Water Supply Reserve Fund Water Activity Summary Sheet March 11-12, 2020 Agenda Item 23(i)

Applicant & Grantee:	Lake Fork Valley Conservancy	
Water Activity Name:	Lake Fork River Enhancement Project Phase 3	
Water Activity Purpose:	Env & Rec/Ed & Outreach - Implementation	
County:	Hinsdale	
Drainage Basin:	Gunnison	
Water Source:	Lake Fork River	
Amount Requested:	\$20,000Gunnison Basin Account\$131,355Statewide Account\$151,355Total Request	
Matching Funds:	 Basin Account Match = \$20,000 15% of the statewide request (meets 10% min) Applicant & 3rd Party Match (cash & in-kind) = \$125,200 91% of the statewide request (meets 10% min) Total Match (Basin & Applicant) = \$145,200 110% of the statewide request (meets 50% min) 	

Staff Recommendation:

Staff recommends approval of up to \$20,000 from the Gunnison Basin Account and up to \$131,355 from the Statewide Account to help fund the project: Lake Fork River Enhancement Project Phase 3.

Water Activity Summary: WSRF Funds, if approved will assist the Lake Fork Valley Conservancy (LVVC) continue their efforts to restoration of 3,200 linear feet of river and the restoration of 5.5 acres of habitat. They also seek to complete the interpretive river trail system, which includes design and installation of eight additional plaques with accompanying guide and educational curricula. These efforts are part of the future Lake Fork River Recreation Corridor in the Town of Lake City. The planning process for this corridor is ongoing as part of LFVC's strategic planning for 2020-2024.

Discussion: This effort will assist the Gunnison Basin Roundtable meet Goal #5: Quantify and protect environmental and recreational water uses as identified in the Gunnison Basin Implementation Plan: Additionally this effort will assist Colorado's Water Plan meet several goals, such as:

• Promote restoration, recovery, sustainability, and resiliency of endangered, threatened, and imperiled aquatic- and riparian-dependent species and plant communities.

• Protect and enhance economic values to local and statewide economies that rely on environmental and recreational water uses, such as fishing, boating, waterfowl hunting, wildlife watching, camping, and hiking.

• Support the development of multipurpose projects and methods that benefit environmental and recreational water needs as well as water needs for communities or agriculture.

• Understand, protect, maintain, and improve conditions of streams, lakes, wetlands, and riparian areas to promote self-sustaining fisheries and functional riparian and wetland habitat to promote long-term sustainability and resiliency.

• Maintain watershed health by protecting or restoring watersheds that could affect critical infrastructure and/or environmental and recreational areas.

Issues/Additional Needs: The applicant shall submit all outstanding letters of matching commitment prior entering into a grant contract with the state; otherwise there are no issues or additional needs.

Eligibility Requirements: The application meets requirements of all eligibility components.

Evaluation Criteria: Staff has determined this activity satisfies the Evaluation Criteria.

Funding Sources/Match	Cash	In-kind	Total	<u>Status</u>
Lake Fork Valley Conservancy	\$14,900	\$0	\$14,900	Secured
Landowners	\$49,300	\$0	\$49,300	Pending
CPW	\$33,000	\$0	\$33,000	Pending
Hinsdale County	\$0	\$25,000	\$25,000	Secured
Webco,Inc	\$0	\$3,000	\$3,000	Pending
Sub-total	\$97,200	\$28,000	\$125,200	
WSRF Gunnison Basin Account	\$20,000	\$0	\$20,000	Secured
Sub-total	\$117,200	\$28,000	\$145,200	
WSRF Statewide Account	\$131,355	n/a	\$131,355	
Total Project Costs	\$248,555	\$280,000	\$276,555	

CWCB Project Manager: Chris Sturm

January 30, 2020

Mr. Craig Godbout Colorado Water Conservation Board 1313 Sherman Street Denver, CO 80203

Re: Lake Fork River Enhancement Project Phase III, WSRF Application

Dear Mr. Godbout,

The Gunnison Basin Roundtable has approved the Lake Fork Valley Conservancy's application for WSRF funding for Phase III of its Lake Fork River Enhancement project. The funding requested for this project is \$20,000 in Basin funds and \$131,355 State funds for a total of \$151,355 in WSRF funds and a total project cost of \$276,555.

This project would connect the two other projects the Lake Fork Conservancy has completed on the Lake Fork River. It would involve restoration channel work on 3,200 feet of the Lake Fork, additional interpretive trail development and participation in the future Lake Fork Recreation Corridor. This project was identified in the BIP as part of the Environmental and Recreational Needs Assessment and the two earlier projects were partially funded with WSRF funds. The Gunnison Basin Roundtable recommends approval of the application.

If we can provide any additional information please let us know.

Sincerely,

Kathleen Curry

Chair, Gunnison Basin Roundtable 54542 US Highway 50 Gunnison, CO 81230 970-209-5537 kathleencurry@montrose.net



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) <u>AND</u> 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

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

X X	I acknowledge this request was recommended for CWCB approval by the sponsoring roundtable.		
X			
T	I acknowledge I have read and understand the 2016 WSRF Criteria and Guidelines.		
Х	I acknowledge the Grantee will be able to contract with CWCB using the Standard Contract. ⁽¹⁾		
Applic	ation Documents		
Х	Exhibit A: Statement of Work ⁽²⁾ (Word – see Template)		
Х	Exhibit B: Budget & Schedule ⁽²⁾ (Excel Spreadsheet – see Template)		
Х	Letters of Matching and/or Pending 3 rd Party Commitments ⁽²⁾		
Х	Map ⁽²⁾		
Х	Photos/Drawings/Reports		
Х	Letters of Support		
Contra	acting Documents ⁽³⁾		
	Detailed/Itemized Budget ⁽³⁾ (Excel Spreadsheet – see Template)		
	Certificate of Insurance ⁽⁴⁾ (General, Auto, & Workers' Comp.)		
	Certificate of Good Standing ⁽⁴⁾		
	W-9 Form ⁽⁴⁾		
	Independent Contractor Form ⁽⁴⁾ (If applicant is individual, not company/organization)		
	Electronic Funds Transfer (ETF) Form ⁽⁴⁾		

(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.



Schedule				
CWCB Meeting	Application Submittal Dates	Type of Request		
January	December 1	Basin Account; BIP		
March	February 1	Basin/Statewide Account; BIP		
Мау	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:	March 2020	
Desired Notice to Proceed Date:	July 2020 or earlier	

Water Activity Summary			
Name of Applicant	Lake Fork Valley Conservancy		
Name of Water Activity	Lake Fork River Enhancement Project Phase III		
Approving Roundtable(s)		Basin Account Request(s) ⁽¹⁾	
Gunnison Basin Roundtable		\$20,000	
Basin Account Request Subtotal		\$20,000	
Statewide Account Request ⁽¹⁾		\$131,355	
Total WSRF Funds Requested (Basin & Statewide)		\$151,355	
Total Project Costs		\$276,555	
(1) Please indicate the amount recommended for approval by the Roundtable(s)			

(1) Please indicate the amount recommended for approval by the Roundtable(s) \$20,000 from GBRT WSRF \$131,355 from State WSRF

Grantee and Applicant Information		
Name of Grantee(s)	Lake Fork Valley Conservancy	
Mailing Address	PO Box 123, Lake City, CO 81235	
FEIN	84-1487921	
Grantee's Organization Contact ⁽¹⁾	Camille Richard	
Position/Title	Executive Director	
Email c.richard@lfvc.org		
Phone	970-944-5382	



Grantee and Applicant Information		
Grant Management Contact ⁽²⁾	Camille Richard	
Position/Title	Executive Director	
Email	c.richard@lfvc.org	
Phone	970-944-5382	
Name of Applicant (if different than grantee)	N/A	
Mailing Address		
Position/Title		
Email		
Phone		

(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 Lake Fork Valley Conservancy is a non-profit 501(c)3 organization with a mission to facilitate long term environmental sustainability in the Lake Fork of the Gunnison and Cebolla Creek valleys, through collaborative actions that foster land conservation, ecosystem health, and resilient communities. In its 21 year history, LFVC and its partners have successfully implemented a number of restoration and conservation initiatives, including remediation of nine abandoned mine sites, protection of over 200 acres of wetlands and uplands at Lake San Cristobal and on the toe of Slumgullion Earthflow, and completion of Phases I and II of this river project.

	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.			
	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.			
Х	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)			
	Study		
Х	Implementation		
	Cat	egory of Water Activity (check all that apply)	
Х	Nonconsumptive (Env	vironmental)	
Х	Nonconsumptive (Red	creational)	
	Agricultural		
	Municipal/Industrial		
	Needs Assessment		
Х	Education & Outreach	1	
	Other Explain:		
		Location of Water Activity	
		county and coordinates of the proposed activity below in decimal degrees . vide, in Exhibit C, a site map if applicable.	
Cour	nty/Counties	Hinsdale County	
Latitu	ıde	38.0301	
Long	itude	-107.3133	
		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.			
LFVC, in partnership with the Town of Lake City, has completed Phase I and II river improvements along Henson Creek and the Lake Fork of the Gunnison, and below 8½ Street Bridge at the north end of Town, using funds from the CWCB, Upper Gunnison River Water Conservancy District (UGRWCD), Colorado Parks and Wildlife (CPW), Gates Family Foundation, and local organizations and residents. This work included restoration of 5,800 linear feet of river channel and associated revegetation, purchase of approximately two acres of river front land for open space, and installation of the first phase of our interpretive river trail. Total investment to date exceeds \$885,000 for community planning, design, and implementation. Phase III involves restoration of 3,200 linear feet of river, which will be covered by WSRF funding (Figure 1). We also seek to complete the interpretive river trail system, which includes design and installation of eight additional plaques with accompanying guide and educational curricula. These efforts are part of the future Lake Fork River Recreation Corridor in the Town of Lake City. The planning process for this corridor is ongoing			

as part of LFVC's strategic planning for 2020-2024.



	Measurable Results		
To catalog measurable	e 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)		
3200	Length of Stream Restored or Protected (linear feet)		
Efficiency Savings (indicate acre-feet/year OR dollars/year)			
5.5 Area of Restored or Preserved Habitat (acres)			
Length of Pipe/Canal Built or Improved			
Other Explain:			
Water Activity Justification			

Provide a description of how this water activity supports the goals of <u>Colorado's Water Plan</u>, the most recent <u>Statewide Water Supply Initiative</u>, and the respective <u>Roundtable Basin Implementation Plan and</u> <u>Education Action Plan</u>⁽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).

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 <u>2016 WSRF Criteria and Guidelines</u>).

Alignment with the Colorado Water Plan

The Colorado Water Plan highlights four key goals related to environmental and recreational values in our state (page 6-157).

- 1) Promote restoration, recovery, sustainability, and resiliency of endangered, threatened, and imperiled aquatic- and riparian-dependent species and plant communities.
- 2) Protect and enhance economic values to local and statewide economies that rely on environmental and recreational water uses, such as fishing, boating, waterfowl hunting, wildlife watching, camping, and hiking.
- Support the development of multipurpose projects and methods that benefit environmental and recreational water needs as well as water needs for communities or agriculture.
- 4) Understand, protect, maintain, and improve conditions of streams, lakes, wetlands, and riparian areas to promote self-sustaining fisheries and functional riparian and wetland habitat to promote long-term sustainability and resiliency.
- 5) Maintain watershed health by protecting or restoring watersheds that could affect critical infrastructure and/or environmental and recreational areas.

The State of Colorado has developed a framework to determine if a project addresses these goals and meets the criteria for State funding (CWP pages 9-43 to 9-44). This project meets the criteria in the following manner.

1) Pre-Permitting Work (Initial Studies and Stakeholder Involvement).

This project meets the goals and measurable outcomes identified in the Gunnison



Measurable Results

Implementation Plan (see below). For ten years we have been conducting feasibility studies, consulting with local stakeholders and partners, and developing plans for restoring the river in the Town of Lake City. Already two sections of the river project have been completed and now we are seeking funding to complete the third and final phase. Completion of earlier phases have strengthened community support.

2) State Support for Projects Aligned with Colorado's Water Values.

This project demonstrates a commitment to collaboration, through partnership with relevant local, state and federal entities and local community members and land owners. The project is multi-objective, meeting both environmental and recreational needs and desires of the community of stakeholders. This has been achieved through 16 community meetings, several one on one conversations, and through surveys. We attempted to use multiple avenues for input and feel that we have reached a broad representation of stakeholders.

The project demonstrates sustainability by improving riparian health and channel stability of the Lake Fork and Henson Creek in town. Restoration of the river improves survivability of fish at current flow levels by enhancing pool development, which allows fish to overwinter and survive drought conditions. This work enhances a world class trout fishery that replaces Gold Metal waters lost with construction of Blue Mesa Reservoir downstream. It also provides better physical access to the river, creates whitewater features, and improved aesthetics, all features that enhance the local economy. Through partnership with local government, we are working to ensure long term management of the project through development of a River Recreation Corridor Plan.

The project has been cost effective to date. Through improvement of the river channel, revegetation, purchase of open space river front land, and trails and other recreational infrastructure in town, we are increasing recreational opportunities for residents and visitors. In addition, our channel improvements helped contain flood waters this past high flow season that previously had created a great deal of erosion and braiding at much lower flow levels. The long-term environmental and recreational benefits outweigh the implementation costs of the project.

Alignment with the Gunnison Basin Needs Assessment and Implementation Plan

The river through the entire project area is a significant segment in the Gunnison Basin's Environmental and Recreational Non-Consumptive Needs Assessment. Henson Creek has been identified as a significant stream segment, primarily for environmental criteria (see Table below). Henson is listed on the EPA's 303 (d) list of impaired streams for Cd and Zn (sculpin) and is recommended for environmental remediation, which has been addressed through cleanup of several abandoned mine sites in the upper watershed, with significant reduction in metal loading. To complement this work, Phase I and II river enhancements along lower Henson Creek and the confluence with the Lake Fork, and below 8½ Street Bridge were completed from 2013 through 2016 and successfully addressed the physical impacts from tailings impoundment breaks in the 1960's and 1970's. This work continues with Phase III.



Measurable Results

Summary of Non-consumptive Needs Assessment for Henson and the Lower Lake Fork.			
	Henson Creek	Lake Fork of the	
		Gunnison (in Town)	
Attribute 2 - Aquatic-Dependent State Endangered,	Threatened, and	Species of Concern	
(including conservation agreement species)			
c. Flannelmouth Sucker	YES	YES	
d. Bluehead Sucker		YES	
Attribute 3 - Rare Aquatic-Dependent Plants and Sig	nificant Riparian/	Wetland Plant	
 b. Significant Riparian/Wetland Plant 	YES	YES	
Communities (B2 ranked Blue Spruce-Poplar-			
Attribute 4 - Special Value Waters (CWCB instream		CD Outstanding Waters,	
Wilderness Area Waters Fligible/Suitable Wild and			
b. CWCB Instream Flows	YES	YES	
Attribute 5 - Whitewater and Flat-water Boating			
a. Kayaking	YES	YES	
b. Rafting and Kayaking		YES	
Attribute 6 - Riparian/Wetland Wildlife Viewing and Waterfowl Hunting			
a. Wildlife Viewing and Waterfowl Hunting	YES	YES	
Attribute 7 - Significant Cold and Warm-Water Fishing			
b. River and Stream Fishing	YES	YES	

In addition, the Lake Fork, which includes the segment through Lake City, is listed in the needs assessment as significant for recreational purposes and is recommended for stream flow augmentation for fisheries. While not actually augmenting flows to the Lake Fork as recommended in the needs assessment, the project will complement CWCB's in-stream flow right by improving the physical habitat for fisheries. Construction of in-channel structures in the Lake Fork will enhance pool development along the river, improving the ability for fish to overwinter and survive drought conditions. This combined with revegetation improves survivability of fish at current in-stream flow rights levels. Enhancements completed during Phase I of the proposed segments and subsequent phases of restoration on the Lake Fork downstream will also help replace up to two miles of Gold Metal waters lost with the construction of Blue Mesa Reservoir. Both rivers also offer good boating opportunities.

This project primarily addresses Goal 5 from the Gunnison Basin Implementation Plan: Quantify and protect environmental and recreational water uses. The Lake Fork is identified as one of 18 project sites expected to help fulfill this goal with the intent to improve environmental and recreational focus areas in existing stream channels and to improve native fish and riparian species populations (GBIP pages 160 and 167).

The project will significantly increase the environmental and recreational amenities for this stretch of river. Fisheries habitat will be improved resulting in greater fish biomass, public access to the river will be safer and of higher quality, boating opportunities will be expanded, and appreciation for our river assets will be promoted. In addition, the physical improvements of the river will complement the chemical remediation that occured in the upper reaches of the watershed by repairing a degraded stretch of river impacted by tailings impoundment breaks and channelization.

Lake City is one of three signature tourist towns connected by the Alpine Loop, the core of the BLM's Alpine Triangle Recreational Management Zone, a 186,000 acre area that draws over 300,000 tourists per year. Consequently, a significant portion of the income of local residents is



Measurable Results

derived from tourism and services to seasonal home owners. The project reach lies along both the Alpine Loop and Silver Thread Byways. It is also upstream of the Curecanti National Recreation Area. Improving the recreational value of the river through Town only enhances the visitor experience, translating into improved economic conditions for local residents and state coffers. The northern part of the project river reach has now been restored and protected. This site is the first place people see when they arrive from the north, and previously was an eyesore due to past disturbances. Improving this area created a highly aesthetic public space that visitors experience as they travel along the Byways, and facilitates a more favorable impression of Lake City as a gateway to the Alpine Loop. Phase III restoration links this public space with the Henson stretch completed in Phase I.

Alignment with the Gunnison Basin Round Table Education Action Plan

This project supports these goals from the Education Action Plan:

GOAL 1: Ensure that Basin residents, leaders and decision makers have information about the adopted Gunnison River Basin Implementation Plan, Colorado's Water Plan, basic water information, and challenges facing water users in the Gunnison Basin and the state.

Strategy (e.): Continue collaboration with the Water Center at Colorado Mesa University and other partners on educational seminars, articles and other public forum and field trip opportunities for youth, elected officials, and interested public.

GOAL 3: Support research and Education on Hydrologic Changes and Cycles Affecting Water Resources.

Strategy (b): Support interested partners engaged in conservation studies and projects, and assist with providing information regarding these projects and outcomes to the public and stakeholder water users.

The interpretive river trail system will help to increase knowledge and appreciation of the river's rich cultural and natural history. The target audiences are local residents and their children and the numerous seasonal visitors who are repeat visitors to Lake City. Youth and children will be actively introduced to the river trail through formal education programs through the school, the local child care center and the County Public Health Department that runs a youth program in the summer. These programs provide outreach activities to local kids whose parents work and are often unable to participate in many recreational activities.

Lake Fork Valley Conservancy Ten Year Strategic Watershed Plan (2010-2019) and 2020-2024 Plan (in progress via the Upper Gunnison River Water Conservancy District's Watershed Planning Process)

The River Enhancement Project has been a key focus of LFVC for the past ten years, as part of its strategic watershed plan. This focus continues in our next phase of planning, with completion of a comprehensive River Recreation Corridor along the rivers in Lake City being of high interest to our community. This effort complements and carries forward recommendations made in the 2015 Hinsdale County Recreation Master Plan, which identified the need for trail connections and recreational improvements along the Lake Fork and Henson. It also addresses priorities that have been identified by stakeholders during the UGRWCD watershed planning



Measurable Results

effort for the Upper Gunnison Basin.

The Lake Fork Valley Conservancy has prioritized both chemical and physical improvements to Henson and the Lake Fork as part of its ten-year stewardship plan. Funding from CWCB will make a significant difference for facilitating an important resource management action as identified in the plan. This action, combined with LFVC's work to improved water quality in this impaired stream through abandoned mine cleanup, effectively addresses both the chemical and physical impacts to this river, thereby improving fisheries habitat.

The LFVC has also identified the importance of designating river front lands as conservation areas. Acquisition of properties for an open space river park help protect key riparian communities that are considered relatively rare, protect an important floodway through Town, and increase the amount of river available to the public. The ongoing restoration of this area will enhance habitat and create a mid-town corridor for wildlife that travel through town from surrounding forests.

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):		
Gunnison Basin Round Table	\$20,000 (cash)		
CPW Fishing is Fun Program	\$33,000 (cash)		
Lake Fork Valley Conservancy	\$14,900 (cash)		
River Front Land Owners (see budget for names and amounts)	\$49,300 (cash)		
Hinsdale County	\$25,000 (in-kind)		
Webco, Inc	\$3,000 (in-kind)		
Total Match	\$145,200		
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.

A detailed topographic and cross section survey has been performed of the active channels of the Lake Fork and Henson Creek project reaches to identify bankfull channel geometry, slope, thalweg, pools, riffles, bank height and elevations and scour and deposition features. This topographic data is being used for channel enhancement design. In addition, LIDAR 2' contour and aerial photo data was captured in 2012 to assist with 100-year floodplain modeling and mapping. LiDAR data was again collected in 2019 to assist with flood planning along the Lake Fork.

The geographic setting of the project reaches in the volcanic geology of the San Juan Mountains creates conditions of high suspended and bedload sediment that substantially affect the character and behavior of the streams as well as their responses to impacts including historic channelization and proposed enhancements. In order to understand these sediment conditions and sediment transport study was performed over two runoff seasons during high flow conditions. Both suspended sediment and bedload materials were captured along with stream discharge in order to determine the size and quantity of materials that are transported through the river system at various discharges. This information has been incorporated into the channel design helping to understand why certain river features have developed and in identifying the size of materials that must be transported through the system.

Bankfull and 100-year flows have been modeled for the project reaches using HEC-RAS. The current FEMA floodplain maps were created in the 1980's and there has been substantial development within the floodplain through Lake City as well as encroachment along the river. The modeling effort is assisting with enhancement design by identifying the impacts of the proposed features on flood levels as well as identifying the hydraulics of the system that affect sediment transport. Modelling will again be done in spring of 2020 to capture changes in the river hydrology post flood season in 2019.

Riparian surveys of Henson Creek and the Lake Fork were completed by the Colorado Natural Heritage Program in 2008. The riparian corridor of lower Henson is identified as a site of high biodiversity significance, chosen for an excellent (A-ranked) occurrence of the globally vulnerable (G3/S3) thinleaf alder - Drummond's willow tall shrubland (*Alnus incana - Salix drummondiana* shrubland) and a good (B-ranked) occurrence of the globally vulnerable (G3/S3) narrowleaf cottonwood - blue spruce / thinleaf alder riparian woodland (*Populus angustifolia - Picea pungens / Alnus incana* woodland). Baseline fish shock and macro-invertebrate data have also been collected prior to construction.

Several community outreach events have been held in town to educate residents about the project. One on one meetings with all land owners along the river have been held. We also completed a public survey and received over 100 responses (25% response rate). Overall opinion and support of the project is high, especially in regard to protecting banks and improving fisheries.

A NEPA was completed in June 2013 for the project as part of the USACE permitting process. BLM staff committed their time to this over the winter, using data already collected by the LFVC.



Related Studies

A monitoring report was prepared in 2017 to highlight project outcomes from Phase I and II river channel improvements, revegetation, and other activities.

Final reports for Phases I and II have been submitted to CWCB.

A watershed assessment was completed in 2019 along the Lake Fork, including the reach proposed for improvements in this proposal. This assessment will be used for watershed planning for the next five years, as part of the Upper Gunnison River Basin Watershed Plan, funded by CWCB.

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

CWCB Grant	Applicant Name	Water Activity Name	RT	CWCB meeting or contract date	Contract or PO Number	
Watershed Restoration Program	Hindale County (Fiscal Agent for LFVC)	Lake Fork River Enhancement Project Feasibility and Planning	GBRT	09/03/09	OE PDA 1000000029	
WSRF	Lake Fork Valley Conservancy	Henson Creek and Lake Fork Confluence Channel Improvement Project (Phase I)	GBRT	03/15/13	C150521	
Watershed Restoration Program	Lake Fork Valley Conservancy	Lake Fork River Enhancement Project Design Phase II	GBRT	06/18/15	POGG1 PDAA 20150000000000000290	
WSRF	Lake Fork Valley Conservancy	Lake Fork River Enhancement Project Phase II	GBRT	03/17/16	CTGG1 2017-532	

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

Last Update: January 9, 2018



Colorado Water Conservation Board				
Water Supply Reserve Fund				
Exhibit A - Statement of Work				
Date:	December 1, 2019			
Water Activity Name:	Lake Fork River Enhancement Project Phase III			
Grant Recipient:	Lake Fork Valley Conservancy			
Funding Source:	Water Supply Reserve Fund			
Water Activity Overview: (Please provide brief description of the proposed water activity (no more				

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.

LFVC, in partnership with the Town of Lake City, has completed Phase I and II river improvements along Henson Creek and the Lake Fork, and below 8½ Street Bridge at the north end of Town, using funds from the CWCB, Upper Gunnison River Water Conservancy District (UGRWCD), Colorado Parks and Wildlife (CPW), Gates Family Foundation, and local organizations and residents. This work included restoration of 5,800 linear feet of river channel and associated revegetation, purchase of approximately two acres of river front land for open space, and installation of the first phase of our interpretive river trail. Total investment to date exceeds \$885,000 for community planning, design, and implementation. Phase III involves restoration of 3,200 linear feet of river, which will be covered by WSRF funding. We also seek to complete the interpretive river trail system, which includes design and installation of eight additional plaques with accompanying guide and educational curricula. These efforts are part of the future Lake Fork River Recreation Corridor in the Town of Lake City. The planning process for this corridor is ongoing as part of LFVC's strategic planning for 2020-2024.

Objectives: (List the objectives of the project)

The overall goal of the Lake Fork River Enhancement Project is to improve the ecological health and recreational quality of Henson Creek and the Lake Fork River in the vicinity of Lake City.

Specific objectives are the following:

- 1) Increase fisheries habitat quality resulting in a 50% increase in brown and rainbow trout biomass;
- 2) Improve the hydraulics of the river to maintain existing or even reduce base flood elevation and facilitate effective bed load movement;
- 3) Improve bank stability to protect private and public assets along the river;
- 4) Provide quality recreational experiences along the river via increased public access, improved fishing and boating opportunities, and safer access to the river:
- 5) Educate river users of the ecological and cultural importance of our rivers.



Provide a detailed description of each task using the following format:

Task 1 – 60% Design and Permitting

Description of Task:

A 30% conceptual design plan for river channel improvement has been completed for Phase III of the river project. Due to flooding this past year, the river channel has significantly changed since the previous 60% design was completed, hence the need for a revision. Conceptual design drawings (Attachment A) and construction budgets (Exhibit B) are attached to this proposal. The attached design sheets cover the Phase III area from 2nd Street to the 8½ Street Bridge, in between Phases I and II reaches. A 60% design report will be completed in spring of 2020 and will include new hydraulic analysis and floodplain modeling that conforms to both FEMA's Guides and Specs for Flood Hazard Mapping and the CWCB Rules and Regulations for Regulatory Floodplains in Colorado. This will be completed by our design engineer, Brett Jordan from HydroGeo Designs (HDG), out of Poncha Springs, CO. Design details, construction drawings and construction work will be combined into a design-build program for Phase III with our local contractor, WEBCO, Inc, who will work closely with HGD.

Method/Procedure:

- 1) In-channel Engineered Design (60% Completion), to include:
 - a. Hydraulic Analysis modeling
 - b. Design Report and Drawings
- 2) Complete Cultural Survey for permitting.
- 3) Hinsdale County Flood plain and US Army Corps of Engineers permit applications submitted.

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

The design work ensures that our river construction efforts are in compliance with all state and federal regulations and ensures we are keeping the safety of our private property owners along the reach a high priority.

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

Deliverables will include submittal of two hard copies of report and drawings as well as an electronic copy, with maps delivered in AutoCAD format. Report includes details cost estimates for construction. Approved permits will be submitted with first semi-annual report.

Last Update: January 9, 2018



Tasks

Provide a detailed description of each task using the following format:

Task 2 - Complete Phase III of River Channel Reconstruction

Description of Task:

In-channel construction will occur along 3,200 linear feet of the Lake Fork from just downstream of 2nd Street to the 8 ½ Street Bridge at the north end of Town (See Attachment A – Design Drawings). Exhibit B shows construction quantities and costs. Construction work will be completed by our existing contractor, WEBCO, Inc., with construction oversight by Brett Jordan, HydroGeo Designs.

Method/Procedure:

- 1) Mobilize equipment and labor.
- 2) Procure all materials for construction.
- 3) Oversee construction of channel structures.

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

Completion of 3 cross vanes, 3 j hooks, 16 vanes, 17 boulder clusters, and repair of one cross vane constructed during Phase II of the project. These structures are expected to improve fisheries, stabilize banks, and improve river corridor recreational opportunities for residents and visitors.

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

Construction report will be delivered to CWCB as part of semi-annual reporting and in final reporting.



Provide a detailed description of each task using the following format:

Task 3 – Install Phase II of the Interpretive River Trail System

Description of Task:

LFVC will coordinate the design and implementation of Phase II of the interpretive trail system along existing trails on Henson and the Lake Fork. This system will help to increase knowledge of river systems and appreciation for the asset this river provides the community. The target audiences for these efforts are local residents and their children and the numerous seasonal visitors who are repeat visitors to Lake City. LFVC has implemented an environmental education program with local youth and adults using existing interpretive trail, and will expand this along the newly constructed reach. Youth and children will be actively introduced to the river trail through formal education programs through the school, the local child care center and the County Public Health Department that runs a youth program in the summer. Tourists and seasonal residents who frequently use the trail will be able to pick up a map and brochure that describes what they see at each post. Ten plaques have been completed and the images are included in the final report from Phase II of the River Enhancement Project, submitted in March 2019.

Method/Procedure:

Eight additional plaques will be designed and cover the following topics:

- 1. Pump House Park and the Town Well System
- 2. Those Pesky Invasives!
- 3. Geology of a River Valley
- 4. Ocean Wave Smelter and Dam
- 5. History of Pete's Lake Wetlands
- 6. Macroinvertebrates
- 7. Treasure Dam history and impacts on the river
- 8. Lake San Cristobal water retention history and impacts

The trail system will have an accompanying guide book that gives more details on each topic. The pages for the first ten plaques have already been written but the final guide will be produced once the final 8 plaques are designed.

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

Eight plaques installed along the river trail in Lake City along with publication of 750 copies of the interpretive trail guide. These plaques are expected to be engaging and actually bestow a better understanding of our water infrastructure and riverine ecology.

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

LFVC will provide images of the plaques and a copy of the field guide.



Provide a detailed description of each task using the following format:

Task 4 – River Recreation Corridor Plan

Description of Task:

The LFVC has been working with the Town of Lake City and Hinsdale County to plan for and promote an officially designated River Recreation Corridor along Henson Creek and the Lake Fork in the vicinity of Lake City. This Corridor would potentially stretch from below the 8½ Street Bridge upstream to Memorial Park and along the Lower Henson following the existing trail system, and up the Lake Fork to Black Crooks Falls. This effort complements and carries forward recommendations made in the 2015 Hinsdale County Recreation Master Plan, which identified the need for trail connections and recreational improvements along the Lake Fork and Henson. It also addresses priorities that have been identified by stakeholders during the UGRWCD watershed planning effort for the Upper Gunnison Basin.

Method/Procedure:

A committee has been formed to include representation by several relevant local entities, as per interest. Meeting times and frequency have varied, with three filed trips completed summer of 2018 to brainstorm ideas for improvements. In 2020 we will conduct several focused community meetings to review and prioritize actions. From this we will prepare a plan that will include the following components:

- 1) Proposed infrastructure in public areas this includes any trails, park amenities, or river access improvements that might be desired.
- Proposed habitat improvements this would include river channel enhancements (beyond what has already been designed and/or constructed), river bank revegetation, weed control, or wetland habitat restoration.
- 3) Management strategy who is responsible to implement and maintain Corridor.
- 4) Proposed funding strategy.

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

The Corridor Plan will provide a focused and detailed roadmap for implementation and fundraising efforts.

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

A copy of the plan will be delivered to the CWCB.



Provide a detailed description of each task using the following format:

Task 5 – Post Construction Monitoring

Description of Task:

Prior to Phase I construction, LFVC selected seven cross-section locations in the project reach. At each cross section the following was done: 1) identify and monument cross section end points; 2) perform detailed survey of each cross section; 3) perform a pebble count at each cross section; and, 4) establish photo points at each cross section (upstream, downstream and left and right bank directions. Standard Operating Procedures used for items 1-4 are from CDPHE's Measurable Results Project, also used by CWCB). Phase I and II were assessed using these methods in 2017.

Method/Procedure:

After completion of Phase III channel construction activities, the entire project area (all three phase areas) will be monitored in late summer and fall of 2021. Also, an assessment of structures will be conducted using CDPHE's Structural Assessment SOP. In addition, sapling survival rate will be assessed via counts, and macro-invertebrate sampling will be conducted using BLM's Utah BugLab protocols (so we can compare to data collected in 2009-2010). These sampling protocols are compatible with Colorado Water Quality Control Division protocols. Macro sampling protocols can be found at

http://www.usu.edu/buglab/MonitoringResources/MonitoringProtocols/#item=26

LFVC and the Town will continue to monitor structures annually for three years following completion of the project (summer/fall 2022-24), documenting the condition of treatments and identifying problems that may develop. These monitoring protocols will be incorporated into the Lake Fork River Recreation Corridor Plan. In-channel structural maintenance will be dealt with as needed (e.g. after larger flood events).

The most effective way to monitor our progress in outreach is to monitor both quantitative use of the outreach materials (number of brochures taken from access points, and from the Chamber of Commerce), and qualitative satisfaction with the various outreach programs, via interviews with teachers, children, tourists, and partner entities.

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

Regular monitoring will allow us to gauge the success of our construction and outreach efforts and identify structural issues as they arise.

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

Monitoring report will be submitted as part of the final project report submitted before March 2022.

Last Update: January 9, 2018



Tasks

Provide a detailed description of each task using the following format:

Task 6 – Project Administration

Description of Task:

Description of Task

This task involves the coordination of project activities and administration of grants. It includes fulfillment of reporting requirements and efficient and timely financial reports.

Method/Procedure:

- 1) Completion of CWCB contract.
- 2) Recruit and manage consultants.
- 3) Supervise all tasks.
- 4) Project reports submitted semi-annually and one final project report.
- 5) Prepare quarterly reimbursement requests (or as needed).

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

Efficient project management will ensure we receive timely payments from CWCB to reimburse our costs and guarantee project success.

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

- 1) Submission of minimum of 3 semi-annual reports.
- 2) Submission of one final report.
- 3) Submission of reimbursement requests as needed and with progress reports.

Budget and Schedule

Exhibit B - Budget and Schedule: This Statement of Work shall be accompanied by a combined <u>Budget</u> and <u>Schedule</u> that reflects the Tasks identified in the Statement of Work and shall be submitted to CWCB in <u>excel format</u>. A separate <u>excel formatted</u> 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.

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

Last Update: January 9, 2018



Reporting Requirements

COLORADO Colorado Water

- 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 <u>entire</u> 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 inkind 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.



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Colorado Water Conservation Board

Department of Natural Resources

Colorado Water Conservation Board

Water Supply Reserve Fund

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

Date: December 1, 2019

Water Activity Name: Lake Fork River Enhancement Project: Phase III

Grantee Name: Lake Fork Valley Conservancy

Task No. ⁽¹⁾	Description	Start Date ⁽²⁾	End Date	Matching Funds	WSRF Funds (Basin	<u>Total</u>
TASK INO.	Description	Start Date		(cash & in-kind) ⁽³⁾		<u></u>
1	60% Design and Permitting	03/01/20	08/01/20	\$48,750	\$0	\$48,750
2	Channel Construction	09/25/20	11/15/20	\$61,550	\$120,355	\$181,905
3	Interpretive River Trail: Phase II	07/01/20	06/30/21	\$9,900	\$0	\$9,900
4	River Recreation Corridor Plan	07/01/20	12/31/20	\$5,000	\$0	\$5,000
5	Post-Construction Monitoring	07/01/21	12/31/21	\$0	\$7,000	\$7,000
6	Project Administration	07/01/20	03/31/22	\$0	\$24,000	\$24,000
			Total	\$125,200	\$151,355	\$276,555

Figure 1. Comprehensive River Enhancement Project Area. Phase III is within the oval. The arrow shows the cross vane needing reconstruction from Phase II.





311 N. Henson St. Lake City, Colorado 81235 970-944-2225 www.hinsdalecountycolorado.us

November 20, 2019

Gunnison Basin Roundtable Attn: Craig Godbout Colorado Water Conservation Board 1313 Sherman St., Room 718 Denver, CO 80203 <u>craig.godbout@state.co.us</u>

Mr. Godbout,

Hinsdale County fully supports the river restoration work of the Lake Fork Valley Conservancy (LFVC). LFVC has spearheaded the planning, design and implementation for the Lake Fork and Henson Creek River Enhancement Project since 2009, in partnership with the Town of Lake City and other organizations. These efforts have built strong community support for the project.

During earlier phases of the project, the County offered both cash and in-kind contributions to the project, including support of LiDAR data collection in 2012. We also will provide LiDAR data for design work for this coming phase of the project, worth an estimated \$25,000. In addition, the Hinsdale County Trails Commission provided labor and equipment to construct new river trails, and will continue to help in the future as new trails are developed.

Thank you for your consideration of this application. This project has many benefits for our residents, both environmental and economic.

Best Regards,

and Topon

Susan Thompson Chair, Board of Hinsdale County Commissioners

230 N. Bluff Street TOWN OF PO Box 544 Lake City, CO 81235 970-944-2333 www.townoflakecity.co LAKE CITY

November 20, 2019

Gunnison Basin Roundtable Attn: Craig Godbout Colorado Water Conservation Board 1313 Sherman St., Room 718 Denver, CO 80203 <u>craig.godbout@state.co.us</u>

Mr. Godbout,

On behalf of the Board of Trustees of the Town of Lake City, I wish to express our strong support for the Lake Fork Valley Conservancy (LFVC) to apply for Phase III project implementation grants for the Lake Fork of the Gunnison River Enhancement Project. We were partners during Phase I and II of the project and are very pleased with the outcomes, which improved both the quality of the river and expanded recreational opportunities for our residents and visitors alike. The Town and LFVC developed the newly constructed terrace at the confluence of the Lake Fork and Henson Creek into a highly visited recreational area that has significantly enhanced the aesthetic quality and usability of the Lake Fork Memorial Park. River construction at the north end of town turned a previously braided flood channel into a thriving fishery with public access. In addition, the Town provided support for installation of ten plaques that highlight the ecology and history of the river corridor in town.

We are committed to the following roles in the project:

- 1. Provide supervised and approved opportunities to work on Town streets and alleys and other Town properties that intersect the project river area.
- 2. Provide sites for additional interpretive river panels along the public trail system through Town.

We see great value in a project that both improves our Town's natural resources and also increases public recreational opportunities. We hope that with financial assistance we can achieve the goals set forth through a collaborative and supportive public process.

Succe Vierhella Sincerely

Bruce Vierheller Mayor, Town of Lake City