

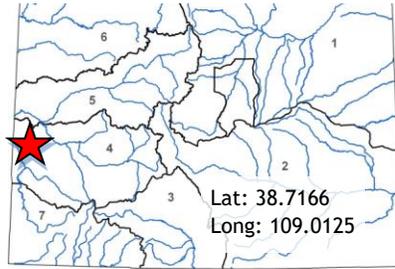


Wines Ditch Diversion and Conveyance Improvements - Final Design/Permitting

The Nature Conservancy

November 2018 Board Meeting

Water Plan Grant Application



L O C A T I O N	
County/Countries:	Mesa County
Drainage Basin:	Dolores/San Miguel

D E T A I L S	
Total Project Cost:	\$280,138
Water Plan Grant Request:	\$140,069
Funding Recommendation:	\$140,069
Other CWCB Funding:	\$0
Other Funding Amount:	\$0
Applicant Match:	\$140,069
Project Type(s):	Study, IPP
Project Category(Categories):	Agricultural and environmental & rec
Measurable Result:	145 miles of Dolores/San Miguel River

The Nature Conservancy is a global non-profit organization founded in 1951 with a mission to conserve the lands and waters on which all life depends. The Nature Conservancy collaborates with cities, individual water users, irrigation companies, businesses, and other non-profit organizations, as well as public water managers, to bring innovation and flexibility to water management, devising new ways to store, allocate, and distribute water equitably. Previously, The Nature Conservancy has obtained five CWCB grants.

The Wines Ditch No. 1 (Wines Ditch) diverts irrigation water from the Dolores River through a structure located on land owned by the Bureau of Land management (BLM) approximately four miles upstream of the Utah border. Both the ditch structure and associated water rights are owned and operated by Western Sky Investments LLC, a private entity. The Wines Ditch Diversion Structure is a boulder weir that can complicate boat passage at times and require extensive maintenance. It also serves as a barrier that prevents non-native fish migrating from the Colorado River into the Dolores/San Miguel system and hybridizing with native fish (bluehead suckers and flannelmouth suckers). During high water events, the diversion structure is typically breached, thus increasing the potential for introgression and hybridization of non-native sucker species from the Colorado River. A new engineered diversion structure may alleviate these issues and present opportunities for fish habitat enhancement and streambank stabilization. This proposal seeks funding for the final construction engineering and permitting processes. This project is thought to be a multi-purpose, multi-stakeholder project that addresses both consumptive and non-consumptive water needs on the Dolores River.

Western Sky Investments, the private owner of the ditch and water rights, The Nature Conservancy, Colorado Parks & Wildlife, and American Whitewater are jointly exploring design alternatives for the structure. The Nature Conservancy will provide \$140,069 of applicant funding. The Water Plan Grant would contribute to 50% of this project.

The anticipated outcome includes: continued delivery and protection of the entire agricultural water right, boat passage enhancement, streambank stabilization, riparian habitat restoration, and protection of upstream native fish species from non-native fish.



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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 | Anna.Mauss@state.co.us |
| Conservation, Land Use Planning | Kevin.Reidy@state.co.us |
| Engagement & Innovation Activities | Ben.Wade@state.co.us |
| Agricultural Projects | Alexander.Funk@state.co.us |
| Environmental & Recreation Projects | 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 Project Summary

Name of Applicant	The Nature Conservancy	
Name of Water Project	Wines Ditch Diversion and Conveyance Improvements—Final Design and Permitting	
CWP Grant Request Amount		\$140,069
Other Funding Sources _____		\$
Other Funding Sources _____		\$
Other Funding Sources _____		\$
Applicant Funding Contribution		\$140,069
Total Project Cost		\$280,138

Name of Grantee(s)	The Nature Conservancy
Mailing Address:	2424 Spruce Street, Boulder, CO 80302



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FEIN	53-0242652
Organization Contact	Celene Hawkins
Position/Title	Western Colorado Water Project Director
Email	celene.hawkins@tnc.org
Phone	(970) 375-0183
Grant Management Contact	Laura Wilkins
Position/Title	Grants Specialist
Email	laura.wilkins@tnc.org
Phone	(720) 974-7027
Name of Applicant (if different than grantee)	Not Applicable.
Mailing Address	
Position/Title	
Email	
Phone	
Description of Grantee/Applicant	
Provide a brief description of the grantee's organization (100 words or less).	
<p>The Nature Conservancy is a global non-profit organization founded in 1951 with a mission to conserve the lands and waters on which all life depends. The Nature Conservancy collaborates with cities, individual water users, irrigation companies, businesses, and other non-profit organizations, as well as public water managers, to bring innovation and flexibility to water management, devising new ways to store, allocate, and distribute water equitably.</p>	

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



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	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.
X	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)	
X	Study
	Construction
X	Identified Projects and Processes (IPP)
	Other

Category 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. <i>Applicable Exhibit A Task(s):</i>
	Conservation and Land Use Planning - Activities and projects that implement long-term strategies for conservation, land use, and drought planning. <i>Applicable Exhibit A Task(s):</i>
	Engagement & Innovation - Activities and projects that support water education, outreach, and innovation efforts. Please fill out the Supplemental Application on the website. <i>Applicable Exhibit A Task(s):</i>
X	Agricultural - Projects that provide technical assistance and improve agricultural efficiency. <i>Applicable Exhibit A Task(s): Tasks 1 and 2. This project supports agricultural sustainability and viability and will improve the operation of the Wines Ditch Diversion Structure while meeting other environmental and recreational purposes. It also helps to manage compact compliance risk.</i>
X	Environmental & Recreation - Projects that promote watershed health, environmental health, and recreation. <i>Applicable Exhibit A Task(s): Tasks 1 and 2. This project supports watershed health, environmental health, and recreation, while maintaining agricultural needs and managing compact compliance risk.</i>
	Other Explain:



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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/Countries	Mesa County
Latitude	38.7166
Longitude	109.0125

Water Project Overview
<p>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.</p>
<p>The Wines Ditch No. 1 (Wines Ditch) diverts irrigation water from the Dolores River through a structure located on land owned by the Bureau of Land Management (BLM) approximately four miles upstream of the Utah border. Both the ditch structure and associated water rights are owned and operated by Western Sky Investments LLC, a private entity. The Wines Ditch Diversion Structure is a boulder weir that complicates boat passage at times and can require extensive maintenance. It also serves as a barrier that prevents nonnative fish migrating from the Colorado River into the Dolores/San Miguel system and hybridizing with native fish (bluehead suckers and flannelmouth suckers—both Tier 1 Species of Greatest Conservation Need in Colorado). During high water events, the diversion structure is typically breached, thus increasing the potential for introgression and hybridization of nonnative sucker species from the Colorado River. A new engineered diversion structure may alleviate these issues and present opportunities for fish habitat enhancement and streambank stabilization. Western Sky Investments, the private owner of the ditch and water rights, The Nature Conservancy, Colorado Parks and Wildlife, BLM, and American Whitewater are jointly exploring design alternatives for the structure. Goals include continued delivery and protection of the entire agricultural water right, boat passage enhancement, streambank stabilization, riparian habitat restoration, and protection of upstream native fish species from non-native fish. This proposal seeks funding for the final construction engineering and permitting process.</p>

Measurable Results



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To catalog measurable results achieved with the CWP Grant funds, please provide any of the following values as applicable:	
	New Storage Created (acre-feet)
	New Annual Water Supplies Developed or Conserved (acre-feet), Consumptive or Nonconsumptive
	Existing Storage Preserved or Enhanced (acre-feet)
145 miles of Dolores/San Miguel River protected from non-native invasive species	Length of Stream Restored or Protected (linear feet)
	Efficiency Savings (indicate acre-feet/year OR dollars/year)
	Area of Restored or Preserved Habitat (acres)
	Quantity of Water Shared through Alternative Transfer Mechanisms
	Number of Coloradans Impacted by Incorporating Water-Saving Actions into Land 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 Wines Ditch Diversion and Conveyance Improvements—Final Design and Permitting (Wines Diversion Project) is a multi-purpose, multi-stakeholder project that addresses both consumptive and non-consumptive water needs on the Dolores River. As a collaborative and multi-purpose project, it supports many of the goals of Colorado’s Water Plan (CWP), Statewide Water Supply Initiative, (SWSI), and the Southwest Basin Implementation Plan (Southwest BIP).

This project is based on the principle that the water rights of the Wines Ditch will not in any way be superseded, abrogated, injured or otherwise impaired by any structural improvements made to the Wines Ditch structure as a result of the project. As a principle, this has allowed The Nature Conservancy to attract Western Sky Investments (the owner of the structure) to the table as a motivated partner willing to participate in the project. In order to ensure this principle to Western Sky Investments, Western Sky Investments will ultimately choose the design most beneficial to its pre-Compact water right, and the water rights of the Wines Ditch shareholders, with the best simultaneous benefits to sensitive fish species, recreation, and stream bank restoration.

Multiple Purpose, Collaborative Project

The CWP and the Southwest BIP both strongly support multi-purpose projects that help balance the needs of consumptive and non-consumptive uses and projects that are collaboratively developed with key stakeholders. The Wines Diversion Project is a multi-purpose project that is balancing the needs of agriculture with environmental and recreational uses on the lower Dolores River. The Nature Conservancy has convened a broad stakeholder group that includes the owner of the diversion structure and associated water rights (Western Sky



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Investments), the Bureau of Land Management, Colorado Parks & Wildlife, American Whitewater, and technical/engineering consultants Wright Water Engineers¹ to collaboratively develop this project.

Promoting Agricultural /Viability and Maintaining Agricultural Water Needs

The CWP, SWSI, and the Southwest BIP all support the promotion of agricultural sustainability/viability and the maintenance or meeting of agricultural water needs. A redesigned and rehabilitated Wines Ditch Diversion Structure will ensure the delivery of the full amount of decreed, pre-Compact water (5.81 cfs) for the irrigation of approximately 112 acres of farmland along the Dolores River near Gateway, CO and should improve the irrigation operations on the Wines Ditch Diversion Structure and ditch. This project will help meet agricultural water needs while balancing the needs of the environment and recreation on the Dolores River.

Watershed Health/Environmental Needs

The CWP, SWSI, and the Southwest BIP all support projects that maintain watershed health and that protect, maintain, and improve the 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. The Dolores River basin contains one of the most important conservation assemblages of three large-bodied western slope native fish (bluehead sucker, flannelmouth sucker, roundtail chub—the Three Species Assemblage). The Wines Ditch Diversion Structure currently impedes the upstream migration of non-native fish (white suckers) at most water levels, protecting the genetic integrity of bluehead and flannelmouth sucker populations in approximately 145 river miles of the Dolores and San Miguel Rivers. As it exists today, the Wines Ditch Diversion Structure is at risk of collapse and is expensive to maintain. If the structure were to collapse, that would allow for white sucker migration into the Dolores/San Miguel river system and drastically increase the threat of hybridization with the native sucker populations. The design process for the rehabilitation work on this structure also provides an opportunity to evaluate options for diminishing the impact of the diversion structure on the upstream and downstream riparian habitat.

The Wines Diversion Project will allow project stakeholders to rehabilitate the structure in a manner that protects the Three Species Assemblage in the Dolores and San Miguel Rivers while accomplishing other agricultural, compact, and recreational goals.

Recreational Needs

The CWP and the Southwest BIP support projects that protect and enhance recreational needs and uses on rivers. American Whitewater is a project partner on the Wines Diversion Project to ensure that recreational uses of the river (including safer boater passage at most water levels and portage route options) are incorporated into the design of the rehabilitated Wines Ditch Diversion Structure. During the preliminary phase of engineering on the project, the stakeholder group and the technical consultants worked through a number of tricky design issues to properly balance the recreational needs (especially safe boater passage) with the fishery objectives around maintenance of a fish barrier at this location. The stakeholder group will continue to work to ensure that this project will incorporate considerations for recreational use on the lower Dolores River and associated economic benefits to the surrounding communities.

Compact Compliance and Risk Management

The CWP and the Southwest BIP both support upholding and maximizing the use of Colorado's water entitlements under Colorado's compact, equitable apportionment decrees, and other interstate agreements. The

¹ The Nature Conservancy would like to retain Wright Water Engineers (the firm that completed the first phase of engineering work) for this second phase of engineering work. This contractor was not selected under the competitive measures of the Uniform Guidance, and if the agreement is ultimately approved, the procurement is deemed to have prior approval of the awarding agency.



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water right associated with the Wines Ditch Diversion Structure and ditch system is a pre-Compact water right. This water will allow for the continued and full beneficial use of this water right.

Goals of Colorado's Water Plan Supported by this Project

- Colorado's Water Plan encourages the use of grassroots efforts to identify and implement projects and methods to meet community and agricultural water needs, and to achieve statewide long-term goals, including multiple purpose projects and strategies that support meaningful agricultural viability (6-127, 6-157, 6-178).
- Colorado's Water Plan supports upgrading irrigation and diversion systems to maintain agricultural viability (6-138).
- Colorado's Water Plan supports the maintenance of existing projects and methods, and states that the CWCB will continue to support and assist basin roundtables in moving forward the projects identified in their BIPs (6-155). The Wines Diversion Project is an IPP identified in the Southwest BIP.
- Colorado's Water Plan promotes the restoration, recovery, sustainability, and resiliency of endangered, threatened, and imperiled aquatic and riparian-dependent species and plant communities (6-157). Colorado's Water Plan also discusses the Three Species Agreement for conserving the Three Species Assemblage (6-164). This project promotes the restoration, recovery, sustainability, and resiliency of the Three Species Assemblage along approximately 145 miles of the Dolores and San Miguel rivers.
- Colorado's Water Plan supports the protection and enhancement of economic values to local and statewide economies that rely on recreational water uses (6-157). This project supports recreational water use on the Dolores River.
- Colorado's Water Plan upholds and maximizes the use of Colorado's water entitlements under Colorado's compacts, equitable apportionment decrees, and other interstate agreements (9-3).

Conformance to the CWP Framework (Section 9.4)

The Wines Diversion Project aligns with the criteria listed in Chapter 9.4, page 9-44 as follows:

Does the project proponent demonstrate a commitment to collaboration? The Wines Diversion Project is a multi-stakeholder effort involving the owner of the ditch and water rights, the BLM, The Nature Conservancy, CPW, and American Whitewater. It is also a multi-benefit project that addresses both non-consumptive and consumptive purposes: it will evaluate agricultural water conveyance in Wines Ditch, structure redevelopment in terms of agricultural water delivery to the Wines Ditch, enhance the riparian environment, stabilize the river banks, improve recreational boating usage, and protect sensitive fish species.

Does the project proponent address an identified water gap? The Water Plan, Chapter 9.4 indicates that inclusion in a Basin Implementation Plan qualifies a project as "addressing an identified water gap." The proposed project was identified in the Southwest BIP as a multi-purpose Identified Project and Process (IPP). The first phase of engineering and design work on this project was supported by the Southwest Basin Roundtable and funded by the WSRF Southwest Basin and Statewide accounts.

Does the project proponent demonstrate sustainability? In accordance with the guidance provided in Chapter 9.4, page 44 of the Water Plan, the proposed project avoids adverse effects to environmental and recreational interests, and even improves fish habitat and boater passage, as described in detail above. The project design also eases maintenance of the diversion structure and ensures protection of a pre-Compact water right, thereby avoiding any "economic and social impacts on agricultural and rural communities," as required in the Water Plan. Diversion structure reconstruction and ditch conveyance improvements will ensure delivery of the full amount of the decreed water, thus sustaining and protecting its associated agricultural use. As noted above, the project is based on the principle that the water rights of the Wines Ditch will not in any way be superseded, abrogated, injured or otherwise impaired by any structural improvements as a result of this project. In order to ensure this, Western Sky Investments will ultimately choose the preliminary design most beneficial to its pre-Compact water right, and the water rights of the Wines Ditch shareholders, with best simultaneous benefits to sensitive fish species, recreation, and stream bank restoration.



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Does the project proponent establish the fiscal and technical feasibility of the project? The engineering and permitting effort proposed in this application (at an estimated cost of \$280,138), as well as the ultimate construction effort (which is estimated to cost \$3-\$4 million) will leverage multiple public and private funding sources. The project is being undertaken by entities with extensive experience in private and public fundraising. Additionally, the diverse project partners ensure the technical feasibility of the project: they include the private owner of the ditch and water rights, the landowner (BLM), a respected engineering firm with extensive experience in the area (Wright Water Engineers, Inc.), and environmental and recreational subject matter experts (CPW, The Nature Conservancy, and American Whitewater). The partners have compiled the preliminary planning and design work and will use the requested funds to develop the final construction design and navigate the required permitting process.

In addition to the aligning with “Colorado’s water values,” the proposed Wines Diversion Project aligns with the criteria outlined in Chapter 9.4, page 44 for “Pre-Permitting Work.” That criteria indicates that the State will prioritize projects that “Meet the goals and measurable outcomes identified in the BIPs; Identify a project proponent; Meet an identified need; and can be built within the next 15 years.” As described in detail above, the Wines Ditch meets all of these criteria for “pre-permitting work” included in the Colorado Water Plan.

SWSI Sections Supported by this Project

- Develop sufficient water distribution infrastructure in the Dolores and San Miguel River Basins (SWSI p. 1-11)
- Protect cultural values by maintaining open space (SWSI p. ES-28)
- The section of the Dolores River addressed by this project is mapped in the category of having 4-6 environmental and recreational subcategory uses in SWSI 2010 (SWSI Appendix C p. 260)
- Actively encourage projects to address multiple purposes, including municipal, industrial, environmental, recreational, agricultural, risk management, and compact compliance needs (SWSI p. 8-1)
- Promote recovery and sustainability of endangered, threatened, and imperiled species in a manner that allows the state to fully use its compact and decreed entitlements through diverse stakeholder work (SWSI p. 8-1)

Southwest Basin Implementation Plan

The Southwest Basin Roundtable (Roundtable) has identified several water supply needs within its consumptive and non-consumptive needs assessments. These include maintaining agricultural water delivery and meeting municipal and industrial (M&I), recreational, and environmental water demands. The Roundtable called attention to processes that will help the Basin to achieve these goals such as agricultural diversions, delivery system efficiencies, and habitat restoration. In the recent Southwest BIP, the Roundtable has refined its work on the water supply needs and has developed goals and measurable outcomes for the Southwest Basin. Those goals and measurable outcomes cover seven main themes, including these four themes most pertinent to this project:

- Balance All Needs and Reduce Conflict (BIP p. 12)
- Maintain Agricultural Water Needs (BIP pp. 11, 13)
- Meet Recreational Water Needs (BIP p.11,15)
- Meet Environmental Water Needs (BIP p. 11,16)

The Wines Diversion Project will address these four goals and measurable outcomes from the BIP as follows:

- “Balance All Needs and Reduce Conflict”: This project will meet several goals and measurable outcomes under this theme because it is a multi-stakeholder, multi-purpose project that promotes dialogue, fosters cooperation, and resolves conflict.
- “Maintain Agricultural Water Needs”: This project will meet several goals and measurable outcomes under this theme because it improves agricultural water delivery of a pre-Compact water right, thus



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preserving agricultural and open space values. A pre-Compact water right for 5.81 cfs is decreed to the Wines Ditch for the irrigation of approximately 112 acres of farmland. Diversion structure reconstruction and ditch conveyance improvements will ensure delivery of the full amount of the decreed water, thus sustaining and protecting its associated agricultural use. The project is based on the principle that the water rights of the Wines Ditch will not in any way be superseded, abrogated, injured or otherwise impaired by any structural improvements made to the Wines Ditch Diversion Structure as a result of this project. As a principle, it has allowed The Nature Conservancy to attract Western Sky Investments to the table as a motivated partner willing to participate in the project. In order to ensure this principle to Western Sky Investments, Western Sky Investments will ultimately choose the rehabilitation design most beneficial to its pre-Compact water right, with best simultaneous benefits to sensitive fish species, recreation, and stream bank restoration.

- “Meet Recreational Water Needs”: This project will meet goals and measurable outcomes because it will enhance and protect recreational values. The Wines Ditch Diversion Structure, located approximately 3.5 miles downstream from the Dolores River put-in at the town of Gateway, does not allow for boat passage at all water levels, forcing boaters floating the Dolores River from Gateway to portage around the structure at various water levels. The proposed project will consider redevelopment options which, will allow for regular boat passage and access to the last stretch of the Dolores River. This last section of the Dolores River is a 32-mile segment from the town of Gateway to Dewey Bridge at the confluence with the Colorado River, through the Gateway Canyon Recreation Area and into several proposed wilderness areas in Utah.
- “Meet Environmental Water Needs”: this project will meet several goals and measurable outcomes because it will protect and enhance the Three Species Assemblage (roundtail chub, bluehead sucker, and flannelmouth sucker) in the Dolores and San Miguel Rivers and because it will diminish the impact of the diversion structure on the up-stream and downstream riparian habitat (SWBIP p.21). Design work on the Wines Ditch Diversion Structure will include a fish barrier (to prevent white suckers from entering the Dolores and San Miguel River basins and ultimately reducing hybridization and introgression in the native sucker populations) and the possibility for selective fish passage. Approximately 145 miles of native fish habitat in the Dolores River are expected to be protected from non-native invasive species as a result of this project. In addition, the current configuration of the Wines Ditch Diversion Structure causes accelerated flow velocity and stream bank damage below the diversion structure. Design alternatives will explore options to reduce or eliminate the accelerated flows that impact river bank erosion rates downstream of the structure, allowing for the restoration of the riparian habitat.

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.



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1. The Nature Conservancy, Wright Water Engineers, 2018. Alternatives Analysis Report, Wines Ditch No. 1 Diversion Rehabilitation Project. This study was funded by a Water Supply Reserve Account grant to evaluate the preliminary design and alternatives analysis on this project.
2. American Whitewater Association (AWA), 2011. Defining Recreational Streamflow Needs in the Lower Dolores River: Integrating Specific and Overall Evaluations of Flow and Recreation Quality. American Whitewater Association, Cullowhee, NC.
3. Gardunio, E. I., 2014. Thesis: Jumping and Swimming Performance of Burbot and White Sucker: Implications for Barrier Design. Department of Fish, Wildlife, and Conservation Biology. Colorado State University, Fort Collins, CO.
4. A Way Forward: The Dolores River Below McPhee Reservoir (synthesis of studies on the Dolores River Three Species Assemblage).
5. Rangewide Conservation Agreement and Strategy for Roundtail Chub *Gila Robusta*, Bluehead Sucker *Catostomus Discobolus*, and Flannelmouth Sucker *Catostomus Latipinnis*.

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.

Water Activity	Agreement No.	Agreement Start/End Dates	Award Amount	Match Amount	Round Table
DOLORES RESTORATION	OE PDA 14000000029 06222012	3/21/14 – 12/31/15	\$90,000	\$123,633	SW
CDM SWSI CONTRACT #1	CWCB CDM Master TO	9/16/11 – 8/29/14	\$200,000	\$-	N/A
MORGAN BOTTOM RESTORATION	CT PDAA 2017- 2254	11/17/16 – 6/30/18	\$500,000	\$-	YAMP A
WINES DITCH EVALUATION	POGG1 PDAA 201700000494	10/16/16 – 7/31/18	\$65,000	\$30,637	SW
CDM SWSI CONTRACT #2	2015-009 TO 1	7/26/16 – 6/30/19	\$53,600	\$0	N/A

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.



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Because The Nature Conservancy is not a government entity or special district, TABOR revenue limits do not apply to The Nature Conservancy.

Submittal Checklist	
X	I acknowledge the Grantee will be able to contract with CWCB using the Standard Contract .
Exhibit A	
X	Statement of Work ⁽¹⁾
X	Budget & Schedule ⁽¹⁾
	Engineer’s statement of probable cost (projects over \$100,000)
	Letters of Matching and/or Pending 3 rd Party Commitments ⁽¹⁾
Exhibit C	
X	Map (if applicable) ⁽¹⁾
X	Photos/Drawings/Reports
X	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.

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Colorado Water Conservation Board
Water Plan Grant - Exhibit A

Statement Of Work

Date:	August 1, 2018
Name of Grantee:	The Nature Conservancy
Name of Water Project:	Wines Ditch Diversion and Conveyance Improvements, Final Design and Permitting
Funding Source:	Water Plan Grant

Water Project Overview:

The Wines Ditch No. 1 (Wines Ditch) diverts irrigation water from the Dolores River through a structure located on land owned by the Bureau of Land Management (BLM) approximately four miles upstream of the Utah border. Both the ditch structure and associated water rights are owned and operated by Western Sky Investments, a private entity. The Wines Ditch Diversion Structure is a boulder weir that complicates boat passage at times and can require extensive maintenance. It also serves as a barrier that prevents nonnative fish migrating from the Colorado River into the Dolores/San Miguel system and hybridizing with native fish (bluehead suckers and flannelmouth suckers—both Tier 1 Species of Greatest Conservation Need in Colorado). During high water events, the diversion structure is typically breached, thus increasing the potential for introgression and hybridization of nonnative sucker species from the Colorado River. A new engineered diversion structure may alleviate these issues and present opportunities for fish habitat enhancement and streambank stabilization. Western Sky Investments, the private owner of the ditch and water rights, The Nature Conservancy, Colorado Parks and Wildlife, BLM, and American Whitewater are jointly exploring design alternatives for the structure. Goals include continued delivery and protection of the entire agricultural water right, boat passage enhancement, streambank stabilization, riparian habitat restoration, and protection of upstream native fish species from non-native fish. This proposal seeks funding for the final construction engineering and permitting process requirements.

Project Objectives:

The objective of the Wines Ditch Diversion and Conveyance Improvements, Final Design and Permitting Project (Wines Diversion Project) is to develop the final design and permitting work for the Wines Ditch No. 1 Diversion Structure and Conveyance System located approximately 3.5 miles downstream of Gateway, CO, and approximately 4 miles upstream of the Colorado-Utah border. Anticipated benefits of the project include:

- Allowing for the full delivery of a pre-Compact agricultural water right
- Improving the Wines Ditch No. 1 capacity for effective conveyance of the diverted water
- Enabling boat passage
- Enhancing riparian habitat
- Stabilizing the channel
- Implementing a fish barrier to protect and enhance upstream sensitive native fish species from introgression and hybridization with downstream non-native species.

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- Incorporating design features into the barrier which would facilitate future fish passage in the event the risk for non-native fish hybridization with native species is not as significant a threat as currently perceived.

Tasks

Task 1 – Engineering Services

Description of Task: Final Engineering Design, Permitting, and Services During Construction

The following major subtasks are anticipated as part of Task 1 – Engineering Services:

(1) Construction Ready Design Plans, Contract Documents and Technical Specifications: Using the previously developed Alternatives Analysis Report as a basis, prepare a set of Construction Ready Design Plans, Contract Documents and Technical Specifications (collectively referred to herein as the Project Documents) suitable for soliciting public bids from qualified general contractors to construct the Wines Diversion Project. It is anticipated that the Project Documents will be provided to the project stakeholder group for review and comment at the 40% and 80% level of design.

(2) Environmental Permitting: The previously developed Alternatives Analysis Report identified a series of preliminary project permitting considerations that will be finalized as part this subtask. This task will also further identify necessary permits and apply or submit the proper notifications for these permits to construct the Wines Diversion Project as applicable. These permits could include but may not be limited to:

- United States Army Corps of Engineers (USACE) Section 404 Permit
- Mesa County Floodplain Development Permit
- National Environmental Policy Act (NEPA)
- Construction Stormwater Permit

(3) Coordination with Project Stakeholders and Reporting: The following stakeholders have been and will continue to be actively engaged as part of this project:

- The Bureau of Land Management (BLM)
- Colorado Parks and Wildlife (CPW)
- American Whitewater (AW)
- Western Sky Investments (operator of the Wines Ditch No. 1 Diversion)

Activities associated with this task will include regular stakeholder progress meetings, and review and incorporation of stakeholder comments into the Project Documents.

Last Updated: Jan 16, 2018

Tasks	
	<p>(4) Engineering Services During Bidding: After the Project Documents are at a construction ready design level, the project will be publicly put out to bid to solicit bids from qualified general contractors for the construction of the Wines Diversion Project. Activities associated with this task include public advertisements, responding to bidder questions, reviewing contractor bids for completeness, and providing a formal recommendation of award.</p>
Method/Procedure:	<ul style="list-style-type: none"> • Prepare 40 percent and 80 percent level design construction Project Documents. Incorporate comments from CWCB and other project stakeholders. • Development and submittal of proper notifications to USACE. • Develop and submit hydraulic HEC-RAS modeling and associated floodplain mapping for the Mesa County Floodplain Administrator as required. • Construction Stormwater Management Plan and permit application to Colorado Department of Public Health and the Environment. • Coordination and submittals of design related information to other regulatory agencies as identified. • Regular stakeholder meetings and associated documentation. • Prepare public bid advertisement, formally respond to bidder questions, hold a public bid opening, review bids and provide a formal recommendation of award to a qualified bidder.
Deliverable:	<ul style="list-style-type: none"> • 40 percent and 80 percent level design construction Project Documents. • Construction ready Project Documents (Construction Plans, Contract Documents and Technical Specifications). • Permit authorizations or approvals. • Formal letter of recommendation of award to a qualified low bidder.

Last Updated: Jan 16, 2018

Tasks
Task 2 – Project Management and Administration
Description of Task: Manage and Administer Project
The following major subtasks are anticipated as part of Task 2 – Project Management and Administration:
<p>(1) Project Management: Management of the project and the engineering consultants. This will include consultant selection¹ and contracting, coordinating stakeholder outreach and communications, tracking and maintaining progress on the project, substantive input on the project from The Nature Conservancy, and addressing any problems encountered in the project work.</p> <p>(2) Administration: Administration of the grant proposal, budget, and deliverables.</p>
Method/Procedure:
<p>Subtask 1: Project Management</p> <ul style="list-style-type: none"> • Select engineering firm and negotiate and execute a consultant agreement for work on the project. • Manage the engineering consultants (including regular check-ins to ensure progress on the project). • Coordinate stakeholder calls and meetings, including scheduling and substantive preparation for stakeholder meetings. • Provide substantive input on the project from The Nature Conservancy. • Identify and address any problems encountered in the project work. <p>Subtask 2: Administration</p> <ul style="list-style-type: none"> • Maintain/balance budget • Develop progress reports
Deliverable:

¹ The Nature Conservancy would like to retain Wright Water Engineers (the firm that completed the first phase of engineering work) for this second phase of engineering work. This contractor was not selected under the competitive measures of the Uniform Guidance, and if the agreement is ultimately approved, the procurement is deemed to have prior approval of the awarding agency.

Last Updated: Jan 16, 2018

Tasks

- Regular financial and progress reports on the project.
- Final deliverables from Task 1.

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.

Last Updated: Jan 16, 2018

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.

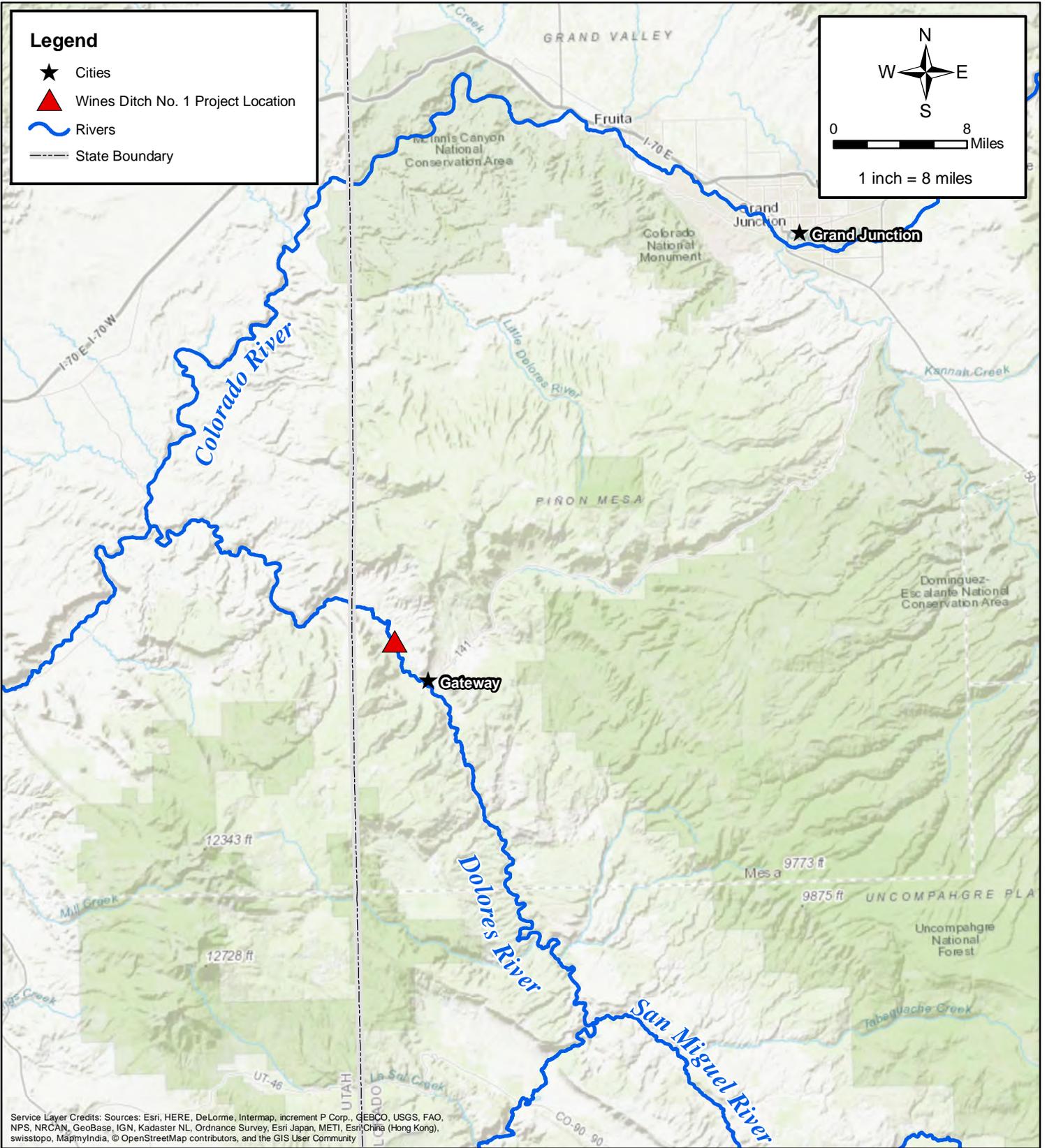
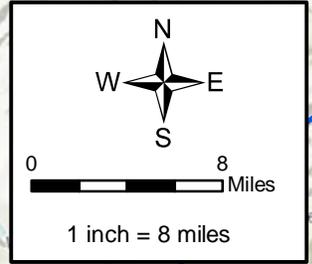
Performance Measures

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.
- (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.

Legend

- ★ Cities
- ▲ Wines Ditch No. 1 Project Location
- ~ Rivers
- State Boundary



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WRIGHT WATER ENGINEERS, INC.
1666 N. Main Ave., Suite C
Durango, CO. 81301
(970) 259-7411

MESA COUNTY, COLORADO
**WINES DITCH NO. 1
PROJECT LOCATION**
WESTERN SKY INVESTMENTS

TOWNSHIP 15 SOUTH, RANGE 104 WEST, SIXTH P.M.

PROJECT NO.
991-999.1366

EXHIBIT
C

SOUTHWEST BASINS ROUNDTABLE

Michael Preston, Chair

c/o Dolores Water Conservancy District

P.O. Box 1150

Cortez, Colorado 81321

970-565-7562

July 27, 2018

Alexander Funk, Agricultural Water Plan Implementation Projects
Chris Sturm, Environmental and Recreation Water Plan Implementation Projects
Colorado Water Conservation Board
VIA: Email

SUBJECT: Letter of Support – Wines Ditch Diversion and Conveyance Improvements, Final Design and Permitting \$140,069 Requested by TNC from the Agricultural, and Environmental and Recreational Categories of CWP Implementation Funding

Dear Alex and Chris:

As Chair of the Southwest Basin Roundtable I am writing in support of the Wines Ditch Diversion and Conveyance Improvements, Final Design and Permitting Submitted by TNC requesting \$140,069 from the Agricultural and Environmental and Recreational Categories of CWP Implementation funding with an equal amount of match from the applicant and partners.

The Wines Ditch Project meets multiple objectives including: improved diversion and full delivery of pre-compact irrigation water, improved boat passage, enhanced riparian habitat, channel stabilization, fish barrier protection to protect native species from non-native hybridization, with an option to open fish passage if hybridization is no longer considered a threat.

The project is an SWBRT IPP which meets goals and measurable outcomes in all BIP categories: Balance all needs and reduce conflict (BIP p. 12), maintain agricultural water needs (p. 11, 13), meet recreational water needs (p. 11, 15) and meet environmental water needs (p. 11, 16). The Project also conforms with the Colorado Water Plan as: a grass roots multi-purpose project (6-127, 6-157, 6-178), an upgrade of an irrigation and diversion system to maintain agricultural viability (6-138), promotion restoration and resiliency of imperiled riparian dependent species (6-164), protection and enhancement of economic values associated with recreation (6-157).

The proposed application is strongly aligned with BIP and CWP goals and measurable outcomes. Please give this application careful consideration. Contact me at 970-565-7562, mpreston@frontier.net, if you have questions or wish to discuss this application in more detail.

Sincerely,



Michael Preston

Southwest Basin Roundtable Chair



COLORADO

Parks and Wildlife

Department of Natural Resources

Southwest Region
415 Turner Drive
Durango, CO
P 970-375-6721 F 970-375-6705

July 31, 2018

Alexander Funk, Agricultural Water Plan Implementation Projects
Chris Sturm, Environmental and Recreation Water Plan Implementation Projects
Colorado Water Conservation Board

Re: Wines Ditch No 1 Diversion Structure, Phase 2 - Construction Engineering and Permitting

Colorado Parks and Wildlife (CPW) has statewide responsibility for fishery management, including recreational fisheries and native fishery resources managed for conservation purposes. The Dolores River basin contains one of the most important conservation assemblages of large-bodied native fish on the western slope (bluehead sucker, flannelmouth sucker, roundtail chub). The roundtail chub is listed as a species of special concern in Colorado's 2015 State Wildlife Action Plan. In many western slope rivers, populations of bluehead and flannelmouth suckers are threatened by the presence of non-native white suckers, which can hybridize and dilute the genetics of the native sucker species. Phase 2 of the Wines Ditch improvement project will begin implementation of the preferred alternative, including permitting and construction. CPW has been an active partner in the Wines Ditch Project thus far, and endorses the preferred conceptual design presented in the Alternatives Analysis Report.

The Wines Ditch No. 1 diversion structure is currently inoperable and is a recreational impediment and hazard for boaters. The structure shows signs of deterioration, and collapse of the dam would not only induce erosion and deposition of fines down river, but also could enable access by non-native fish from the Colorado River. CPW has documented fish movement by native suckers upstream through the rubble dam, but at most water levels, the hydraulics imposed by the current structure impede upstream fish migration. In spring of 2015, CPW crews surveyed the fishery below and above the diversion and found a nearly 100% intact assemblage of native fish. Collapse of the Wines Ditch structure would allow unimpeded upstream movement of non-native fish, including white suckers.

CPW is supportive of the preferred conceptual design described in the Alternatives Analysis report, and encourages the CWCB to provide financial assistance to support project permitting and implementation for a regionally significant, multi-purpose project.

Sincerely,

John Alves
Senior Aquatic Biologist

