

Water Supply Reserve Account – Grant and Loan Program
Water Activity Summary Sheet
September 21-22, 2016
Agenda Item 19(j)

Applicant & Fiscal Agent: Trout Unlimited

Water Activity Name: Ware and Hinds Fish Passage Project

Water Activity Purpose: Nonconsumptive

County: Garfield

Drainage Basin: Colorado

Water Source: Elk Creek

Amount Requested/Source of Funds: \$31,750 Colorado Basin Account
\$31,750 Statewide Account
\$63,500 Total Grant Request

Matching Funds: Basin Account Match (\$31,750) = 33.3% of total grant request (meets 5% min);
Applicant/3rd Party Match (\$102,930) = 162% of total grant request (meets 5% min);
Basin Account & Applicant/3rd Party Match (\$134,680) = 212% of total grant request (meets 25% min);
(refer to *Funding Summary/Matching Funds* section)

Staff Recommendation:

Staff recommends approval of up to \$31,750 from the Arkansas Basin Account; and \$31,750 from the Statewide Account to help fund the project titled: Ware and Hinds Fish Passage Project.
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Water Activity Summary: WSRF grant funds, if approved would be expended to assist with the construction of a fish bypass channel around the Ware and Hinds Ditch diversion dam, enabling migrating trout and native fishes to access 3.3 miles of excellent spawning and rearing habitat upstream of the dam, habitat which is currently under-utilized. The Ware and Hinds Ditch diversion dam spans the entire width of Elk Creek. The ditch has some of the most senior water rights on the creek and provides irrigation water to agricultural producers along the north side of the Colorado River from New Castle to Silt, Colorado. While the diversion structure creates a barrier to upstream fish migration, its location just upstream from the main-stem Colorado River and its senior water rights also provide an opportunity to restore fish populations of the Elk Creek drainage and the Colorado River, without negative impacts to agricultural producers or their water rights.

Discussion: The proposed improvement to the Ware and Hind diversion structure, which has the full support of water users under the ditch, will improve trout habitat, trout populations and their resiliency in Elk Creek as well as in the Colorado River. The restoration activities are expected to increase populations of trout in the future. This improvement is directly in line with the primary theme identified by the Colorado Basin Implementation Plan, which is Ecosystem Health: Protect and restore streams, rivers, lakes and riparian areas. Further, this project will serve as a model project

for other diversions in the basin and elsewhere that impact fish. This project is borne out of a collaborative effort that has received the blessings of over 60 water users serviced by the Ware and Hinds Ditch. Collaboration over conflict is not only a common thread identified in the Colorado Water Plan, but it is also an identified foundation for future projects. This project will further meet stated goals of Colorado's Water Plan by modifying irrigation infrastructure to meet the needs of more than one water user, or water use.

Issues/Additional Needs: No issues or additional needs have been identified.

Threshold and Evaluation Criteria:

The application meets all four Threshold Criteria.

Tier 1-3 Evaluation Criteria:

This activity has undergone review and evaluation and staff has determined that it satisfies the Evaluation Criteria. Please refer to WSRA Application for applicant's detailed response.

Funding Summary/Matching Funds:

<u>Funding Source</u>	<u>Cash</u>	<u>In-kind</u>	<u>Total</u>
CPW	\$78,500	\$19,550	\$98,050
Trout Unlimited	\$4,880	\$0	\$4,880
Subtotal Matching Funds	\$83,380	\$19,550	\$102,930
WSRA Colorado Basin Account	\$31,750	n/a	\$31,750
WSRA Statewide Account	\$31,750	n/a	\$31,750
Total Project Costs	\$146,880	\$19,550	\$166,430

CWCB Project Manager (interim): Craig Godbout

All products, data and information developed as a result of this grant must be provided to the CWCB in hard copy and electronic format as part of the project documentation. This information will in turn be made widely available to Basin Roundtables and the general public and will help promote the development of a common technical platform. In accordance with the revised WSRA Criteria and Guidelines, staff would like to highlight additional reporting and final deliverable requirements. The specific requirements are provided below.

Reporting: The applicant shall provide the CWCB a progress report every 6 months, beginning from the date of the executed contract. The progress report shall describe the completion or partial completion of the tasks identified in the scope of work including a description of any major issues that have occurred and any corrective action taken to address these issues.

Final Deliverable: At completion of the project, the applicant shall provide the CWCB a final report that summarizes the project and documents how the project was completed. This report may contain photographs, summaries of meetings and engineering reports/designs.

Engineering: All engineering work (as defined in the Engineers Practice Act (§12-25-102(10) C.R.S.)) performed under this grant shall be performed by or under the responsible charge of professional engineer licensed by the State of Colorado to practice Engineering.

THE COLORADO BASIN ROUNDTABLE
C/O P.O. BOX 1120
GLENWOOD SPRINGS, COLORADO
81602

June 1, 2016

Craig Godbout
Colorado Water Conservation Board
Water Supply Planning Section
1313 Sherman Street
Denver, CO
 [\(303\) 866-3441, ext 3210](tel:(303)866-3441) (office)
 [\(970\) 218-9407](tel:(970)218-9407) (cell)
craig.godbout@state.co.us

Dear Craig:

The Colorado Basin Roundtable voted unanimously at its May 23, 2016, meeting to support the Trout Unlimited-Ware Hinds Ditch WSRA grant request. The grant requests \$31,750.00 from CBRT basin funds and a 50% match (\$31,750.00) from state funds.

This project is supported by the Healthy Streams finding of our Basin Implementation Plan. It also brings the environmental community together with agriculturists to work on a project to create a fish passage on Main Elk Creek that should provide additional recreational benefits to anglers in the Colorado River as reproductive migration is improved. Further, it is anticipated that the project will help fish species identified in the "Range-Wide Conservation Agreement and Strategy for Roundtail Chub, Bluehead Sucker and Flannelmouth Sucker", a multi-state (CO, WY, UT, AZ, NM) strategy to prevent ESA listing for these species. The fish bypass channel could be a model for future projects where irrigation dams on tributaries are modified to allow fish migration.

The Roundtable had discussed whether greater benefits to the water users could be incorporated into the project, but the Ditch Board of Directors is clearly comfortable at this point with a more limited project. At that, it will help to build trust, and as indicated, be a model for other similar work.

A handwritten signature in black ink, appearing to read "Jim Pokrandt". The signature is fluid and cursive, with a long horizontal stroke extending to the right.

Jim Pokrandt
Chair, Colorado Basin Roundtable



COLORADO WATER CONSERVATION BOARD



WATER SUPPLY RESERVE ACCOUNT APPLICATION FORM

Ware and Hinds Fish Bypass Project.

Name of Water Activity

Trout Unlimited-Represented by Richard Van Gytenbeek

Name of Applicant

Colorado Basin Roundtable

Amount from Statewide Account:

\$31,750.00

Amount from Basin Account(s):

\$31,750.00

Total WSRA Funds Requested:

\$63,500.00

Approving Basin Roundtable(s)

(If multiple basins specify amounts in parentheses.)

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Required Exhibits

- A. Statement of Work, Budget, and Schedule
- B. Project Map
- C. As Needed (i.e. letters of support, photos, maps, etc.)

Appendices – Reference Material

- 1. Program Information
- 2. Insurance Requirements
- 3. WSRA Standard Contract Information (Required for Projects Over \$100,000)
- 4. W-9 Form (Required for All Projects Prior to Contracting)

Water Supply Reserve Account – Application Form

Revised December 2011

Instructions

To receive funding from the Water Supply Reserve Account (WSRA), a proposed water activity must be approved by the local Basin Roundtable **AND** the Colorado Water Conservation Board (CWCB). The process for Basin Roundtable consideration and approval is outlined in materials in Appendix 1.

Once approved by the local Basin Roundtable, the applicant should submit this application **with a detailed statement of work including budget and schedule as Exhibit A** to CWCB staff by the application deadline.

WSRA applications are due with the roundtable letter of support 60 calendar days prior to the bi-monthly Board meeting at which it will be considered. Board meetings are held in January, March, May, July, September, and November. Meeting details, including scheduled dates, agendas, etc. are posted on the CWCB website at: <http://cwcb.state.co.us> Applications to the WSRA Basin Account are considered at every board meeting, while applications to the WSRA Statewide Account are only considered at the March and September board meetings.

When completing this application, the applicant should refer to the WSRA Criteria and Guidelines available at: <http://cwcb.state.co.us/LoansGrants/water-supply-reserve-account-grants/Documents/WSRACriteriaGuidelines.pdf>

The application, statement of work, budget, and schedule **must be submitted in electronic format** (Microsoft Word or text-enabled PDF are preferred) and can be emailed or mailed on a disk to:

Craig Godbout - WSRA Application
Colorado Water Conservation Board
1580 Logan Street, Suite 200
Denver, CO 80203
Craig.godbout@state.co.us

If you have questions or need additional assistance, please contact Craig Godbout at: 303-866-3441 x3210 or craig.godbout@state.co.us.

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Part I. - Description of the Applicant (Project Sponsor or Owner);

1.	Applicant Name(s):	Trout Unlimited-Represented by Richard Van Gytenbeek		
	Mailing address:	115 N. 5th Street, Suite #409 Grand Junction, CO 81507		
	Taxpayer ID#:	38-1612715		
	Primary Contact:	Richard Van Gytenbeek	Position/Title:	Co. River Outreach Coordinator
	Email:	r.vangytenbeek@tu.org		
	Phone Numbers:	Cell: (307)690-1267	Office:	same
	Alternate Contact:	Richard Van Gytenbeek	Position/Title:	
	Email:			
	Phone Numbers:	Cell:	Office:	

2. Eligible entities for WSRA funds include the following. What type of entity is the Applicant?

- ☐ Public (Government) – municipalities, enterprises, counties, and State of Colorado agencies. Federal agencies are encouraged to work with local entities and the local entity should be the grant recipient. Federal agencies are eligible, but only if they can make a compelling case for why a local partner cannot be the grant recipient.
- ☐ Public (Districts) – authorities, Title 32/special districts, (conservancy, conservation, and irrigation districts), and water activity enterprises.
- ☐ Private Incorporated – mutual ditch companies, homeowners associations, corporations.
- ☐ Private individuals, partnerships, and sole proprietors are eligible for funding from the Basin Accounts but not for funding from the Statewide Account.
- ☒ Non-governmental organizations – broadly defined as any organization that is not part of the government.

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3. Provide a brief description of your organization

Formed in 1959, Trout Unlimited (TU) is a national, non-profit (501c3), sportsmen's based conservation organization. The organization's stated mission is to conserve, protect and restore North America's cold water fisheries. The Ware and Hinds Fish Bypass project is a joint effort with Colorado Parks and Wildlife (CPW). TU will be the WSRA grant applicant and will act as the lead organization for project funding, permitting and construction. Once the project is complete, CPW will assume responsibility for management and maintenance of the structure.

4. If the Contracting Entity is different then the Applicant (Project Sponsor or Owner) please describe the Contracting Entity here.

The contracting entity for this grant application is Trout Unlimited.

5. Successful applicants will have to execute a contract with the CWCB prior to beginning work on the portion of the project funded by the WSRA grant. In order to expedite the contracting process the CWCB has established a standard contract with provisions the applicant must adhere to. A link to this standard contract is included in Appendix 3. Please review this contract and check the appropriate box.

☒ The Applicant will be able to contract with the CWCB using the Standard Contract

☐ The Applicant has reviewed the standard contract and has some questions/issues/concerns. Please be aware that any deviation from the standard contract could result in a significant delay between grant approval and the funds being available.

6. 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.

None.

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Part II. - Description of the Water Activity/Project

1. What is the primary purpose of this grant application? (Please check only one)

☒ Nonconsumptive (Environmental or Recreational)

☐ Agricultural

☐ Municipal/Industrial

☐ Needs Assessment

☐ Education

☐ Other

Explain:

2. If you feel this project addresses multiple purposes please explain.

Multi-purpose Project:

The applicant believes that the project addresses both environmental and recreational needs. Environmentally the project will provide accessibility to 3.3 miles of the Elk Creek drainage to spawning rainbow and brown trout, mountain whitefish, bluehead and flannelmouth suckers. Environmentally, access to previously inaccessible spawning and rearing areas will increase all fish populations in the middle Colorado River system. Recreationally, healthy fish populations mean improved sport fishing opportunities in this highly accessible reach of the Colorado River.

3. Is this project primarily a study or implementation of a water activity/project? (Please check only one)

☐ Study

☒ Implementation

4. To catalog measurable results achieved with WSRA funds can you provide any of the following numbers?

New Storage Created (acre-feet)

New Annual Water Supplies Developed, Consumptive or Nonconsumptive (acre-feet)

Existing Storage Preserved or Enhanced (acre-feet)

17,424 LF Length of Stream Restored or Protected (linear feet)

Length of Pipe/Canal Built or Improved (linear feet)

Efficiency Savings (acre-feet/year OR dollars/year – **circle one**)

Area of Restored or Preserved Habitat (acres)

XXX Other -- Explain: **See Below.**

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Other:

The project will open 3.3 miles of Main Elk Creek and East Elk Creek to spawning rainbow and brown trout and other fish species from the main-stem of the Colorado River. CPW will conduct pre and post project population studies to measure the success of the project. Similar structural barriers exist in tributary creeks feeding the middle portion of the Colorado River. The Ware Hinds Fish Passage project will enable project proponents to assess the environmental and recreational value of future fish bypass projects should they become available.

4. To help us map WSRA projects please include a map (Exhibit B) and provide the general coordinates below:

Latitude: **38deg. 51' 54"N**

Longitude: **107deg. 35' 16"W**

5. Please provide an overview/summary of the proposed water activity (no more than one page). Include a description of the overall water activity and specifically what the WSRA funding will be used for. A full **Statement of Work** with a detailed budget and schedule is required as **Exhibit A** of this application.

Project Overview/Summary:

Connectivity of riverine habitat is critical to the health of native fish populations throughout the West. Irrigation diversions, road crossings and other in-channel structures have fragmented habitat and impacted historic migration patterns. Structural modification of these structures that enable fish passage is an important tool in improving and maintaining healthy fisheries.

The Ware and Hinds Fish Bypass project is located on Elk Creek, approximately 0.8 miles upstream of its confluence with the Colorado River, near New Castle, Colorado. The project would include the construction of a fish bypass channel around the Ware and Hinds Ditch diversion dam, enabling migrating trout and native fishes to access 3.3 miles of excellent spawning and rearing habitat upstream of the dam, habitat which is currently under-utilized. The diversion structure spans the entire width of Elk Creek, and as such, acts as a barrier to migrating fishes of the Colorado River. The diversion structure provides irrigation water to downstream users for agricultural purposes. The lower portion of Elk Creek (downstream of the diversion dam) is typically dewatered during part of the irrigation season, July through September. The senior water rights associated with the Ware Hinds Ditch, however, ensure sufficient water upstream of the diversion dam throughout the irrigation season. This irrigation practice will assist in maintaining nursery and rearing habitats upstream of the diversion dam for the progeny of adult fishes from the Colorado River. The fish bypass channel will allow fish passage and use of approximately 3.3 miles of stream habitat upstream of the Ware Hinds Ditch that currently is not accessible to downstream fishes.

TU and CPW have been collaborating with the Ware Hinds Ditch Company and other stakeholders, including the affected private landowners in order to gain approval and build support for the project. The bypass channel will not hinder the operation or structural integrity of the current Ware and Hinds diversion structure. The bypass channel will be in operation during high water conditions in the spring and early summer and during low water conditions in the fall and through the winter. This will enable migrating fish from the Colorado River, primarily salmonids, to access existing habitat upstream of the diversion dam that is currently not accessible and under-utilized.

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This project is intended to serve as an additional source of fishes to the Colorado River by providing access to spawning, nursery, and rearing habitats. Native and non-native fishes will have the opportunity to recruit both within the Elk Creek drainage and downstream to the Colorado River. Natural recruitment of fishes to the Colorado River drainage will assist Colorado Parks and Wildlife (CPW) in meeting performance goals within the agency's Strategic Plan (2015); specifically, Goal I, Objectives, A, B including Strategy 5, D Strategy 12, and Goal VI, Objective C. Increased access to spawning areas will also assist CPW in achieving the goal of the 2007 Range-Wide Conservation Agreement and Strategy for Roundtail Chub, Bluehead Sucker and Flannelmouth Sucker: to ensure the persistence of the these "three species" throughout their ranges. The States of Arizona, Colorado, Nevada, New Mexico, Utah, and Wyoming in addition to the Bureau of Land Management State offices in Colorado, New Mexico, Utah, and Wyoming, as well as the Intermountain Region of the National Park Service and Jicarilla Apache Nation have collaborated in developing a strategy for the long-term conservation of the three species. The completion of this project would increase public angling opportunities for wild trout, and in doing so, has the potential to benefit local businesses that rely on these increased recreational opportunities and associated revenues.

Part III. – Threshold and Evaluation Criteria

1. Describe how the water activity meets these **Threshold Criteria**. (Detailed in Part 3 of the Water Supply Reserve Account Criteria and Guidelines.)

- a) The water activity is consistent with Section 37-75-102 Colorado Revised Statutes.¹

Yes, the proposed project is consistent with the referenced Section of the Colorado Revised Statutes and will continue to protect the use of senior water rights in the State of Colorado.

- b) The water activity underwent an evaluation and approval process and was approved by the Basin Roundtable (BRT) and the application includes a description of the results of the BRT's evaluation and approval of the activity. At a minimum, the description must include the level of agreement reached by the roundtable, including any minority opinion(s) if there was not general agreement for the activity. The description must also include reasons why general agreement was not reached (if it was not), including

¹ 37-75-102. Water rights - protections. (1) It is the policy of the General Assembly that the current system of allocating water within Colorado shall not be superseded, abrogated, or otherwise impaired by this article. Nothing in this article shall be interpreted to repeal or in any manner amend the existing water rights adjudication system. The General Assembly affirms the state constitution's recognition of water rights as a private usufructuary property right, and this article is not intended to restrict the ability of the holder of a water right to use or to dispose of that water right in any manner permitted under Colorado law. (2) The General Assembly affirms the protections for contractual and property rights recognized by the contract and takings protections under the state constitution and related statutes. This article shall not be implemented in any way that would diminish, impair, or cause injury to any property or contractual right created by intergovernmental agreements, contracts, stipulations among parties to water cases, terms and conditions in water decrees, or any other similar document related to the allocation or use of water. This article shall not be construed to supersede, abrogate, or cause injury to vested water rights or decreed conditional water rights. The General Assembly affirms that this article does not impair, limit, or otherwise affect the rights of persons or entities to enter into agreements, contracts, or memoranda of understanding with other persons or entities relating to the appropriation, movement, or use of water under other provisions of law.

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who opposed the activity and why they opposed it. Note- If this information is included in the letter from the roundtable chair simply reference that letter.

Yes, the Colorado Basin Roundtable approved the project at their May 23, 2016 regular meeting. See attached letter from the CBRT Chairman Jim Pokrandt.

- c) The water activity meets the provisions of Section 37-75-104(2), Colorado Revised Statutes.² The Basin Roundtable Chairs shall include in their approval letters for particular WSRA grant applications a description of how the water activity will assist in meeting the water supply needs identified in the basin roundtable's consumptive and/or non-consumptive needs assessments.

Yes, the proposed activity is consistent with the referenced section of the Colorado Revised Statutes and will in no way impair any contractual or property rights related to the use of irrigation water.

- d) Matching Requirement: For requests from the **Statewide Fund**, the applicants is required to demonstrate a **20 percent** (or greater) match of the request from the Statewide Account. Statewide requests must also include a minimum match of **5 percent** of the total grant amount from Basin Funds. Sources of matching funds include but are not limited to Basin Funds, in-kind services, funding from other sources, and/or direct cash match. Past expenditures directly related to the project may be considered as matching funds if the expenditures occurred within 9 months of the date the application was submitted to the CWCB. Please describe the source(s) of matching funds. (NOTE: These matching funds should also be reflected in your Detailed Budget in **Exhibit A** of this application)

Yes, the amount approved from the CBRT basin fund account is a 100 percent match to the amount requested from the Statewide Fund.

² 37-75-104 (2)(c). Using data and information from the Statewide Water Supply Initiative and other appropriate sources and in cooperation with the on-going Statewide Water Supply Initiative, develop a basin-wide consumptive and nonconsumptive water supply needs assessment, conduct an analysis of available unappropriated waters within the basin, and propose projects or methods, both structural and nonstructural, for meeting those needs and utilizing those unappropriated waters where appropriate. Basin Roundtables shall actively seek the input and advice of affected local governments, water providers, and other interested stakeholders and persons in establishing its needs assessment, and shall propose projects or methods for meeting those needs. Recommendations from this assessment shall be forwarded to the Interbasin Compact Committee and other basin roundtables for analysis and consideration after the General Assembly has approved the Interbasin Compact Charter.

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2. For Applications that include a request for funds from the **Statewide Account**, describe how the water activity/project meets all applicable **Evaluation Criteria**. (Detailed in Part 3 of the Water Supply Reserve Account Criteria and Guidelines and repeated below.) Projects will be assessed on how well they meet the Evaluation Criteria. **Please attach additional pages as necessary.**

Please see attached responses to “Evaluation Criteria” in “Supporting Documents” section.

Evaluation Criteria – the following criteria will be utilized to further evaluate the merits of the water activity proposed for funding from the Statewide Account. In evaluation of proposed water activities, preference will be given to projects that meet one or more criteria from each of the three “tiers” or categories. Each “tier” is grouped in level of importance. For instance, projects that meet Tier 1 criteria will outweigh projects that only meet Tier 3 criteria. WSRA grant requests for projects that may qualify for loans through the CWCB loan program will receive preference in the Statewide Evaluation Criteria if the grant request is part of a CWCB loan/WSRA grant package. For these CWCB loan/WSRA grant packages, the applicant must have a CWCB loan/WSRA grant ratio of 1:1 or higher. Preference will be given to those with a higher loan/grant ratio.

1. Tier 1- Promotes Collaboration/Cooperation and Meeting Water Management Goals and Identified Water Needs:
 - A. This project is being forwarded with the cooperation and assistance from the organizations and individuals that support irrigation and environmental/recreation
 - B. Project will help meet several identified needs both consumptive and non-consumptive.
 2. Tier 2- Facilitating Water Activity Implementation:
 - C. This project will help identify irrigation improvement projects that can address other water supply issues.
- Tier 3-Project Provides Statewide Value:
- D. The implemented project will provide valuable information about the benefits related to on-farm irrigation efficiency in western Colorado.
 - E. The information from this project can be used to address the growing demand and limited supply problems throughout the state.
 - F. Results of this project will address water quality concerns on the Gunnison River related to native species conservation including the Colorado Pikeminnow and Razorback Sucker, which are endangered species, as well the Roundtail Chub, Flannelmouth and Bluehead suckers which are species of special concern in the Gunnison and Colorado River.
 - G. This project will provide valuable, farmer-tested research data to agricultural producers, governmental organizations and water managers.
 - H. This project will address both consumptive and non-consumptive needs by evaluating how improvements to irrigation infrastructure and irrigation water management can address both current and future water demands.

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Part IV. – Required Supporting Material

1. **Water Rights, Availability, and Sustainability** – This information is needed to assess the viability of the water project or activity. Please provide a description of the water supply source to be utilized, or the water body to be affected by, the water activity. This should include a description of applicable water rights, and water rights issues, and the name/location of water bodies affected by the water activity.

Please see “Supporting Documents” section for a detailed explanation of water rights and their relation to the proposed fish bypass project.

2. Please provide a brief narrative of any related studies or permitting issues.

The project will require an ACOE-404 GP-12, EPA-NPDES permit and a Town of New Castle grading permit. TU will obtain the required permits prior to construction.

REPORTING AND FINAL DELIVERABLE

Reporting: The applicant shall provide the CWCB a progress report every 6 months, beginning from the date of the executed contract. The progress report shall describe the completion or partial completion 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 Deliverable: At completion of the project, the applicant shall provide the CWCB a final report that summarizes the project and documents how the project was completed. This report will contain photographs, summaries of meetings and engineering reports/designs.

PAYMENT

Payment will be made based on actual expenditures and invoicing by the applicant. Invoices from any other entity (i.e. subcontractors) cannot be processed by the State. The request for payment must include a description of the work accomplished by major task, and estimate of the percent completion for individual tasks and the entire water activity in relation to the percentage of budget spent, identification of any major issues and proposed or implemented corrective actions. The last 5 percent of the entire water activity budget will be withheld until final project/water activity documentation is completed. All products, data and information developed as a result of this grant must be provided to the CWCB in hard copy and electronic format as part of the project documentation. This information will in turn be made widely available to Basin Roundtables and the general public and help promote the development of a common technical platform.

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The above statements are true to the best of my knowledge:

Signature of Applicant: *Richard Van Gytenbeek*

Print Applicant's Name: Richard Van Gytenbeek

Project Title: Ware and Hinds Fish Bypass Project

Date: 7/28/2016

Return an electronic version (hardcopy may also be submitted) of this application to:

Ware and Hinds Fish Bypass-Detailed-Statement of Work

(including: Project Scope, Budget and Schedule)

Project Summary:

The project is located on Elk Creek, approximately 0.8 miles upstream of its confluence with the Colorado River, near New Castle, Colorado. The project would include the construction of a fish bypass channel around the Ware and Hinds Ditch diversion dam, enabling migrating trout and native fishes to access 3.3 miles of excellent spawning and rearing habitat upstream of the dam, habitat which is currently under-utilized. The diversion structure spans the entire width of Elk Creek, and as such, acts as a barrier to migrating fishes of the Colorado River. The diversion structure provides irrigation water to downstream users for agricultural purposes. The lower portion of Elk Creek (downstream of the diversion dam) is typically dewatered during part of the irrigation season, July through September. The senior water rights associated with the Ware Hinds Ditch, however, ensure sufficient water upstream of the diversion dam throughout the irrigation season. This irrigation practice will assist in maintaining nursery and rearing habitats upstream of the diversion dam for the progeny of adult fishes from the Colorado River. The fish bypass channel will allow fish passage and use of approximately 3.3 miles of stream habitat upstream of the Ware Hinds Ditch that currently is not accessible to downstream fishes.

Trout Unlimited (TU) and Colorado Parks and Wildlife (CPW) have been collaborating with the Ware and Hinds Ditch Company and other stakeholders, including the affected private landowners, in order to gain their support and receive their approval to proceed with the project. The bypass channel will not hinder the operation or structural integrity of the current Ware and Hinds diversion structure. The bypass channel will be in operation during high water conditions in the spring and early summer and during low water conditions in the fall and through the winter. This will enable migrating fish from the Colorado River, primarily salmonids, to access existing habitat upstream of the diversion dam that is currently not accessible and under-utilized.

This project is intended to serve as an additional source of fishes to the Colorado River by providing access to spawning, nursery, and rearing habitats. Native and non-native fishes will have the opportunity to recruit both within the Elk Creek drainage and downstream to the Colorado River. Natural recruitment of fishes to the Colorado River drainage will assist Colorado Parks and Wildlife (CPW) in meeting performance goals within the agency's Strategic Plan (2015); specifically, Goal I, Objectives, A, B including Strategy 5, D Strategy 12, and Goal VI, Objective C. Increased access to spawning areas will also assist CPW in achieving the goal of the 2007 Range-Wide Conservation Agreement and Strategy for Roundtail Chub, Bluehead Sucker and Flannelmouth Sucker: to ensure the persistence of the these "three species" throughout their ranges. The States of Arizona, Colorado,

Nevada, New Mexico, Utah, and Wyoming in addition to the Bureau of Land Management State offices in Colorado, New Mexico, Utah, and Wyoming, as well as the Intermountain Region of the National Park Service and Jicarilla Apache Nation have collaborated in developing a strategy for the long-term conservation of the three species. The completion of this project would increase public angling opportunities for wild trout, and in doing so, has the potential to benefit local businesses that rely on these increased recreational opportunities and associated revenues.

Purpose and Need:

Connectivity in riverine systems is crucial to maintaining healthy fish populations in Colorado and throughout the West. Fish migrate diurnally and seasonally to spawn and find food and cover throughout their life cycles. Barriers to up and down stream migration created by roads, water diversion structures and other impediments limit access to habitat and consequently limit population size and health. These barriers not only create environmental problems, but can also limit recreational opportunities and the businesses that rely on them.

The Ware and Hinds Ditch diversion dam spans the entire width of Elk Creek. The ditch has some of the most senior water rights on the creek and provides irrigation water to agricultural producers along the north side of the Colorado River from New Castle to Silt, Colorado. While the diversion structure creates a barrier to upstream fish migration, its location just upstream from the main-stem Colorado River and its senior water rights also provide an opportunity to restore fish populations of the Elk Creek drainage and the Colorado River, without negative impacts to agricultural producers or their water rights.

Staff from CPW, recognizing this opportunity, partnered with TU to explore the possibility of a fish passage structure at the Ware and Hinds Ditch diversion dam. Since 2013, these organizations have worked with the Ware and Hinds Ditch Company, affected landowners on Elk Creek, water engineers, and contractors to develop a fish passage project that benefits Colorado River fishes while concurrently satisfying stakeholder needs and concerns. Project partners would like to complete project construction drawings and contract with a qualified contractor to build the project in a construction window between late November 2016 to late April 2017 (based on field conditions). Upon project completion, CPW will assume responsibility for maintenance of the fish bypass structure.

Project Goals:

The project goals are as follows:

- 1) To reconnect 3.3 miles of the lower Elk Creek drainage to the Colorado River main-stem for diurnal and seasonal fish migration and spawning by incorporating a fish passage structure into the Ware Hinds Ditch diversion structure.
- 2) To create a fish passage structure that enables a variety of fishes to pass the diversion dam which is a barrier to upstream fish migration. Fish species that could benefit from this passage structure include rainbow trout, brown trout, mountain whitefish, bluehead sucker, flannelmouth sucker, roundtail chub, mottled sculpin, and speckled dace.

- 3) To improve populations of sport fish in a highly accessible reach of the Colorado River for recreational angling opportunities.
- 4) To contribute to restoration of populations of all fish in Elk Creek and the Colorado River main-stem for environmental health.
- 5) To demonstrate the viability of projects of this type in the middle Colorado River section (Glenwood Springs to De Beque) as similar conditions exist elsewhere in this part of the basin.
- 6) To continue building a precedent of cooperation between consumptive and non-consumptive water users in the Colorado River basin that results in improved rivers and streams. Healthy rivers are crucial to agriculture, environment and the communities that rely on them.

Expected Results & Benefits:

Construction of the fish bypass channel in conjunction with the hydrology of Elk Creek represents a unique opportunity to increase population stocks of resident fishes in the Colorado main-stem. Annual hydrographs for Elk Creek indicate high Spring runoff flows followed by very low flows throughout the remainder of the year. These conditions are optimal for spring and early summer spawners such as rainbow trout, and flannelmouth and bluehead suckers, and workable for fall spawning fish such as brown trout and mountain whitefish. Adult fish that access the reach above the diversion will spawn and then return to the Colorado River main-stem as water levels drop in summer and winter conditions prevail later each year. Adequate water and habitat for eggs, fry and young fish will remain upstream of the diversion structure; largely because the Ware and Hinds Ditch Company has senior water right on Elk Creek and “calls” water throughout the irrigation season ensuring a viable water supply. Once upstream connectivity is restored, this portion of the Elk Creek drainage will essentially act much like an anadromous fishery in which adult fish access to spawn but then return to the main-stem for the remainder of the year. As such, Elk Creek will provide a continuous supply of young, wild fish to the Colorado main-stem increasing the numbers of sport fish accessible to anglers on this very heavily used reach.

The applicant believes that the project addresses both environmental and recreational needs. Environmentally the project will provide accessibility to 3.3 miles of the Elk Creek drainage to spawning sport and native fishes. Access to previously inaccessible spawning and rearing areas will increase recruitment to fish populations in the middle Colorado River system. Recreationally, healthy fish populations mean improved sport fishing opportunities in this highly accessible reach of the Colorado River. These benefits can be realized without negative impact to existing agricultural beneficial use of Elk Creek water through the Ware and Hinds Ditch, which will continue to irrigate Peach Valley as it has historically and without any loss or reallocation of water rights yield.

Project Tasks, Schedule and Budget

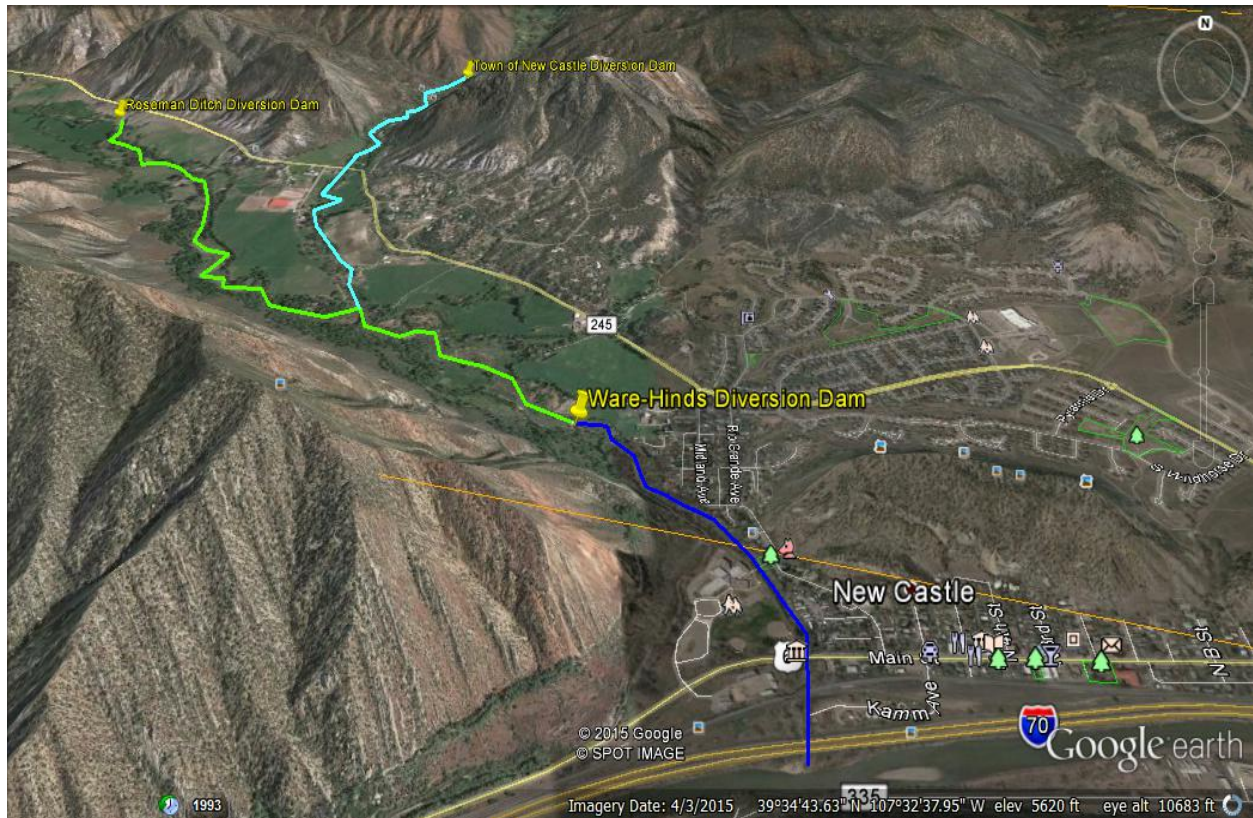
TU has been awarded a grant from the CPW Fishing is Fun grant program to fund the balance of budget items noted in the following table. Specifically these include: completion of construction drawings, project construction and project construction management and inspection.

Task	Description	Target Start Date	Target Completion	CWCB-WSRA State and Basin Funds (50%-50% split)	CPW-FIF Grant	Cash Funding Amt./Funder (*See Note)	In-Kind Amt./Funder (* See Note)	Totals
1	W-H Ditch Board Approval	N/A	Complete	0.00	0.00	0.00	\$1500.00	\$1500.00
2	Landowner Approvals	N/A	Complete	0.00	0.00	0.00	\$ 500.00	\$ 500.00
3	Landowner negotiation, property survey for easements	N/A	Complete	0.00	0.00	0.00*	\$ 500.00*	\$ 500.00*
4	Temp. construction easement.	Oct. 2016	May 2017	0.00	0.00	0.00*	0.00*	\$ 0.00*
5	Permanent access easement.	April. 2017	June 2017	0.00	0.00	0.00*	0.00*	\$ 0.00*
6	Misc. Project Mgt and Costs (printing, etc.)	N/A	Complete	0.00	0.00	0.00	\$1600.00	\$1600.00*
7	Conceptual Project Design-Site Survey	N/A	Complete	0.00	0.00	\$4880.00	\$7950.00	\$12,830.00
8	Construction Drawings (50%)	Oct. 1, 2016	Oct. 30, 2016	\$4250.00	\$4250.00	0.00	0.00	\$8500.00
9	Construction Drawings (100%)	Nov. 1, 2016	Nov. 15, 2016	\$4500.00	\$4500.00	0.00	0.00	\$9000.00
10	Construction Permits (ACOE, EPA, Town N. Castle)	Aug. 1-2016	Nov. 15-2016	0.00	0.00	0.00	\$4500.00	\$4500.00
11	Project Construction	November 15-2016	April-2017	\$50,000.00	\$65,000.00	0.00	0.00	\$115,000.00
12	Project Construction Mgt./Inspection	November-2015	May-2017	\$4750.00	\$4750.00	0.00	\$3000.00	\$12,500.00
	Totals			\$63,500.00	\$78,500.00	\$4880.00	\$19,550.00	\$166,430.00

*Note: The Ware and Hinds Fish Bypass project is seeking funding from the CWCB-State and Colorado Basin Roundtable-WSRA funding pool. As stated, TU has been granted the balance of project funding from the Colorado Parks and Wildlife-Fishing is Fun (CPW-FIF) grant program. CPW-FIF grant funds are U.S. Fish and Wildlife funds (Wildlife Restoration Act and the Sport Fish Restoration Act) administered as “matching” type grant funding through state agencies such as CPW. As the administering agency, CPW’s contributions of cash and personnel hours cannot be counted in the CPW-FIF grant application. For consistency between grants, their contributions are not included in the “Project Tasks, Schedule and Budget” table presented above.

Notwithstanding, CPW (and TU) personnel have invested many hours working to make this important project a reality. Further, CPW has (or is committed to provide) \$8500.00 in cash to the project for surveying and easements costs. Our organizations have accomplished, and will continue to accomplish the ancillary project components (stakeholder approvals, additional design and planning decisions, permit acquisition, etc.) necessary to keep the project moving forward and to use our two primary grants (CPW-FIF and CWCB-WSRA) exclusively for construction related project costs.

WH Fish Bypass Site Map



Legend

- _____ Main Elk Creek-Ware Hinds diversion structure to confluence with Colorado River.
- _____ Main Elk Creek-Ware Hinds diversion structure to Roseman diversion structure.
- _____ E. Elk Creek-Town of New Castle diversion to confluence with Main Elk Creek.

Site Description

The Ware Hinds Fish Bypass project is located on the lower reach of Elk Creek at the Ware Hinds Ditch diversion structure. Elk Creek enters the main-stem of the Colorado River from the north just downstream from the town of New Castle in Garfield County. The Elk Creek drainage consists of three forks: Main Elk Creek, W. Elk Creek and E. Elk Creek. The drainage area is bounded by the Flattop Range to the east and the Grand Hogback to the west. Upon completion the project will allow spawning fish from the Colorado River main-stem to access 3.3 miles of Main Elk Creek and E. Elk Creek.