

### **Colorado Water Conservation Board**

## Water Supply Reserve Fund Grant Application

#### Instructions

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

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

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

Arkansas
Gunnison | North Platte | Colorado | Metro | Rio Grande |
South Platte | Yampa/White
Ben Wade
Craig Godbout
Megan Holcomb

303-866-3441 x3238 303-866-3441 x3210 303-866-3441 x3222

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

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



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

Desired Timeline		
Desired CWCB Hearing Month:	September 2017	
Desired Notice to Proceed Date:	November 1, 2017	

Water Activity Summary		
Name of Applicant	Beaver Park Water Incorporated	
Name of Water Activity	Beaver Park Water Incorporated - Upper Canal Lining Removal and Replacement	
Approving Roundtable	e(s)	Basin Account Request(s) <sup>(1)</sup>
Arkansas Basin Roundtable		\$40,250
Basin Account Request Subtotal		\$ 40,250
Statewide Account Request <sup>(1)</sup>		\$ 77,750
Total WSRF Funds Requested (Basin & Statewide)		\$ 118,000
Total Project Costs		\$ 155,500

<sup>(1)</sup> Please indicate the amount recommended for approval by the Roundtable(s)



Edet Opadio: May 10, 2011	Grantee and Applicant Information
Name of Grantee(s)	Beaver Park Water Incorporated
Mailing Address	P.O. Box 286, Penrose, CO 81252
FEIN	84-0721934
Grantee's Organization Contact <sup>(1)</sup>	Gary Ratkovich
Position/Title	Beaver Park Water Incorporated, Board President
Email	ratkovich@bresnan.net
Phone	(719) 429-6762
Grant Management Contact <sup>(2)</sup>	Dawn Daniels
Position/Title	Office Manager
Email	ddaniels@beaverparkwater.net
Phone	(719) 372-3664
Name of Applicant (if different than grantee)	
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 Beaver Park Water Inc. (BPWI) is a mutual ditch company. The company owns water rights decreed to be diverted from Beaver Creek and Brush Hollow Creek in Fremont County, Colorado. The water diverted is used for direct irrigation and domestic uses as well as stored for these same uses.

BPWI has approximately 575 shareholders with approximately 2,000 acres being irrigated under the BPWI water system. BWPI is additionally the principal water supplier to the Penrose Water District (PWD). PWD serves the domestic, municipal and commercial water needs of the Penrose, CO area.

BPWI additionally owns Brush Hollow Reservoir. This reservoir is an on-channel reservoir on Brush Hollow Creek and is principally supplied water from Beaver Creek by BPWI's Upper Canal. This reservoir is principally an irrigation water supply reservoir but additionally stores reserve water supplies for the PWD sourced from PWD's own pump and pipeline system from the Arkansas River. By contract between BPWI and the Colorado Parks & Wildlife, Brush Hollow Reservoir also serves as a fish, wildlife and public recreational water supply by means of a minimum pool reservation.



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

Type of Water Activity (check one)		
	Study	
Х	Implementation	

Category of Water Activity (check all that apply)			
	Nonconsur	mptive (Environmental)	
Х	Nonconsumptive (Recreational)		
Х	Agricultural		
Х	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 <b>decimal degrees</b> . The Applicant shall also provide, in Exhibit C, a site map if applicable.			
County/Counties	Fremont County		
Latitude	N 38° 27.1'		
Longitude	W 105° 1.1'		



#### **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.

The proposed water activity subject of this grant request is to remove and replace sections of the BPWI's Upper Canal. This canal diverts water under the water rights owned by BPWI from Beaver Creek and supplies water to direct irrigation use for the shareholders of BPWI. This canal additionally delivers these Beaver Creek waters to BPWI's Brush Hollow Reservoir for delivery to BPWI's Lower Canal for direct irrigation use and delivers these waters into storage in Brush Hollow Reservoir for later irrigation use. The BPWI Upper Canal additionally delivers Beaver Creek waters to the PWD. The PWD has a direct water treatment plant intake from the BPWI Upper Canal and diverts and treats these waters daily to supply its domestic and municipal customers.

Due to its use year-round in delivering water for direct irrigation use, winter period storage deliveries to Brush Hollow Reservoir and to deliver water daily to the PWD, the BPWI Upper Canal has suffered damage and failure to sections of the concrete lining of this canal. This damage has caused increased transit losses of water in this canal and has additionally caused nuisance flooding or high water tables to residences located below this canal.

The BPWI Lower Canal is not typically used during the winter period and has not exhibited similar failure of this concrete lining such that it is thought that use of the BPWI Upper Canal during the winter period is a principle factor in the failure of the existing concrete lining. This concrete lining is understood to have been installed at some time during the early 1980's.

Inspection of these lining failure sections indicate that a slip form type of placement of the concrete was used in the 1980s. The concrete appears to fail at the point where the south side of the sloping canal wall joins the flat bottom section of the canal. The thickness of the concrete on the canal side varies from 2-4 inches with the bottom of the side of the canal often being an area where the concrete is the thinnest. Failure of the canal sides also appears to have been caused by erosion of soil material from the top of the canal sides which has allowed water to infiltrate on the back side of the canal sides. It is thought that freezing and thawing of these seepage waters have also contributed to the failure of the canal sides.

The proposed water activity is to remove these failed concrete sections and replace them with new formed concrete. A total of 4,526 linear feet of canal side has been currently identified as being in need of removal and replacement. This amount of replacement is planned to be accomplished, pending funding, over a four year period. Approximately 1,200 linear feet is being proposed for replacement under this 2017 grant application.

The canal side and one half of the bottom of the canal concrete lining will be removed at these failed section locations. These failed sections will be replaced with new concrete sections placed so as to be keyed into the other half of the canal bottom to prevent future slumping failure of the new canal side. The new concrete bottom and sides will be formed to a uniform 3.5 - 4 inch thickness. Additional soil material will also be placed, properly compacted, sloped and graded to prevent future intrusion of water seeping along the outside of the canal side lining.

The total estimated water efficiency savings from this proposed water activity is 1,100 acre-feet/year. Approximately one quarter of this savings would be yielded from this 2017 grant application work. These water efficiency savings will be used to increase the availability of waters supplies to the BPWI, the dependability of water deliveries to the PWD and increase typical storage levels in Brush Hollow



# **Water Activity Overview**

Reservoir to the benefit of both the BPWI and wildlife, recreation and fishery interests of the Colorado Parks & Wildlife.

Measurable Results			
To catalog measurable results achieved with WSRF funds please provide any of the following values.			
	New S	torage Created (acre-feet)	
	New Annual Water Supplies Developed or Conserved (acre-feet), Consumptive or Nonconsumptive		
4,185.62 acre-feet	Existing Storage Preserved or Enhanced (acre-feet)		
	Length of Stream Restored or Protected (linear feet)		
275 acre-feet/year (from planned 2017 work, 1,100 acre-feet/year in total for entire project)	Efficier	ncy Savings (indicate acre-feet/year OR dollars/year)	
	Area of Restored or Preserved Habitat (acres)		
	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 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 2016 WSRF Criteria and Guidelines).

The water activity is consistent with Section 37-75-102 Colorado Revised Statutes.

The proposed water activity does not seek to affect, change or injure the water rights or property rights of BPWI nor any other entity or individual. The proposed water activity simply seeks to improve the delivery and transit efficiency of waters through the BPWI's Upper Canal and to prevent future loss and waste of such waters.

The water activity underwent an evaluation and approval process and was approved by the Basin Roundtable (BRT) and the water activity meets the provisions of Section 37-75-104(2), Colorado Revised Statutes.

See Roundtable chairman's letter to be provided under separate cover.

The water activity addresses multiple needs or issues, including consumptive and/or non-consumptive needs, or the needs and issues of multiple interests or multiple basins.

The proposed water activity will at least in part address the significant transit losses within the BPWI Upper Canal. The resulting benefit of water savings will benefit BPWI's shareholder irrigation interests, the PWD water supply interests by increasing dependability of BPWI deliveries and reducing the turbidity levels of these deliveries. The increased water savings will additionally result in greater amounts of water delivered to Brush Hollow Reservoir resulting in increased reservoir levels to this reservoir thus providing for greater wildlife, recreation and fishery benefits as sought by the Colorado Parks & Wildlife.

The number and types of entities represented in the application and the degree to which the activity will promote cooperation and collaboration among traditional consumptive water interests and/or non-consumptive interests.

Support by the Colorado Parks & Wildlife in cooperation with the BPWI will result in a collobration between the traditional BPWI irrigation consumptive water interest and the Colorado Parks & Wildlife non-consumptive interests at Brush Hollow Reservoir.

The water activity helps implement projects and processes identified as helping meet Colorado's future water needs, and/or addresses the gap areas between available water supply and future need as identified in SWSI or a roundtable's basin-wide water needs assessment.

The proposed water activity is ultimately estimated to result in up to 1,100 acre-feet of efficiency savings per year. This water savings will result in a greater irrigation water supply to the historically water short BPWI irrigation system and will potentially during drought periods increase the dependability and quantity of water available from BPWI to the PWD.

Funding from this Account will reduce the uncertainty that the water activity will be implemented.



### **Water Activity Justification**

Due to existing expenses of operating a small mutual irrigation system, BPWI cannot solely fund the proposed water activity. The level and quantity of needed repairs to the principle water delivery component of BPWI's irrigation system is beyond BPWI's sole financial ability to fully repair. BPWI has conducted repairs as proposed in this water activity during the previous two non-irrigation seasons but can only reasonably afford to repair approximately 300 linear feet per year. The currently estimated quantity of repairs is over 4,500 linear feet (1,200 linear feet sought to be repaired under this 2017 grant application). Without additional grant funding BPWI's current rate of repair would require an additional 15 – 20 years of effort to complete not accounting for additional repair requirements occurring during this period. During this 15-20 year period continued transit loss waste would be occurring lessening the water supply available to BPWI and the PWD thus reducing the ability of these entities to fund the required repairs.

The amount of matching funds provided by the applicant via direct contributions, demonstrable in-kind contributions, and/or other sources demonstrates a significant & appropriate commitment to the project.

The proposed matching funds detailed in this application confirm a significant contribution from both the BPWI and PWD in direct funding and in-kind services as compared to the proposed Phase 1 budget in Appendix A. The exact percentage of Phase I matching contributions from BPWI and the PWD will be determined by any provided grant funding.

The water activity helps sustain agriculture & open space, or meets environmental or recreational needs.

One of the principle objectives of the BPWI board of directors is to maintain the irrigated rural atmosphere and environment of the Penrose area. Maintenance and repair of the BPWI irrigation system is paramount to this objective. Inability to maintain the functionality of this irrigation system would ultimately result in the drying up of the presently irrigated 2,000 acres of land, an inability to provide principle physical water supply to the PWD and the cessation of water storage in Brush Hollow Reservoir. Solely funding this water actively by BPWI would require a company share assessment beyond the agricultural economic ability of the shareholders to maintain. This cost increase would entail a negative future benefit of agricultural activities under the BPWI system thus eventually leading to a cessation of irrigation under this system. This would be counter to sustaining agriculture and the corresponding open spaces related to agriculture.

The water activity assists in the recovery of threatened and endangered wildlife species or Colorado State species of concern.

Although the proposed water activity will result in greater storage levels at least during portions of the year in Brush Hollow Reservoir, it is unknown if this assists in the direct recovery of any wildlife species. Increased reservoir storage levels will increase fishing opportunities and will likely serve to reduce any water quality problems that may have been associated with this reservoir in the past thus enhancing the wildlife and recreational benefits that the BPWI system provides.

The water activity provides a high level of benefit to Colorado in relationship to the amount of funds requested.

The proposed water activity will provide for the efficiency savings of an estimated 1,100 acre-feet of water annually for a total expense of \$600,000, a cost of \$545/acre-feet. This one time acre-foot cost is significantly less than the current market purchase costs for irrigation water in the Arkansas River basin.

The water activity is complimentary to or assists in the implementation of other CWCB programs.



## **Water Activity Justification**

The increased water efficiency savings of the proposed water activity will directly result in increased water supplies, increased crop yields and therefore directly increase the ability of BPWI shareholders to repay their existing CWCB loan for repairs previously made on the Brush Hollow Reservoir Dam.

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

### **Matching Requirements: Basin Account Requests**

**Basin (only) Account** grant requests require a 25% match (cash and/or in-kind) from the Applicant or 3<sup>rd</sup> party and shall be accompanied by a **letter of commitment** as described in the 2016 WSRF Criteria and Guidelines (submitted on the contributing entity's letterhead). Attach additional sheet if necessary.

and Guidelines (submitted on the contributing entity's letterhead). Attach additional sheet if necessary.		
Contributing Entity	Amount and Form of Match (note cash or in-kind)	
Beaver Park Water Incorporated (cash, general budget)	\$ 25,000	
Beaver Park Water Incorporated (in-kind services, admin, management, staff & equipment)	\$ 2,500	
Beaver Park Water Incorporated (mutual capital account)	\$ 5,000	
Penrose Water District (mutual capital account)	\$ 5,000	
Total Match	\$ 37,500	
If you requested a Waiver to the Basin Account matching requirements, indicate the percentage you wish waived.		



## **Matching Requirements: Statewide Account Requests**

**Statewide Account** grant requests require a 50% match as described in the 2016 WSRF Criteria and Guidelines. A minimum of 10% match shall be from Basin Account funds (cash only). A minimum of 10% match shall be provided by the applicant or 3rd party (cash, in-kind, or combination). The remaining 30% of the required match may be provided from any other source (Basin, applicant, or 3<sup>rd</sup> 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):
Beaver Park Water Incorporated (cash, general budget)	\$ 25,000
Beaver Park Water Incorporated (in-kind services, admin, management, staff & equipment)	\$ 2,500
Beaver Park Water Incorporated (mutual capital account)	\$ 5,000
Penrose Water District (mutual capital account)	\$ 5,000
Basin Roundtable (requested)	\$ 40,250
Total Match	\$ 77,750
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.

To date only an informal engineering inspection and evaluation has been performed of the failed canal concrete sections. The removal and replacement of other failed sections has been accomplished by BPWI in recent years utilizing a private contractor and BPWI budgeted funds. Similar design and construction techniques are anticipated for the proposed water activity. Engineering related to the proposed water activity will be limited to confirmation of the currently proposed concrete section design and construction period inspections.

The failed canal sections are all located along BPWI's canal right of way. No federal, state or local permitting requirements are anticipated for the proposed water activity.



### **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

No CWCB previous or current grants have been awarded to the applicant/grantee.

The applicant does have an existing CWCB loan for repairs to the Brush Hollow Reservoir Dam.

## **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.

BPWI is a private mutual ditch company. BPWI is not affected by TABOR restrictions.