Last Update: August 3, 2017

Colorado Water Conservation Board

Water Supply Reserve Fund
Grant Application

Instructions

All WSRF grant applications shall conform to the current 2016 WSRF Criteria and Guidelines.

To receive funding from the WSRF, a proposed water activity must be approved by a Roundtable(s) **AND** the Colorado Water Conservation Board (CWCB). The process for Roundtable consideration and recommendation is outlined in the 2016 WSRF Criteria and Guidelines. The CWCB meets bimonthly according to the schedule on page 2 of this application.

If you have questions, please contact the current CWCB staff Roundtable liaison:

Arkansas	**Gunnison | North Platte | South Platte | Yampa/White**	**Colorado | Metro | Rio Grande | Southwest**
Ben Wade	Craig Godbout	Megan Holcomb
ben.wade@state.co.us	craig.godbout@state.co.us	megan.holcomb@state.co.us
303-866-3441 x3238	303-866-3441 x3210	303-866-3441 x3222

WSRF Submittal Checklist (Required)

x	I acknowledge this request for funding was recommended for CWCB approval by the sponsoring Basin Roundtable(s).
x	I acknowledge I have read and understand the 2016 WSRF Criteria and Guidelines.
x	I acknowledge the Grantee will be able to contract with CWCB using the Standard Contract.(1)
Exhibit A	
x	Statement of Work(2) *(Word – see Exhibit A Template)*
x	Budget & Schedule(2) *(Excel Spreadsheet – see Exhibit A Template)*
*	Letters of Matching and/or Pending 3rd Party Commitments(2) **Working on budget cycle requests*
Exhibit C	
x	Map(2)
	Photos/Drawings/Reports
x	Letters of Support
	Certificate of Insurance(3) (General, Auto, & Workers' Comp.)
Contracting Documents	
	Certificate of Good Standing(3)
	W-9(3)
	Independent Contractor Form(3) (If applicant is individual, not company/organization)
	Electronic Funds Transfer (ETF) Form(3)

(1) Click "Grant Agreements". For reference only/do not fill out or submit/required for contracting
(2) Required with application if applicable.
(3) Required for contracting. While optional at the time of this application, submission can expedite contracting upon CWCB Board approval.

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Schedule		
CWCB Meeting	**Application Submittal Dates**	**Type of Request**
January	December 1	Basin Account; BIP
March	February 1	Basin/Statewide Account; BIP
May	April 1	Basin Account; BIP
July	June 1	Basin Account; BIP
September	August 1	Basin/Statewide Account; BIP
November	October 1	Basin Account/BIP

Desired Timeline	
Desired CWCB Hearing Month:	January 2019
Desired Notice to Proceed Date:	April 1, 2019

Water Activity Summary	
Name of Applicant	Upper Yampa River Watershed Group / Upper Yampa Conservancy District
Name of Water Activity	Characterization of Streamflow, Suspended Sediment, and Nutrients in the Upper Yampa River Basin

Approving Roundtable(s)	Basin Account Request(s)[(1)]
Yampa/White/Green Basin Roundtable	$77,424
Basin Account Request Subtotal	$ 77,424
Statewide Account Request[(1)]	$ 0
Total WSRF Funds Requested (Basin & Statewide)	$77,424
Total Project Costs	$144,500

(1) Please indicate the amount recommended for approval by the Roundtable(s)

Grantee and Applicant Information	
Name of Grantee(s)	Upper Yampa River Water Conservancy District
Mailing Address	PO Box 775529, Steamboat Springs, CO 80477
FEIN	84-0776538

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Grantee and Applicant Information	
Grantee's Organization Contact[1]	Andi Rossi
Position/Title	District Engineer
Email	arossi@upperyampawater.com
Phone	970.871.1035
Grant Management Contact[2]	same as above
Position/Title	
Email	
Phone	
Name of Applicant (if different than grantee)	Upper Yampa River Watershed Group
Mailing Address	Lyn Halliday, PO Box 883071, Steamboat Springs, CO 80488
Position/Title	Watershed Coordinator
Email	lhalliday@environmentalsolutionllc.com
Phone	970.879.6323

(1) Person with signatory authority

(2) Person responsible for creating reimbursement invoices (Invoice for Services) and corresponding with CWCB staff.

Description of Grantee
Provide a brief description of the grantee's organization (100 words or less).
In 2011, the Upper Yampa River Watershed Group (UYRWG) was established by individuals representing several local government and nonprofit organizations in the watershed for the purpose of collaborating to protect and enhance its long-term health. The UYRWG is one of more than 60 watershed protection groups in the Colorado Watershed Assembly. Since its formation, the UYRWG has completed several projects and reports, which has positioned them to seek future funding for the implementation of projects of benefit to the watershed. The UYRWG completed the State of the Watershed Plan in 2014 http://www.flipgorilla.com/p/23023990364732953/show and the Watershed Plan in July 2016 http://www.steamboatsprings.net/documentcenter/view/8714.

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

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Type of Eligible Entity (check one)	
x	**Public (Districts):** authorities, Title 32/special districts (conservancy, conservation, and irrigation districts), and water activity enterprises
	Private Incorporated: mutual ditch companies, homeowners associations, corporations
	Private Individuals, Partnerships, and Sole Proprietors: are eligible for funding from the Basin Accounts but not for funding from the Statewide Account.
	Non-governmental organizations: broadly, any organization that is not part of the government
	Covered Entity: as defined in Section 37-60-126 Colorado Revised Statutes

Type of Water Activity (check one)	
x	Study
	Implementation

Category of Water Activity (check all that apply)		
x	Nonconsumptive (Environmental)	
x	Nonconsumptive (Recreational)	
x	Agricultural	
x	Municipal/Industrial	
	Needs Assessment	
	Education & Outreach	
	Other	Explain:

Location of Water Activity	
Please provide the general county and coordinates of the proposed activity below in **decimal degrees**. The Applicant shall also provide, in Exhibit C, a site map if applicable.	
County/Counties	Routt
Latitude	please see attached map
Longitude	

Water Activity Overview
Please provide a summary of the proposed water activity (200 words or less). Include a description of the activity and what the WSRF funding will be used for specifically (e.g. studies, permitting, construction). Provide a description of the water supply source to be utilized or the water body affected by the activity. Include details such as acres under irrigation, types of crops irrigated, number of residential and commercial taps, length of ditch improvements, length of pipe installed, area of habitat improvements. If this project addresses multiple purposes or spans multiple basins, please explain. The Applicant shall also provide, in Exhibit A, a detailed Statement of Work, Budget, and Schedule.

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Water Activity Overview

The USGS, in cooperation with local stakeholders in the UYRB water community, proposes to characterize streamflow, suspended sediments, and nutrients using historic and more recently acquired water-quality data. Streamflow, suspended sediment, and nutrients have been prioritized by local stakeholders because of pending or existing regulations and to better understand the potential causes of increased reports of prolific algal blooms in the UYRB, some of which have shown to be toxic. Investigations showing links between nutrients, sediment, and algae have been documented in several lakes and streams across the United States. Algal blooms potentially harbor toxins that can have an on effect aquatic and human health.

The project objectives include obtaining a better understanding of the causes of increased prolific algal occurrences in the Upper Yampa River watershed. Applying stream flow data to the past eight years of USGS water quality data collected at sampling sites in the basin will allow the USGS to create accurate nutrient and sediment loading models. This analysis is designed to provide new data and subsequent understanding of the transport and fate of nutrients and sediment as well as seasonal fluctuations at sites throughout the watershed. As part of this analysis, a comprehensive evaluation of potential loading sources will be undertaken. Water suppliers, wastewater treatment operators, recreational users, and the citizenry at large will benefit from this analysis. Water managers, including those in the agriculture industry, will be better able to make informed decisions as the dynamics of these important constituents are better understood.

Measurable Results

To catalog measurable results achieved with WSRF funds please provide any of the following values.

	New Storage Created (acre-feet)	
	New Annual Water Supplies Developed or Conserved (acre-feet), Consumptive or Nonconsumptive	
147,603	Existing Storage Preserved or Enhanced (acre-feet)	
	Length of Stream Restored or Protected (linear feet)	
	Efficiency Savings (indicate acre-feet/year OR dollars/year)	
1,800	Area of Restored or Preserved Habitat (square miles)	
	Length of Pipe/Canal Built or Improved	
	Other	Explain: Basin-wide benefits

Water Activity Justification

Provide a description of how this water activity supports the goals of Colorado's Water Plan, the most recent Statewide Water Supply Initiative, and the respective Roundtable Basin Implementation Plan and Education Action Plan [1]. The Applicant is required to reference specific needs, goals, themes, or

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Water Activity Justification
Identified Projects and Processes (IPPs), including citations (e.g. document, chapters, sections, or page numbers). For applications that include a request for funds from the Statewide Account, the proposed water activity shall be evaluated based upon how well the proposal conforms to Colorado's Water Plan criteria for state support (CWP, Section 9.4, pp. 9-43 to 9-44;) (Also listed pp. 4-5 in 2016 WSRF Criteria and Guidelines).
To be a truly integrated system, water quality and watershed health must be considered when managing water quantity and supply. The Water Quality section of Chapter 7 of the Colorado Water Plan refers to Executive Order D 2013-005 which states "Colorado's water quantity and quality questions can no longer be thought of separately, each impacts the other and our state water policy should address them conjunctively". Environmental and recreational needs encompass good water quality and a healthy watershed. Delivering water that is of good water quality, during times of plenty as well as times of shortage, is a priority for all aspects of administration. As stated in the measurable objectives chapter of the Colorado Water Plan, "environment and recreation are too critical to Colorado's brand not to have robust objectives: a strong Colorado environment is critical to the economy and way of life." The Yampa/White/Green Basin states that "more than one third of its jobs are dependent on water quality which is influenced by watershed health." Chapter 7 of the Colorado Water Plan acknowledges the "critical role watershed health plays in ensuring Colorado's water future." The Plan specifically identifies watershed health, environment and recreation as a desired measurable objective and part of the implementation/action plan. It calls for 80 percent of critical watersheds to have protection plans by 2030 as well as including the WQCC's strategic water quality objective to have fully supported classified uses (drinking water, agriculture, recreation, aquatic life, and wetlands) by 2050. It states "these plans will address a variety of concerns, including …water quality impairments, aquatic and riparian habitat enhancement, and land use change." It goes on to state that "..watershed health influences water quality, which is of utmost importance to water providers, and Colorado's wildlife, which depends on healthy streams. These elements help to ensure that Colorado is adequately prepared to not only manage, but to protect, the water resources upon which all Coloradans rely." Without information gained from studies such as this proposed analysis by USGS in the Upper Yampa River Watershed, these objectives will not be able to be met. Efforts that will take place as part of this project directly follow the process outlined in the Plan, i.e. that successful watershed management will require coalition-building, data collection, planning based on sound science, prioritization, implementation and monitoring. This project further meets the Plan's suggested actions including #3 "Assist stakeholders in existing watershed groups to identify tools and resources that address gaps and build capacity in existing plans." The Yampa/White/Green Basin Implementation Plan (BIP) states in Section 1.2.8 , "Water quality and quantity are intrinsically linked in that quality directly affects the value of a water right for all uses: M&I, agriculture, recreation, and the environment." The BIP further encourages and supports water quality protection and monitoring programs in the sub-basins of the YWG through watershed groups, municipalities, land management agencies and other

Water Activity Justification
efforts (BIP pg. 1-11). The proposed analysis will provide water storage facility managers with necessary information required to maintain and modernize facilities and infrastructure operations in reaction to the current water quality characteristics of the Yampa Basin. This is especially pertinent for Stagecoach Reservoir as load calculations are useful for estimating source areas for a given water-quality constituent. This accounting enables land managers to identify regions of concern and assess suitable land management options. A USGS Scientific investigations report will be provided at the end of the analysis, containing discussions and findings related to:1) The impact that streamflow variability can have on water-quality concentrations in the UYRB (primarily nutrients); 2) What sites have the highest nutrient and sediment loads and when they typically occur; 3) Standard exceedances (for nutrients) as well as more accurate calculations of percentiles or other statistical values used in regulatory or biological assessments; 4) Newly acquired data in and near Stagecoach Reservoir; 5) Trends in streamflow, nutrients, and sediment at network sites in the UYRB; 6) Trends resulting from changes in land use, population, and water consumptive use; 7) Climatic impacts to the region upstream of Stagecoach Reservoir (if trends in streamflow or water quality are detected) and possible implications within Stagecoach Reservoir; 8) Comparisons of results from this study to results from other similar study's in the Western United States. Public involvement and education is a cornerstone of maintaining and protecting watershed health. However, in order to make any education program effective, we must first understand the driving forces of an existing trend, in this case increased nutrient and sediment loading and its possible effect on prolific algae blooms/harmful algae blooms. This study will increase our understanding of how this is affecting the system and potential sources/stressors, which will then lead to public education programs that address ways to potentially mitigate the furtherance of the impactful trends we are experiencing. Understanding and maintaining a healthy watershed is vital for all water users, both consumptive and non-consumptive, including current and future agricultural uses (goal 2), municipal and industrial uses (goal 4), fisheries and endangered fish recovery, and environmental and recreational uses.

(1) Access Basin Implementation Plans or Education Action Plans from Basin drop down menu.

Matching Requirements: Basin Account Requests	
Basin (only) Account grant requests require a 25% match (cash and/or in-kind) from the Applicant or 3rd party and shall be accompanied by a **letter of commitment** as described in the 2016 WSRF Criteria and Guidelines (submitted on the contributing entity's letterhead). Attach additional sheet if necessary.	
Contributing Entity	Amount and Form of Match (note cash or in-kind)
U.S. Geologic Survey	$47,076 cash

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Matching Requirements: Basin Account Requests	
Routt County*	5,000 cash
City of Steamboat Springs*	5,000 cash
Mount Werner Water and Sanitation District	5,000 cash
Upper Yampa Water Conservancy District	5,000 cash
*anticipated	
Total Match	$67,076 cash
If you requested a Waiver to the Basin Account matching requirements, indicate the percentage you wish waived.	

Matching Requirements: Statewide Account Requests	
Statewide Account grant requests require a 50% match as described in the 2016 WSRF Criteria and Guidelines. A minimum of 10% match shall be from Basin Account funds (cash only). A minimum of 10% match shall be provided by the applicant or 3rd party (cash, in-kind, or combination). The remaining 30% of the required match may be provided from any other source (Basin, applicant, or 3rd party) and shall be accompanied by a **letter of commitment.** Attach additional sheet if necessary.	
Contributing Entity	Amount and Form of Match (note cash or in-kind):
Total Match	$
If you requested a Waiver to the Statewide Account matching, indicate % you wish waived. (Max 50% reduction of requirement).	

Related Studies
Please provide a list of any related studies, including if the water activity is complimentary to or assists in the implementation of other CWCB programs.
-Upper Yampa State of the Watershed Report, 2014 -Upper Yampa River Watershed Plan, 2016 -Water-quality Assessment and Macroinvertebrate Data for the Upper Yampa River Watershed, Colorado, 1975 through 2009: U.S. Geological Survey Scientific Investigations Report, 2012

Previous CWCB Grants
List all previous or current CWCB grants (including WSRF) awarded to both the Applicant and Grantee. Include: 1) Applicant name; 2) Water activity name; 3) Approving RT(s); 4) CWCB board meeting date; 5) Contract number or purchase order

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Previous CWCB Grants
The CWCB helped to fund the development of the 2016 Upper Yampa River Watershed Plan.

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

Water Supply Reserve Fund – Grant and Loan Program
Water Activity Summary Sheet
January 28-29, 2019
Agenda Item 8(a)

Co-Applicants:	Upper Yampa River Working Group/Upper Yampa River Water Conservancy District
Grantee:	Upper Yampa River Water Conservancy District
Water Activity Name:	Characterization of Streamflow, Suspended Sediment & Nutrients in the Upper Yampa River Basin
Water Activity Purpose:	Study-Multipurpose (Environmental/Recreational/Ag/Education & Outreach/M&I)
County:	Routt
Drainage Basin:	Yampa-White-Green
Water Source:	Yampa River & Upper tributaries
Amount Requested:	$77,424 Yampa-White-Green Basin Account
Matching Funds:	Applicant & 3rd Party Match (cash) = $67,076 • 87% of the Basin Account request (meets 25% min)

Staff Recommendation:

Staff recommends **conditional approval** of up to $77,424 from the Yampa-White-Green Basin Account to help fund the project titled: Characterization of Streamflow, Suspended Sediment & Nutrients in the Upper Yampa River Basin, contingent upon the conditions stated in the **Issues/Additional Needs** section below.

Water Activity Summary: WSRF grant funds, if approved, will assist the United States Geological Survey, in cooperation with local stakeholders in the upper Yampa river basin water community, proposes to characterize streamflow, suspended sediments, and nutrients using historic and more recently acquired water-quality data. Streamflow, suspended sediment, and nutrients have been prioritized by local stakeholders because of pending or existing regulations and to better understand the potential causes of increased reports of prolific algal blooms in the UYRB, some of which have shown to be toxic.

The project objectives include obtaining a better understanding of the causes of increased prolific algal occurrences in the Upper Yampa River watershed. Applying stream flow data to the past eight years of USGS water quality data collected at sampling sites in the basin will allow the USGS to create accurate nutrient and sediment loading models. This analysis is designed to provide new data and subsequent understanding of the transport and fate of nutrients and sediment as well as seasonal fluctuations at sites throughout the watershed. As part of this analysis, a comprehensive evaluation of potential loading sources will be undertaken. Water suppliers, wastewater treatment operators, recreational users, and the citizenry at large will benefit from this analysis. Water managers, including those in the agriculture industry, will be better able to make informed decisions as the dynamics of these important constituents are better understood.

Discussion: This water activity will assist the Yampa/White/Green Basin Roundtable achieve goals set out in the 2015 Yampa/White/Green Basin Implementation Plan by addressing Section 1.2.8 which states that "Water quality and quantity are intrinsically linked in that quality directly affects the value of a water right for all uses: M&I, agriculture, recreation, and the environment." In addition, this effort assists the state achieve goals as stated in Chapter 7 (Water Resource Management and Protection) of Colorado's Water Plan.

Issues/Additional Needs: As noted above (and below), the applicant has identified $67,076 in cash matching contributions, however written verification for all matches have as yet to be provided, therefore staff recommends a **conditional approval** of this grant for the requested $77,424 contingent upon the applicant providing documentation verifying the all matching contributions prior to entering into a grant contract.

Eligibility Requirements: The application meets requirements of all eligibility components: General Eligibility, Entity Eligibility, Water Activity Eligibility, and Eligibility Based on Match Requirements.

Evaluation Criteria: This activity has undergone review and evaluation and staff has determined that it satisfies the Evaluation Criteria. Please refer to Basin Roundtable Chair's Recommendation Letter and the WSRF Grant Application for applicant's detailed response.

Funding Summary/Matching Funds:

Funding Sources	Cash	In-kind	Total	Status
USGS	$47,076	$0	$47,076	Secured
Mount Warner Water & Sanitation District	$5,000	$0	$5,000	Secured
Routt County	$5,000	$0	$5,000	Pending
City of Steamboat Springs	$5,000	$0	$5,000	Pending
Upper Yampa Water Conservancy District	$5,000	$0	$5,000	Secured
Sub-total	$67,076	$0	$67,076	
WSRF Yampa/White/Green Basin Account	$77,424	$0	$77,424	Secured
Total	**$144,500**	**$0**	**$144,500**	

CWCB Project Manager: Craig Godbout

Yampa-White-Green Basin Roundtable

November 27, 2018

Craig Godbout
Colorado Water Conservation Board
1313 Sherman St., Room 718
Denver, CO 80203

Dear Craig Godbout,

At the November 14th meeting, the Yampa White Green Basin Roundtable (YWG BRT) voted unanimously to approve the UYRWG Streamflow, Suspended Sediment & Nutrients Study Grant presented by Lyn Holiday, Ken Leib, and Andy Rossi in the amount of $77,424.

The grant request meets the Roundtable's goal to maintain and consider the existing natural range of water quality that is necessary for current and anticipated water uses. The Upper Yampa River Watershed Group (UYRWG) completed a Watershed Plan in 2016 which identified, among other trends, increased prolific algal blooms including positive tests for toxic blue-green algae in the basin as a priority for further examination. Investigations showing links between nutrients, sediment, and algae have been well documented in the United States. Utilizing the past ten years of water quality data at twelve sites throughout the basin (headwaters to the confluence of Elkhead Creek), and correlating this data with existing streamflow data, the US Geologic Survey will create nutrient and sediment loading models to increase the understanding of the transport and fate of these parameters specific to the Yampa, as well as seasonal fluctuations at sites throughout the upper watershed. As part of this analysis, a comprehensive evaluation of potential loading sources will be undertaken. Water suppliers, wastewater treatment operators, recreational users, and the citizenry at large will benefit from this analysis. Water managers, including those in the agriculture industry, will be better able to make informed decisions as the dynamics of these important constituents are better understood.

Please do not hesitate to contact me with any questions.

With Gratitude,

Jackie Brown

Yampa White Green Basin Roundtable, Chair