive Channel Restoration (changes in grazing management)	1	5,300	N/A	Yes
Other				

Table 3 includes two additional strategies discussed during stake holder interviews to reduce existing and future irrigation and environmental shortages.

Project type	Number of Sites	Total Acre Feet Potential	Estimated Costs	Address Future water shortages
Water storage sites	4	122	N/A	Yes
Coordinated Conservation Program	12	?	N/A	Yes

New water storage facilities would be the most straightforward option to provide for irrigation and instream shortages and domestic uses. But, reservoir sites are far and few in-between and can be cost prohibitive.

Coordinated conservation measures would need to be structured, supervised, protect water rights, and fit within the prior appropriation system. A program such as this would be a less straight forward option to reduce shortages during drought years. Further analysis is needed to determine costs per acre foot of water. This program could take two forms; planned rotation or compensated fallowing. In order for either of these strategies to provide the intended benefit, blocks of land where connected surface or subsurface flow would need to coordinate participation.

Moving Forward

Input from stakeholders will continue thru October and updates will be made to the summary accordantly. If stakeholders are interested in pursuing one or more of the improvement projects or programs further analysis and prioritization will be completed for those projects or programs.

There is an opportunity to request project funding for pilot projects through the CWCB Watershed Restoration Program as part of the Upper Gunnison Watershed Assessment Grant. This will be submitted on November 1st, 2016. If the grant application is successful funding will be available in 2017. Additional funding sources are currently being explored.

Frank Kugel - Biography

Frank Kugel is the General Manager of the Upper Gunnison River Water Conservancy District. He is a registered Professional Engineer with a Civil Engineering degree from the University of Colorado – Denver. Frank was involved in construction engineering in the Denver area before joining the Colorado Division of Water Resources as a Dam Safety Engineer. He served in the Denver and Durango offices of DWR before moving to Montrose where he ultimately became Division Engineer for Water Division 4 (the Gunnison, San Miguel and lower Dolores Basins). Frank joined the UGRWCD upon leaving DWR in 2006. Frank served for eight years as the Gunnison Basin representative on the board of the Colorado Water Resources and Power Development Authority. Frank is currently the vice-chairman of the Gunnison Basin Roundtable, serves on its Project Screening Committee, and is chair of its Basin Implementation Planning Subcommittee.

Jesse Kruthaupt – Biography

Jesse Kruthaupt works for Trout Unlimited as the Upper Gunnison Basin Project Specialist, where he focuses on working with water users, agencies and other organizations to develop on-the-ground stream reconnection and restoration projects. Jesse is a graduate of Western State Colorado University and was raised in the Upper Gunnison Valley where he gained a great appreciation for agriculture and natural resource conservation. His work and educational experiences have helped form a unique vision of how healthy rivers, agriculture, and recreation will continue to support the economy in the area. Jesse continues to be involved in the operation of his family's cattle ranch and in his spare time enjoys spending time with his wife and family riding and fishing.

HIGH COUNTRY CONSERVATION ADVOCATES, CRESTED BUTTE, CO

Water Director, 2014 - Present

UNIVERSITY OF COLORADO LAW SCHOOL, BOULDER, CO

The Getches-Wilkinson Center for Natural Resources, Energy and the Environment

Legal Analyst, Colorado River Governance Initiative 2012 – 2014

Adjunct Professor, 2013 – 2016

Fellow, Dean Getches Fellowship, 2012 – 2013

WESTERN WATER ASSESSMENT, CU-CIRES/NOAA

Affiliated Researcher, 2012- Present

Research Associate, 2011 – 2012

- Updated the Navajo Nation Drought Contingency Plan.
- Collaborated with the Navajo Nation on climate adaptation planning and published interdisciplinary report *Considerations for Climate Change and Variability Adaptation on the Navajo Nation*.

EDUCATION

UNIVERSITY OF COLORADO LAW SCHOOL, BOULDER, CO

Juris Doctor, 2011

American Indian Law Certificate with Honors 2009 & 2010

UNIVERSITY OF WASHINGTON, SEATTLE, WA

B.A. International Studies, Development Studies and Policy, *magna cum laude*, 2007

RELEVANT PUBLICATIONS

Julie Nania and Julia Guarino. (2014). Protecting Sacred Waters: Restoring Tribal Non-Consumptive Water Uses in the Colorado River Basin, edited by Julie Nania. University of Colorado, Boulder, CO. June 2014.

Nania, J., Cozzetto, K., Gillett, N., Duren, S., Tapp, A.M., Eitner, M., Baldwin, Beth. (2014). Considerations for Climate Change and Variability Adaptation on the Navajo Nation, edited by J. Nania and K. Cozzetto. University of Colorado, Boulder, CO.

Doug Kenney, Julie Nania, Logan Calihan Brandon Dittman, et. al, White Paper: Cross-Boundary Water Transfers in the Colorado River Basin, A Review of Efforts and Issues Associated with Marketing Water Across State Lines or Reservation Boundaries. Colorado River Governance Initiative. June 2013.

BAR MEMBERSHIPS

State Bar of Montana, Admitted 2012

State Bar of Colorado, Admitted 2011

Camille Richard

PO Box 188, Lake City, Colorado 81235 | Telephone: 970-209-5509 | Email: c.richard@lfvc.org

EDUCATION

Master's Certificate in Geographical Information Systems. 2008. University of Western Florida.

Master of Science Range Management. 1990. Colorado State University.

Bachelor of Arts Environmental Biology. 1984. Trinity University, Texas

PROFESSIONAL EXPERIENCE:

2008-present **EXECUTIVE DIRECTOR**, Lake Fork Valley Conservancy, Lake City, CO

- Oversee the implementation of federal and state funded watershed restoration initiatives in the Lake Fork Watershed.
- Responsible for strategic planning, annual work plans, budgeting, and reporting for the organization.
- Facilitate partnerships with State, Federal and non-profit organizations.
- Responsible for a staff of two, one hired through the Americorps VISTA program.
- Spearheaded the organizational development of LFVC to become a fully functioning 501(c)(3) non-profit.
- Successfully raised over \$2,000,000 in state, federal and private foundation funds.

2003-07 **SENIOR PROGRAM ADVISOR/ INTERIM PROGRAM DIRECTOR**, The Bridge Fund, China

- Developed TBF's multi-year community development strategy in the Tibetan region of China.
- Facilitated strategic and project planning with TBF staff and local partners, conducted training programs in participatory development methodologies, and provided technical backstopping for rangeland management and resource user group formation. Using results of feasibility studies and planning, TBF raised over two million Euro to establish successful rangeland/livestock cooperatives on the Plateau.
- Oversaw strategic planning for 2007-9 and responsible for project reporting to USAID.

2003-07 **CONSULTANT RANGELAND SPECIALIST FOR VARIOUS ORGANIZATIONS**

Ramboll Natura, Sweden, and WWF Mongolia/ Fauna and Flora International, China/ Tibet Poverty Alleviation Fund, China/ Wildlife Institute of India (WII)/Winrock International

- Facilitated the organisation of community resource user groups.
- Trained these user groups and government officials in participatory planning methods related to natural resource management and community development.
- Prepared working policy documents for review and implementation by local stakeholder committees for sustainable grazing and rangeland resource use.
- Developed technical plans for rangeland recovery and cooperative livestock marketing.
- Advised on field data methodologies for determining grazing impacts on wildlife habitat.

1998-2003 **RANGELAND MANAGEMENT SPECIALIST**, International Centre for Integrated Mountain Development (ICIMOD), Nepal.

- Coordinator for ICIMOD's Regional Rangeland Program in Bhutan, China, India, Nepal and Pakistan.
- Responsible for regional information synthesis and policy advocacy, coordination of regional networking activities, reporting to donors, and financial and contract management.
- Successfully established a functioning network of regional scientists and development workers to generate and share information on rangeland management innovations across the partner countries.
- Compiled and edited regional outreach materials.
- Developed five-year strategy for the next phase of the Regional Rangeland Programme, focusing on co-management processes for rangelands, which has been successfully funded (US\$600,000).

1994-97 **RESEARCH ASSOCIATE**, Colorado State University

- Developed and conducted studies to investigate reclamation alternatives at Summitville Mine Super Fund Site, Colorado. Prepared ecological restoration site plan as part of inter-agency design team.
- Conducted Rapid Biodiversity Assessments and prioritized areas for conservation action in potential research natural areas in the White River National Forest.
- Inventoried and classified riparian/wetland communities in the San Juan National Forest.



HIGH COUNTRY CONSERVATION ADVOCATES

P.O. Box 1066 • Crested Butte, CO 81224
970.349.7104 • office@hccacb.org • www.hccacb.org

October 27, 2016

Colorado Watershed Restoration Program
Colorado Water Conservation Board
1313 Sherman Street
Denver, CO 80203

Re: Letter of Support for Stream Management Assessment & Planning Grant in the Upper Gunnison Basin

Dear Colorado Water Conservation Board;

High Country Conservation Advocates (HCCA) is writing this letter in support of the Upper Gunnison River Water Conservancy District's (UGRWCD) grant request to the Colorado Watershed Restoration Program.

HCCA (formerly known as High Country Citizens' Alliance), is a regional conservation group founded in 1977, dedicated to preserving the rivers, wild places and wildlife in the Upper Gunnison River Basin. HCCA is based in Crested Butte and has over 800 members. It is a 501 (c) (3) non-profit, and its programs are supported by individual donations, memberships, and grants. Our members, board, and staff are committed to the protection and restoration of healthy watersheds in the Gunnison Country.

HCCA supports the UGRWCD's grant request to the Colorado Watershed Restoration Program for stream assessments and stream management planning for a variety of reasons. The assessment process will provide our basin with crucial information that can be used to protect and enhance our riverine ecosystems. This information will help our water resource managers and stakeholders plan and adapt to changing hydrologic conditions while protecting existing uses and ensuring that local ecological needs are met.

Our hope is that the process outlined in the grant application will provide a forum for a range of stakeholders to come together and find mutually beneficial solutions to meet non-consumptive and consumptive use shortages. Through the implementation of agreed upon projects we should be able to maintain and restore high functioning riparian areas that provide forage and aquatic ecosystems that provide important stream habitat. With this information we will be able to come up with a stakeholder-driven strategy for protecting our local resources.



HIGH COUNTRY CONSERVATION ADVOCATES

P.O. Box 1066 • Crested Butte, CO 81224
970.349.7104 • office@hccacb.org • www.hccacb.org

HCCA has already contributed approximately 140 hours of staff time to the development and initiation of the stream management project. This time has been primarily devoted to stakeholder outreach, stream management planning research and framework, grant development, serving on an *ad hoc* stream management planning committee, and most recently on the Watershed Management Planning Committee established by the UGRWCD.

Moving forward, HCCA will continue to provide substantial in-kind staff time to this project. HCCA is committing 720 hours of staff time to the tasks outlined in the Upper Gunnison River Water Conservancy's grant proposal over the course of the next three years.

We wholeheartedly support the UGRWCD's request for funding to initiate the assessment and stream management planning process in the Upper Gunnison Basin. Thank you for your consideration of this proposal.

Regards,

Julie Nania, J.D.
Water Director
High Country Conservation Advocates
P.O. Box 1066
Crested Butte, CO 81224

Brett Henderson
Executive Director
High Country Conservation Advocates
P.O. Box 1066
Crested Butte, CO 81224



Jesse Kruthaupt

10/29/2016
Chris Sturm
Colorado Water Conservation Board
1313 Sherman St., Room 721
Denver, CO 80203

Re: Upper Gunnison Watershed Assessment and Management Planning

Dear Mr. Sturm,

Trout Unlimited (TU) is a non-profit, coldwater fisheries conservation organization. TU's mission is to reconnect, protect, and sustain coldwater fisheries across the United States. I have worked for Trout Unlimited as a project coordinator in the Upper Gunnison basin for several years. During this time, I have been involved in multiple irrigation and stream channel restoration projects on tributaries to the Gunnison River. It has become clear to me that continuing these channel and flow restoration projects in a more coordinated and strategic manner would have a much greater impact to improve fisheries located in the Upper Gunnison basin.

Over the past year Trout Unlimited, the Upper Gunnison River Water Conservancy District and other partners have worked diligently to develop a strategy for carrying out an all-inclusive assessment. These tireless efforts have transcended historical water use stereotypes and resulted in the attached Upper Gunnison Watershed Assessment and Management Planning scope of work.

I am certain the proposed plan will help all water uses in our basin become more resilient to the pressures from changing hydrology and increasing water demands. This effort will help Upper Gunnison stakeholders identify, and carry out, projects to improve watershed health, update ageing irrigation infrastructure, improve channel stability, and reduce water shortages. For that reason, Trout Unlimited is a committed partner in this effort.

Trout Unlimited will commit 540 hours over the next 3 years to coordinate with water users and to help complete this assessment. I encourage the Colorado Water Conservation Board to approve the request for funding for the Upper Gunnison River Assessment and Planning proposal. It is critical that this assessment and planning work begins now as we enter an ambiguous water future.

Thank you for taking the time to consider these comments.

Sincerely,

Jesse Kruthaupt, Trout Unlimited



10/29/2016

Chris Sturm
Colorado Water Conservation Board
1313 Sherman St., Room 721
Denver, CO 80203

Re: Upper Gunnison Watershed Assessment and Management Planning

Dear Mr. Sturm,

The Lake Fork Valley Conservancy's mission is to facilitate long term environmental and economic sustainability in the headwaters of the Colorado River Basin, focusing on the Lake Fork of the Gunnison and Cebolla Creek valleys. We support and implement collaborations that foster land conservation, ecosystem health, and resilient communities. The UGRWCD's effort to prepare a basin wide watershed management and implementation plan is in line with our mission and goals as an organization and we strongly encourage the CWCB to support this important work now as we enter a future of uncertainty in terms of climate.

The LFVC has spent the past 20 years building solid community support for our various projects, including legacy mine remediation, river restoration within the Town of Lake City, and conservation of critical riverine and wetland habitats. We are committed to promoting a resilient future for our community and our ecosystems.

The LFVC will be a key partner in the effort and will oversee all activities within the Lake Fork of the Gunnison sub-basin, as well as future work in the Cebolla sub-basin. We will also help the UGRWCD with all project coordination, grant administration, and future proposal preparation.

Thank you for considering this important work for the Upper Gunnison Basin. Success of this project will be a key milestone for protecting watershed resources in the Colorado Basin and provide a good procedural template for other high elevation, cold climate regions.

Sincerely,

Lyn Lampert
LFVC Board of Directors



Gunnison Conservation District
216 North Colorado St, Gunnison CO 81230 • (970) 642-4461

November 2, 2016

Chris Sturm
Colorado Water Conservation Board
1313 Sherman St., Room 721
Denver, CO 80203

Re: Upper Gunnison Watershed Assessment and Management Planning

Dear Mr. Sturm:

The Gunnison Conservation District provides technical, financial and educational resources to meet the needs of local landowners for the protection and enhancement of soil, water and related natural resources. Since 1956, we have had the opportunity to collaborate with landowners and other entities in many projects in the Gunnison Valley.

At our October 25, 2016 meeting, our Board was presented with a vision and overview of the Upper Gunnison Watershed Assessment and Management Planning effort. We were excited to discuss our unanimous support for this project. As a partner in this process we will be able to help the Upper Gunnison River Water Conservancy District coordinate with our network of landowners and identify watershed improvement opportunities throughout the Upper Gunnison Basin.

We are in a unique position to implement new strategies, and we are excited to evaluate the nexus between water and grazing management, irrigation management, soil health and plant diversity. We are strong supporters of this effort because the solutions necessary to prepare our community for the future are not be confined to the banks of a stream. These solutions will involve an understanding on how these variables can work better together.

The approach taken by the Upper Gunnison River Water Conservancy District to complete this assessment and planning process will be successful because it is all-inclusive and focused on ways to improve watershed health as well as water use with the Upper Gunnison Basin.

We encourage the Colorado Water Conservancy Board to approve the request for funding for the Upper Gunnison Watershed Assessment and Management Planning.

Best regards,

Bill Ketterhagen
Vice President

On behalf of the Board of Supervisors:

Jan Coury, President; Rufus Wilderson, Secretary/Treasurer, Dan Zadra and John Rozman



Town of Lake City

P. O. Box 544
230 North Bluff Street
Lake City, Colorado 81235
970 • 944-2333

November 3, 2016

Board of Directors
Upper Gunnison River Water Conservancy District
210 W. Spencer Avenue, Suite B
Gunnison, CO 81235

Re: Upper Gunnison Basin Watershed Assessment & Management Planning

Dear Directors,

On behalf of the Board of Trustees of the Town of Lake City, I am very pleased to have this opportunity to express our support for the Upper Gunnison Basin Watershed Assessment & Management Planning project.

The Colorado Water Plan points out that, in addition to the high hydrologic variability we face as a state, climate change and dust-on-snow events present additional complexities and uncertainties that affect water supply. These factors, when combined with ever-decreasing levels in Lakes Mead and Powell and associated ongoing contingency planning efforts, make it imperative that we begin planning for decreased water supplies as soon as possible.

Therefore, we strongly support the process you have developed to explore ways to conserve and improve water use efficiency and to establish resilient water supplies for the Upper Gunnison Basin.

The Town of Lake City has a long history of involvement in planning, implementing, and supporting projects that protect municipal water supplies, improve aging infrastructure to reduce demands on those supplies, and protect and enhance our ecosystems. Most notably, the Town has partnered with Hinsdale County and the Upper Gunnison Water Conservancy District to create the Lake San Cristobal Water Activity

Enterprise. Formed for the purpose of constructing, managing, and operating an outlet structure at Lake San Cristobal; the enterprise provides much needed augmentation water for the town's municipal wells as well as for future development in our basin.

Equally notable has been our ongoing work to upgrade and replace our aging water distribution system that has been critical for reducing our demands, improving efficiencies, and insuring that our drinking water meets all standards for quality. Finally, the Town has provided significant support and financial resources to the Lake Fork Valley Conservancy for river channel improvement projects within our boundaries.

We wish you the best of luck in obtaining funding for this very important effort and look forward to providing our cooperation and participation.

Sincerely,

Bruce Vierhella

October 27, 2016

Chris Sturm
Colorado Water Conservation Board
1313 Sherman St. Room 721
Denver, CO 80203

Dear Mr. Sturm,

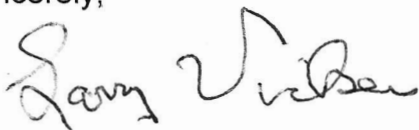
The Vicker's family has been operating a ranch along the Lake Fork of the Gunnison River for over a century, located above Lake City. Our livelihood, while once primarily dependent on cattle production, now relies on providing a high quality fishery for our guests. Conservation of our land is high priority. We placed 1,500 acres of the upper ranch under conservation easement and have spent many years improved the river channel, our ponds, and irrigation infrastructure on our property, to help maintain trout habitat along the Lake Fork.

We strongly support the efforts of the Upper Gunnison Water Conservancy District to put together a watershed plan for the basin. We wish to see a process that engages the local community and land owners so that we can find good solutions to face a future of uncertainty in terms of water supply, while simultaneously protecting our valuable resources.

Vicker's Ranch encourages the CWCB to approve this request for funding. We offer our support in outreach efforts as well as our ranch as a site to demonstrate our conservation activities.

Thank you for offering this opportunity to our community.

Sincerely,

A handwritten signature in black ink that reads "Larry Vickers". The signature is written in a cursive, flowing style.

Larry Vickers

10/31/2016
Chris Sturm
Colorado Water Conservation Board
1313 Sherman St., Room 721
Denver, CO 80203

Re: Upper Gunnison Watershed Assessment and Management Planning

Dear Mr. Sturm,

Eagle Ridge Ranch is a 4,962-acre ranch located in the Ohio Creek Valley. Our governing principals and operation relies on the Ohio Creek for agricultural production, wildlife habitat, and recreational use. In recent years, we have completed projects to update aging irrigation infrastructure and to improve channel stability for instream habitat on the property. This work has been completed independently by the ranch as well as in partnership with the Upper Gunnison River Water Conservancy District.

We realize the Ohio Creek provides a connection between properties up and down the valley. Changes in water management and changes to the channel can have either a positive or negative effect on neighboring properties. The Upper Gunnison Watershed Assessment and Management Planning process will help property owners and water users look at our watershed more holistically to identify and complete projects that benefit multiple interests.

For this reason, Eagle Ridge Ranch supports the Upper Gunnison Watershed Assessment and Management Planning process and look forward to cooperating with the Upper Gunnison River Water Conservancy District as the assessment is carried out. Combining the efforts of stakeholders throughout our watershed will allow us to become more resilient to protect the agricultural values of the Upper Gunnison Valley.

Eagle Ridge Ranch encourages the Colorado Water Conservation Board to approve the request for funding for the Upper Gunnison River Assessment and Planning proposal.

Thank you for taking the time to consider these comments.

Sincerely,



Travis Brooks
Ranch Manager
Eagle Ridge Ranch