

# Tolland Ranch Feasibility Study Fourmile Watershed Coalition

July 2020 Board Meeting

# Water Plan Grant Application

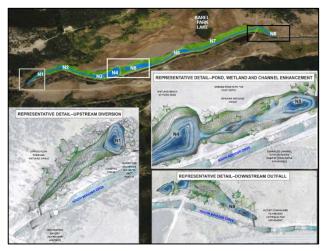
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DETAILS	
Total Project Cost: \$6	60,642
Water Plan Grant Request: \$3	30,321
Recommended amount: \$3	30,321
Other CWCB Funding:	\$0
Other Funding Amount: \$2	24,000
Applicant Match:	\$6,321
Project Type(s): Study	
<i>Project Category(Categories):</i> Environment and Recreation	
<i>Measurable Result:</i> 8.579 linear feet of restored a protected stream, and 93 acres of restored and preserved habitat	and

The Fourmile Watershed Coalition (FWC)

was developed to address recovery following the September 2013 flood. Since the 2013 event, the FWC has been conducting stakeholder engagement, stream restoration, mine reclamation, water quality assessments, and forest health projects throughout the watershed, and is working to expand its geographical boundaries into the Boulder Creek Watershed.

Tolland Ranch straddles a reach of South Boulder Creek that historically meandered across a broad valley floor at roughly 9,000 feet above sea level (see maps in attached report). This reach supported a diverse array of aquatic habitats, including a high quality trout stream, riparian wetlands, side channel wetland/open water complexes, and floodplain areas. In the early 1960s South Boulder Creek was



channelized through Tolland Ranch to facilitate water movement from the Moffat Tunnel toward Gross Reservoir. During this process an offchannel pond system was created where the meanders previously existed. The channelization disconnected the stream from the floodplain and decreased available hydrology to support robust wetland and riparian areas.

This project proposes a feasibility study that will prioritize and develop conceptual restoration designs for multiple riparian and wetland areas, evaluate existing hydrology and diversion infrastructure, and determine what additional

water needs may exist in order to support year-round habitat for the greenback cutthroat trout (GBCT) and boreal toad, which will also support the restoration of significant wetland and upland floodplain areas.

The study will produce a conceptual fisheries enhancement design for the project area and an offchannel rearing habitat area for the GBCT. Restored hydrology will also create and restore wetland areas that have been dewatered for the past few decades; and riparian upland habitats will be enhanced with increased hydrology. The project will also produce a conceptual design to retrofit an existing diversion structure to prevent non-GBCT from entering the system.



# **Colorado Water Conservation Board**

# Water Plan Grant Application

# Instructions

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

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

Water Storage Projects Conservation, Land Use Planning Engagement & Innovation Activities Agricultural Projects Environmental & Recreation Projects Anna.Mauss@state.co.us Kevin.Reidy@state.co.us Ben.Wade@state.co.us Alexander.Funk@state.co.us Chris.Sturm@state.co.us

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

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

Water Project Summary					
Name of Applicant	Fourmile Waters	Fourmile Watershed Coalition			
Name of Water Project	Tolland Ranch F	Tolland Ranch Feasibility Study			
CWP Grant Request Amount		\$30,321			
Other Funding Sources CPW		\$9,000			
Other Funding Sources SparkJoy Foundation		\$15,000			
Other Funding Sources		\$			
Applicant Funding Contribution		\$6,321			
Total Project Cost		\$60,642			



# **Applicant & Grantee Information**

Name of Grantee(s)- Four Mile Fire Protection District

Mailing Address- 1740 Fourmile Canyon Drive, Boulder CO 80302

FEIN- 84-098-1141

Organization Contact -Bret Gibson

Position/Title- Fire Chief

Email- chiefbret@gmail.com

Phone -303-449-3333

Grant Management Contact- Maya MacHamer

Position/Title- Watershed Coordinator

Email- fourmilewatershed@gmail.com

Phone- 303-817-2261

Name of Applicant

(if different than grantee) - Fourmile Watershed Coalition

Mailing Address- 1740 Fourmile Canyon Drive, Boulder CO 80302

Position/Title- Watershed Coordinator

Email- fourmilewatershed@gmail.com

Phone 303-817-2261

# **Description of Grantee/Applicant**

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

The Fourmile Watershed Coalition (FWC) was developed to address the recovery effort for the 2013 flood event. For the past five years the Coalition has been conducting stakeholder engagement stream restoration, mine reclamation, water quality assessments and forest health projects within the Fourmile Watershed. The FWC works closely with its fiscal agent, the Four Mile Fire Protection District, and other stakeholder agencies and private landowners. The coalition is expanding its geographical boundaries into the Boulder Creek watershed. This expansion will increase landscape and community impact within the Boulder Creek watershed.



	Type of Eligible Entity (check one)
	<b>Public (Government):</b> Municipalities, enterprises, counties, and State of Colorado agencies. Federal agencies are encouraged to work with local entities. Federal agencies are eligible, but only if they can make a compelling case for why a local partner cannot be the grant recipient.
x	<b>Public (Districts):</b> Authorities, Title 32/special districts (conservancy, conservation, and irrigation districts), and water activity enterprises.
	Private Incorporated: Mutual ditch companies, homeowners associations, corporations.
	<b>Private Individuals, Partnerships, and Sole Proprietors:</b> Private parties may be eligible for funding.
	<b>Non-governmental organizations (NGO):</b> 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)				
х	Study				
	Construction				
	Identified Projects and Processes (IPP)				
	Other				

Cat	egory of \	Nater 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. Applicable Exhibit A Task(s):							
	Engagement & Innovation - Activities and projects that support water education, outreach, and innovation efforts. Please fill out the Supplemental Application on the website. Applicable Exhibit A Task(s):							
	-	I - Projects that provide technical assistance and improve agricultural efficiency. Exhibit A Task(s):						
x	recreation.	ntal & Recreation - Projects that promote watershed health, environmental health, and <i>Exhibit A Task(s):</i>						
	Other	Explain:						



Location of Water Project					
Please provide the general county and coordinates of the proposed project below in <b>decimal degrees</b> . The Applicant shall also provide, in Exhibit C, a site map if applicable.					
County/Counties Gilpin					
Latitude 39 54'12.29" N					
Longitude	105 36'8.58" W				

# Water Project Overview

Please provide a summary of the proposed water project (200 words or less). Include a description of the project and what the CWP Grant funding will be used for specifically (e.g., studies, permitting process, construction). Provide a description of the water supply source to be utilized or the water body affected by the project, where applicable. Include details such as acres under irrigation, types of crops irrigated, number of residential and commercial taps, length of ditch improvements, length of pipe installed, and area of habitat improvements, where applicable. If this project addresses multiple purposes or spans multiple basins, please explain.

The Applicant shall also provide, in Exhibit A, a detailed Statement of Work, Budget, Other Funding Sources/Amounts and Schedule.

Tolland Ranch is a 3,334-acre conservation easement located downstream of the Moffat Tunnel on South Boulder Creek. The proposed project is a feasibility study that will evaluate opportunities and develop conceptual designs for wetland and riparian enhancements including habitat for the boreal toad, fisheries enhancements to support a self-sustaining population of greenback cutthroat trout (GBCT) and designs to retrofit an existing diversion to prevent non GBCT from entering the system. Stakeholder engagement will be supported throughout the project.

The project is in the headwaters of South Boulder Creek in the South Platter Basin. The study will evaluate approximately 93-acres adjacent to the stream and currently a complex system of off-channel ponds and wetland complexes created when the channel was straightened in the 1960's to facilitate transport of west slope water to Gross Reservoir. A committed group of partners has come together to evaluate the tasks listed above and to create a foundation for multiple phases of ecological restoration to occur in the future.



Measurable Results					
To catalog measurable res values as applicable:	To catalog measurable results achieved with the CWP Grant funds, please provide any of the following values as applicable:				
	New S	torage Created (acre-feet)			
		nnual Water Supplies Developed or Conserved (acre-feet), mptive or Nonconsumptive			
	Existing Storage Preserved or Enhanced (acre-feet)				
8,579 LF evaluated	Length of Stream Restored or Protected (linear feet)				
	Efficiency Savings (indicate acre-feet/year OR dollars/year)				
93 acres evaluated	Area of Restored or Preserved Habitat (acres)				
	Quanti	ty 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 <u>Colorado's Water Plan</u>, the most recent <u>Statewide Water Supply Initiative</u>, and the applicable Roundtable <u>Basin Implementation Plan</u> and <u>Education Action Plan</u>. 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 Tolland Ranch project supports multiple goals within Colorado's Water Plan, South Platte Roundtable Basin Implementation Plan and the Statewide Water Supply Initiative. The Critical Action Plan in Chapter 10 of the **Colorado Water Plan** (CWP) discusses Colorado's Water Values. Three primary values are listed including a productive *economy* that supports cities, agriculture, recreation, and tourism; efficient and effective water *infrastructure*; and a strong *environment* that includes healthy watersheds, rivers, streams, and wildlife. The Tolland Ranch project address two of these goals: economy and watershed health.

- Tolland Ranch is nestled between the James Peak Wilderness and Roosevelt National Forest. Eldora ski area currently has 65 miles of Nordic trails on the Tolland property. Boulder County recently received a \$300,000 grant to move forward with a trail connection between two existing trail systems on USFS lands. These recreational opportunities, in addition to fishing along South Boulder Creek, significantly affect the local economies of Boulder, Nederland and Gilpin County.
- Tolland Ranch is downstream of the East Portal of the Moffat Tunnel and is a transport reach for Denver Water drawing water from the West Slope to Gross Reservoir. Riparian and wetland improvements will contribute to improved water quality.
- Habitat improvements for GBCT and boreal toads contribute to preserving threatened species native to the area while also having a broader and long-term effect on species recovery efforts across Colorado.



A Critical Action listed for watershed health is to: *"recover Imperiled Species: promote restoration, recovery, and resiliency of endangered, threatened, and imperiled aquatic and riparian dependent species and plant communities (10-12)."* 

• The Tolland Ranch Feasibility Study proposes to create conceptual habitat and fisheries designs to support two of Colorado's threatened species: GBCT and boreal toads.

Chapter 9.2 (9-9) describes the alignment of state resources and policies and the goal to "coordinate existing funding sources and explores additional funding opportunities." This project is collaboration that will leverage funding from public and private sources to work toward "a multipurpose and multi-partner project (9-9)." Chapter 6 also discusses the important role of *strategic partnerships* in accomplishing multi-objective projects. Partners for this project include:

- 1. The Toll family: The Toll family has owned over 4,000 acres in upper South Boulder Creek for four generations. In 2015, 3,334 acres were put into a conservation easement. The Toll family supports both recreational and environmental projects on their property.
- 2. Colorado Parks and Wildlife (CPW): CPW has identified this area as potentially suitable for rearing GBCT and boreal toads. They have completed whirling disease testing in the ponds and upper reaches of South Boulder Creek, as well as fish population studies in two ponds. CPW also identified riparian habitat that could support boreal toads. CPW has committed \$7,000 in cash and \$2,000 in-kind for the project.
- 3. Denver Water: Denver Water transports water from the west slope through the Moffat Tunnel to South Boulder Creek. If there are additional water requirements necessary to support GBCT Denver Water will evaluate approaches developed. Denver Water is a critical partner to have for any stream corridor work at Tolland Ranch. Denver Water is considering a \$1,500 in-kind donation to review study documents and provide comments.
- 4. Private funders: The SparkJoy Foundation has donated \$15,000 to support this project because they value Colorado wildlife and natural resources. Strategic public/private partnerships are critical to long-term support for ongoing projects.
- 5. Colorado State Forest Service (CSFS): CSFS is the conservation easement holder, completed a Forest Management Plan and is committed to other conservation efforts on the property.
- 6. Other conversations and potential partners include Trout Unlimited's Boulder Flycasters and Lincoln Hills Fly Fishing Club and Lincoln Hills Cares. Partnering with these organizations sets up the opportunity for youth education and engagement and volunteer support during implementation.

Chapter 6.6 of the CWP highlight a state-wide long-term goal to "promote restoration, recovery, sustainability, and resiliency of endangered, threatened, and imperiled aquatic- and riparian-dependent species and plant communities."

• Tolland Ranch has been identified by CPW as an area suitable to assist in recovery of threatened species. Riparian and wetland enhancements will also support other plant and animal species including elk herds that migrate through Tolland Ranch and use the area for calving.

Chapter 6.1 discusses *Developing Plausible Scenarios* one of which is Cooperative Growth. In this scenario *"environmental stewardship becomes the norm…and broad alliances form…(6-7)."* This vision also includes ecotourism as the norm.

• Public lands surrounding Tolland Ranch are a large tourism draw for many types of recreationalists visiting the James Peak Wilderness and Roosevelt National Forest. The conservation easement and



continued conservation efforts at Tolland will promote ongoing tourist and economic benefits to the surrounding communities.

- The project partners have formed a "broad alliance" of interests and priorities.
- Environmental stewardship is at the core of the project as represented through attention toward species recovery and biodiversity improvements.

Chapter 6.1 also highlights climate changes and the subsequent effect on water use in all sectors, stream flows and supplies. "This dynamic reinforces the social value of widespread water efficiency and increased environmental protection (6-7)."

- An evaluation of existing hydrology and potential additional water needs to support habitat and fisheries will occur through the feasibility study. All evaluations will consider, first and foremost, that South Boulder Creek delivers water to approximately 1.4 million people on the Front Range.
- Denver Water is a project partner and the project team looks forward to evaluating opportunities to retain water efficiencies (in quantity and transport), while improving water quality and habitat diversity through riparian and wetland enhancements.

Chapter 6 lists IBCC actions. Action number nine is *"continued support of ESA activities (6-179)."* This action describes how the CWCB and CPW (among others) will work collaboratively to support ESA issues, including recovery plans, to promote the sustainability of threatened, riparian and aquatic dependent species.

• This project presents an opportunity for CWCB and CPW to work collaboratively to address habitat needs for GBCT and boreal toads.

One of the **South Platte Basin Roundtable Basin Implementation Plan's** (SPBRT BIP) focus areas is to "protect and enhance environmental and recreation attributes...and to fully recognize the importance of, and support the development of environmental and recreational projects and multipurpose projects that support water availability for ecologically and economically important habitats and focus areas." This project supports this goal in multiple ways:

- The project recognizes that enhancing habitat can improve recreational opportunities for wildlife viewing and associated hiking and skiing in the immediate area, as well as across the Front Range with potential angling opportunities associated with GBCT reintroduction in other streams.
- The project will consider water availability for downstream water users as well as groundwater storage and recharge opportunities associated with wetland development.
- The project supports goals of conservation easements that strive to retain important environmental and historic values.

S.3.6 of the SPBRT BIP describes the importance of preserving and enhancing environmental and recreational opportunities in order to support Colorado's economy (S-8).

S.4.2 provides a strategic overview that recommends identifying and implementing methods to protect and enhance environmental and recreational water uses (S-10).

S.5.8 discusses the risk of increased demands and reduced supplies due to climate change. While this is primarily directed at drinking water and agricultural supplies, habitat and species loss are particularly sensitive to climate changes (S-11).

The **Statewide Water Supply Initiative (SWSI)** reports that Colorado's population is projected to nearly double to between 8.6 and 10 million people by 2050. The Front Range of Colorado will continue to be the most populous place in Colorado with over 80 percent of the state's population.



SWSI 2010 discusses environmental/nonconsumptive needs and highlights that environmental and recreational values will continue to be important to the state's economy. Environmental focus areas were identified on 33,000 miles of streams with water related environmental and recreational values. Tolland Ranch is just above a South Boulder Creek segment identified for recreational needs in the SPBRT Nonconsumptive Needs Assessment (Appendix B, 2015).

# **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.

Tolland Ranch Conservation Easement Baseline Assessment (2015):

• Baseline documentation of the land's environmental and historical value.

Wright Water Engineers Study (2017):

• Evaluates opportunities to implement Greenback Cutthroat Trout recovery habitat and overall aquatic resource enhancement at Tolland Ranch (Attached, 2017).

Tolland Ranch Forest Management Plan (2016):

• Developed for the landowner to actively manage their forest, woody vegetation, and associated resources. Intended to aid the owner in increasing the health, vigor, and beauty of the forest land through use of forest management practices.

Boreal Toad Conservation Plan and Agreement (2001):

• Guidance for the recovery and management of the boreal toad and its habitat in the Rocky Mountains.

Greenback Cutthroat Trout Recovery Plan (1998):

• Delineates reasonable actions which are believed to be required to recover and/or protect the species.

Saint Vrain Watershed Plan (2015):

• The Watershed Plan provides helpful background on geology, soils, hydrology and other watershed characteristics that impact water supply, watershed health and water quality.

# 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.

1) Fourmile Watershed Coalition/Four Mile Fire Protection District

2) EWP Stream Restoration Projects, Monitoring and Adaptive Management, Northern Front Range Forestry Network, Water Quality Sampling in the Boulder Creek Watershed, Debris Flow Early Warning System.

3) South Platte Basin RT

4) September 18, 2019, January 28, 2020.

5) Projects and contract numbers include:

- Ingram Gulch- EWP match (CTGG1 2018\*661), EWP TA design: (POGG PDAA 201700000775).
- Wall Street- EWP match (CTGG1 12017\*1819 CMS#101032)
- Fire Station Pond- EWP match (POGG1 PDAA 201700000935(SB-179))
- Monitoring and Adaptive Management (PDAA, 201900002117).
- Northern Front Range Forestry Network (POGG1 PDAA, 20200002417.
- Water Quality Sampling in the Boulder Creek Watershed (awarded, not contracted).
- Debris Flow Early Warning System (awarded, not contracted).

#### 6) 0

# **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.

In 2011 the Four Mile Fire Protection District's voters exempted the District from TABOR's revenue and spending limits, and the annual revenue limits imposed by Section 29-1-301 of the Colorado Revised Statutes.

The 2016 Financial Audit completed by John Cutler & Associates for the Four Mile Fire Protection District records the following statement: "The District has established and emergency reserve, representing 3% of fiscal year spending (excluding debt service), as required by TABOR. TABOR is complex and subject to judicial interpretation. The District believes it is in compliance with the requirements of TABOR".



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

(1) Required with application.

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



# ENGAGEMENT & INNOVATION GRANT FUND SUPPLEMENTAL APPLICATION

# Introduction & Purpose

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

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

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

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

# **Application Questions**

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

## Overview (answer for both tracks)

In a few sentences, what is the overall goal of this project? How does it achieve the stated purpose of this grant fund (above)?

Who is/are the target audience(s)? How will you reach them? How will you involve the community?

Describe how the project is collaborative or engages a diverse group of stakeholders. Who are the partners in the project? Do you have other funding partners or sources?



# Overview (answer for both tracks)

Describe how you plan to measure and evaluate the success and impact of the project?

What research, evidence, and data support your project?

Describe potential short- and long-term challenges with this project.

Please fill out the applicable questions for either the Engagement Track or Innovation Track, unless your project contains elements in both tracks. If a question does not relate to your project, just leave it blank. Please answer each question that relates to your project. Please reference the relevant documents and use chapters and page numbers (Colorado's Water Plan, Basin Implementation Plan, PEPO Education Action Plan, etc.).

# Engagement Track

Describe how the project achieves the education, outreach, and public engagement measurable objective set forth in Colorado's Water Plan to "significantly improve the level of public awareness and engagement regarding water issues statewide by 2020, as determined by water awareness surveys."

Describe how the project achieves the other measurable objectives and critical goals and actions laid out in Colorado's Water Plan around the supply and demand gap; conservation; land use; agriculture; storage; watershed health, environment, and recreation; funding; and additional.

Describe how the project achieves the education, outreach, and public engagement goals set forth in the applicable Basin Implementation Plan(s).



Describe how the project achieves the basin roundtable's PEPO Education Action Plans.

# Innovation Track

Describe how the project enhances water innovation efforts and supports a water innovation ecosystem in Colorado.

Describe how the project engages/leverages Colorado's innovation community to help solve our state's water challenges.

Describe how the project helps advance or develop a solution to a water need identified through TAP-IN and other water innovation challenges. What is the problem/need/challenge?

Describe how this project impacts current or emerging trends; technologies; clusters, sectors, or groups in water innovation.



# **Colorado Water Conservation Board**

# Water Plan Grant - Exhibit A

Statement Of Work				
Date: January 28, 2020				
Name of Grantee:	Fourmile Watershed Coalition			
Name of Water Project:	Tolland Ranch Riparian and Aquatic Enhancement Project			
Funding Source:	Colorado Water Plan Grant			

# Water Project Overview:

Tolland Ranch straddles a reach of South Boulder Creek that historically meandered across a broad valley floor at roughly 9,000 feet above sea level (see maps in attached report). This reach supported a diverse array of aquatic habitats, including a high quality trout stream, riparian wetlands, side channel wetland/open water complexes, and floodplain areas. In the early 1960s South Boulder Creek was channelized through Tolland Ranch to facilitate water movement from the Moffat Tunnel toward Gross Reservoir. During this process an off-channel pond system was created where the meanders previously existed. The channelization disconnected the stream from the floodplain and decreased available hydrology to support robust wetland and riparian areas.

This project proposes a feasibility study to build off the previously completed Wright Water Engineer study (attached). The feasibility study will prioritize and develop conceptual restoration design for multiple riparian and wetland areas, evaluate existing hydrology and diversion infrastructure and determine what additional water needs may exist in order to support year-round habitat for the federally listed GBCT. While a primary goal of the project is to support species recovery and create habitat for the GBCT and boreal toad, the project will also result in the restoration of significant wetland and upland floodplain areas.

The feasibility study will produce a conceptual fisheries enhancement design for the project area. One of the project objectives is to create an off-channel rearing habitat area for the GBCT. Existing conditions in the larger ponds at the project area are able to support brook trout, but Colorado Parks and Wildlife sampling indicates that there is significant room for enhancement. Restored hydrology would also create and restore wetland areas that have been dewatered for the past few decades; and riparian upland habitats would be enhanced with increased hydrology. The project will also produce a conceptual design to retrofit an existing diversion structure to prevent non-GBCT from entering the system.



# **Project Objectives:**

**Objective 1:** Promote ecological uplift through the enhancement of wildlife and bird habitat, restoring hydrologic and biogeochemical services, promoting plant biodiversity.

**Objective 2:** Prioritize riparian and wetland areas for future restoration.

**Objective 3:** Support recovery objectives and habitat enhancements for native threatened species including the greenback cutthroat trout and boreal toad.

**Objective 4:** Develop conceptual fisheries enhancement design for the project area to create an off-channel rearing habitat area for the greenback cutthroat trout.

**Objective 5:** Build and deepen relationships with project partners.

# Tasks

# Task 1 – Stakeholder Engagement

Description of Task:

There are multiple stakeholders involved in the Project and it important to obtain their input throughout the feasibility study. The primary project partners include the Toll family and CPW, however there are other partners whose support and perspective are critical to long-term project success. These partners include Denver Water, the Colorado State Forest Service, The Conservation Fund, Gilpin County, Colorado Trout Unlimited and the Boulder Flycasters and other private foundations with interests related to angling and protecting Colorado's natural resources. Continuing to build and deepen these partnerships through the feasibility study process will be an important part of future implementation phases.

Method/Procedure:

- 1. Identify goals and priorities of project partners.
- 2. Assure that goals and priorities of project partners are integrated into the project.
- 3. Assure that all project partners are apprised of project milestones.
- 4. Identify potential new partners and funders through the stakeholder engagement process to develop.



# Tasks

#### Deliverable:

The deliverable for this task includes a list of primary and ancillary project partners with their primary goals and priorities in the project area and/or property and current or ongoing role in the project. Identifying long-term project partners to proceed with future phases of implementation will be documented. Potential new partners and funders will also be identified through the stakeholder engagement process.

# Tasks

## Task 2 - Conceptual Design for Wetland and Riparian Area Establishment and Enhancement

Description of Task:

This task will rely on a comparison of existing project area conditions (as documented by previously completed evaluations) to non-fishery project goals in order to develop a conceptual project design for wetland and riparian areas. The current non-fishery project goals include the enhancement of wildlife and bird habitat, restoring hydrologic and biogeochemical services, promoting plant biodiversity, and in general, returning this reach of South Boulder Creek to ecological conditions that were present prior to the drainageway modifications implemented in the 1960s. Specific attention will be given to enhancements applicable to boreal toad habitat.

Method/Procedure:



# Tasks

The methods for existing conditions evaluation and conceptual project design are as follows:

- Existing wetland and habitat mapping will be used to identify project areas that are currently meeting project goals, areas which require minor modifications to better meet project goals, and areas that may need significant construction to help meet project goals. These areas will be organized and prioritized based on the initially perceived opportunities and costs associated with various habitat enhancement and/or creation activities at each location.
- 2) Using the desktop assessment described in paragraph 1 above, a multi-disciplinary team will conduct a 1day site visit to update and revise the project area priorities to reflect current conditions and stakeholder input.
- 3) Conceptual project designs will be developed for prioritized areas where meaningful uplift and attainment of project goals can be feasibly attained. Conceptual project design will include general grading requirements, soil management and amendment recommendations, non-detailed planting plans (including vegetation species and density, but not precise locations), and other habitat structures.

#### Deliverable:

The deliverable for this task will include developed conceptual designs for each prioritized project area. The conceptual designs will consist of plan view and cross section drawings which depict current conditions and proposed project activities (including grading, surface flow management, plant communities, and habitat structures).

The conceptual design drawings will be supported by a narrative basis of design (BOD) memorandum which identifies the following information for each prioritized project location: 1) the intent of the design; 2) identified constraints and opportunities; 3) perceived level of effort and cost to implement the design; 4) potential permitting requirements; and 5) additional observations and considerations. The BOD memorandum will also include relative prioritization for each project area to facilitate future planning, acknowledging that project activities may occur in a phased manner over a period of several years, or longer.

# Tasks

## Task 3 - Conceptual Fisheries Enhancement Design Based on Current Conditions

Description of Task:

Task 3 consists of developing a conceptual fisheries enhancement design for the project area. One of the project objectives is to create an off-channel rearing habitat area for the federally listed threatened GBCT. Existing conditions in the larger ponds at the project area are able to support brook trout, but Colorado Parks and Wildlife sampling indicates that there is significant room for enhancement.

Method/Procedure:



# Tasks Task 3 will include the following methods and approach: 1) Evaluation of the existing conditions, including pond depth, hydrology (including in- and outflows from surface and groundwater sources), water quality, and other habitat considerations (e.g., impacts from cattle grazing). The evaluation will be used to develop distinct fishery habitat areas (e.g. Ponds N1, N2, etc. and connecting channels between the ponds) that will be summarized in terms of their current conditions and potential for uplift. 2) Using the information compiled during step 1 of this task, conceptual designs will be developed for each distinct habitat area. Conceptual designs will be focused on promoting fishery habitat improvements for GBCT, including enhanced hydrology, increasing pond depth, constructing channel habitat features, etc. 3) The existing hydrology in the project area will be compared to the desired hydrology that is needed to promote the successful implementation of the fishery habitat conceptual design. It is perceived that current hydrology will not be sufficient and that the project will require supplemental flow-through rights to allow the diversion of water into and through the Project area. Task 3 will include an evaluation of the water demands for this diversion, potential sources of water to meet this demand, the legal process for using potential sources at the project, and the probable cost to procure water rights and navigate Colorado Water Court as needed to change their point of use. This step will include initial coordination with the State Engineer Office and Denver Water to review the water rights approach and considerations for the project. 4) Distinct habitat area prioritization will be developed based on the current conditions, conceptual design approach, associated costs of construction, and how implementation of the conceptual design will promote the project goal of implementing a diverse and productive array of habitat areas for the greenback cutthroat trout.

#### Deliverable:

Deliverables for Tasks 3 will include:

- 1) A BOD memorandum for the fishery enhancement activities that identifies the intent of the habitat improvements, the expected water demands for the Project (including the assessment of water rights purchase and change-case requirements), and a prioritization scheme for the specific habitat enhancement locations.
- 2) Conceptual project design for each distinct habitat area. The conceptual design will include plan view and cross sections depicting existing conditions and proposed project conditions.

# Task 4 – Conceptual Design for Project Water Supply to Maintain Genetic Purity of Greenback Cutthroat Trout

Description of Task:



Task 4 includes the development of conceptual designs for alternative project water supply approach that will provide water for the project that is free from non-greenback cutthroat trout salmonids (including eggs and fry from trout species that can hybridize with the greenback cutthroat trout). The importance of this structure is significant—if hybridization between greenback cutthroat trout and other salmonid species occurs within the project, the entire population would need to be eliminated and restocked.

Preliminarily, it is expected that the water supply could consist of a screened diversion off South Boulder Creek, construction of an infiltration gallery in South Boulder Creek, modification of the first pond (Pond N1) to include a filtered pump, and/or construction of a shallow alluvial well that would deliver flow to the project area. Task 4 will include an alternatives assessment that evaluates the costs, benefits and perceived challenges in implementing the developed alternative water supply approaches.

## Method/Procedure:

Task 4 will include the following steps:

- 1) Development of a BOD memorandum which provides the requirements for the water supply structure, including supply rates and removal of salmonids and their eggs.
- 2) Identification of the potential water supply approaches for the project, including but not limited to a screened diversion, an infiltration gallery, a filtered pump station, and an alluvial groundwater well.
- 3) Development of conceptual design for each potential water supply approach, including water supply location, typical structure details, and associated infrastructure (e.g., pipes, ditches, power supply, etc.).
- 4) An assessment of the alternative water supply approaches, including considerations such as relative cost, environmental impacts, maintenance requirements, permitting, and reliability.

#### Deliverable:

The Task 4 deliverables will include:

- 1) BOD memorandum for the water supply structure.
- 2) Conceptual designs (including location, typical details, and project-specific configuration) for the evaluated water supply structures.
- 3) Alternative analysis of the structures with recommendations for the preferred alternative.

# **Budget and Schedule**

This Statement of Work shall be accompanied by a combined Budget and Schedule that reflects the Tasks identified in the Statement of Work and shall be submitted to CWCB in excel format.



# **Reporting Requirements**

**Progress Reports:** The applicant shall provide the CWCB a progress report every 6 months, beginning from the date of issuance of a purchase order, or the execution of a contract. The progress report shall describe the status of the tasks identified in the statement of work, including a description of any major issues that have occurred and any corrective action taken to address these issues.

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

- Summarizes the project and how the project was completed.
- Describes any obstacles encountered, and how these obstacles were overcome.
- Confirms that all matching commitments have been fulfilled.
- Includes photographs, summaries of meetings and engineering reports/designs.

The CWCB will pay out the last 10% of the budget when the Final Report is completed to the satisfaction of CWCB staff. Once the Final Report has been accepted, and final payment has been issued, the purchase order or grant will be closed without any further payment.

# Payment

Payment will be made based on actual expenditures and must include invoices for all work completed. The request for payment must include a description of the work accomplished by task, an estimate of the percent completion for individual tasks and the entire Project in relation to the percentage of budget spent, identification of any major issues, and proposed or implemented corrective actions.

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

# **Performance Measures**

Performance measures for this contract shall include the following:

(a) Performance standards and evaluation: Grantee will produce detailed deliverables for each task as specified. Grantee shall maintain receipts for all project expenses and documentation of the minimum in-kind contributions (if applicable) per the budget in Exhibit B. Per Water Plan Grant Guidelines, the CWCB will pay out the last 10% of the budget when the Final Report is completed to the satisfaction of CWCB staff. Once the Final Report has been accepted, and final payment has been issued, the purchase order or grant will be closed without any further payment.

(b) Accountability: Per Water Plan Grant Guidelines full documentation of project progress must be submitted with each invoice for reimbursement. Grantee must confirm that all grant conditions have been complied with on each invoice. In addition, per Water Plan Grant Guidelines, Progress Reports must be submitted at least once every 6 months. A Final Report must be submitted and approved before final project payment.

(c) Monitoring Requirements: Grantee is responsible for ongoing monitoring of project progress per Exhibit A. Progress shall be detailed in each invoice and in each Progress Report, as detailed above. Additional inspections or field consultations will be arranged as may be necessary.

(d) Noncompliance Resolution: Payment will be withheld if grantee is not current on all grant conditions. Flagrant disregard for grant conditions will result in a stop work order and cancellation of the Grant Agreement.





COLORADO

Colorado Water Conservation Board

Department of Natural Resources

# **Colorado Water Conservation Board**

Water Plan Grant - Exhibit B

**Budget and Schedule** 

Prepared Date: 1/28/2020

Name of Applicant: Fourmile Watershed Coalition

Name of Water Project: Tolland Ranch Feasibility Study

Project Start Date: 8/1/2020

Project End Date: 4/1/2021

Task No.	Lask Description		Task End Date	Grant Funding Request	Match Funding	Total
1	Stakeholder Outreach	8/1/2020	3/1/2021	\$1,815	\$1,815	\$3,630
2	Conceptual Design-Riparian	9/1/2020	11/1/2021	\$5,250	\$5,250	\$10,500
3	Conceptual Design-Fisheries	9/1/2020	2/1/2021	\$14,250	\$14,250	\$28,500
4	Conceptual Design-Infrastructure	9/1/2020	3/1/2021	\$6,250	\$6,250	\$12,500
5	Project/Grant Management (10%)	8/1/2020	4/1/2021	\$2,756	\$2,756	\$5,512
						\$0
						\$0
						\$0
						\$0
						\$0
						\$0
						\$0
						\$0
	·	•	Total	\$30,321	\$30,321	\$60,642
		Page	1 of 1	·		



www.wrightwater.com ngreenberg@wrightwater.com

February 17, 2017

# Via Email: harry.crockett@state.co.us

Harry Crockett Colorado Division of Parks and Wildlife 317 West Prospect Street Fort Collins, Colorado 80526

Re: Opportunity to Implement Greenback Cutthroat Trout Recovery Habitat and Overall Aquatic Resource Enhancement at Tolland Ranch, Tolland, Colorado

Dear Harry:

Wright Water Engineers, Inc. (WWE) has prepared this letter on behalf of Tolland Ranch LLC, owners of Tolland Ranch, a roughly 3,300 acre property in the South Boulder Creek valley that is protected by a conservation easement through the Colorado State Forest Service. The purpose of this letter is to present an opportunity to achieve significant habitat enhancement and creation through the implementation of the Tolland Ranch Aquatic Habitat Enhancement Project (Project). While a primary goal of the Project is to create recovery habitat for the federally-listed greenback cutthroat trout (GBCT), the Project would also result in the restoration of significant wetland and upland floodplain areas. The Project conceptual design has been developed in coordination with you and others at Colorado Parks and Wildlife (CPW) as well as the U.S. Fish and Wildlife Service (USFWS). Based on the Project's need for a flow-through water right from South Boulder Creek, WWE expects that having Denver Water as a Project proponent (and possibly beneficiary) will be important for achieving a successful outcome.

# TOLLAND RANCH AND SOUTH BOULDER CREEK—HISTORIC AND CURRENT CONDITIONS

# HISTORIC CONDITIONS

Tolland Ranch straddles a reach of South Boulder Creek that historically meandered across a broad valley floor at roughly 9,000 feet above sea level (see Figure 1). This reach supported a diverse array of aquatic habitats, including a high quality trout stream, riparian wetlands, side channel wetland/open water complexes, and floodplain areas. Figure 2 is a 1953 aerial image depicting South Boulder Creek at Tolland Ranch prior to channel modifications.

# MODIFICATIONS TO SUPPORT DENVER WATER OPERATIONS

In the early 1960s the Denver Water Board approached the Toll family with a plan to channelize South Boulder Creek through the Tolland Ranch to facilitate water movement from Moffat Tunnel toward Gross Reservoir. At that time, Henry W. Toll Sr. and Henry W. Toll Jr. arranged with Denver Water that during the channelization of South Boulder Creek through their property, Denver Water would create a series of ponds on the north and south sides of

the Creek by removing rock, sand and gravel along the stream bed to build up the channelized banks of South Boulder Creek. Denver Water was also to provide flow-through water to these systems. Henry Toll Jr. in particular had a lifelong interest in fishing, and the agreement for the right-of-way for the channelization was that a flow be maintained through the ponds in order that trout could overwinter in the ponds. The ponds were constructed by Denver Water to include two headgates on the north side of the creek and one on the south to feed the respective ponds. Please see Figure 3 which depicts current conditions at Tolland Ranch in the South Boulder Creek valley bottom.

At the time of the construction of the ponds, no formal water right was established for maintaining flow through the ponds. The current members of the Toll family were not present, but understand from conversations with Henry W. Toll Sr. and Henry W. Toll Jr. that Denver Water was to maintain the flow through the ponds. This verbal agreement was not codified and its administration was subject to downstream senior priorities--in one drought year, stream flows were low and water demands were such that the gates were closed and stayed that way for a number of years.

# RECENT ATTEMPTS TO RESTORE FLOW

After years with no flow being allowed through the north and south side channels, the Toll family applied for, and received, a Colorado Water Court decree (03CW451 and 03CW452). While the pond system is designed to efficiently return water that runs through the ponds to South Boulder Creek and has limited depletions to the river system, the decreed rights are sufficiently junior that water only runs through the north and south pond systems when there are free river conditions in South Boulder Creek and the South Platte River systems. Thus, water availability is a limiting resource that is suppressing the area's ability to support a viable fishery and significant aquatic resources. Because much of the north and south pond systems maintain wetland and open water characteristics (and corresponding evaporative losses) from groundwater sources, it would only take a small amount of senior water to allow the ponds to continuously divert water from South Boulder Creek. WWE's initial estimates are that a few dozen acre feet of consumptive use would likely account for the evaporative depletion from increased water surface area and wetlands areas created by a continuous 5 cubic feet per second (cfs) diversion.

# TOLLAND RANCH AQUATIC HABITAT ENHANCEMENT PROJECT

As described above, Tolland Ranch could achieve significant environmental enhancement with the addition of continuous flow-through at its north and south pond systems. There would be additional trout habitat in an otherwise sparsely populated reach; restored hydrology would create and restore wetland areas that have been dewatered for the past few decades; and riparian upland habitats would be enhanced with increased hydrology. An additional opportunity has been identified by the Toll family, working in conjunction with CPW and USFWS—the north and south pond systems are isolatable aquatic systems that could be used as habitat to rear self-sustaining populations of trout in genetic isolation. There is a recently

identified need for this type of habitat in the northern Colorado Front Range to facilitate the recovery of the greenback cutthroat trout (GBCT).

# GBCT RECOVERY HABITAT COMPONENT

Genetic testing of museum specimens resulted in a 2012 discovery that GBCT, native to the South Platte River basin, were only present in one stream in the Arkansas River Basin. The retention of this endangered fish population outside its home range was due to historic stocking in a headwater reach that is isolated from other trout species/populations that can hybridize with GBCT. Because GBCT are vulnerable to interspecies hybridization with rainbow trout and non-greenback cutthroat trout (both non-native fish to this part of Colorado), a critical component of the GBCT recovery plan is identifying or creating suitable habitats that are isolated from existing trout populations.

The side channel systems at Tolland Ranch provide an opportunity to create areas that provide natural stream and open water habitat for GBCT that are isolated from other trout populations. While the Project described in this letter is limited to the north pond system, other GBCT projects are under concurrent evaluation, including a possible establishment of a Jenny Creek GBCT population. The herein described north pond system enhancement would include the following conceptual physical improvements (these components are identified, conceptually, on Figure 4):

# 1) Diversion from South Boulder Creek that prevents entrainment of non-GBCT trout:

Preliminarily, the planned diversion is expected to consist of either an infiltration gallery in South Boulder Creek, an alluvial well, or a screened headgate at the current diversion structure. The selection and design of the diversion structure will be consistent with the Project goal of allowing roughly 5 cfs of water (that is free of fish) to flow through the north pond system. In addition to preventing adult non-GBCT trout from entering the Project area, it will be necessary to prevent juvenile fish and fish eggs from becoming entrained into the north pond system. Maintenance requirements, permitting, capital costs, and efficacy will all be considered during the selection process.

# 2) Secondary filtering system consisting of wetlands and intake screen:

In addition to the primary filter at the point of diversion from South Boulder Creek, the Project team expects that a secondary filter system would be advantageous. Preliminarily, the secondary system is expected to consist of a broad wetland swale that conveys flows from the diversion structure to a small existing open water feature that feeds into a screened intake. Once water passes through the screened intake, it would feed into the Project areas intended to support GBCT. The design of this system would allow a finer screened mesh on the intake than would be practicable at the South Boulder Creek diversion.

# 3) Open water enhancement:

The north pond system includes eight existing open water features (see Ponds N1-N8 on Figure 2) that currently provide limited habitat for trout. A few of these ponds are big enough to support seasonal populations, but do not support meaningful numbers of fish nor suitable

overwinter habitat due to shallow water depths and limited flow-through. As part of the Project, these ponds will be dredged and reshaped to establish deeper areas that will provide overwinter refuges as well as shallow benches that will support aquatic vegetation. Outlet areas will be modified to promote fish movement between the open water and channel portions of the Project and would provide a redundant measure to prevent non-GBCT trout from entering the system.

# 4) Channel enhancement:

The north pond system's open water areas are currently connected by a series of ditches, swales and diffuse wetland areas. As part of the Project, these areas will be modified to promote internal fish movement and establishment of spawning areas. The channels will be designed to safely convey the roughly 5 cfs desired flow-through and will mimic channels that are typically found in this setting.

# 5) Wetland bench and riparian area establishment and enhancement.

Current conditions in the north pond system corridor limit the extent and functionality of significant wetland areas. For example, broad willow swale areas no longer have wetland hydrology as a result of the curtailed diversions through this area. Additionally, wetland areas along the six open water areas are relatively small due to steep rocky slopes that surround much of these features. The Project is expected to expand and enhance wetland areas as a result of restoring flow through the system and establishing wetland benches around many of the open water areas. The size and extent of these benches will be limited, to a degree, by the amount of consumptive use water that can be secured for augmentation of the Project's increased water demand.

# 6) Downstream outfall to prevent non-GBCT trout from entering system.

In order to preserve the integrity of the Project's GBCT population, a downstream barrier preventing non-GBCT trout from entering the north pond system will be required. This barrier could include the use of screening on the outfall, a vertical plunge pool from a culvert with a flap that would close under high water conditions, or another similar mechanical barrier that would prevent fish from moving up into the system.

# EXPECTED COSTS AND POTENTIAL BENEFITS ASSOCIATED WITH THE PROJECT

Currently, implementation of the Project is viewed as having two primary hurdles that must be navigated:

1. Water Rights: Previous attempts to establish a senior flow-through right were rejected during informal discussions with Denver Water. WWE expects that in order for the Project to move forward and navigate Colorado Water Court, it will be necessary to have Denver Water's cooperation. Ideally, Denver Water would join CPW, USFWS and the Toll family as a member of the Project team.

2. Costs to Design and Construct Improvements: The Project is a relatively low-hanging fruit for aquatic habitat enhancement in that existing grades and vegetation types are largely compatible with the desired site conditions. However, WWE anticipates that the Project will require significant investment at key locations including the diversion from South Boulder Creek, the channel areas establishment, and the open water areas enhancement. Funding for these efforts may include grants from charitable foundations (e.g., Trout Unlimited and The Nature Conservancy) and governmental agencies (USFWS or CPW). An additional source of potential funding could be obtained through the establishment of wetland and other environmental credits that could be used to offset other projects' impacts to these types of features. For example, current market prices for wetland mitigation credits are \$100,000 per acre.

# CONCLUSION

WWE and the Toll family are very excited about the environmental opportunities presented by the Project. This would be a way to significantly enhance an outstanding property that is protected in perpetuity under the existing conservation easement. In addition to enhancing overall aquatic resource function in the South Boulder Creek watershed, the Project takes advantage of the existing conditions to promote the establishment of a GBCT recovery population. Engaging Denver Water as a team member would constitute a major step toward implementing the Project. WWE hopes that Denver Water will view this opportunity as a netbenefit for their organization—in exchange for facilitating the Project's diversion of roughly 5 cfs and associated consumptive use, they would help restore a reach of South Boulder Creek that was historically modified and degraded. Further, the Project has the potential to satisfy mitigation requirements for projects occurring elsewhere in the South Boulder Creek and South Platte River watersheds.

We sincerely appreciate your interest and time invested on this effort to date, and look forward to working with you moving forward. If you, or any of the other GBCT Recovery Team members have any questions or wish to discuss the Project, please do not hesitate to call me at (303) 480-1700.

Sincerely,

WRIGHT WATER ENGINEERS, INC.

AND By\_/

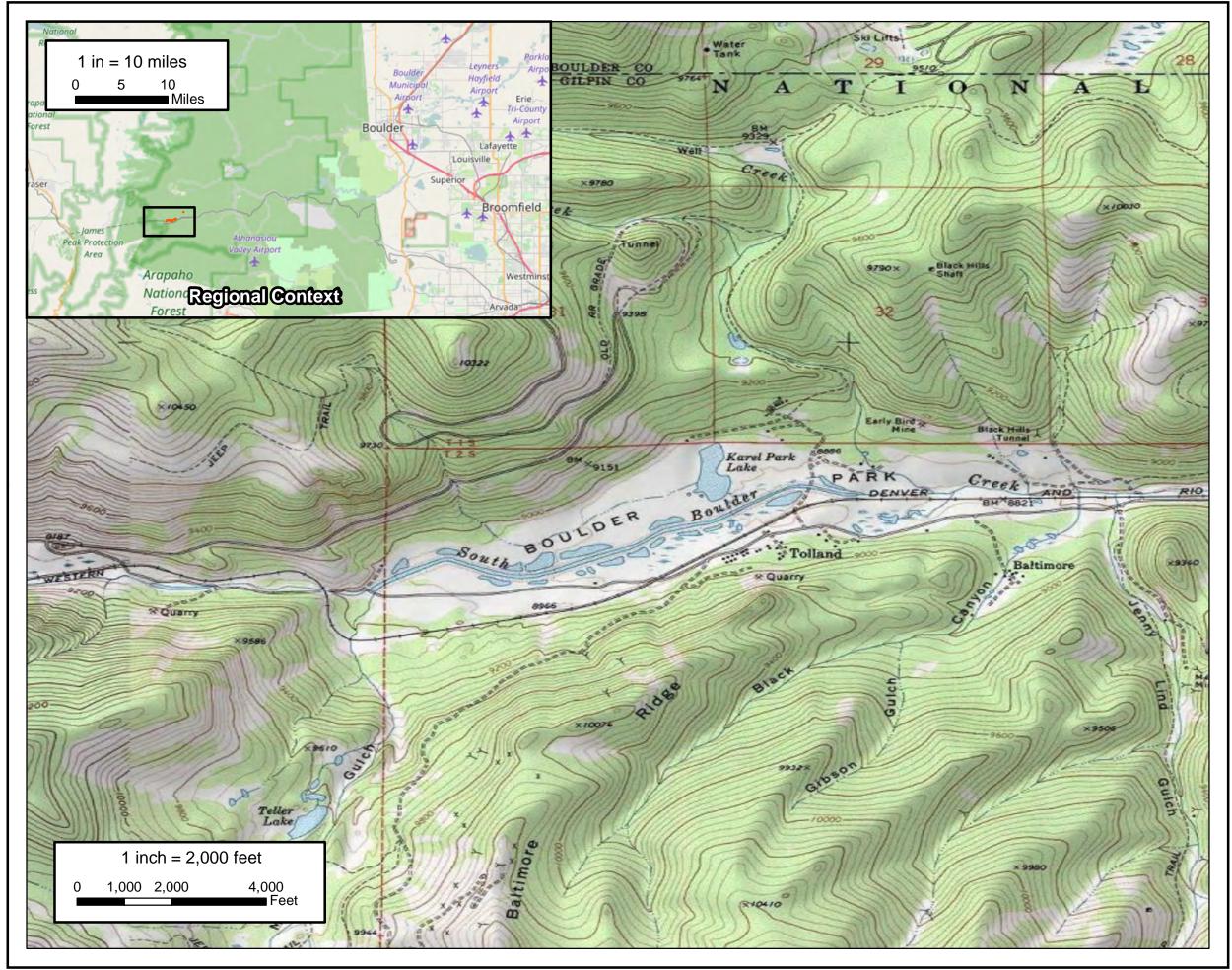
Flood

Noah Greenberg Senior Aquatic Resource Scientist

Patricia Flood, P.E. Project Manager

Attachments: Figures 1-4

cc: Wolky Toll, Tolland Ranch LLC; Leslie Ellwood, USFWS



# FIGURE 1

# PROJECT NO. 021-118.020

GILPIN COUNTY, COLORADO TOLLAND RANCH AQUATIC HABITAT ENHANCEMENT PROJECT

Created by: NMP Checked by: NSG Created during: October 2016 Inset: USA Street Map streamed through ESRI Topographic mapping: USGS 1:24,000 topo, streamed through ESRI



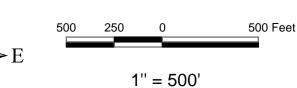


WRIGHT WATER ENGINEERS, INC. DENVER GLENWOOD SPRINGS DURANGO



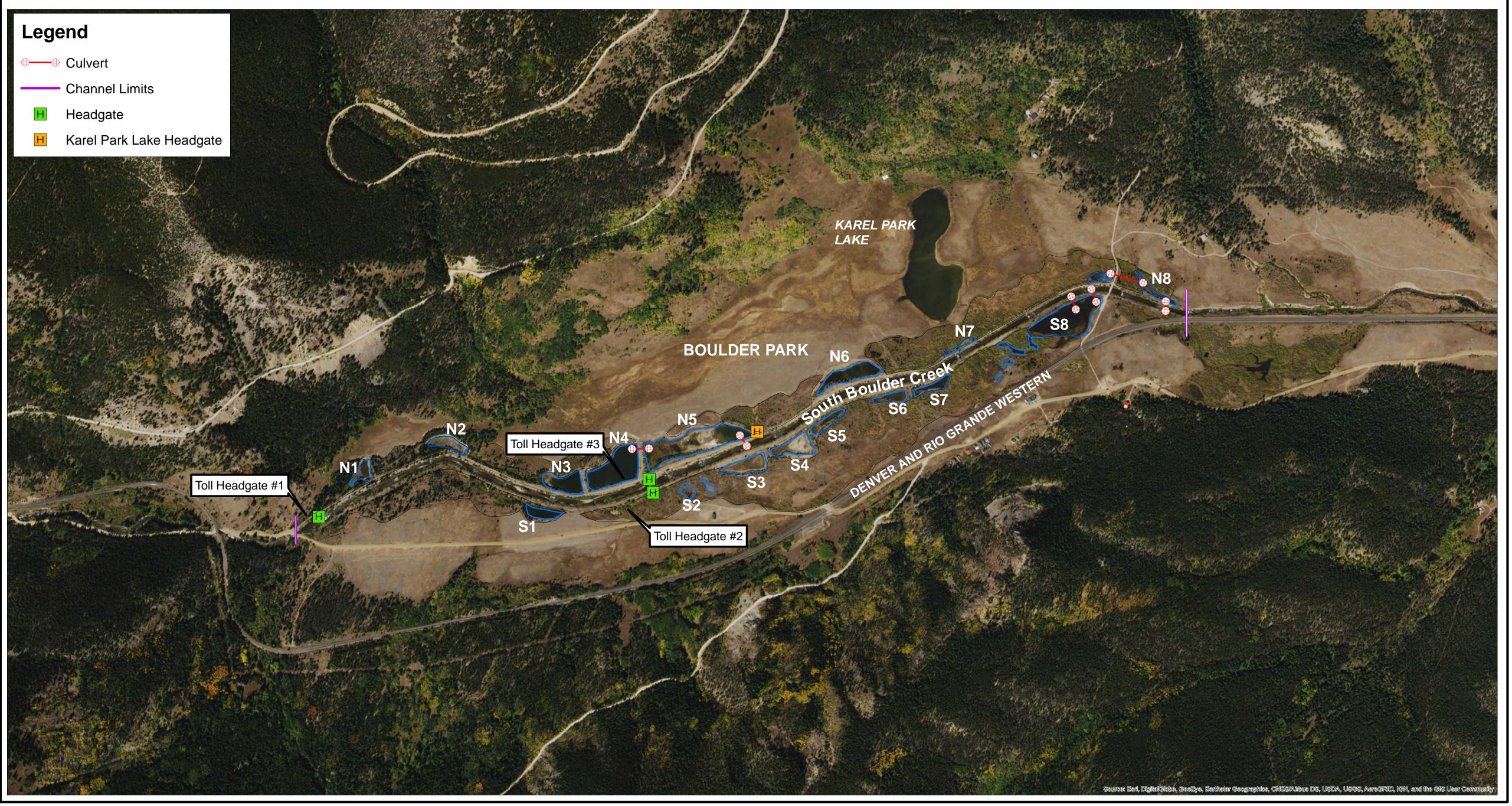
Document Path: Z:\Project Files\02-03\021-118\021-118.020\CAD-GIS\GIS\01\_MXD\GBCT\_Project\Figure2\_1953.mxd





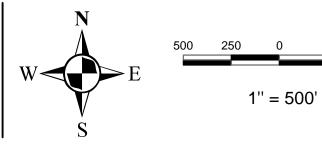
# **TOLLAND RANCH--1953 USGS Aerial Imagery**

FIGURE
2



Document Path: Z:\Project Files\02-03\021-118\021-118.020\CAD-GIS\GIS\01\_MXD\GBCT\_Project\Figure\_3.mxd



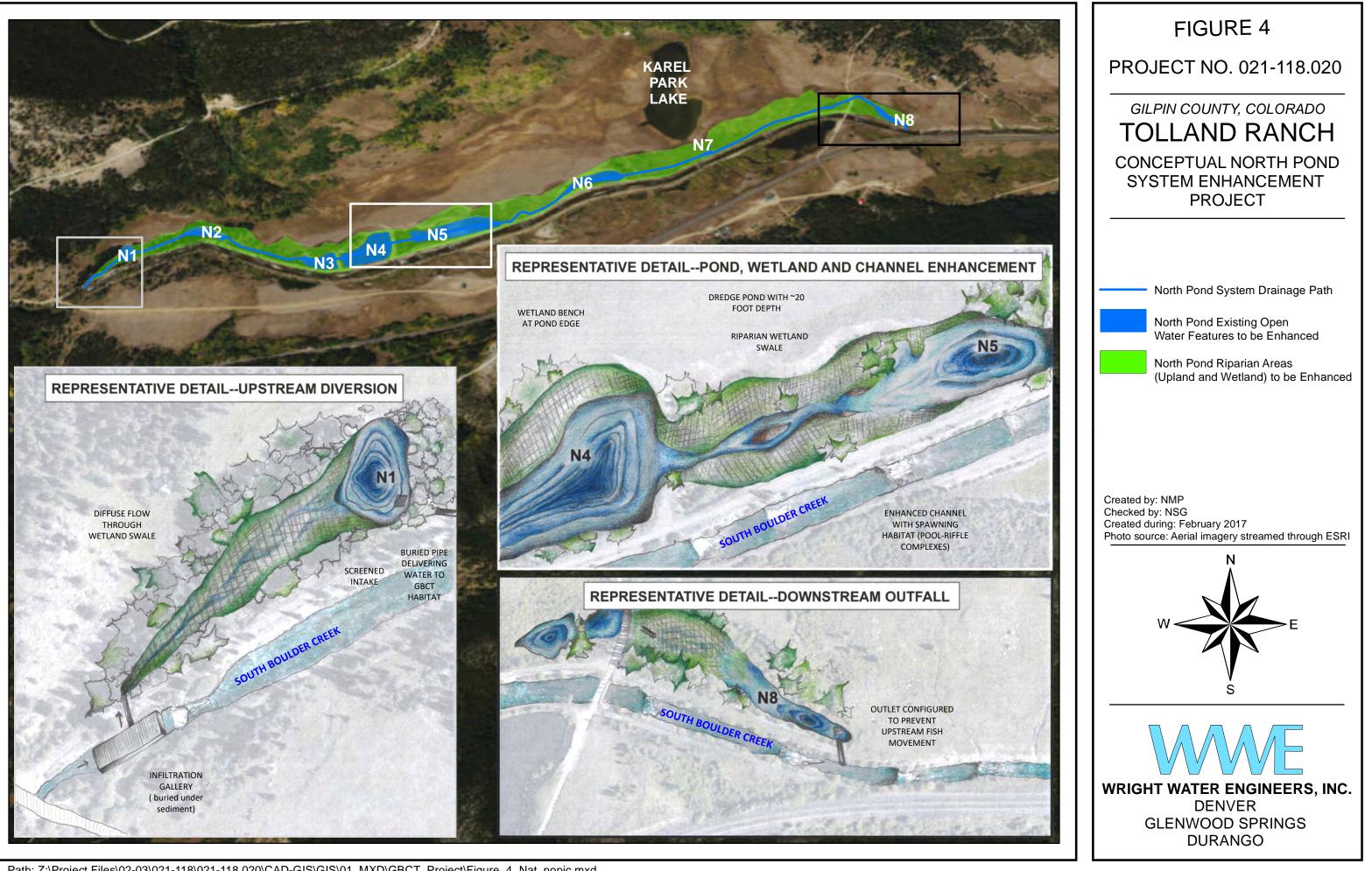


500 Feet



# TOLLAND RANCH -- AERIAL PHOTOGRAPH (1999)

FIGURE
3



Path: Z:\Project Files\02-03\021-118\021-118.020\CAD-GIS\GIS\01\_MXD\GBCT\_Project\Figure\_4\_Nat\_nopic.mxd





Parks and Wildlife

Department of Natural Resources

Director's Office 1313 Sherman St., Suite 618 Denver, CO 80203 P 303.866.3203 | F 303.866.3206

Mr. Chris Sturm - Colorado Water Conservation Board 1313 Sherman Street, Denver, CO 80203

Re: Letter of Support for the Fourmile Watershed Coalition's Colorado Water Plan Grant: Tolland Ranch Feasibility Study.

#### Dear Mr. Sturm,

Colorado Parks and Wildlife (CPW) is pleased to support the Fourmile Watershed Coalition's grant application for funds to support a feasibility study for fisheries improvements at Tolland Ranch. The Tolland Ranch property provides a unique opportunity to raise the Bear Creek Strain Greenback Cutthroat Trout in existing off-channel ponds adjacent to South Boulder Creek. Trout raised at this location could be used to repopulate streams at specific locations in the South Platte Basin. At present, brood stock for this federally listed strain of trout currently reside only in Zimmerman Lake and at the Leadville National fish hatchery. Bolstering brood stock availability and additional spawning resources will strengthen the ability to delist this species.

Colorado Parks and Wildlife (CPW) is charged with balancing the conservation of our wildlife and habitat with the recreational needs of our state. The Future Generations Act Report (2019) presents ten goals to assist CPW in carrying out its mission. Goal number ten is to *Reduce the Need to List Additional Species*. This can be accomplished by investing in non-game species conservation and investing in wetlands conservation. The Tolland Ranch project presents an opportunity to accomplish both of these. For these reasons CPW is pleased to partner with the Fourmile Watershed Coalition and contribute \$7,000 to the project.

CPW has evaluated whirling disease in the ponds and upstream in South Boulder Creek and conducted fish species and population evaluations. These assessments have led to the conclusion that Tolland Ranch may be a feasible location to rear the endangered fish species. A feasibility study would provide necessary and specific information required to move closer to implementing wetland enhancements and fisheries improvements. Specific measure outlined as part this study include:

- 1. Stakeholder engagement (Toll family members, adjoining landowners, interested agencies).
- 2. Develop conceptual designs for wetland bench and riparian area establishment and enhancement.
- 3. Evaluate the suitability of the off channel ponds to support fisheries. This will include an evaluation of ground water hydrology, surface water availability and water rights.
- 4. Develop a conceptual design to retrofit existing diversion structures that prevents entrainment of non-GBCT trout and consider a secondary filtering system.

CPW values collaborative projects with private landowners and other agencies. The Tolland Ranch feasibility study is unique collaboration with the ability to significantly impact shared conservation goals.

Sincerely,

Benjamin Swigle Colorado Parks and Wildlife - Aquatic Biologist 317 West Prospect Street, For Collins, CO 80526 970-472-4364, ben.swigle@state.co.us

CC: Samuel Peterson, Chris Mettenbrink, Jeff Spohn, Matt Nicholl



# Conservation Fund

1942 Broadway, Suite 323, Boulder, CO 80302

January 31, 2020

Mr. Chris Sturm Colorado Water Conservation Board 1313 Sherman Street Denver, CO 80203

Dear Mr. Sturm,

The Conservation Fund is pleased to support the Fourmile Watershed Coalition's grant application for funds to support a feasibility study for fisheries improvements at Tolland Ranch. Nestled between the 14,000-acre James Peak Wilderness and sprawling rural subdivisions and urban areas in the South Boulder Creek watershed lies the 4,700-acre Toll property—one of the largest intact holdings along Colorado's Front Range, located within an hour of Denver/Boulder.

The Conservation Fund is a national environmental organization with a focus on protecting land, water and wildlife in an economically sustainable manner. Since our inception in 1985, we have partnered with private landowners, community leaders, land trusts and various branches of government to conserve over 8 million acres across the country, including over 250,000 acres in Colorado.

In 2015, The Conservation Fund completed a multi-year effort to conserve all 4,700 acres owned by two branches of the Toll family for over 120 years. A conservation easement through the U.S. Forest Service's Forest Legacy Fund was placed on 3,334 acres with funding from the Land and Water Conservation Fund, Boulder County, and Great Outdoors Colorado. This land remains in the Toll's private ownership, with the easement held by the Colorado State Forest Service, and miles of ski trails remaining available to the public through Eldora's Nordic program. An additional 823 acres, buffering the James Peak Wilderness Area, were acquired by the U.S. Forest Service. The last 539 acres, including the ecologically important Mammoth Gulch riparian corridor, were acquired by Denver Water.

The Tolland Ranch conservation project ranked as the #1 priority in the country in 2013 for the U.S. Forest Service's Forest Legacy Program. This top ranking reflected the property's critical importance for wildlife management and movement, and for aquatic species, including the potential for reintroduction of native Greenback cutthroat trout.

The Conservation Fund enthusiastically supports efforts to meet conservation objectives and strive toward more resilient landscapes. We are pleased that the Toll family is willing to partner with Colorado Parks and Wildlife and the Fourmile Watershed Coalition to evaluate methods to protect and conserve the threatened Greenback Cutthroat Trout.

Sincerely,

INISTU

Christine Quinlan Senior Project Manager, CO Field Office

Re: Letter of Support for the Fourmile Watershed Coalition's Colorado Water Plan Grant: Tolland Ranch Feasibility Study.

#### BOULDER FIELD OFFICE



January 31, 2020

5625 Ute Highway Longmont, Colorado 80503-9130

Mr. Chris Sturm Colorado Water Conservation Board 1313 Sherman Street Denver, CO 80203

Re: Letter of Support for the Fourmile Watershed Coalition's Colorado Water Plan Grant: Tolland Ranch Feasibility Study.

Dear Mr. Sturm,

The Colorado State Forest Service (CSFS) support's the Fourmile Watershed Coalition's grant application for funds to support a feasibility study for fisheries improvements at Tolland Ranch. The Tolland Ranch property provides a unique opportunity to raise Greenback Cutthroat Trout in existing off-channel ponds adjacent to South Boulder Creek.

The Colorado State Forest Service's mission is to achieve stewardship of Colorado's diverse forest environments for the benefit of present and future generations. We are focused on improving forest health and providing wildfire hazard mitigation strategies through technical assistance and outreach to private property owners, local cooperators and county agencies. One program that supports our mission is the Forest Legacy Program (FLP).

The FLP is a federally funded and state-administered program that supports efforts to protect *private* forest lands that are environmentally, economically and socially critical. The program helps prevent fragmentation of our forests and preserves natural vistas for all to enjoy. The **FLP** is a partnership between Colorado and the USDA Forest Service to identify and help conserve environmentally important forests from conversion to non-forest uses. Through this program and important partnerships with other agencies CSFS became the conservation easement holder for the Tolland Ranch property.

CSFS continues to work with the Toll family to reach conservation objectives and has completed a Forest Management Plan to guide this process. We are pleased to see other projects such as this also working to conserve and protect critical habitats and species in upper watersheds. CSFS highly encourages funding this project.

Sincerely

Allen Owen FP&I Supervisory Forester Colorado State Forest Service

Tolland Ranch LLC 107 Lugar de Oro Santa Fe, New Mexico \$7501 January 29, 2020

Dear Grant Reviewer,

This letter expresses support for the Fourmile Watershed Coalition's grant application for funds to support a feasibility study for fisheries improvements at Tolland Ranch. My family has owned the Tolland Ranch property for four generations since 1893. We are deeply rooted in and protective of land because of our family history and because of the vast and beautiful characteristics of the land itself.

The town of Tolland has seen many changes since the late 1800s. Tolland supported the mining and lumber industries as well as becoming a popular railroad stop for tourists visiting the mountains and traveling through the Moffat Tunnel to the western slope. The landscape also changed dramatically when the South Boulder Creek channel was straightened to facilitate transport of water from the Fraser Valley to the Front Range.

The Toll family has long had a conservation ethic and has cared the land for generations. My grandfather's brother was a superintendent at Rocky Mountain National Park and understood the value of conserving wilderness; my great grandparents, grandparents, parents, and siblings have been and are committed to preserving the natural beauty of the property. Most recently our family has put 3,334 acres of the property into a conservation easement in order to protect the history and natural resources in perpetuity.

The Toll family is happy to work with Colorado Parks and Wildlife, the Fourmile Watershed Coalition and other partners to continue the stewardship of South Boulder Park and the Tolland Ranch. We look forward to the outcome of the feasibility study in order to better understand whether the ponds can support endangered fish species. We feel that helping to restore that species fits well with the conservation objectives of the conservation easement.

Sincerely,

W. Bum

Henry W. Toll III Managing Member, Tolland Ranch LLC



1600 West 12th Ave Denver, CO 80204-3412 303.628.6000 denverwater.org

February 11, 2020

Mr. Chris Sturm Colorado Water Conservation Board 1313 Sherman Street Denver, CO 80203

Re: Letter of Support for the Fourmile Watershed Coalition's Colorado Water Plan Grant Application: Tolland Ranch Feasibility Study.

Dear Mr. Sturm,

Denver Water supports the Fourmile Watershed Coalition's grant application to the Colorado Water Conservation Board for funds to develop a feasibility study for fisheries improvements at Tolland Ranch in Gilpin County. The Tolland Ranch property may provide an opportunity to raise Greenback Cutthroat Trout in existing off-channel ponds adjacent to South Boulder Creek. Trout raised at this location could be used to repopulate streams at specific locations in the South Platte River Basin.

Denver Water delivers water to over 25% of Colorado's population, while minimizing our environmental footprint. As a steward of scarce water resources, we have a long history of protecting endangered species through the Upper Colorado River Recovery Program and the Platte River Recovery Implementation Program. On the **South Platte River**, where about half of our water originates, we work with environmental groups, government agencies and recreational users to protect important values of the river by managing stream flow to enhance trout fisheries and recreation, improve water quality, and protect watersheds.

Denver Water looks forward to collaborating with the Fourmile Watershed Coalition and Colorado Parks and Wildlife to evaluate the water rights and supply feasibility of the proposed Tolland Ranch ponds, wetland and riparian area enhancements. Denver Water cannot guarantee the feasibility study will meet Denver Water's needs, we will work with the Coalition to review ideas and concepts and provide technical assistance as an in-kind contribution while assuring the proposal does not adversely affect Denver Water's water rights.

Sincerely,

Dave Berners.

Dave Bennett Director Water Resource Strategy



# CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)

KIMT01

FOURMIL-05

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		CLAIMS-MADE	Χ	OCCUR	x	х	MEPK08130007		7/15/2019	7/15/2020	DAMAGE TO RENTED PREMISES (Ea occurrence)	\$	100,000
						~					MED EXP (Any one person)	\$	5,000
											PERSONAL & ADV INJURY	\$	1,000,000
		I'L AGGREGATE LIMIT A	וחח								GENERAL AGGREGATE	\$	10,000,000
		POLICY PRO- JECT	X								PRODUCTS - COMP/OP AGG	\$	10,000,000
Α		OTHER:									COMBINED SINGLE LIMIT	\$	1,000,000
	X	OMOBILE LIABILITY							7/4 5/0040	7/4 5/0000	(Ea accident)	\$	1,000,000
	^	ANY AUTO OWNED	∃ sc	HEDULED	Х	Х	MEPK08130007		7/15/2019	7/15/2020	BODILY INJURY (Per person)	\$	
		OWNED AUTOS ONLY									BODILY INJURY (Per accident) PROPERTY DAMAGE	\$	
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		DED RETENTIO	3 NC								Aggregate	\$	1,000,000
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					N/A						E.L. EACH ACCIDENT	\$	
	(Man	PROPRIETOR/PARTNER CER/MEMBER EXCLUDE datory in NH)	:D?		N/A						E.L. DISEASE - EA EMPLOYEE	\$	
	If yes DES	, describe under CRIPTION OF OPERATI	ONS	below							E.L. DISEASE - POLICY LIMIT	\$	
Α	Bus	iness Auto					MEIM08031507		7/15/2019	7/15/2020	Physical Damage		
Per p As re polic	olic quii y fo	y terms and condit red by written cont rms. As required b	tion ract y w	s , Grantee an ritten contrac	d the ct, a V	State Vaive	9 101, Additional Remarks Schedu 9 of Colorado are included 9 of Subrogation applies in 1 terest may appear per atta	as add n favor	itional insure of Grantee of	eds as respec	ts General and Auto Liab		

CERTIFICATE HOLDER	CANCELLATION
State of Colorado Department of Natural Resouces 1313 Sherman St., Room 718 Denver, CO 80203	SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.
Deriver, CO 00203	AUTHORIZED REPRESENTATIVE
	Virlei Sulliva
ACORD 25 (2016/03)	© 1988-2015 ACORD CORPORATION. All rights reserved.

The ACORD name and logo are registered marks of ACORD

	Name (as shown on your income tax return) FOUR MILE FIRE PROTECTION DISTRICT Business name/disregarded entity name, if different from above								
e 2.									
Print or type See Specific Instructions on page	Check appropriate box for federal tax classification:  Check appropriate box for federal tax classification:  Individual/Sole Proprietor or  C Corporation S Corporation Partnership LC Limited liability company. Enter the tax classification (C=C corporation, S=S corporation. P=partnership Limited liability company. Enter the tax classification (C=C corporation, S=S corporation. P=partnership Note For a single-manuler LLC that is disregarded do not one's LLC, check the sporophate box in the line above for the tax classification single-member owner Other(see instructions)  C Corporation C=C corporation, S=S corporation.  C Corporation C=C corporation.  C Corporation C=C corporation.  C C Corporation C=C corporation.  C Corporation C=C corporation.  C Corporation C=C corporation.  C C Corporation C=C corporation.  C C corporation.  C C Corporation C=C corporation.  C C corporation.  C C C corporation	Exemptions (codes apply only to certain entities, not individuals; see instructions or page 3): Exempt payee code (if any) Exemption from FATCA reporting code (if any) (Applies to accounts maintained outside the U.S.)							
pecific	Address (number, street, and apt. or suite no.) 1740 FOURMILE CANYON DRIVE	Purchase Order a	rchase Order address if different (optional)						
See S	City, state, and ZIP code BOULDER CO 80302			ar					
	List account number(s) here (optional) Contact name	Contact Email							
	Robert Gibson	chiefbret@	gmail.	com					
Pa	Taxpayer Identification Number (TIN)								
to av resic entit	er your TIN in the appropriate box. The TIN provided must match the name given on the "Name void backup withholding. For individuals, this is your social security number (SSN). However, fo dent alien, sole proprietor, or disregarded entity, see the Part I instructions on page 3. For other ties, it is your employer identification number (EIN). If you do not have a number, see <i>How to ge</i> on page 3.	ara Ata	ecurity nur						
Note, If the account is in more than one name, see the chart on page 4 for guidelines on whose Employer identification number									
	iber to enter.	84	098	1141					
Pa	art II Certification								
Und	ler penalties of perjury, I certify that:								
1. T	The number shown on this form is my correct taxpayer identification number (or I am waiting for	a number to be	issued to i	me), and					
S	am not subject to backup withholding because: (a) I am exempt from backup withholding, or (b Service (IRS) that I am subject to backup withholding as a result of a failure to report all interest no longer subject to backup withholding, and	<ul> <li>) I have not been or dividends, or (</li> </ul>	(c) the IRS	y the Internal Revenue has notified me that I am					
	am a U.S. citizen or other U.S. person (defined below), and								
4. T	he FATCA code(s) entered on this form (if any) indicating that I am exempt from FATCA reporti	ng is correct.							

Certification Instructions. You must cross out item 2 above if you have been notified by the IRS that you are currently subject to backup withholding because you have failed to report all interest and dividends on your tax return. For real estate transactions, item 2 does not apply. For mortgage interest paid, acquisition or abandonment of secured property, cancellation of debt, contributions to an individual retirement arrangement (IRA), and generally, payments other than interest and dividends, you are not required to sign the certification, but you must provide your correct TIN. See the instructions on page 3.

instruction	ns on page 3.	
Sign Here	Signature of Bret Gibson	5 Dem Date. 12/31/2019
Have yo	ou ever worked for the State of Colorado?	O Yes No
Have yo	ou ever worked for a PERA Employer?	O Yes A No
Busine	ess Types (check all that apply):	
COI No C Has Has Afric Asia Sub Hisp Nati CDC CDC	Location/HQ in CO Location/HQ out of CO CO Location/HQ in US CO Location/HQ out of US Paid Compensation Tax Not Paid Compensation Tax can American an Pacific American continent Asian American cont	Veteran Owned Disabled Vet Business Enterprise Disadvantaged Veteran Enterprise Service Disabled Veteran Vietnam Veteran Veteran Business Enterprise Disadvantaged Business Enterprise Small Disadvantaged Business Disabled Owned 8(A) Designation HUBZone Certified Labor Surplus Historical Black Colleges & Universities Small Business Airport Concession Disadvantaged Business

#### items 1: 4, or 5 below indicate otherwise

For a joint account, only the person whose TIN is shown in Part I should sign (when required). In the case of a disregarded entity, the person icentified on the "Name" line must sign. Exempt payees, see Exempt payee code earlier.

Signature requirements. Complete the certification as indicated in items 1 through 5 below

1. Interest, dividend, and barter exchange accounts opened before 1984 and broker accounts considered active during 1983. You must give your correct TIN, but you do not have to sign the certification.

2. Interest, dividend, broker, and barter exchange accounts opened after 1983 and broker accounts considered Inactive during 1983. You must sign the certification or backup withholding will apply. If you are subject to backup withholding and you are merely providing your correct TIN to the requester, you must cross out item 2 in the certification before signing the form,

3. Real estate transactions. You must sign the certification. You may cross out item 2 of the certification

4. Other payments. You must give your correct TIN, but you do not have to sign the certification unless you have been notified that you have previously given an incorrect TIN. "Other payments" include payments made in the course of the requester's trade or business for rents, royalties, goods (other than bills for merchandise), medical and health care services (including payments to corporations), payments to a nonemployee for services, payments made in settlement of payment card and third party network transactions, payments to certain fishing boat crew members and fishermen, and gross proceeds paid to attorneys (including payments to corporations).

5. Mortgage interest paid by you, acquisition or abandonment of secured property, cancellation of debt, qualified tuition program payments (under section 529), IRA, Coverdell ESA, Archer MSA or HSA contributions or distributions, and pension distributions. You must give your correct TIN, but you do not have to sign the certification.

#### What Name and Number To Give the Requester

For this type of account:	Give name and SSN of:
<ol> <li>Individual</li> <li>Two or more individuals (joint account)</li> </ol>	The individual The actual owner of the account or if combined funds, the first individual on the account
3. Custodian account of a minor (Uniform Gift to Minors Act)	The minor
<ol> <li>a. The usual revocable savings trust (grantor is also trustee)</li> <li>b. So-called trust account that is not a legal or valid trust under state law</li> </ol>	The grantor-trustee The actual owner
<ol> <li>Sole proprietorship or disregarded entity owned by an individual</li> </ol>	The owner
<ol> <li>Grantor trust filing under Optional Form 1099 Filing Method 1 (see Regulation section 1.671-4(b)(2)(i)(A))</li> </ol>	The grantor*
For this type of account:	Give name and EIN of:
7. Disregarded entity not owned by an individual	The owner
8 A valid trust, estate, or pension trust	Legal entity
<ol> <li>Corporation or LLC electing corporate status on Form 8832 or Form 2553</li> </ol>	The corporation
<ol> <li>Association, club. religious, charitable, educational, or other tax-exempt organization</li> </ol>	The organization
11. Partnership or multi-member LLC	The partnership
12. A broker or registered nominee	The proker or nominee
<ol> <li>Account with the Department of Agriculture in the name of a public entity (such as a state or local government, school district, or prison) that receives agricultural program payments.</li> </ol>	The public entity
14 Grantor trust filing under the Form 1041 Filing Method or the Optional Form 1099 Filing Method 2 (see Regulation section 1.671-4(3)(2)(i)(B))	The trust

Visit IRS doy to learn more about identity that and how to reduce your risk

List first and circle the name of the person whose number you furnish. If only one person on a joint account has an SSN, that person's number must be furnished.

Circle the minor's name and furnish the minor's SSN.

 $2^{2}$ 

You must show your individual name and you may also enter your business or "DBA" name on the "Business name/disregarded entity" name line, You may use either your SSN or EIN (if you have one), but the IRS encourages you to use your SSN.

List first and circle the name of the trust, estate, or pension trust. (Do not furnish the Till of the personal representative or trustee unless the legal entity itself is not designated in the account lide.) Also see Special rules for partnerships on page 1. "Note. Grantor also must provide a Form W-9 to trustee of trust.

Note. If no name is circled when more than one name is listed, the number will be considered to be that of the first name listed.

#### Secure Your Tax Records from Identity Theft

Identity theft occurs when someone uses your personal information such as your permission, to commit fraud or other crimes. An identifying information, without your permission, to commit fraud or other crimes. An identity thief may use your SSN to get a job or may file a tax return using your SSN to receive a refund.

To reduce your risk:

- · Protect your SSN.
- · Ensure your employer is protecting your SSN, and
- . Be careful when choosing a tax preparer

If your tax records are affected by identity theft and you receive a notice from the IRS, respond right away to the name and phone number printed on the IRS notice or letter

If your tax records are not currently affected by identity theft but you think you are at risk due to a lost or stolen purse or wallet, questionable credit card activity or credit report, contact the IRS Identity Theft Hotline at 1-800-908-4490 or submit Form 14039

For more information, see Publication 4535, Identity Theft Prevention and Victim Assistance

Victims of identity theft who are experiencing economic harm or a system problem, or are seeking help in resolving tax problems that have not been resolved Inrough normal channels may be eligiple for Taxpayer Advocate Service (TAS) assistance. You can reach TAS by calling the TAS toll-free case intake line at 1-877-777-4778 or TTY/TDD 1-800-828-4059

Protect yourself from suspicious emails or phishing schemes. Phishing is the creation and use of email and websites designed to mimic legitimate business emails and websites. The most common act is sending an email to a user falsely claiming to be an established legitimate enterprise in an attempt to scam the user into surrendering private information that will be used for identity theft.

The IRS does not initiate contacts with taxpayers via emails. Also, the IRS does not request personal detailed information through email or ask taxpayers for the PIN numbers, passwords, or similar secret access information for their credit card, bank, or other financial accounts

If you receive an unsolicited email claiming to be from the IRS, forward this message to phishing@irs.gov. You may also report misuse of the IRS name, logo. or other IRS property to the Treasury Inspector General for Tax Administration at 1-800-366-4484. You can forward suspicious emails to the Federal Trade Commission at: spam@uce.gov or contact them at www.ftc.gov/idtheft or 1-877-IDTHEFT (1-877-438-4338).

Exemption from FATCA reporting code. The following codes identify payees that are exempt from Exemption from PATCA reporting code, the following codes being bayes are even univer-reporting under PATCA These codes apply to persons submitting this form for accounts mentalinate outside of the United States by certain foreign financial institutions. Therefore, if you are only submitting this form for an account you hold in the United States, you may leave this field plank. Consult with the person requesting this form if you are undertain if the financial institution is subject to these requirements. A requester may indicate that a code is not required by providing you win a Earn W-B with "Net Applicable" (or any similar indication) written or printed by providing you with a Form W-9 with "Not Applicable" (or any similar indication) written or printed on the line for a FATCA exemption code A—An organization exempt from tax under section SDT(a) or any individual retirement plan as defined in section 7701(s)(37)

5-The United States or any of its agencies or instrumentalities

C—A state the District of Columbia, a U.S. commonwealth or possession, or any of their political subdivisions or instrumentalities

B—A composition the stock of which is regularly traded on one or more established securities markets, as described in Regulations section 1 1472-1(c)(1)(-) E—A corporation that is a memoer of the same expanded affiliated group as a corporation described in

Regulations section 1 1472-1(c)(1)(i)

F-A gealer in securities, commodities, or derivative financial instruments including notional principal contracts, futures, forwards, and options) that is registered as such under the laws of the United States or any state

G-A real estate investment trust

4—A regulation investment company as defined in eccesion 651 or an entity redistored at all times during the tax year under the Investment Company Act of 1940 I—A common trust tund as defined in section 2041ar

J-A bank as defined in section 581 K-A broker

-A trust exempt from tex under section 664 or described in section 4947(a)(1)

M-A tax exempt thust under a section 403(h) plan or section 457(g) plan

Note. You may wish to consult with the financial institution requesting this form to determine whether the FATCA code and/or exempt payee code should be completed.

an entity separate from its owner is treated as a "disregarded entity." See Regulation section 301.7701-2(c)(2)(iii). Enter the owner's name on the "Name" line. The name of the entity entered on the "Name" line should never be a disregarded entity. The name on the "Name" line must be the name shown on the income tax return on which the income should be reported. For example, if a foreign LLC that is treated as a disregarded entity for U.S. federal tax purposes has a single owner that is a U.S. person, the U.S. owner's name is recuired to be provided on the "Name" line. If the direct owner of the entity is also a disregarded entity, enter the first owner that is not disregarded for federal tax purposes. Enter the disregarded entity's name on the "Business name/disregarded entity name" line. If the owner of the disregarded entity is a foreign person, the owner must complete an appropriate Form W-8 instead of a Form W-9. This is the case even if the foreign person has a U.S. TIN.

Note. Check the appropriate box for the U.S. federal tax classification of the person whose name is entered on the "Name" line (Individual/sole proprietor. Partnership, C Corporation, S Corporation, Trust/estate).

Limited Liability Company (LLC). If the person identified on the "Name" line is an LLC, chack the "Limited liability company" box only and enter the appropriate code for the U.S. federal tax classification in the space provided. If you are an LLC that is treated as a partnership for U.S. federal tax purposes enter "P" for partnership. If you are an LLC that has filed a Form 8832 or a Form 2553 to be taxed as a corporation, enter "C" for C corporation or "S" for S corporation, as appropriate. If you are an LLC that is disregarded as an entity separate from its owner under Regulation section 301.7701-3 (except for employment and excise tax), do not check the LLC box unless the owner of the LLC (required to be identified on the "Name" line) is another LLC that is not disregarded for U.S. federal tax purposes. If the LLC is disregarded as an entity separate from its owner, enter the appropriate tax classification of the owner identified on the "Name" line.

Other entities. Enter your business name as shown on required U.S. federal tax documents on the "Name" line. This name should match the name shown on the charter or other legal document creating the entity. You may enter any business trade, or DBA name on the "Business name/disregarded entity name" line.

#### Exemptions

If you are exempt from backup withholding and/or FATCA reporting, enter in the Exemptions box, any code(s) that may apply to you. See Exempt payee code and Exemption from FATCA reporting code on page 3.

Exempt payee code. Generally, individuals (including sole proprietors) are not exempt from backup withholding. Corporations are exempt from backup withholding for certain payments, such as interest and dividends. Corporations are not exempt from backup withholding for payments made in settlement of payment card or third party network transactions.

Note, If you are exempt from backup withholding, you should still complete this form to avoid possible erroneous backup withholding

The following codes identify payees that are exempt from backup withholding:

'—An organization exempt from tax under section 501(a), any IRA, or a custodial account under section 403(b)(7) if the account satisfies the requirements of section 401(f)(2)

2-The United States or any of its agencies or instrumentalities

3—A state, the District of Columbia, a possession of the United States, or any of their political subdivisions or instrumentalities

2—A foreign government or any of its political subdivisions, agencies, or instrumentalities

5-A corporation

6-A dealer in securities or commodities required to register in the United

States, the District of Columbia, or a possession of the United States

7—A futures commission merchant registered with the Commodity Futures Trading Commission

8-A real estate investment trust

9-An entity registered at all times during the tax year under the Investment Company Act of 1940

10-A common trust fund operated by a bank under section 584(a) 11-A financial institution

12-A migdleman known in the investment community as a nominee or custodian

13—A trust exempt from tax under section 664 or described in section 4947. The following chart shows types of payments that may be exempt from backup withholding. The chart applies to the exempt payees listed above. 1 through 13.

IF the payment is for	THEN the payment is exempt for			
Interest and dividend payments	All exempt payees except for 7			
Broker transactions	Exempt pavees 1 through 4 and 6 Ihrough 11 and all C corporations. S corporations must not enter an exempt payee code because they are exempt only for sales of noncovered securities acquired prior to 2012.			

Barter exchange transactions and patronage dividends	Exempt payees 1 through 4
Payments over \$600 required to be reported and direct sales over \$5,000	Generally, exempt payees 1 through 5 <sup>2</sup>
Payments made in settlement of payment card or third party network transactions	Exempt payees 1 through 4

<sup>1</sup>See Form 1099-MISC. Miscellaneous Income, and its instructions

<sup>4</sup> However, the following payments made to a corporation and reportable on Form 1099-MISC are not exempt from backup withholding: medical and health care payments, attorneys' fees, gross proceeds paid to an attorney, and payments for services paid by a federal executive agency.

Exemption from FATCA reporting code. The following codes identify payees that are exempt from reporting under FATCA. These codes apply to persons submitting this form for accounts maintained outside of the United States by certain foreign financial institutions. Therefore, if you are only submitting this form for an account you hold in the United States, you may leave this field blank.

Consult with the person requesting this form if you are uncertain if the financial institution is subject to these requirements.

A—An organization exempt from tax under section 501(a) or any incividual retirement plan as defined in section 7701(a)(37)

B-The United States or any of its agencies or instrumentalities

C—A state, the District of Columbia, a possession of the United States, or any of their political subdivisions or instrumentalities

D—A corporation the stock of which is regularly traded on one or more established securities markets, as described in Reg. section 1,1472-1(c)(1)(i)

E—A corporation that is a member of the same expanded affiliated group as a corporation described in Reg. section 1.1472-1(c)(1)(i)

F—A dealer in securities, commodities, or derivative financial instruments (including notional principal contracts, futures, forwards, and options) that is registered as such under the laws of the United States or any state

G-A real estate investment trust

H—A regulated investment company as defined in section 851 or an entity registered at all times during the tax year under the Investment Company Act of 1940

I-A common trust fund as defined in section 584(a) J-

A pank as defined in section 581

K-A proker

L-A trust exempt from tax under section 664 or described in section 4947(a)(1)

M-A tax exempt trust under a section 403(b) plan or section 457(g) plan

#### Part I. Taxpayer Identification Number (TIN)

Enter your TIN in the appropriate box. If you are a resident alien and you do not have and are not eligible to get an SSN, your TIN is your IRS individual taxpayer identification number (ITIN). Enter it in the social security number box. If you do not have an ITIN, see How to get a TIN below.

If you are a sole proprietor and you have an EIN, you may enter either your SSN or EIN. However, the IRS prefers that you use your SSN.

If you are a single-member LLC that is disregarded as an entity separate from its owner (see Limited Liebility Company (LLC) on page 2), enter the owner's SSN (or EIN, if the owner has one). Do not enter the disregarded entity's EIN. If the LLC is classified as a corporation or partnership, enter the entity's EIN.

Note. See the chart on page 4 for further clarification of name and TIN combinations.

How to get a TIN. If you do not have a TIN, apply for one immediately. To apply for an SSN, get Form SS-5, Application for a Social Security Card, from your local Social Security Administration office or get this form online at www.sse.gov. You may also get this form by calling 1-800-772-1213. Use Form W-7, Application for IRS Individual Taxpayer Identification Number, to apply for an ITIN, or Form SS-4. Application for Employer Identification Number, to apply for an EIN. You can apply for an EIN online by accessing the IRS website at www.irs.gov/businesses and clicking on Employer Identification Number (EIN) under Starting a Business. You can get Forms W-7 and SS-4 from the IRS by visiting IRS.gov or by calling 1-800-TAX-FORM (1-800-829-3676).

If you are asked to complete Form W-9 but do not have a TIN, apply for a TIN and write "Applied For" in the space for the TIN, sign and date the form, and give it to the requester. For interest and dividend payments, and certain payments made with respect to readily tradable instruments, generally you will have 50 days to get a TIN and give it to the requester before you are subject to backup withholding on payments. The 60-day rule does not apply to other types of payments. You will be subject to backup withholding on all such payments until you provide your TIN to the requester.

Note: Entering "Applied For" means that you have already applied for a TIN or that you intend to apply for one soon.

Caution: A disregarded U.S. entity that has a foreign owner must use the appropriate Form W-8.

#### Part II. Certification

To establish to the withholding agent that you are a U.S. person, or resident alien, sign Form W-9. You may be requested to sign by the withholding agent even if

# **General Instructions**

Section references are to the Internal Revenue Code unless otherwise noted.

Future developments. The IR\$ has created a page on IRS.gov for information about Form W-9, at www.irs.gov/w9. Information about any future developments affecting Form W-9 (such as legislation enacted after we release it) will be posted on that page.

#### Purpose of Form

A person who is required to file an information return with the IRS must obtain your correct taxpayer identification number (TIN) to report, for example, income paid to you, payments made to you in settlement of payment card and third party network transactions, real estate transactions, mortgage interest you paid, acquisition or abandonment of secured property, cancellation of debt, or contributions you made to an IRA.

Use Form W-9 only if you are a U.S. person (including a resident alian), to provide your correct TIN to the person requesting it (the requester) and, when applicable, to:

 Certify that the TIN you are giving is correct (or you are waiting for a number to be issued).

2. Certify that you are not subject to backup withholding, or

3. Claim exemption from backup withholding if you are a U.S. exempt payee. If applicable, you are also certifying that as a U.S. person, your allocable share of any partnership income from a U.S. trade or business is not subject to the withholding tax on foreign partners' share of effectively connected income, and

 Certify that FATCA code(s) entered on this form (if any) indicating that you are exempt from the FATCA reporting, is correct.

Note, If you are a U.S. person and a requester gives you a form other than Form W-9 to request your TIN, you must use the requester's form if it is substantially similar to this Form W-9.

Definition of a U.S. person. For federal tax purposes, you are considered a U.S. person if you are:

. An individual who is a U.S. citizen or U.S. resident alien,

A partnership, corporation, company, or association created or organized in the United States or under the laws of the United States,

. An estate (other than a foreign estate), or

- A domestic trust (as defined in Regulations section 301.7701-7).

Special rules for partnerships. Partnerships that conduct a trade or business in the United States are generally required to pay a withholding tax under section 1446 on any foreign partners' share of effectively connected taxable income from such business. Further, in certain cases where a Form W-9 has not been received, the rules under section 1446 require a partnership to presume that a partner is a foreign person, and pay the section 1446 withholding tax. Therefore, if you are a

U.S. person that is a partner in a partnership conducting a trade or business in the United States, provide Form W-9 to the partnership to establish your U.S. status and avoid section 1446 withholding on your share of partnership income.

In the cases below, the following person must give Form W-9 to the partnership for purposes of establishing its U.S. status and avoiding withholding on its allocable share of net income from the partnership conducting a trade or business in the United States:

 In the case of a disregarded entity with a U.S. owner, the U.S. owner of the disregarded entity and not the entity.

 In the case of a grantor trust with a U.S. grantor or other U.S. owner, generally, the U.S. grantor or other U.S. owner of the grantor trust and not the trust, and

 In the case of a U.S. trust (other than a granter trust), the U.S. trust (other than a granter trust) and not the beneficiaries of the trust.

Foreign person. If you are a foreign person or the U.S. branch of a foreign bank that has elected to be treated as a U.S. person, do not use Form W-9. Instead, use the appropriate Form W-8 or Form 8233 (see Publication 515. Withholding of Tax on Nonresident Aliens and Foreign Entitles).

Nonresident allen who becomes a resident allen. Generally, only a nonresident allen individual may use the terms of a tax treaty to reduce or eliminate U.S. tax on certain types of income. However, most tax treaties contain a provision known as a "saving clause." Exceptions specified in the saving clause may permit an exemption from tax to continue for certain types of income even after the payee has otherwise become a U.S. resident alien for tax purposes.

If you are a U.S. resident alien who is relying on an exception contained in the saving clause of a tax treaty to claim an exemption from U.S. tax on certain types of income, you must attach a statement to Form W-8 that specifies the following five items:

 The treaty country. Generally, this must be the same treaty under which you claimed exemption from tax as a nonresident alien.

2 The treaty article addressing the income.

The article number (or location) in the tax treaty that contains the saving clause and its exceptions.

4. The type and amount of income that qualifies for the exemption from tax.

5. Sufficient facts to justify the exemption from tax under the terms of the freaty article.

Example. Article 20 of the U.S.-China income tax treaty allows an exemption from tax for scholarship income received by a Chinese student temporarily present In the United States. Under U.S. law, this student will become a resident alien for tax purposes if his or her stay in the United States exceeds 5 calendar years. However, paragraph 2 of the first Protocol to the U.S.-China treaty (dated April 30, 1984) allows the provisions of Article 20 to continue to apply even after the Chinese student becomes a resident alien of the United States. A Chinese student who qualifies for this exception (under paragraph 2 of the first protocol) and is relying on this exception to claim an exemption from tax on his or her scholarship or fellowship income would attach to Form W-9 a statement that includes the information described above to support that exemption.

If you are a nonresident alien or a foreign entity, give the requester the appropriate completed Form W-8 or Form 8233.

What is backup withholding? Persons making certain payments to you must under certain conditions withhold and pay to the IRS a percentage of such payments. This is called "backup withholding." Payments that may be subject to backup withholding include interest, tax-exempt interest, dividends, broker and barter exchange transactions, rents, royalties, nonemployee pay, payments made in settlement of payment card and third party network transactions, and certain payments from fishing boat operators. Real estate transactions are not subject to backup withholding.

You will not be subject to backup withholding on payments you receive if you give the requester your correct TIN, make the proper certifications, and report all your taxable interest and dividends on your tax return.

#### Payments you receive will be subject to backup withholding if:

1. You do not furnish your TIN to the requester,

 You do not certify your TIN when required (see the Part II instructions on page 3 for details).

3. The IRS tells the requester that you furnished an incorrect TIN.

4. The IRS tells you that you are subject to backup withholding because you did not report all your interest and dividends on your tax return (for reportable interest and dividends only), or

 You do not certify to the requester that you are not subject to backup withholding under 4 above (for reportable interest and dividend accounts opened after 1983 only).

Certain payees and payments are exempt from backup withholding. See Exempt payee code on page 3 and the separate Instructions for the Requester of Form W-9 for more information.

Also see Special rules for partnerships on page 1.

What is FATCA reporting? The Foreign Account Tax Compliance Act (EATCA) requires a participating foreign financial institution to report all United States account noiders that are specified United States persons. Certain payees are exempt from FATCA reporting. See Exemption from FATCA reporting code on page 3 and the Instructions for the Requester of Form W-9 for more information.

#### Updating Your Information

You must provide updated information to any person to whom you claimed to be an exempt payee if you are no longer an exempt payee and shutpase receiving reportable payments in the future from this person. For example, you may need to provide updated information if you are a C corporation that elects to be an S corporation, or if you no longer are tax exempt. In addition, you must furnish a new Form W-9 if the name or TIN changes for the account, for example, if the granter of a granter trust dies.

#### Penalties

Failure to furnish TIN. If you fail to furnish your correct TIN to a requester, you are subject to a penalty of \$50 for each such failure unless your failure is due to reasonable cause and not to willful neglect.

Civil penalty for false information with respect to withholding. If you make a false statement with no reasonable basis that results in no backup withholding, you are subject to a \$500 penalty.

Criminal penalty for falsifying information. Willfully falsifying certifications or affirmations may subject you to criminal penalties including fines and/or imprisonment.

Misuse of TINs, If the requester discloses or uses TINs in violation of federal law, the requester may be subject to civil and criminal penalties.

#### Specific Instructions

#### Name

If you are an individual, you must generally enter the name shown on your income tax return. However, if you have changed your last name, for instance, due to marnage without informing the Social Security Administration of the name change, enter your first name, the last name shown on your social security card, and your new last name.

If the account is in joint names, list first, and then circle, the name of the person or entity whose number you entered in Part I of the form.

Sole proprietor. Enter your individual name as shown on your income tax return on the "Name" line. You may enter your business, trade, or "doing business as (DBA)" name on the "Business name-disregarded entity name" line.

Partnership, C Corporation, or S Corporation. Enter the entity's name on the "Name" line and any business, trade, or "doing business as (DBA) name" on the "Business name/disregarded entity name" line.

Disregarded entity. For U.S. federal tax purposes, an entity that is disregarded as