

Drainage Basin:

Schneider Ditch Diversion Structure Replacement Project Schneider Ditch Company

Water Plan Grant Application

of the stand	5		A STANCE OF THE			0.49999	555 N 0987 W	
L	0	С	Α	T	- 1	0	N	
Count	ty/Cou	ınties	s: Lo	gan				

South Platte

May 2019 E	Board Meeting
DETAILS	
Total Project Cost:	\$1,353,550
Water Plan Grant Request:	\$270,710
Recommended Amount:	\$0
Other CWCB Funding:	\$0
Other Funding Amount:	\$0
Applicant Match:	\$1,082,840
Project Type(s): Construction	
Project Category(Categories): Agricultural	
Measurable Result: Stream restoration agriculture efficiency savings (\$12,000/yr), restoration (56.2 acres)	

The Schneider Ditch Company (SDC) is a mutual ditch company established in 1877 which operates and maintains a diversion structure and ditch for irrigation and augmentation purposes.

SDC is requesting \$270,710 from Colorado's Water Plan (CWP) Grant Program to rehabilitate the Schneider Ditch Diversion Structure. The diversion structure consists of a concrete rollover dam with a flashboard system to block off river flow and divert flow into the ditch. The current diversion structure is in poor condition and has issues with seepage, undermining, and sediment control. The structure also impedes fish passage and river connectivity.

The proposed project consists of the removal of the existing diversion structure and installation of a new concrete structure with a 60-foot Obermeyer inflatable spillway, radial gate for sediment control, and a new intake headgate. The new diversion structure would also include provisions for fish passage through the incorporation of a vertical slot fish ladder, which would be designed to accommodate native fish species. The new structure would also enhance sediment control capacity and facilitate remote monitoring and automatic control of the new headgate. The CWP funds requested would be used for the construction of diversion structure replacement and would also support the incorporation of the fish passage. The SDC previous secured a CWCB loan of \$1,089,000 to complete the project.

The application was reviewed by the CWP Agricultural Project review committee and Colorado Parks and Wildlife (CPW). The proposed project would provide multiple benefits include enhancing aquatic habitat, improving operational efficiency, and improving sediment transport. The project also scored high on several agricultural categories such as addressing a critical infrastructure need, efficiency savings, and readiness to proceed. However, feedback from CPW identified that the proposed vertical slot fish passage structure is not appropriate for native fish in this region and recommended incorporation of a rock ramp ladder design if possible. Based on the committee review, the project also did not score as high in several criteria contained in Framework for State of Colorado Support for Water Projects or the CWP Grant Guidelines.

Staff, for the reasons above, is not recommending funding at this time. However, staff encourages the applicant to work with CPW to continue with designs for incorporating fish passage. Staff will work with the applicant to explore other funding opportunities to support this work.



Projects

Colorado Water Conservation Board

Water Plan Grant Application

Instructions

To receive funding for a Water Plan Grant, applicant must demonstrate how the project, activity, or process (collectively referred to as "project") funded by the CWCB will help meet the measurable objectives and critical actions in the Water Plan. Grant guidelines are available on the CWCB website.

If you have questions, please contact CWCB at (303) 866-3441 or email the following staff to assist you with applications in the following areas:

Water Storage Projects Conservation, Land Use Planning **Engagement & Innovation Activities** Agricultural Projects Environmental & Recreation

Anna.Mauss@state.co.us Kevin.Reidy@state.co.us Ben.Wade@state.co.us Alexander.Funk@state.co.us Chris.Sturm@state.co.us

FINAL SUBMISSION: Submit all application materials in one email to waterplan.grants@state.co.us

in the original file formats [Application (word); Statement of Work (word); Budget/Schedule (excel)]. Please do not combine documents. In the subject line, please include the funding category and name of the project.

	Water Projec	t Summary
Name of Applicant	Schneider Ditch Company	
Name of Water Project	Schneider Ditch Diversion Structure Replacement Project	
CWP Grant Request Amount		\$ 270,710 (\$150,000 Ag, \$120,710 Env/Rec)
Other Funding Sources CWCB Water Project Loan		\$ 1,082,840
Other Funding Sources		\$
Other Funding Sources		\$
Applicant Funding Contribution		\$
Total Project Cost		\$ 1,353,550



,	Applicant & Grantee Information
Name of Grantee(s)	Schneider Ditch Company
Mailing Address	PO Box 1811 Sterling, CO 80751
FEIN	84-0405190
Organization Contact	Bob Lingreen
Position/Title	President
Email	circlel@valley6554.com
Phone	(970) 466-2071
Grant Management Contact	Matt Harris
Position/Title	Project manager
Email	matt@harrisec.com
Phone	(970) 542-0423
Name of Applicant (if different than grantee)	
Mailing Address	
Position/Title	
Email	
Phone	

Description of Grantee/Applicant

Provide a brief description of the grantee's organization (100 words or less).

The Schneider Ditch Company (SDC) is a mutual ditch company and a non-profit corporation, established in 1877. The SDC is comprised of 17 stakeholders serving approximately 2,500 acres of irrigated agricultural land in Logan County. The SDC operates and maintains a diversion structure on the South Platte River and the Schneider Ditch. In total, the SDC operates and maintains 12.1 miles of canal and delivers approximately 9,400 acre-feet of water per year to its shareholders.



	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: Private parties may be eligible for funding.
	Non-governmental organizations (NGO): Organization that is not part of the government and is non-profit in nature.
	Covered Entity: As defined in Section 37-60-126 Colorado Revised Statutes.

Type of Water Project (check all that apply)			
	Study		
×	★ Construction		
	Identified Projects and Processes (IPP)		
	Other		

Cat	egory of \	Water Project (check the primary category that applies and include relevant tasks)	
	Water Storage - Projects that facilitate the development of additional storage, artificial aquifer recharge, and dredging existing reservoirs to restore the reservoirs' full decreed capacity and Multi-beneficial projects and those projects identified in basin implementation plans to address the water supply and demand gap Applicable Exhibit A Task(s):		
	Conservation and Land Use Planning - Activities and projects that implement long-term strategies for conservation, land use, and drought planning. Applicable Exhibit A Task(s):		
	Engagement & Innovation - Activities and projects that support water education, outreach, and innovation efforts. Please fill out the Supplemental Application on the website. Applicable Exhibit A Task(s):		
×	Agricultural - Projects that provide technical assistance and improve agricultural efficiency. Applicable Exhibit A Task(s): Construction, Task 1		
×	Environmental & Recreation - Projects that promote watershed health, environmental health, and recreation. Applicable Exhibit A Task(s): Construction, Task 1 (fish passage)		
	Other	Explain:	



Location of Water Project		
Please provide the general county and coordinates of the proposed project below in decimal degrees . The Applicant shall also provide, in Exhibit C, a site map if applicable.		
County/Counties	Logan County	
Latitude	40.4999555°	
Longitude	-103.310987°	

Water Project Overview

Please provide a summary of the proposed water project (200 words or less). Include a description of the project and what the CWP Grant funding will be used for specifically (e.g., studies, permitting process, construction). Provide a description of the water supply source to be utilized or the water body affected by the project, where applicable. 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, and area of habitat improvements, where applicable. 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, Other Funding Sources/Amounts and Schedule.

The Schneider Ditch Diversion Structure Replacement Project is a multi-purpose project that will enhance the mobility of aquatic habitat, improve sediment transport and channel stability, improve operational efficiency, and increase the sectional flood flow capacity of the river channel.

The Company's diversion structure is located on the South Platte River in Logan County southwest of the Town of Atwood. The structure serves to supply water for irrigation and augmentation to the Schneider Ditch. Crops irrigated include corn, alfalfa, beans, sugar beets, and wheat. The current structure is a low head concrete dam built approximately 60 years ago and in poor condition. The structure impedes the passage of fish and inhibits the natural conveyance of sediment in the channel.

The new structure proposed in the project will include provisions for fish passage, enhanced sediment control capability and remote monitoring and automatic control of the new headgate. The new structure that will reduce overhead and improve the operational efficiency of the structure.

The CWP grant funds requested will be used for construction of the project; requested funds will also support the incorporation of a fish passage into the structure, which would otherwise be a cost prohibitive feature of the new structure.



		Measurable Results
To catalog measurable results achieved with the CWP Grant funds, please provide any of the following values as applicable:		
	New S	torage Created (acre-feet)
		nnual Water Supplies Developed or Conserved (acre-feet), mptive or Nonconsumptive
	Existin	g Storage Preserved or Enhanced (acre-feet)
49,000	Length of Stream Restored or Protected (linear feet)	
\$12,000/yr	Efficiency Savings (indicate acre-feet/year OR dollars/year)	
56.2	Area of Restored or Preserved Habitat (acres)	
Quantity of Water Shared through Alternative Transfer Mechanism		ty of Water Shared through Alternative Transfer Mechanisms
		er of Coloradans Impacted by Incorporating Water-Saving Actions nd Use Planning
	Number of Coloradans Impacted by Engagement Activity	
	Other	Explain:

Water Project Justification

Provide a description of how this water project supports the goals of Colorado's Water Plan, the most recent Statewide Water Supply Initiative, and the applicable Roundtable Basin Implementation Plan and Education Action Plan. 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).

The proposed water project shall be evaluated based upon how well the proposal conforms to Colorado's Water Plan Framework for State of Colorado Support for a Water Project (CWP, Section 9.4, pp. 9-43 to 9-44;)

The Schneider Ditch Diversion Structure Replacement Project is consistent with the following goals of the Colorado Water Plan (CWP Section 10, pgs. 3-4):

- Supports a vibrant agricultural economy;
- Improves the efficiency of water delivery infrastructure and
- Promotes a strong and healthy environment by improving water quality in the South Platte River and restoring continuity for aquatic habitat, including the Brassy Minnow, a Tier 1 Species of Greatest Conservation Need (Colorado Parks and Wildlife, 2015).

The project supports the Colorado Water Plan's identified Agricultural Critical Actions to (CWP Section 10, pg. 10):

- Maintain agricultural viability; and
- Support agricultural water conservation and efficiency.

By providing more efficient and effective means of sediment and erosion control, and by incorporating a designated fish passage, this project supports Watershed Health, Environment and Recreation critical actions (CWP Section 10, pg. 12):



- Enhance environmental and recreational economic values:
- Recover imperiled species by restoring in-channel continuity critical aquatic habitat occupied by threatened fish species;
- Protect healthy environments:
- Promote protection and restoration of water quality.

This project also meets the following draft Vision Goals identified in the SWIS 2010 (ES-28):

- Meet agricultural demands:
- Optimize existing and future water supplies by minimizing non-beneficial consumptive use;
- Promote cost-effectiveness by achieving benefits at the lowest cost;
- Provide operational flexibility and coordinated infrastructure

The project supports the following South Platte Basin Roundtable goals (SP-BIP, Section 1, pgs. 29-30):

- Ensure that irrigated agriculture remains a viable statewide economic driver;
- Meet Colorado's Environmental and Recreational Needs by:
 - maintaining or increasing the amount of river miles available to river and flatwater
 - improving fish habitat by promoting connectivity; and,
 - improving watershed health through sedimentation and erosion control

The Schneider Ditch Diversion Structure Replacement Project will improve the management of 9,400 acrefeet of water diverted annually from the South Platte River, maximizing the efficiency and control of water used to support approximately 2,500 irrigated acres of land in Logan County, Colorado.

The Project will produce multi-purpose benefits. Stakeholders directly involved in the project as well as downstream water users will derive a benefit from the more efficient diversion of water. The automated response capability of the new headgate on the Schneider Ditch to fluctuations in river stage will allow water that would have otherwise been diverted during abrupt spikes in flow, or during the natural diurnal cycle, to remain in the river.

The Project will increase the reliability of water supply to shareholders, including Colorado Parks and Wildlife (CPW). The CPW owns a 5-percent share of the Company, and uses water supplied by the Schneider Ditch to sustain ponds for the benefit of waterfowl.

Non-consumptive environmental needs will be addressed through the restoration of the diversion structure. The Project provide connectivity for a 9.3-mile long reach of the South Platte River by providing fish passage as part of the project design and implementation. Sediment transport, a vital component of riverine health, will be enhanced by the incorporation of a pneumatic adjustable crest gate spillway that can be fully lowered to minimize hindrance to the channel. In addition to facilitating sediment transport, the gated spillway will provide maximum flow conveyance during floods, reducing upstream backwater effects and improving overall channel stability. During intermediate flows, the gate has the ability to operate in a partially deflated mode to allow fish passage over the dam while maintaining the benefits of a partial pool upstream of the barrage for aquatic habitat and waterfowl.

The SDC has applied for a water project loan from the CWCB for up to \$1,233,000 to fund the project. The total project cost with the fish ladder is \$1,359,050. If grant funds are not awarded, the SDC will likely forgo the incorporation of the fish ladder into the structure in order to keep the project economically feasible.



Related Studies
Please provide a list of any related studies, including if the water project is complementary to or assists in the implementation of other CWCB programs.
Schneider Ditch Company, 2018 Feasibility Study, HEC
Previous CWCB Grants, Loans or Other Funding
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; 6) Percentage of other CWCB funding for your overall project.
No previous or current CWCB grants have been awarded to the Schneider Ditch Company.
Taxpayer Bill of Rights
The Taxpayer Bill of Rights (TABOR) may limit the amount of grant money an entity can receive. Please describe any relevant TABOR issues that may affect your application.
N/A



Submittal Checklist		
×	I acknowledge the Grantee will be able to contract with CWCB using the Standard Contract.	
Exhib	oit A	
×	Statement of Work ⁽¹⁾	
×	Budget & Schedule ⁽¹⁾	
×	Engineer's statement of probable cost (projects over \$100,000)	
×	Letters of Matching and/or Pending 3 rd Party Commitments ⁽¹⁾	
Exhib	oit C	
×	Map (if applicable) ⁽¹⁾	
×	Photos/Drawings/Reports	
	Letters of Support (Optional)	
×	Certificate of Insurance (General, Auto, & Workers' Comp.) (2)	
×	Certificate of Good Standing with Colorado Secretary of State ⁽²⁾	
×	W-9 ⁽²⁾	
	Independent Contractor Form ⁽²⁾ (If applicant is individual, not company/organization)	
Engagement & Innovation Grant Applicants ONLY		
	Engagement & Innovation Supplemental Application ⁽¹⁾	

⁽¹⁾ Required with application.

⁽²⁾ Required for contracting. While optional at the time of this application, submission can expedite contracting upon CWCB Board approval.



ENGAGEMENT & INNOVATION GRANT FUND SUPPLEMENTAL APPLICATION

Introduction & Purpose

Colorado's Water Plan calls for an outreach, education, public engagement, and innovation grant fund in Chapter 9.5.

The overall goal of the Engagement & Innovation Grant Fund is to enhance Colorado's water communication, outreach, education, and public engagement efforts; advance Colorado's water supply planning process; and support a statewide water innovation ecosystem.

The grant fund aims to engage the public to promote well-informed community discourse regarding balanced water solutions statewide. The grant fund aims to support water innovation in Colorado. The grant fund prioritizes measuring and evaluating the success of programs, projects, and initiatives. The grant fund prioritizes efforts designed using research, data, and best practices. The grant fund prioritizes a commitment to collaboration and community engagement. The grant fund will support local and statewide efforts.

The grant fund is divided into two tracks: engagement and innovation. The Engagement Track supports education, outreach, communication, and public participation efforts related to water. The Innovation Track supports efforts that advance the water innovation ecosystem in Colorado.

Application Questions

*The grant fund request is referred to as "project" in this application.

Overview (answer for both tracks)
In a few sentences, what is the overall goal of this project? How does it achieve the stated purpose of this grant fund (above)?
Who is/are the target audience(s)? How will you reach them? How will you involve the community?
Describe how the project is collaborative or engages a diverse group of stakeholders. Who are the partners in the project? Do you have other funding partners or sources?



Overview (answer for both tracks)						
Describe how you plan to measure and evaluate the success and impact of the project?						
What research, evidence, and data support your project?						
Describe potential short- and long-term challenges with this project.						
Please fill out the applicable questions for either the Engagement Track or Innovation Track, unless your project contains elements in both tracks. If a question does not relate to your project, just						
leave it blank. Please answer each question that relates to your project. Please reference the						
relevant documents and use chapters and page numbers (Colorado's Water Plan, Basin Implementation Plan, PEPO Education Action Plan, etc.).						
implementation rian, relief Education Action rian, etc.).						
Engagoment Track						
Engagement Track						
Describe how the project achieves the education, outreach, and public engagement measurable objective set forth in Colorado's Water Plan to "significantly improve the level of public awareness and engagement regarding water issues statewide by 2020, as determined by water awareness surveys."						
Surveys.						
Describe how the project achieves the other measurable objectives and critical goals and actions						
laid out in Colorado's Water Plan around the supply and demand gap; conservation; land use; agriculture; storage; watershed health, environment, and recreation; funding; and additional.						
Describe how the project achieves the education, outreach, and public engagement goals set forth in the applicable Basin Implementation Plan(s)						



Last Updated: November 2018
Describe how the project achieves the basin roundtable's PEPO Education Action Plans.
Innervation Total
Innovation Track
Describe how the project enhances water innovation efforts and supports a water innovation ecosystem in Colorado.
Describe how the project engages/leverages Colorado's innovation community to help solve our
state's water challenges.
Describe how the project helps advance or develop a solution to a water need identified through
TAP-IN and other water innovation challenges. What is the problem/need/challenge?
Describe how this project impacts current or emerging trends; technologies; clusters, sectors, or
groups in water innovation.



Colorado Water Conservation Board

Water Plan Grant - Exhibit A

Statement Of Work					
Date:	January 30, 2019				
Name of Grantee:	Schneider Ditch Company				
Name of Water Project:	Schneider Ditch Diversion Structure Replacement Project				
Funding Source:	СМСВ				

Water Project Overview:

The Schneider Ditch Company diverts water from the South Platte River for both irrigation and augmentation purposes. Water deliveries made through the Schneider Ditch supply recharge sites and agricultural lands lying south of the river and near the Town of Atwood, Colorado. The SDC delivers water to approximately 2,500 acres of agricultural land and also operates a recharge and augmentation plan that provides augmentation water for wells used to supplement irrigation.

The proposed project consists of the removal of the dam and installation of a new structure in roughly the same footprint. The new structure will include provisions for fish passage, enhanced sediment control capability and remote monitoring and automatic control of the new headgate. The new structure that will reduce overhead and improve the operational efficiency of the structure. The vertical slot fish ladder will be designed to accommodate the Brassy Minnow, a Tier 1 Species of Greatest Conservation Need (CPW Critical Action Plan, 2015).

The existing concrete structure is a low head concrete dam that has outlived its useful life; concerns include: fatigue cracking of structural concrete, undermining of the floor, seepage at the south abutment near the headgate, sedimentation on the upstream face of the dam, and exposed wooden piling. The structure impedes the passage of fish and aquatic organisms and inhibits the natural conveyance of sediment in the channel.

The Schneider Ditch Diversion Structure Replacement Project is a multi-purpose project that will enhance the mobility of aquatic habitat, improve sediment transport and channel stability, improve operational efficiency, and increase the sectional flood flow capacity of the river channel.

Project Objectives:

Objectives of the proposed work:

- Stabilize the Company's water diversion structure to ensure reliable water delivery;
- Provide a flexible and robust sediment control system;
- Improve in-channel flood passage;
- Restore channel continuity for critical aquatic habitat; and
- Improve operational efficiency and reduce maintenance overhead.



Tasks							
Task 1 - Construction							
Description of Task:							
Construction of the Schneider Ditch Diversion Structure, following all permit specifications and requirements.							
Method/Procedure:							
Contractor selection will be performed through a competitive bid process. The selected contractor will be responsible for completing the project in accordance to approved plans and specifications. The selected contractor will determine actual construction means and methods and will supply all necessary equipment, tools, facilities, field offices, materials, labor, supplies, and other consumables necessary to complete the work.							
See Exhibit C for a detailed schedule of construction activities for which the requested funding will be used.							
Deliverable:							
The grantee will provide the CWCB with copies of construction documentation including construction progress reports, change orders, meeting notes, and schedule summaries. As-built drawings of the project will be furnished upon completion of construction activities.							



Tasks						
Task 2 - Engineering						
Description of Task:						
Bid the project, provide on-site construction oversight of construction activities, and prepare as-built drawings of the constructed project.						
Mathad /Dyagaduya.						
Method/Procedure:						
The Engineer will assist in the contractor selection process by preparing and distributing the project bid package, evaluating the results, and recommending award. The engineer will serve as the resident project representative qualified to interpret construction plans and specifications and will perform on-site monitoring to verify construction activities to are in conformance with approved plans and specifications. Asbuilt drawings of the structure will be prepared by the engineer upon completion of construction. The engineer will review and approve contractor pay requests.						
Deliverable:						
The grantee will provide the CWCB with copies of design and construction documents.						



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.

Reporting Requirements

Progress Reports: The applicant 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.

Final Report: At completion of the project, the applicant shall provide the CWCB a Final Report on the applicant'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.

The CWCB will pay out the last 10% of the 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 purchase order or grant will be closed without any further payment.

Payment

Payment will be made based on actual expenditures and must include invoices for all work completed. 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.

Costs incurred prior to the effective date of this contract are not reimbursable. The last 10% of the entire grant will be paid out when the final deliverable has been received. All products, data and information developed as a result of this contract must be provided to CWCB in hard copy and electronic format as part of the project documentation.

Performance Measures

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 Water Plan Grant Guidelines, the CWCB will pay out the last 10% of the 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 purchase order or grant will be closed without any further payment.
- (b) Accountability: Per Water Plan 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 Water Plan 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.



Performance Measures

- (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.



Colorado Water Conservation Board

Water Plan Grant - Exhibit B Budget and Schedule

Prepared Date: January 30, 2019

Name of Applicant: Schneider Ditch Company

Name of Water Project: Schneider Ditch Diversion Structure Replacement

Project Start Date: Fall 2019
Project End Date: Winter 2020

Task No.	Task Description	Task Start Date	Task End Date	Grant Funding Request	Match Funding	Total
1.1	Mobilization	9/30/2019	10/4/2019	\$ 2,000	\$ 8,000	\$ 10,000
1.2	De-Watering	10/7/2019	12/27/2019	\$ 13,000		\$ 65,000
1.3	Demolish Existing Concrete Structure	10/9/2019	10/18/2019	\$ 6,000		\$ 30,000
1.4	Earthwork	10/14/2019	12/6/2019	\$ 7,000	\$ 28,000	\$ 35,000
1.5	Rip-Rap Placement (demolished concrete on site)	12/17/2019	12/24/2019	\$ 3,000	,	\$ 15,000
1.6	Sheet Piling Cutoff Wall, 3-1/4" x 18", 7 Ga. Galv.	10/17/2019	10/31/2019	\$ 32,300		\$ 161,500
1.7	Structural Piling, 8.625" O.D. x 0.322" WT Pipe	10/10/2019	10/17/2019	\$ 11,200	\$ 44,800	\$ 56,000
1.8	Provide & Install 60' x 7' Bladder Gate, 304L Stainless c/w Embeds, Air Supply Piping and Hardware	11/26/2019	12/24/2019	\$ 51,600	\$ 206,400	\$ 258,000
1.9	Provide & Install 10' x 4' Bladder Gate, 304L Stainless c/w Embeds, Air Supply Piping and Hardware	12/10/2019	12/24/2019	\$ 7,600	\$ 30,400	\$ 38,000
1.10	Provide & Install Air Supply Equipment and Controls for Bladder Gate	12/10/2019	12/31/2019	\$ 11,400	, .,	\$ 57,000
1.11	Provide & Install 7' x 10' Radial Arm Gate, 304L Stainless c/w Electric Hoist	12/3/2019	12/17/2019	\$ 6,400		\$ 32,000
1.12	Concrete Control Building, 15' x 20'	11/26/2019	12/17/2019	\$ 7,800		\$ 39,000
1.13	Electrical Service, Electrical Contractor	12/3/2019	12/31/2019	\$ 7,400		\$ 37,000
1.14	Reinforced Concrete	10/29/2019	12/17/2019	\$ 44,000	\$ 176,000	\$ 220,000
1.15	Hand Rails	12/26/2019	1/2/2020	\$ 1,600		\$ 8,000
1.16	Telemetry	1/6/2020	1/10/2020	\$ 1,000	\$ 4,000	\$ 5,000
1.17	Fish Ladder	11/19/2019	12/17/2019	\$ 20,000	\$ 80,000	\$ 100,000
2.1	Field Survey	1/15/2020	1/16/2020	\$ 400	\$ 1,600	\$ 2,000
2.2	Engineering, Project Management	10/1/2019	1/27/2020	\$ 5,000	\$ 20,000	\$ 25,000
2.3	Construction Inspection	10/1/2019	1/13/2020	\$ 5,000	\$ 20,000	\$ 25,000
2.4	Materials Testing, Concrete	10/29/2019	12/17/2019	\$ 800		\$ 4,000
2.5 2.6	Controls Programming	12/23/2019	1/10/2020	\$ 1,600 \$ -		\$ 8,000 \$ -
2.7						
2.8 2.9						
2.10 2.11						
2.12						
2.13 2.14						
			Total	\$246,100	\$984,400	\$1,230,50



Mr. Alexander Funk and CWCB Board Members Colorado Water Conservation Board 1313 Sherman Street, Room 718 Denver, CO 80203

April 23rd, 2019

Dear Mr. Funk and CWCB Board Members,

The Board of Logan County Commissioners would like to express our support for the Schneider Ditch Company Diversion Structure Replacement Project in Logan County. The Schneider Ditch Company diverts water from the South Platte River for both irrigation and augmentation purposes. Deliveries through this ditch are used to recharge sites and irrigation lands lying south of the river and east of the Town of Atwood, Colorado.

This project conforms with the goals of the Lower South Platte River Master Plan which has identified the Schneider Ditch diversion dam as a high risk structure. This area has several issues with sediment blockage and limits the amount of sediment that would normally pass through. Each season, this area must be dredged in order to allow water to reach the headgate.

If this project is implemented, there are expected operational efficiency savings and yearly repair savings. Further, a dedicated fish passage incorporated in the new structure will restore connectivity to approximately 32,200 feet of channel upstream of the structure and 37 acres of aquatic habitat along the South Platte River.

Thank you for your consideration, time, and assistance in this project!

Logan County Board of County Commissioners

Joseph A. McBride, Chairman, District 2

Byron H. Pelton, District 1

Jane E. Bauder, District 3



28167 County Road T Brush, CO 80723 P 970.842.6300

April 22, 2019

Mr. Alexander Funk Colorado Water Conservation Board 1313 Sherman Street, Room 718 Denver, CO 80203

RE: Letter of support for the Schneider Ditch Diversion Structure Replacement Project

Dear Mr. Funk and CWCB Board:

On behalf of Colorado Parks and Wildlife (CPW), I am submitting a letter of support for the Schneider Ditch Company's Colorado Water Plan Grant Application for the replacement of the company's river diversion structure. CPW is a shareholder in the Schneider Ditch and utilizes its water shares to irrigate food plots and wetlands plant species for the propagation of wildlife habitat and to support recreational opportunities on public lands. In addition, CPW supports the incorporation of fish passage into the new diversion structure. Fragmentation of fish habitat along the lower South Platte River, particularly for sensitive native plains fish species, is an issue of concern for CPW. Therefore, CPW supports the effort by the Schneider Ditch to improve habitat connectivity through the inclusion of fish passage into the project design.

With respect to the design of a fish passage structure, CPW has had the opportunity to review preliminary design drawings that propose the use of a vertical slot fish ladder. CPW recommends that a rock ramp fish ladder be utilized in place of a vertical slot structure. Vertical slot fish ladders generally do not accommodate the passage of smaller bodied fish due to the creation of higher velocities which act as a barrier to movement. Rock ramp ladders have shown to be much more effective in allowing for the passage of these smaller plains fish, including state species of special concern that are known to inhabit the project area. We respectfully request that the applicant consult with CPW to ensure that the fish passage structure is designed as effectively as possible.

Thank you for your consideration and please do not hesitate to contact me with additional questions.

Sincerely,

Todd Schmidt Area Wildlife Manager Colorado Parks and Wildlife

