COLORADO
Colorado Water Conservation Board
Department of Natural Resources

Last Update: March 8, 2022

Colorado Water Conservation Board

Water Supply Reserve Fund
Grant Application

Instructions

All WSRF grant applications shall conform to the current WSRF Program 2022 Grant Guidelines.

To receive funding from the WSRF, a proposed water activity must be recommended for approval by a Roundtable(s) **AND** the approved by the Colorado Water Conservation Board (CWCB). The process for roundtable consideration and recommendation is outlined in the WSRF Program 2022 Grant Guidelines. The CWCB meets bimonthly.

If you have questions, please contact the WSRF Grant Program Manager (for all Roundtables) or the Roundtable Liaison:

Ben Wade
ben.wade@state.co.us
303-866-3441 x3238 (office)

WSRF Submittal Checklist (Required)

YES☐ NO☐	This request was recommended for CWCB approval by the sponsoring roundtable.
YES X NO☐	I have read and understand the WSRF Program 2022 Grant Guidelines.
YES X NO☐	Grantee will be able to contract with CWCB using the Standard Contract.[1]
	Application Documents included:
YES X NO☐	Exhibit A: Statement of Work[2] *(Word – see Template)*
YES X NO☐	Exhibit B: Budget (including Detailed Budget) & Schedule[2] *(Excel Spreadsheet – see Template)*
YES X NO☐	Letters of Matching and/or Pending 3rd Party Commitments[2]
YES X NO☐	Map[2]
YES X NO☐	Photos/Drawings/Reports
YES X NO☐	Letters of Support
	Contracting Documents[3]
YES☐ NO☐	Detailed/Itemized Budget[3] *(Excel Spreadsheet – see Template)*
YES☐ NO☐	Certificate of Insurance[4] *(General, Auto, & Workers' Comp.)*
YES☐ NO☐	Certificate of Good Standing[(4)]
YES☐ NO☐	W-9 Form[4]
YES☐ NO☐	Independent Contractor Form[4] *(If applicant is individual, not company/organization)*
YES☐ NO☐	Electronic Funds Transfer (ETF) Form[4]

[1] Click "Grant Agreements". For reference only/do not fill out or submit/required for contracting

[2] Required with application if applicable.

[3] Additional documentation providing a Detailed/Itemized Budget maybe required for contracting. Applicants are encouraged to coordinate with the CWCB Project Manager to determine specifics.

[4] Required for contracting. While optional at the time of this application, submission can expedite contracting upon CWCB Board approval.

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CWCB Meeting	Application Submittal Dates
January	October 1
March	December 1
May	February 1
July	April 1
September	June 1
November	August 1

Water Activity Summary	
Name of Applicant	Town of Pagosa Springs and Upper San Juan Watershed Enhancement Partnership
Name of Water Activity	Pagosa Gateway Project

Approving Roundtable(s)	Basin Account Request(s)[1]
Southwest Basin Roundtable	$100,000
State Wide Account	$675,000
Basin Account Request Subtotal	$100,000
Statewide Account Request[(1)]	$675,000
Basin Account Request Subtotal Approved by Roundtable	$
Total WSRF Funds Requested (Basin & Statewide)	$775,000
Total Project Costs	$1,260,000

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

Grantee and Applicant Information	
Name of Grantee(s)	Town of Pagosa Springs
Mailing Address	PO Box 1859, Pagosa Springs, Co. 81147
FEIN	84-6000707
Grantee's Organization Contact[1]	Andrea Phillips

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Grantee and Applicant Information	
Position/Title	Town Manager
Email	aphillips@pagosasprings.co.gov
Phone	970-264-4151 x236
Grant Management Contact[2]	James Dickhoff
Position/Title	Planning Director
Email	jdickhoff@pagosasprings.co.gov
Phone	970-264-4151 x225
Name of Applicant (if different than grantee)	Town of Pagosa Springs and Upper San Juan Watershed Enhancement Partnership (WEP)
Mailing Address	c/o Trout Unlimited, P.O. Box 1544, Pagosa Springs, CO 81147
Position/Title	Mely Whiting, Colorado Water Project Legal Counsel
Email	mely.whiting@tu.org
Phone	720-470-4758

[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).
The Town of Pagosa Springs (population 1,900) is the sole incorporated jurisdiction within Archuleta County. The Town provides our immediate community area (population 11,000) with most all developed park facilities, which are primarily located along the San Juan River corridor. Town Council has consistently recognized and prioritized the importance of the river corridor for public access and the positive economic impacts of enhancing the river corridor within and beyond the Town's boundary. The river's importance is recognized in goals N-1, N-3, and N-7 in the Town's Comprehensive Plan (2018).

	Type of Eligible Entity (check one)
X	**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.
	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

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Type of Water Activity (check one)	
	Study
X	Implementation

Category of Water Activity (check all that apply)		
X	Nonconsumptive (Environmental)	
X	Nonconsumptive (Recreational)	
	Agricultural	
	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	Archuleta
Latitude	37d 15' 6.21" (37.251725)
Longitude	107d 00' 36.5" (107.010138)

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 proposed Pagosa Gateway Project proposes to improve approximately 2.5 miles of the San Juan River immediately upstream of the Town of Pagosa Springs to preserve aquatic habitat and recreation opportunities in the face of declining flows and warming temperatures.

The tourism-based economy of Pagosa Springs is tightly coupled to the ecological well-being of the San Juan River and the aesthetic and recreational values derived from it. A recent environmental and recreational (E&R) water supply needs assessment, commissioned by the WEP, identifies potentially significant changes in hydrology and limiting conditions for aquatic life in this section of the San Juan River due to prolonged drought and climate change. Assessment results suggest late summer and fall flows may restrict the availability and quality of aquatic habitat for fish and other aquatic species as well as the number of days in a year when recreational craft can successfully navigate this segment of the San Juan mainstem (Lotic 2021).

This project will implement a series of interventions, including creation of low flow channels; promotion of bank stabilization, riparian vegetation, and fish passage; as well as removal of hazardous streambank materials to increase the resiliency of the San Juan River and its ability to support aquatic life and diverse water users.

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	
	Existing Storage Preserved or Enhanced (acre-feet)	
~12,000 linear feet	Length of Stream Restored or Protected (linear feet)	
	Efficiency Savings (indicate acre-feet/year OR dollars/year)	
	Area of Restored or Preserved Habitat (acres)	
	Length of Pipe/Canal Built or Improved (linear feet)	
	Other	Explain:

Water Activity Justification

Provide a description of how this water activity supports the goals of Colorado's Water Plan, the most recent Analysis & Technical Update, and the respective roundtable Basin Implementation Plan and Education Action Plan [1]. The Applicant is required to reference specific needs, goals, themes, or Identified Projects and Processes (IPPs), including citations (e.g. document, chapters, sections, or page numbers).

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Water Activity Justification

This project is supported by the Upper San Juan Enhancement Partnership (WEP), a stakeholder group formed for the purpose of developing a Stream Management Plan for the Upper San Juan River basin. WEP operates primarily through a steering committee with broad representation of water interests within the basin, including agricultural, municipal, recreation and environmental, as well as local, state and federal government. The WEP steering committee conducts regular outreach to the local community to hear ideas and receive feedback. Last year, WEP completed an Environmental and Recreational Water Supply Needs Assessment (E&R Assessment, Lotic 2021). Using CWP scenarios, the E&R Assessment identified the potential for trends in historical and future, climate-change driven hydrology to produce increasingly limiting conditions for aquatic life and recreation in the Upper San Juan River above, below and through the Town of Pagosa Springs. The goal of this project is to improve recreational usability, ecologicial viability, and to address some of the issues identified in the E&R Assessment in the portion of the San Juan River upstream of downtown Pagosa Springs, CO.

The project consists of the construction of a series of measures or "interventions" designed to address the negative impacts of decreasing stream flows on aquatic habitat and to improve the river's resilience in the face of continuing drought and climate change. The types of interventions proposed include:

Low Flow Channel Shaping

Two types of low flow channel intervention are envisioned.

- High-priority low-flow channel shaping is indicated in areas where the current structure of the stream bed does not include any area of consolidated flow during low flow periods. The focus in these areas will be on structural modification of the stream bed to provide a lower elevation surface across some portion of the cross-sectional profile. High priority low-flow channel shaping is also called out in areas where the existing low-flow channel appears to provide critical habitat. The focus in these areas is on protecting existing channel forms and behavior.
- Opportunistic low-flow channel shaping is indicated in all areas that are not high-priority areas. In these sections of river channel, efforts will focus on moving material (possibly single boulders or small clusters of cobble) in a manner that promotes consolidation of flow in the existing channel thalweg during late summer and fall periods. This work will be performed where and when it is convenient and not at the expense of other aspects of the full effort.

Grade Control Structures

Placement of a channel spanning structure across the riverbed is proposed at several locations. The main goal of these structures is the promotion and maintenance of low flow channels at certain positions in the channel bed. In other locations, partially buried rock ribs extending outward from the inside of the river bend intend to hold grade on existing alluvial surfaces and drive consolidation of late-summer and fall low flows into a narrower section of the channel bed. These structures often alternate with flow deflectors positioned on the opposite stream bank. These deflectors are intended to prevent organization of water velocity fields during periods of high and moderate flow and protect infrastructure or streambanks subjected to debris removal.

Riparian Plantings

Several areas along the river corridor are proposed for riparian revegetation. The extent of some of these areas suggests that an extensive planting plan and, perhaps, multi-season irrigation of the area, is required to maximize benefits of the intervention. At this time, the extent of riparian revegetation

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Water Activity Justification

efforts is expected to be limited to the near stream area. Planting plans for these areas are expected to rely heavily on willow cuttings from on-site and from nearby stream reaches.

Placement of Habitat Structures

Low baseflow conditions result in shallow water depths and reduction in habitat quality for aquatic species in many locations. Synergistic effects between flow alteration and near-complete removal of streamside vegetation in several locations and the presence of relatively uniform bedrock bed surfaces in others further constrains habitat quality and results in reductions in stream network connectivity during some portion of the year. Placement of habitat structures in the stream channel and along the streambanks intends to increase bed complexity, encourage the formation of small scour pools, and provide an opportunity for aquatic organisms to transit through a reach by "hop-scotching" between preferred habitats. The habitat structures envisioned by this project area constructed from large rock and/or toe wood.

Streambank Work

Cars were historically buried in levee features and along the outside bend of some streambanks to stabilize the bank. Recent channel changes have led to the exposure of these cars and other materials. Removal of these materials is primarily intended to reduce risks to recreational river users. However, removal of exposed cars will be followed by regrading, revegetation, and strategic placement of flow deflectors, rip-rap revetments and/or buried revetments to protect stream-side infrastructure. This work is expected to also benefit water quality and aquatic habitat. A conceptual level design for the project has been completed and is available for review.

By implementing these measures, the Pagosa Gateway Project will increase water supply reliability for ecosystems along the San Juan River above Pagosa Springs. This increase in reliability will not be achieved by altering management of water but, rather, by modifying the channel to be more resilient in the face of historical flow alterations and expected future changes to low-flow conditions. The Pagosa Gateway Project, together with its companion Yamaguchi South Project which will implement similar improvements downstream of downtown Pagosa Springs, are needed not only for the ecological benefits they provide, but also enhancement of recreational opportunities. They are needed to support the local economy.

Outdoor recreation is a mainstay of Pagosa Springs' economy. According to the Region 9 Economic Snapshot-2020 Update, tourism is one of the top employment industries in Archuleta County and largely based on the area's spectacular natural resources. The San Juan River forms the "foundational infrastructure" for local recreational and economic interests. Riverine based tourism activities (boating, fishing, trails, bird watching, etc.) are some of the most utilized of those interests. A decline in aquatic habitat and fisheries impacts fishing. Projects designed to improve aquatic habitat in the face of lower flows and higher stream temperature benefit the local economy as well as the river's ecological viability.

[1] Access Basin Implementation Plans or Education Action Plans from Basin drop down menu.

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Table 1.1: Project Alignment with SW Basin Implementation Plan

GOAL	STRATEGIES MEETING GOAL A
A. Balancing all needs and conflicts	
	A2: The Pagosa Gateway Project has promoted dialogue and fostered cooperation and collaboration within the community and WEP's multi-discipline steering committee in the development of this project. This will act as a model for development and implementation of additional projects fulfilling the goals and strategies of the SW BIP.
D. Meet recreational water needs	
	D1. The Pagosa Gateway project will maintain, protect, and enhance recreational values through construction of the "interventions" discussed above. These enhanced recreational values support the local economy derived from recreational water uses, such as fishing, boating, and wildlife watching.
	D2. This project was prioritized through a community driven process in support of the integrated water management plan that meets nonconsumptive needs identified in the assessment.
E. Meet environmental water needs	
	E2. This project will improve the condition and natural function of the San Juan River and its riparian areas. This in turn will promote self-sustaining fisheries, support native species and functional habitat (aquatic and terrestrial ecosystems) in the long term, and adapt to changing climate conditions.
F. Promote healthy watersheds.	
	F2: The Pagosa Gateway Project will support other WEP efforts to enhance watershed health by restoring this portion of the watershed to ensure sustainable environmental and recreational needs.

Table 1.2: Project Alignment with 2022 Colorado Water Plan Update Vision

VISION	ACTION AREA
The Pagosa Gateway Project will implement a *"forward-thinking solution that is sustainable and resilient to changing conditions and result in a strong, equitable community that can adapt to and thrive in the face of adversity".*	This project will promote implementation of the following action areas: • thriving watersheds, and • vibrant communities.

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Table 1.3: Project Alignment with 2015 Colorado Water Plan Critical Action Plan

ACTION AREA	
F. Watershed Health, Environment, and Recreation	• See Table 1.1 for how the Pagosa Gateway Project aligns with critical goals and actions in this area.

Matching Requirements: Basin Account Requests	
Basin 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 WSRF Program 2022 Grant 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)
Bureau of Reclamation WaterSMART Environmental Water Resources Program Grant	$ 375,000 (cash, awarded)
Town of Pagosa Springs	$ 54,000 (cash, committed)
Archuleta County	$ 26,710 (cash, requesting)
Trout Unlimited	$ 1,700 (cash, committed)
Friends of the Upper San Juan	$ 750 (cash, committed)
The Nature Conservancy	$ 9,840 (cash, committed)
Southwestern Water Conservation District	$17,000 (cash, requesting)
Total Match	$485,000
If you requested a Waiver to the Basin Account matching requirements, indicate the percentage you wish waived.	

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
1) Town of Pagosa Springs and Upper San Juan Watershed Enhancement Partnership; 2) Recreational and Ecological Enhancement of the San Juan River -Yamaguchi South; 3) Southwest; 4) March 2022; 5) Contract number pending.

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.
The Town of Pagosa Springs has "debruced," which resulted in the Town not being restricted on how much grant funding it can receive.

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Colorado Water Conservation Board	
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Exhibit A - Statement of Work	
Date:	10/13/2022
Water Activity Name:	Pagosa Gateway Project: San Juan River Recreational and Ecological Enhancements
Grant Recipient:	Town of Pagosa Springs and Upper San Juan Watershed Enhancement Partnership (WEP)
Funding Source:	Basin Account Water Supply Reserve Fund

Water Activity Overview: (Please provide brief description of the proposed water activity (no more than 200 words). Include a description of the overall water activity and specifically what the WSRF funding will be used for. (PLEASE DEFINE ALL ACRONYMS).

The proposed Pagosa Gateway Project proposes to improve approximately 2.5 miles of the San Juan River immediately upstream of the Town of Pagosa Springs to preserve aquatic habitat and recreation opportunities in the face of declining flows and warming temperatures.

The tourism-based economy of Pagosa Springs is tightly coupled to the ecological well-being of the San Juan River and the aesthetic and recreational values derived from it. A recent environmental and recreational (E&R) water supply needs assessment, commissioned by the WEP, identifies potentially significant changes in hydrology and limiting conditions for aquatic life in this section of the San Juan River. Assessment results suggest late summer and fall flows may restrict the availability and quality of aquatic habitat for fish and other aquatic species as well as the number of days in a year when recreational craft can successfully navigate this segment of the San Juan mainstem (Lotic 2021).

This project will implement a series of interventions, including creation of low flow channels; promotion of bank stabilization, riparian vegetation, and fish passage; as well as removal of hazardous streambank materials to increase the resiliency of the San Juan River and its ability to support aquatic life and diverse water users

Objectives: (List the objectives of the project. (PLEASE DEFINE ACRONYMS).

The mechanical and biological interventions proposed within the Pagosa Gateway Project respond to the results of the WEP's E&R assessments and seek to offset negative impacts of changing streamflows on environmental and recreational water needs via the following objectives:

1) Encourage the formation and persistence of low flow channels.

2) Facilitate expansion and resilience of stream-side riparian vegetation communities.

3) Remove trash, construction debris, and other hazards from the river and streambank.

Tasks

Provide a detailed description of each task using the following format: (PLEASE DEFINE ACRONYMS)

Task 1 – Permitting & Design

Description of Task:

The applicants will work with a contracted engineering company to refine concept level project plans, developed with the Upper San Juan Watershed Enhancement Partnership, to ensure design meet project objectives and various agency regulations.

Method/Procedure:

NEPA, ESA, and NHPA review by Reclamation will be needed, as well as a CWA 404 permit issued by the U.S. Army Corps of Engineers (USACE). The project should fit within a USACE Nationwide stream restoration CWA 404 permit. Given the nature of the work, it is the applicants' hope that the project will also qualify for a Categorical Exemption under NEPA. Input and approval of designs from the Colorado Parks & Wildlife will be necessary before engineering designs are finalized.

Grantee Deliverable: (Describe the deliverable the grantee expects from this task)

Approved permits and finalized engineering design plans for proposed interventions along 2.5 mile reach of the San Juan River above Pagosa Springs.

CWCB Deliverable: (Describe the deliverable the grantee will provide CWCB documenting the completion of this task)

Appropriate and finalized permits and design plans for entire project area and individual river "panels" or segments to be included in CWCB progress and final reports.

Tasks
Provide a detailed description of each task using the following format: (PLEASE DEFINE ACRONYMS)
Task 2 – Materials & Construction
Description of Task:
The project consists of the construction of a series of measures or "interventions" designed to address the negative impacts of decreasing stream flows on aquatic habitat and to improve the river's resilience in the face of climate change. The types of interventions proposed include low flow channel shaping, riparian plantings, placement of habitat structures, and streambank work.
Method/Procedure:
A conceptual level design for the project has been completed and is included in the attachments. The conceptual design divides the 2.5 miles of the river into panels and a description of the specific work, materials and constructions needs to be done in each panel is provided. **Low-Flow Channels** Two types of low-flow channel intervention are specified. High-priority low-flow channel shaping is indicated in areas where the current structure of the stream bed does not include any area of consolidated flow during low flow periods. The focus in these areas should be on structural modification of the stream bed to provide a lower elevation surface across some portion of the cross-sectional profile. High-priority low-flow channel shaping in also called out in areas where the existing low-flow channel appears to provide critical habitat and boat navigation opportunities. The focus in these areas should be on protecting existing channel forms and behaviors. Opportunistic low-flow channel shaping is indicated in all areas that are NOT high-priority areas. In these sections of river channel, effort should be made to move material (possibly single boulders or small clusters of cobble) in a manner that promotes consolidation of flow in the existing channel thalweg during late summer and fall periods. This work should be performed where and when it is convenient and not at the expense of other aspects of the full effort. **Riparian Plantings** Several areas along the river corridor are called out for riparian revegetation. The extent of some of these areas suggests that an extensive planting plan and, perhaps, multi-season irrigation of the area is required to maximize benefits of the intervention. However, such an effort will require close coordination with landowners. At this time, the extent of riparian revegetation efforts is expected to be limited to the near stream area. Planting plans for these areas are expected to rely heavily on willow cuttings from on-site or from nearby stream reaches. **Streambank Work** Some of the work described involves stream bank stabilization work consisting of removal or stabilization of old cars, long ago used to shore up the bank and recently exposed by channel changes, an old pipeline

Tasks
and other debris. This work will reduce recreation hazards, a secondary benefit of the project, but will also help stabilize the banks, improve water quality by reducing fine sediments, introduce organic matter to the stream, remove a source of potentially toxic fluids, and provide an opportunity for revegetation to provide shading that helps reduce stream temperature. Should a determination be made that this portion of the project is outside the scope of the grant, no funds from this grant will be used for that portion of the project.
Grantee Deliverable: (Describe the deliverable the grantee expects from this task)
Complete installation/construction of designed interventions within the 2.5 mile reach of the San Juan River above Pagosa Springs.
CWCB Deliverable: (Describe the deliverable the grantee will provide CWCB documenting the completion of this task)
Photo documentation and performance measures of constructed/installed stream channel or streambank interventions to be included in CWCB progress and final reports.

Tasks
Provide a detailed description of each task using the following format: (PLEASE DEFINE ACRONYMS)
Task 3 – Compliance & Monitoring
Description of Task:
Close coordination with Colorado Parks & Wildlife aquatic biologists and careful scheduling and sequencing of any/all activities that may impact aquatic habitat quality to ensure impacts do not occur during critical times of the year (e.g. spawning). A formal monitoring plan will be created in the year of project implementation.
Method/Procedure:
A contractor will be engaged in the development of the plan. This plan will articulate all data collection schedules and necessary coordination with partnering organization and agencies and/or private landowners. The plan will also clarify all data collection, management, and analysis methods to be used in the evaluation of the performance measures detailed above. Approval of the plan will be sought by all WEP partners prior to carrying out any data collection activities. Members of the WEP will coordinate all activities described by the plan over the five-year period following project implementation. Specifically, WEP will coordinate with CPW aquatic biologists to collect fisheries data on the project reach. A contractor will likely be hired to carry out all other data collection and analysis activities. However, where and when the necessary capacity and expertise exists among select WEP partners, data collection and analysis activities may be carried out by these partners.
Grantee Deliverable: (Describe the deliverable the grantee expects from this task)

Tasks

A formal monitoring plan will be created in the year of project implementation. The following performance measures may be used to quantitatively and/or qualitatively assess impacts associated with the project:

• **Riparian photo points and greenline surveys:** Riparian condition will be monitored for a minimum of 5 years using fixed photo points and greenline surveys in areas where planting and other restoration techniques are applied. Photo points will be used to qualitatively assess the impacts of the project on riparian forest condition. Greenline community composition by species (%) and evidence of woody species recruitment on scoured surfaces will be used as quantitative performance measures.

• **Fish biomass and species/life stage counts:** The applicant will work with Colorado Parks and Wildlife aquatic biologists to develop a multi-year monitoring plan that will assess the impact of the project on fish communities. Specifically, total fish biomass and species counts will be performed at two locations within the project reach in the year prior to project implementation and in the five years following project completion. Total biomass of native and sport fish will be used as a performance measure, along with the total number of native fish species present. Comparison of monitoring results prior to project implementation and in the years following project completion will provide a means for quantifying the beneficial impact of the project on aquatic life.

• **Recreational user surveys:** A single survey of private and commercial recreational users will be conducted five years after project implementation. This survey will assess whether or not the project changed user-perceptions of the flow-mediated navigability of the project reach. Differences between minimum navigability thresholds collected during this survey and a similar survey conducted in 2021 will provide a basis for quantitative exploration of the impact of the project on recreational use opportunities.

CWCB Deliverable: (Describe the deliverable the grantee will provide CWCB documenting the completion of this task)

Monitoring methods and performance measures of project impacts to fish communities, riparian vegetation, and recreation use will be included in CWCB progress and final reports.

Budget and Schedule

Exhibit B - Budget and Schedule: This Statement of Work shall be accompanied by a combined Budget and Schedule that reflects the Tasks identified in the Statement of Work and shall be submitted to CWCB in excel format. A separate excel formatted Budget is required for engineering costs to include rate and unit costs.

Reporting Requirements

Progress Reports: The grantee shall provide the CWCB a progress report every 6 months, beginning from the date of issuance of a purchase order, or the execution of a contract. The progress report shall describe the status 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. The CWCB may withhold reimbursement until satisfactory progress reports have been submitted.

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Reporting Requirements

Final Report: At completion of the project, the grantee shall provide the CWCB a Final Report on the grantee's letterhead that:

- Summarizes the project and how the project was completed.
- Describes any obstacles encountered, and how these obstacles were overcome.
- Confirms that all matching commitments have been fulfilled.
- Includes photographs, summaries of meetings and engineering reports/designs.

Payments

Payment will be made based on actual expenditures, must include invoices for all work completed and must be on grantee's letterhead. The request for payment must include a description of the work accomplished by task, an estimate of the percent completion for individual tasks and the entire Project in relation to the percentage of budget spent, identification of any major issues, and proposed or implemented corrective actions.

The CWCB will pay the last 10% of the entire water activity budget when the Final Report is completed to the satisfaction of CWCB staff. Once the Final Report has been accepted, and final payment has been issued, the water activity and purchase order or contract will be closed without any further payment. Any entity that fails to complete a satisfactory Final Report and submit to CWCB within 90 days of the expiration of a purchase order or contract may be denied consideration for future funding of any type from CWCB.

Performance Requirements

Performance measures for this contract shall include the following:
(a) Performance standards and evaluation: Grantee will produce detailed deliverables for each task as specified. Grantee shall maintain receipts for all project expenses and documentation of the minimum in-kind contributions (if applicable) per the budget in Exhibit B. Per Grant Guidelines, the CWCB will pay out the last 10% of the budget when the final deliverable is completed to the satisfaction of CWCB staff. Once the final deliverable has been accepted, and final payment has been issued, the purchase order or grant will be closed without any further payment.
(b) Accountability: Per the Grant Guidelines full documentation of project progress must be submitted with each invoice for reimbursement. Grantee must confirm that all grant conditions have been complied with on each invoice. In addition, per the Grant Guidelines, Progress Reports must be submitted at least once every 6 months. A Final Report must be submitted and approved before final project payment.
(c) Monitoring Requirements: Grantee is responsible for ongoing monitoring of project progress per Exhibit A. Progress shall be detailed in each invoice and in each Progress Report, as detailed above. Additional inspections or field consultations will be arranged as may be necessary.
(d) Noncompliance Resolution: Payment will be withheld if grantee is not current on all grant conditions. Flagrant disregard for grant conditions will result in a stop work order and cancellation of the Grant Agreement.

Pagosa Gateway Project Implementation Plan			
Tasks	**Start Date**	**End Date**	**Comments**
Design & Engineering	May 2023	August 2023	
Permitting	May 2023	December 2023	
Construction	May 2024	November 2025	Allows for 2 construction seasons
The Town of Pagosa Springs and WEP anticipate the Project will be completed within 26 months after contracting with CWCB (expected by no later than May 1, 2023). Construction is expected to begin as soon as weather allows in 2024.			

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Water Supply Reserve Fund (WSRF)

EXHIBIT B - BUDGET AND SCHEDULE - Direct & Indirect (Administrative) Costs

Date: 4/15/2022

Water Activity Name: Town of Pagosa Springs & Upper San Juan Watershed Enhancement Partnership

Grantee Name: Pagosa Gateway Project: San Juan River Recreational and Ecological Enhancements

Task No.[1]	Description	Start Date[2]	End Date	Matching Funds (cash & in-kind)[3]	WSRF Funds (Basin & Statewide combined)[3]	Total
1	Permitting & Design	5/1/2023	11/15/2026	$85,800	$134,200	$220,000
2	Construction & Materials	9/15/2023	11/15/2026	$348,361	$590,264	$938,625
3	Compliance & Monitoring	5/1/023	11/15/2026	$19,500	$30,500	$50,000
4	Administration	5/1/2023	11/15/2026	$31,339	$20,036	$51,375
			Total	$485,000	$775,000	$1,260,000

(1) The single task that include costs for Grant Administration must provide a labor breakdown (see Indirect Costs tab below) where the total WSRF Grant contribution towards that task does not exceed 15% of the total WSRF Grant amount.

(2) Round values up to the nearest hundred dollars.

• Additional documentation providing a Detailed/Itemized Budget may be required for contracting. Applicants are encouraged to coordinate with the CWCB Project Manager to determine specifics.

The CWCB will pay the last 10% of the entire water activity budget when the Final Report is completed to the satisfaction of the CWCB staff project manager. Once the Final Report has been accepted, the final payment has been issued, the water activity and purchase order (PO) or contract will be closed without any futher payment. Any entity that fails to complete a satisfactory Final Report and submit to the CWCB with 90 days of the expiration of the PO or contract may be denied consideration for future funding of any type from the CWCB.

• Additonally, the applicant shall provide a progress report every 6 months, beginning from the date of contract execution

SIMPLE BUDGET

Task	Description	Target Start Date	Target End Date	CWCB Basin WSRF Funds	Other Funding Cash	Other Funding In-Kind	Total
1	Permitting & Design	11/1/2022	12/31/2025	$134,200	$85,800		$ 220,000
2	Construction & Materials	11/1/2022	12/31/2025	$590,264	$348,361		$ 938,625
3	Compliance & Monitoring	11/1/2022	12/31/2025	$30,500	$19,500		$ 50,000
4	Administration			$20,036	$31,339		$ 51,375
	TOTAL			$ 775,000	$ 485,000	$ -	$1,260,000

Direct Project Costs	$1,260,000	**Percentage of Project Costs**
CWCB-Basin Water Supply Reserve Fund	$ 775,000	61%
Total CWCB Fund Request	$ 775,000	61%
Cash Match	$ 485,000	39%
In-kind Match		
Cash + In-kind Total	$ 485,000	39%

COLORADO
Colorado Water Conservation Board
Department of Natural Resources

Colorado Water Conservation Board

Water Plan Grant - Detailed Budget Estimate

Fair and Reasonable Estimate

Prepared Date: 4/15/2022
Name of Applicant: Town of Pagosa Springs
Name of Water Project: Pagosa Gateway Project: San Juan River Recreational and Ecological Enhancements

A conceptual design for the Pagosa Gateway Project has been prepared and is included in the Attachments and identifies the work to be completed in each section or "panel" of the 2.5 miles of the San Juan River within the project area.

Permitting & Design

Task 1 - Permitting & Design	
Estimated Cost per Sub-task	Lump sum
Permitting/Wetlands Delineation	$75,000
Final Design Plans/Bid Process	$85,000
Construction Management	$60,000
Task 1 Total	$220,000

Materials & Construction

Task 2- Materials & Construction	
Materials Subtasks	**Lump Sum**
Rock, fill and large woody debris	$263,400
Planting and seed	$43,600
Materials Subtotal	**$307,000**
Construction Subtasks	**Lump Sum**
Channel bed engineered structures	$173,230
Engineered stram bank stabilzation features	$71,000
Aquatic habitat features	$17,000
Trash removal/disposal from bank	$20,000
Channel shaping	$110,000
Riparian vegetation	$37,725
Seed and mulch all disturbed soil areas with native grass seed mix	$34,125
Project mobilization/Demobilization	$20,000
Contingency (permit, design, materials, construction subtotal-20%)	$148,545
Construction Subtotal	**$631,625**
Task 2 Total	$938,625

Compliance & Monitoring

Task 3-Compliance & Monitoring	
Estimated Cost per Subtask	Lump sum
Environmental & Regulatory Compliance	$30,000
Monitoring	$20,000
Task 3 Total	$50,000

Compliance & Monitoring

Task 4 - Administration	$51,375

Task 1 Subtotal	$220,000
Task 2 Subtotal	$938,625
Task 3 Subtotal	$50,000
Task 4 Subtotal	$51,375
Total Project Costs	$1,260,000

Pagosa Gateway - Cash Match Sources	Match Request Per Year	Total Match Over 3 years	Match Status
Bureau of Reclamation WaterSmart Environmental Water Resources Program		$375,000	Committed
Town of Pagosa Springs		$54,000	Committed
Archuleta County		$26,710	Requesting Nov. 2022
Trout Unlimited		$1,700	Committed
Friends of the Upper San Juan	$250	$750	Committed
SWCD		$17,000	Requesting Nov. 2022
The Nature Conservancy		$9,840	Committed
Total Cash Match Funding Estimate		**$485,000**	

Pagosa Gateway Project: SOUTHWEST BASIN ROUNDTABLE'S EVALUATION QUESTIONNAIRE

To assist the Roundtable in determining whether and to what extent a proposed project and/or process meets the values set forth in the By-Laws and goals of the Basin Implementation Plan, the following questions should be addressed separately as can reasonably be answered by the applicant. *Note: this is not an exhaustive list and additional questions may be asked of the applicant.*

1. Identify the benefit(s) the project would provide. Are there multiple purposes (Agricultural, Environmental, Municipal, Industrial, Recreational) that the project would meet as defined in the Basin Implementation Plan? *Note: Projects that meet multiple purposes are strongly encouraged, however, this does not mean that a single purpose project would be rejected,*

   The project will primarily benefit recreation and environmental water uses.
   This project intends to increase water supply reliability and viability for ecosystems along the San Juan River above Pagosa Springs. This increase in reliability and viability will not be achieved by altering management of water but, rather, by modifying the channel to be more resilient in the face of historical flow alterations and expected future changes to low-flow conditions. Applicant partner WEP recently finished a comprehensive assessment of ecological conditions in the project area. That assessment explored the potential for continued trends in historical hydrology and/or future impacts associated with climate change to produce increasingly limiting hydraulic habitat conditions for native and sport fish in this section of river. This proposal responds to the assessment findings.

   Structural interventions aimed at encouraging the development and persistence of low-flow channels within the existing stream bed are intended to increase the availability of late summer habitat for aquatic organisms and reduce the potential for increasing water temperatures in a warming future. Maintaining cool water temperature regimes in the river is critical to the viability and quality of native fish and the sport fishery above and through the Town of Pagosa Springs. Maximizing the extent and quality of riparian communities along the stream bank should provide similar benefits to aquatic organisms. Shading from large woody vegetation provides another control on water temperatures. Organic matter supplied to the water column from riparian forests is an important food source for aquatic insects. Contributions of woody debris add habitat and structural complexity to the stream bed. Riparian forests are also biologically diverse and provide high-quality habitat to terrestrial and avian animals. Riparian re-vegetation efforts will increase the total acreage of active riparian forests throughout the project area. Handling buried cars, sections of abandoned steel pipeline, and concrete debris in stream banks will enhance habitat quality and remove a potential source of toxic fluids and materials from the river corridor.

   The numerous birds, fish, and other wildlife species that rely on the San Juan River require appropriate habitat and refugia to adapt to a changing climate and river systems. The potential for drought to elevate river water temperature, fragment wildlife habitat, and change riparian canopy vegetation could significantly impact wildlife populations as well as the economic and ecosystem services they provide to the community. Channel and streambank shaping, and creation of diverse aquatic habitat would support fish populations. Additionally, upland wildlife will benefit from

enhanced vegetation plantings along the river corridor.

2. Outline the steps needed for completion of the project. Are there permit issues that must be overcome? How will funds acquired in this process be used to accomplish the final goal?

   If project grant funding were awarded, the Town and WEP will first advertise for design and construction consultant proposals through a competitive bid process. After selection of project consultants, the Town and WEP's design team will consult Colorado Parks & Wildlife to develop final design plans that includes a final public engagement process. Once final project plans are approved by Town Council, the Town's and Archuleta County's Floodplain Administrators will review final project plans for compliance with FEMA floodplain standards and the project designer and contractor will submit the required U.S. Army Corp of Engineer permits as well as any other identified required permitting. Construction will then commence consistent with the approved final project plans. Grant funding received will be allocated throughout the entire design, permitting and construction project processes.

2. For prioritization of different proposals and assessment of the merits of the plan, can this project be physically built with this funding? Are further studies needed before actual construction is commenced (if the project anticipates construction)? Will these studies or additional steps delay the completion of the project substantially?

   This is proposed as a design-build project with the same contractor performing design and construction. The grant request would cover design, permitting, and construction of the project.

3. What is the ability of the sponsor to pay for the project? What actions have been taken to secure local funding? Are there supporting factors that affect the sponsor's ability to pay? Please provide a summary of the sponsor's financial condition such as customer fee structure, mill levy rate, or other applicable information that demonstrates the sponsor's ability to support the project. For example, has the sponsor increased assessments or rates to meet the project requirements in the past five years. Also, address how a loan could address the needs of the applicant instead of a grant?

   The Pagosa Springs Town Council approved Resolution 2021-24 on December 7, 2021 which supported submitting grant applications for funding this project and allocating $54,000 towards the matching funds requirement. 90% of the Town's revenue are generated through sales taxes, which have increased steadily over the last decade. Even with the increase of sales tax receipts, the Town financial obligations for public infrastructure and facility improvements continue to increase each year, far outpacing the increase of sales tax collections, especially with the most recent skyrocket of material and labor costs. The Town has historically relied on grant funding for all major recreation, environmental and infrastructure improvements. The entire community has historically supported river habitat and recreation improvements. The Town and WEP have secured significant financial matching commitments, including a Bureau of Reclamation grant in the amount of $375,000 and other match funding, and are in the process of actively requesting the additional match funding from our regional and community partners identified in the grant application. In the void of another qualified applicant being able and willing to apply for this grant funding opportunity, the Town is happy to serve as the applicant and project administrator for this important project for the benefit of our entire community, however, the Town does not believe a loan is the appropriate funding

mechanism for a project outside of the Town's boundaries.

4. Which alternative sources of water or alternative management ideas have you considered? Are there water rights conflicts involving the source of water for the project? If yes, please explain.

   The recently completed Environmental and Recreational Water Supply Needs Assessment conducted by Lotic Hydrological, as part of the Upper San Juan Integrated Water Management Plan, describes a changed river hydrology due to climate change which would provide fewer boating recreation days and increase stream temperatures. The proposed stream and channel work is designed to make the river and its aquatic habitat more resilient to these potential changes and support continued recreation use along the mainstem at various flow levels without altering water management by upstream diverters. There are no potential water rights conflicts associated with this project.

5. Has there been public input solicited and is there local support for the project? Please provide a brief summary of public input if applicable.

   Significant outreach efforts have been conducted with involved landowners and local agencies and organizations for this project, including multiple WEP public meetings describing findings from their Phase 2 assessment results and project development in 2021 and 2022. WEP steering committee members have contacted landowners for each parcel in person, by phone or letters were sent to property owners not currently residing on the property to ensure they received notification of concept level designs and encouraged to provide feedback. Opportunities for landowners to be involved in the design process will be encouraged to ensure concerns are addressed and expectations are clarified, and written access permission will be obtained where needed before any construction begins.

6. Is there opposition to the project? If there is opposition, how have those concerns been addressed? Identify any conflicts that may exist and how they will be addressed.

   We are not aware of opposition to the project.

7. Does this project affect the protection and conservation of the natural environment, including the protection of open space? If yes, please explain.

   Yes. The project involves stream improvements that will make the river and its aquatic habitat more resilient to changes in hydrological conditions due to climate change.

8. Are there impacts of the proposed action on other non-decreed values of the stream or river? Non-decreed values may include things such as non-decreed water rights or uses, recreational uses and soil/land conservation practices.

   No impacts that we are aware of or that were identified in public meetings.

9. Does this project relate to Stream Management Plan or Needs Assessment for one of the Basin's river reaches? If yes, please explain and provide detailed evidence of how project will meet SMP goals or needs.

Yes. The project is an outgrowth of the Needs Assessment for the upper San Juan River completed as part of the WEP's Integrated Water Management Plan efforts completed this year.

10. Does this project relate to local land use plans? If yes, please explain.

The Town's 2018 Comprehensive Plan identifies the San Juan River as the "wellspring of the community with its flowing waters enriching the natural environment and human spirit". Goal N-1 states: "Protect and conserve water resources and water quality along the San Juan Corridor" with a number of actions identified to incorporate into the Land Use Development Code (LUDC) to support the goal. The LUDC is currently being updated for consistency with the Comprehensive Plan.

11. Does the project depend on a conversion of an agricultural water right? If yes, please explain.

No.

12. Does the project support agricultural development or protect the existing agricultural economy? If yes, please explain.

The project is not related to agricultural water needs.

13. Does the project optimize existing water rights and/or existing infrastructure? If yes, please explain.

The project optimizes the existing natural riparian structures, removes hazardous materials and stabilizes streambanks, and encourages the formation and persistence of low flow channels.

14. Does the applicant anticipate future funding requests to complete the additional components of this project? Does the applicant have a long-term operation, maintenance and replacement plan? When was the last update of the plan?

An additional phase of the project, including additional bank improvement work to handle buried hazards and improve riparian vegetation may be proposed in the future.

15. Does this project have an education component? If yes, please explain how it is consistent with the Roundtable's Education Action Plan. https://waterinfo.org/wp-content/uploads/2020/11/Southwest-Basin-EAP-2020-Final-1.pdf

Yes. A challenge of our IWMP process has been public engagement in somewhat abstract planning and complex topics and policies, such as the Colorado Water Plan and BIP implementation. By offering multiple public meetings and steering committee meetings, and use of local media sources, we have brought in local and state users and experts to discuss project updates, share congruent efforts (e.g. San Juan Headwaters Forest Health Partnership, Growing Water Smart Workgroup), and discuss what multiple use project opportunities have been identified for feedback from the community. Outreach activities in Phase III shared examples of 25 projects and their locations to more fully engage the community in assessing the feasibility of project implementation.

The Town and WEP believe the outreach conducted thus far in development of our IWMP have enhanced the values outlined in the Southwest Basin Roundtable BIP of collaborating among partners, and natural resource stewardship. Efforts conducted to date, both outreach and actual project implementation, have set the stage for successful future implementation of goals, objectives, and strategies outlined in the revised Colorado Water Plan, SW BIP, and WEP's IWMP.

SOUTHWEST BASINS ROUNDTABLE
C/O La Plata Archuleta Water District
PO Box 1377
Ignacio, Colorado 81137

May 5, 2022

Colorado Water Conservation Board
1313 Sherman St., Denver, CO 80203

Re: Colorado Water Plan Grant

Colorado Water Conservation Board,

The Southwest Basin Roundtable writes this letter to express support for Town of Pagosa Springs and Upper San Juan Watershed Enhancement Partnership (WEP)- as it requests funding for its Pagosa Gateway Project. This project proposes to improve approximately 2.5 miles of the San Juan River immediately upstream of the Town of Pagosa Springs to preserve aquatic habitat and recreation opportunities in the face of declining flows and warming temperatures.

This project is supported by the Upper San Juan Enhancement Partnership (WEP), a stakeholder group formed for the purpose of developing a Stream Management Plan for the Upper San Juan River basin. WEP operates primarily through a steering committee with broad representation of water interests within the basin, including agricultural, municipal, recreation and environmental, as well as local, state and federal government. The WEP steering committee conducts regular outreach to the local community to hear ideas and receive feedback. Last year, WEP completed an Environmental and Recreational Water Supply Needs Assessment (E&R Assessment, Lotic 2021). Using CWP scenarios, the E&R Assessment identified the potential for trends in historical and future, climate-change driven hydrology to produce increasingly limiting conditions for aquatic life and recreation in the Upper San Juan River, including potential for reduction in the number of days that various types of recreational floating activities can be performed above, below and through the Town of Pagosa Springs. The goal of this project is to improve recreational usability, ecologicial viability, and to address some of the issues identified in the E&R Assessment in the portion of the San Juan River upstream of downtown Pagosa Springs, CO.

This project meets Colorado Water Plan goal 10F- Enhance environmental and recreational economic values and protect healthy environments. It also meets the Southwest Basin Roundtable's strategies D1- Maintain, protect and enhance recreational values that support local and regional economies; E2- Support efforts to protect maintain monitor and improve the condition and natural function of streams, lakes, wetlands and riparian areas, and F2- support efforts to enhance and maintain watershed health by protecting and/or restoring watersheds to ensure sustainable water supply, water quality, critical infrastructure, and/or environmental and recreational areas.

Sincerely,

Edward Tolen
Southwest Basins Roundtable Chair