



— BUREAU OF —
RECLAMATION

Environmental Assessment and Finding of No Significant Impact

Tri-County Water & Dallas Creek Water Company Pipeline Interconnect Project

Western Colorado Area Office
Interior Region 7: Upper Colorado Basin



Mission Statements

The mission of the Department of the Interior is to protect and manage the Nation's natural resources and cultural heritage; provide scientific and other information about those resources; and honor its trust responsibilities or special commitments to American Indians, Alaska Natives, and affiliated island communities.

The mission of the Bureau of Reclamation is to manage, develop, and protect water and related resources in an environmentally and economically sound manner in the interest of the American public.

Environmental Assessment and Finding of No Significant Impact

**Tri-County Water & Dallas Creek Water Company
Pipeline Interconnect Project**

prepared by

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Interior Region 7: Upper Colorado Basin**

Cover Photo: A view north along the pipeline alignment where it parallels Ouray County Road 1 (BIO-Logic, Inc./Alison Graff)

FINDING OF NO SIGNIFICANT IMPACT

United States Department of the Interior
Bureau of Reclamation
Western Colorado Area Office
Grand Junction, Colorado

Tri-County Water & Dallas Creek Water Company Pipeline Interconnect Project

Introduction

In compliance with the National Environmental Policy Act of 1969, as amended (NEPA), the Bureau of Reclamation (Reclamation) has conducted an environmental assessment (EA) of the Proposed Action: Tri-County Water (TCW) and Dallas Creek Water Company (DCWC) Pipeline Interconnect Project. Reclamation is providing a portion of the funding for the project through WaterSMART Grant # R19AP00090 and is the lead agency for purposes of compliance with the NEPA for this Proposed Action.

The EA was prepared by Reclamation to address the potential impacts to the human environment due to implementation of the Proposed Action. The EA is attached to this Finding of No Significant Impact (FONSI) and is incorporated by reference.

Alternatives

The EA analyzes the No Action Alternative and the Proposed Action Alternative to authorize and fund implementation of the Tri-County Water and Dallas Creek Water Company Pipeline Interconnect Project.

Decision and Finding of No Significant Impact

Based upon a review of the EA and supporting documents, Reclamation has determined that implementing the Proposed Action will not significantly affect the quality of the human environment, individually or cumulatively with other actions in the area. No environmental effects meet the definition of significance in context or intensity as defined at 40 CFR 1508.27. Therefore, an environmental impact statement is not required for this Proposed Action. This finding is based on consideration of the context and intensity as summarized in the EA. Reclamation's decision is to implement the Proposed Action Alternative.

Context

The project is located in northern Ouray County, Colorado. The affected locality is the TCW and DCWC domestic water systems on Log Hill Mesa and the alignment of a new 4,530-foot long pipeline that will connect the two systems. Affected interests include Reclamation; TCW and DCWC and their Log Hill Mesa users; and adjacent landowners. The project does not have national, regional, or state-wide importance.

Intensity

The following discussion is organized around the 10 significance criteria described in 40 CFR 1508.27. These criteria were incorporated into the resource analyses and issues described in the EA.

1. Impacts may be both beneficial and adverse. The Proposed Action would impact resources as described in the EA. Mitigating measures were incorporated into the design of the action alternative to reduce impacts. The predicted short-term effects of the Proposed Action include impacts to water quality from release of sediment or contaminants during pipeline construction; possible contribution to Dallas Creek failing to meet the cold stream tier 1 (CS-I) temperature standard if emergency diversions from the creek are implemented during low-flow conditions; temporary impacts to potential wetlands associated with McKenzie Creek, an irrigation ditch, and Fisher Creek; and short-term traffic delays and increases in noise during construction. Potential adverse effects to the Dallas Creek fisheries and related recreational fishing at Ridgway State Park are expected to be short-term, but may extend out a number of years if increased diversions from Dallas Creek occur under low-flow conditions and water temperatures exceed acute toxicity standards for fish. Such adverse effects to the fisheries and recreational fishing are not considered long-term due to the expected infrequency of increased diversions from Dallas Creek, on the order of every 25 or more years. Long-term effects from TCW and DCWC depletions to the downstream Colorado River endangered fishes and their critical habitats will continue and are mitigated by the Upper Colorado River Endangered Fish Recovery Program, as identified in the Gunnison River Basin Programmatic Biological Opinion (GUPBO; TAILS 65413-2009-F-0044). TCW's depletions were consulted on in the GUPBO. To ensure that DCWC's depletions are covered under the umbrella of the GUPBO, they have entered into a Recovery Agreement with the U.S. Fish and Wildlife Service (FWS) (TAILS 06E24100-2020-F-0126). Reclamation will reinitiate consultation with FWS if DCWC's depletions increase under the Proposed Action.

None of the environmental effects analyzed in the EA are considered significant. None of the effects from the Proposed Action, together with other past, current, and reasonably foreseeable future actions, rise to a significant cumulative impact.

2. The degree to which the selected alternative will affect public health or safety or a minority or low-income population. Beneficial effects to the health and safety of TCW and DCWC water users will accrue due to the establishment of a backup emergency supply of water to be used for domestic purposes and fire suppression. No minority or low-income populations would be disproportionately affected by the Proposed Action.

3. Unique characteristics of the geographic area. There are no park lands, prime farmlands, wild and scenic rivers, or ecologically critical areas that would be negatively affected by the proposal. Temporary impacts to wetlands, noted above, would occur.

4. The degree to which the effects on the quality of the human environment are likely to be highly controversial. Reclamation contacted representatives of other federal agencies, state and local governments, public and private organizations, and individuals regarding the proposal and its effects on resources. Based on the responses received, the effects of the proposal on the quality of the human environment are not highly controversial. Trout Unlimited (TU), Colorado Water Conservation Board (CWCB), and Colorado Parks and Wildlife (CPW) submitted comments expressing concern over the potential for reductions in streamflows due to the Proposed Action.

The project provides for drought resiliency and protection of human health and safety among residents on Log Hill Mesa. Because of this, and due to the fact that concerns relate primarily to increased diversions from Dallas Creek during drought conditions, and given the expected infrequency of increased diversions from Dallas Creek, the project is not considered highly controversial.

5. The degree to which the possible effects on the human environment are highly uncertain or involve unique or unknown risks. Although there is uncertainty regarding the timing of any given emergency and the volume of water needed to address the emergency, the EA analyses rely on a worst-case scenario to analyze effects to the human environment. Based on the analyses in the EA, there are no predicted effects on the human environment that are considered highly uncertain or that involve unique or unknown risks.

6. The degree to which the action may establish a precedent for future actions with significant effects or represent a decision in principle about a future consideration. Implementing the action will not establish a precedent for future actions with significant effects and will not represent a decision in principle about a future consideration.

7. Whether the action is related to other actions which are individually insignificant but cumulatively significant. Cumulative impacts are possible when the effects of the Proposed Action are added to other past, present, and reasonably foreseeable future actions; however, significant cumulative effects are not predicted, as described in the EA in Section 3.12.

8. The degree to which the action may adversely affect sites, districts, buildings, structures, and objects listed in or eligible for listing in the National Register of Historic Places. The State Historic Preservation Officer (SHPO) has concurred with a determination of *no historic properties affected*.

9. The degree to which the action may adversely affect an endangered or threatened species or its habitat that has been determined to be critical under the Endangered Species Act of 1973. There are no threatened and endangered species or suitable habitat present in the Proposed Action area. There would be no direct effects to threatened or endangered species or critical habitat from implementing the Proposed Action. Depletions by TCW and DCWC may indirectly adversely affect the downstream Colorado River endangered fishes and their critical habitats. TCW's depletions were consulted on in the GUPBO. To ensure that DCWC's historic depletions are covered under the umbrella of the GUPBO, they have entered into a Recovery Agreement with the FWS (TAILS 06E24100-2020-F-0126). DCWC's depletions are not expected to increase due to the Proposed Action except under emergency situations. If the Proposed Action results in new depletions by DCWC, Reclamation will reinitiate Section 7 consultation with FWS to address them.

10. Whether the action threatens a violation of Federal, state, local, or tribal law, regulation or policy imposed for the protection of the environment. The project does not violate any federal, state, local, or tribal law, regulation, or policy imposed for the protection of the environment. In addition, this project is consistent with applicable land management plans, policies, and programs. State, local, and interested publics were given the opportunity to participate in the environmental analysis process.

Environmental Commitments

The environmental commitments are described in Chapter 4.0 of the Final EA and are incorporated here by reference.

Approved by:



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WARNER
Date: 2020.04.28 13:50:31 -06'00'

Ed Warner
Area Manager, Western Colorado Area Office

Date

Contents

List of Acronyms and Abbreviations.....	iii
1.0 Introduction	1
1.1 Background.....	1
1.2 Purpose and Need	3
1.3 Decision to be Made	3
1.4 Project Summary.....	4
1.5 Project Location.....	4
1.6 Relationship to Other Projects	4
1.7 Scoping, Coordination, and Public Review.....	4
2.0 Proposed Action and Alternatives	5
2.1 No Action Alternative.....	5
2.2 Alternatives Considered but Dismissed	5
2.3 Proposed Action Alternative.....	6
3.0 Affected Environment and Environmental Consequences	10
3.1 Environmental Resources Considered but Excluded from Analysis.....	10
3.2 Water Use, Rights, and Streamflows.....	13
3.3 Water Quality	18
3.4 Wetlands.....	19
3.5 Invasive Species/Noxious Weeds	20
3.6 Aquatic Wildlife	21
3.7 Migratory Birds	23
3.8 Threatened and Endangered Species.....	24
3.9 Access, Transportation, and Public Safety.....	27
3.10 Noise	28
3.11 Recreation	29
3.12 Cumulative Effects	30
3.13 Summary of Impacts	32
4.0 Environmental Commitment Plan.....	35
5.0 Consultation and Coordination.....	39
5.1 Agency Consultation	39
5.2 EA Comments	39
5.3 Distribution	39
References.....	40

Tables

Table 1. Proposed Upgrades at Existing TCW Pump Stations.....	8
Table 2. Construction Schedule.....	9
Table 3. Resource Scoping Determinations.....	11
Table 4. Weeds Present in the Proposed Action Area.....	21
Table 5. Summary of Impacts.....	33
Table 6. Pipeline Interconnect Environmental Commitments.....	35

Appendices

Appendix A Map Figures.....	42
Appendix B Comments on the Draft EA and Responses to Comments.....	48
Appendix C Public Distribution List.....	60
Appendix D Photographs.....	61
Appendix E Clean Water Act Section 404 Compliance Documentation.....	72
Appendix F National Historic Preservation Act Compliance Documentation.....	76
Appendix G Endangered Species Act Compliance Documentation.....	78

List of Acronyms and Abbreviations

ac-ft	Acre-foot
BCC	Birds of Conservation Concern
BLM	Bureau of Land Management
CBRT	Colorado Basin Roundtable
CDA	Colorado Department of Agriculture
CDPHE	Colorado Department of Public Health and Environment
CDSS	Colorado Decision Support Systems
cfs	Cubic feet per second
Corps	U.S. Army Corps of Engineers
CPW	Colorado Parks and Wildlife
CR	County road
CS-I	Cold Stream Tier 1
CWA	Clean Water Act
CWCB	Colorado Water Conservation Board
DCWC	Dallas Creek Water Company
DWR	Colorado Division of Water Resources
EA	Environmental Assessment
e.g.	<i>exempli gratia</i> (for example)
EIS	Environmental Impact Statement
ESA	Endangered Species Act
FONSI	Finding of No Significant Impact
FWS	U.S. Fish and Wildlife Service
gpd	Gallons per day
gpm	Gallon per minute
GUPBO	Gunnison Basin Programmatic Biological Opinion
JKC	JKC Utilities, LLC
MU	Map unit
NDMC	National Drought Mitigation Center
NEPA	National Environmental Policy Act
NI	Present but not impacted to a degree requiring detailed analysis
NP	Not present
NRCS	Natural Resources Conservation Service
NWP	Nationwide Permit
OSHA	Occupational Safety and Health Act
ROW	Right-of-way
SCADA	Supervisory control and data acquisition
SHPO	State Historic Preservation Officer
TAILS	Tracking and Integrated Logging System
TCW	Tri-County Water Conservancy District
TU	Trout Unlimited
USGCRP	U.S. Global Change Research Program
USGS	U.S. Geological Survey

UVWUA Uncompahgre Valley Water Users Association

1.0 Introduction

This Environmental Assessment (EA) has been prepared pursuant to the National Environmental Policy Act (NEPA) of 1969, as amended, to disclose and analyze potential effects of the proposed Pipeline Interconnect Project on the human and natural environment. Tri-County Water Conservancy District (TCW) and Dallas Creek Water Company (DCWC), two water providers, are proposing to connect their domestic water supply systems on Log Hill Mesa in Ouray County, Colorado (hereinafter “Proposed Action”). The Pipeline Interconnect Project would be partially funded by U.S. Bureau of Reclamation (Reclamation) WaterSMART Grant # R19AP00090, creating a federal nexus for the project and resulting in the need for project compliance with NEPA. Other funders include the Colorado Water Conservation Board (CWCB) and Colorado Basin Roundtable (CBRT). Reclamation is the lead federal agency for the purpose of NEPA compliance for the Proposed Action. As the WaterSMART grant applicant for both water providers, TCW is the project lead and point of contact. This EA analyzes two alternatives: the Proposed Action and the No Action Alternative.

1.1 Background

1.1.1 The Project Proponents

Tri-County Water Conservancy District

Since 1957, TCW has provided domestic, irrigation, municipal, and industrial water to customers in and around the Uncompahgre River Valley in Delta, Montrose, and Ouray Counties. The water they use is all owned by Reclamation as part of the Dallas Creek and Uncompahgre Projects. TCW is the contracting entity for the Dallas Creek Project, which operates Ridgway Dam and Reservoir on the Uncompahgre River and an eight mega-watt hydropower plant on the dam. The water stored in Ridgway Reservoir is allocated to irrigation, municipal, and industrial uses.

TCW’s domestic water supply comes from the Uncompahgre Project, which is operated by the Uncompahgre Valley Water Users Association (UVWUA) under contract to Reclamation. Uncompahgre Project water is stored in Taylor Park Reservoir on the Taylor River, a tributary to the Gunnison River. The water then flows down the Gunnison River, passing through the Aspinall Unit, and is delivered to the Uncompahgre Valley via the Gunnison Tunnel for use by six major domestic water distributors: TCW, City of Montrose, City of Delta, Town of Olathe, Chipeta Water District, and Menoken Water District. Before entering the distribution systems of these users, the water is passed through Project 7 Water Authority (Project 7), a water treatment facility located in Montrose. Together, the six water users can draw up to 28,100 acre-feet (ac-ft) of water from the Gunnison River annually, based upon an agreement with the UVWUA. An equivalent amount is released annually from Ridgway Reservoir as an exchange for the water used. In effect, UVWUA allocates a portion of the irrigation water in the Uncompahgre Project to domestic use and is

compensated by deliveries of irrigation water from the Ridgway Reservoir municipal and industrial pool.

Dallas Creek Water Company

DCWC is a privately owned public water system that has been providing domestic water since 1975 to residents on Log Hill Mesa, located northwest of the Town of Ridgway in Ouray County, Colorado. The water comes from Dallas Creek and its tributaries: East and West Fork Dallas Creek, Beaver Creek, and Pleasant Creek. Dallas Creek is tributary to the Uncompahgre River at the upstream end of Ridgway Reservoir, inside Ridgway State Park. DCWC's water supply is a single surface water intake from Dallas Creek at the Loghill Pumping Plant, located at stream mile 3.73. DCWC pumps the water up to Log Hill Mesa through two pump stations, with a total elevation gain of roughly 1,000 feet. On Log Hill Mesa, their domestic water is treated using a rapid sand filtration system designed to deliver up to 500,000 gallons per day (gpd). They store 430,000 gallons of treated water in tanks and another 1.2 million gallons of untreated water in a settling pond. Raw water is delivered to the Fairway Pines golf course for irrigation.

1.1.2 Drought Mitigation Need

Although the project is designed to benefit both water suppliers during a range of emergencies, DCWC's water supply is the more vulnerable of the two to drought. The current average daily demand for DCWC is 70,000 gpd, increasing to 100,000 gpd during the summer months. DCWC has determined that if their water supply is reduced for an extended period of time due to drought or other emergency, they might be unable to meet their customers' average daily demand or average daily peak demand. In 2018, one of the two worst drought years in the history of DCWC, the average flow rate from the USGS Dallas Creek gage station, located downstream of the Loghill Pumping Plant, was 31 percent of the 20-year mean for 1997-2017, down from 34.12 cubic feet per second (cfs) to 10.70 cfs (USGS 2019), causing DCWC to monitor stream flows daily. Flows at the gage station dropped below 1 cfs on a continual daily basis during the summer months in 2018. In December 2018, the Drought Monitor, a tool of the National Drought Mitigation Center (NDMC), considered southwest Colorado to be an Exceptional Drought Area (NDMC 2018), and according to climate change models, the area is expected to be one of the most severely affected by climate change (USGCRP 2018).

TCW, on the other hand, has drought resiliency built into their system due to their partnership with the UVWUA, which allows water stored in Taylor Park and Blue Mesa Reservoirs to be mobilized to supply TCW with domestic water. These reservoirs can store over one million ac-ft of water, some of which is currently unallocated. Based on reservoir storage capacity and water yield from the Uncompahgre River in the two worst drought years in the past 40 years (2002 and 2018), TCW has determined that they have adequate protection in even the severest, long-term drought (TCW 2019), giving them the capacity to supply emergency water to DCWC when needed.

TCW would most likely need supplemental water on Log Hill Mesa for fire suppression, but contamination or catastrophic damage to their system might also require it. The volume of water the current TCW system delivers to Log Hill Mesa is low by fire suppression standards, especially near

the higher elevation south end of the TCW system. Additional volume delivered by DCWC on an emergency basis would benefit fire suppression in that area. In addition, the leg of TCW's supply system that serves Log Hill Mesa dead ends at McKenzie Creek, leaving it vulnerable in the event of a supply failure. Based on their pumping and treatment capacity and water right to Dallas Creek, DCWC has the capacity to provide emergency water to TCW, except during extreme drought.

The TCW and DCWC systems each end in close proximity to one another on Log Hill Mesa, making them natural partners for providing one another with emergency supplies of treated water. The TCW system on Log Hill Mesa currently terminates approximately one mile north of the DCWC system at McKenzie Creek. With the Pipeline Interconnect project, TCW would have the capacity to provide DCWC with 35 gallons per minute (gpm) of water, or 72 percent of DCWC's average daily demand, diminishing to 45 percent in May through August when demand is highest. A 35 gpm emergency supply for a small domestic water supply can extend the water supply for weeks or months depending on use restrictions DCWC puts in place. DCWC would be able to supply TCW with up to 240 gpm via gravity feed. The Proposed Action is not intended to increase the volume of water available to DCWC or TCW customers above current levels of daily demand or on an on-going basis, only when a shortage prevents either entity from meeting their minimum daily demand or providing adequate fire protection.

1.2 Purpose and Need

The purpose of the Proposed Action is to introduce drought resiliency into the TCW and DCWC water supply and conveyance systems, in keeping with the objectives of Reclamation's WaterSMART grant program. This purpose falls within Section C.3.1.1. Task A of the Funding Opportunity Announcement TCW's WaterSMART Grant # R19AP00090 was awarded under: "to provide increased flexibility of water conveyance and deliveries and facilitate access to existing water supplies in times of drought by constructing an intertie between water conveyance systems."

The need for the Proposed Action is the risk of emergency shortages in both the TCW and DCWC water systems on Log Hill Mesa. Potential causes of emergency shortages include drought, contamination, wildfire, or catastrophic system failure. Shortage of treated water during emergencies can pose a threat to human health. The project would create a reliable long-term back-up supply of treated domestic water to both the DCWC and TCW. The project is identified as an important element of drought/emergency shortage preparedness in DCWC's *Source Water Protection Plan* (Mihelich 2016) and *Drought Response Plan* (DCWC 2018).

1.3 Decision to be Made

Based on analyses in this EA and after a public review period, Reclamation determined that a Finding of No Significant Impact (FONSI) for the Proposed Action is warranted. Reclamation has decided to approve the Proposed Action and release the WaterSMART grant funding.

1.4 Project Summary

TCW and DCWC are proposing to construct 4,530 feet of pipeline, upgrade six pump stations, and construct two new pump stations that would connect the water supplies of both entities and enable each to provide a back-up emergency supply of treated water to the other in the event of drought, hazardous material contamination, or other emergency situation impacting their water supplies. The water would be for domestic and fire suppression use only. Water would be able to travel in either direction inside the pipeline. For DCWC to send water to TCW, the water would be gravity fed because the DCWC system is at a higher elevation than the TCW system. Water supplied by TCW to DCWC would need to be pumped. To operate the new pipeline, therefore, TCW is proposing to upgrade six of their existing pump stations and construct two new ones that would be owned by DCWC. During emergencies, TCW and DCWC have agreed to notify affected customers and request that they implement voluntary water use restrictions to reduce the amount of water that either entity would need to send to the other. All work would take place on private land, much of it inside county road right-of-way (ROW). The location of the Proposed Action is shown in Appendix A, Figures 1-2.

1.5 Project Location

The Proposed Action is located in northern Ouray County, extending from the vicinity of Colona south to Log Hill Mesa, which is located approximately five miles northwest of the Town of Ridgway (Figure 1).

1.6 Relationship to Other Projects

The Proposed Action is the only joint project that TCW and DCWC have together and it is the only drought resiliency project that either water supplier is currently working on.

1.7 Scoping, Coordination, and Public Review

Reclamation conducted external scoping during the preparation of this EA by coordinating with the following agencies:

- Colorado Office of Archaeology and Historic Preservation, State Historic Preservation Office
- Southern Ute Indian Tribe
- U.S. Fish and Wildlife Service
- Ute Indian Tribe – Uintah and Ouray Reservation
- Ute Mountain Ute Indian Tribe

The Draft EA was made available to the public for a 40-day comment period. Reclamation notified representatives of other federal agencies, state and local governments, public and private organizations, and adjacent landowners of Draft EA availability for review. Substantive public comments received and Reclamation's responses to them are included in Appendix B. The public distribution list is provided in Appendix C.

2.0 Proposed Action and Alternatives

2.1 No Action Alternative

Under the No Action Alternative, the proposed Pipeline Interconnect Project would not be constructed. Both the TCW and DCWC water systems would continue to operate under current conditions and neither entity would establish a back-up water supply by linking their water systems.

2.2 Alternatives Considered but Dismissed

TCW and DCWC considered several alternatives to the Proposed Action in an effort to identify the most efficient, sustainable, and cost-effective way to establish a back-up water supply for each other. Both entities determined that the Pipeline Interconnect Project provides the most cost-effective alternative for a sustainable long-term supply of emergency water. The alternatives considered include the following:

- Hauling water: This alternative would require that several water trucks are mobilized and operated 24 hours a day and does not offer a practical solution.
- Purchase an industrial grade four-inch fire hose that could be laid out on top of the ground connecting the end of both waterlines: Two mobile pumps would push water up to the DCWC storage tanks if TCW needed to supply water to DCWC. Water would flow through the hose via gravity feed if the DCWC needed to supply TCW with back-up water. Setting up and maintaining a fire hose under freezing temperatures would present practical issues, as would deployment and maintenance of the mobile pumps. The costs of this alternative were not very different from laying pipe, making the permanent solution of a buried pipe and underground pumps with back-up pumps more attractive.
- Connect the TCW line in Pleasant Valley on County Road (CR) 24 to the raw water supply line from Dallas Creek: The water would be pumped to the raw water storage settling pond that supplies the DCWC treatment plant. This alternative would not have enabled DCWC to supply TCW with emergency water for domestic use or fire suppression.

- Use of water deliveries from DCWC’s storage as an emergency supply of water: As described above in Section 1.1.1, DCWC stores 430,000 gallons of treated water in tanks and another 1.2 million gallons of untreated water in a settling pond. This stored water serves as a buffer for DCWC’s customers against short-term loss of water supply due to maintenance or emergencies. Considering the buffering effect for DCWC customers alone, DCWC’s stored treated water would last four to six days based upon a current average daily demand of 70,000 gpd, increasing to 100,000 gpd during the summer months. DCWC can draw down their settling pond by approximately 900,000 gallons, which would last 9 to almost 13 days. Delivered to TCW under emergency conditions at a rate of 240 gpm (345,600 gpd), stored treated water would last a little more than one day, and untreated water somewhat more than 2.5 days, longer if the rate were adjusted down. If DCWC’s stored water were to be used as an emergency supply for TCW, DCWC would have no buffer for its own customers should their system fail concurrently with a TCW emergency. Stored water used would need to be replenished as soon as possible to maintain the short-term emergency buffer for DCWC customers that it is intended for, which would likely result in the need to increase pumping. Considering the potential risk of this alternative to DCWC customers and the relatively low volume of DCWC stored water, this alternative was dismissed as posing greater risk than benefit.

2.3 Proposed Action Alternative

Under the Proposed Action, the Pipeline Interconnect Project would be built according to the specifications in this project description. If TCW or DCWC were to experience a water shortage, the entity in need would be supplied with treated water from the other entity. Figures 1-2 show the location of the Proposed Action and associated infrastructure. Photographs of the project area are provided in Appendix D.

2.3.1 Construction

Proposed Pipeline

A 4,530-foot long, 6-inch diameter, class 200 PVC pipeline would be installed along the alignment shown in Figures 3-4 and Photos 1-3. The pipe would start at new Pump Station 1, located on the east side of CR 1, cross under the road and follow north along the west side of CR 1 before diverging northwest to follow a private farm road. Where it follows CR 1, the pipeline would be buried inside the county road ROW, approximately 5-6 feet from the ROW fence. Where it follows the private road, it would be aligned along the north side of the road before turning north to cross McKenzie Creek, tying into the TCW system on the other side of the creek. The pipeline and proposed pump upgrades would enable TCW to pump 35 gpm to DCWC, and would enable DCWC to deliver 240 gpm to TCW via gravity feed. As a precaution, the pipeline has been sized to accept larger flows than are expected to be needed by either entity, in case an extreme emergency requires larger volumes of water.

The line would be buried in a trench. Prior to trenching, a pipe pad would be graded for trenching and excavating machines to work from as they dig the trench. This would involve clearing, grubbing, and leveling a roughly 10-foot wide swath of ground for the machines to operate on. After the pipe is buried, the ground would be restored to original grade during backfill operations.

The trench would be dug with a track or rubber tire excavator, depending on terrain, and a rock trencher. The trench would be excavated with a 24-inch bucket according to Occupational Safety and Health Act (OSHA) standards using a sloping technique. This will result in a trench that is approximately 6-8 feet wide at the top and 5-6 feet deep. Soils inside the project area have a high proportion of rock and boulder, making it possible that a larger trench may be required in some locations to remove impeding rock. All soil and rock removed by excavation would be stored adjacent to the trench. The bottom of the trench would be lined with bedding material prior to laying the pipe. Bedding material consists of ¾-inch minus native material or excess subsoil from trenching operations. A length of trench would be excavated, the pipe installed, and the trench backfilled before additional trenching is undertaken. No work would take place during rain events or when ditches are active inside the project area. Any sidecast material that inadvertently falls into a wetland would be removed before the end of each day.

Any surplus spoil would be given to nearby landowners, if requested, or hauled to the TCW yard located just south of Montrose along US 550. The yard is approximately 15 miles from the proposed pipeline and would be used to stockpile spoil only if absolutely necessary. Upon completion of backfill and trench compaction, hydrostatic pressure testing and disinfection of the pipeline would be completed.

The pipeline is expected to take one month to construct, but could take more time if abundant rock is encountered or if inclement weather creates unsuitable working conditions. The following pieces of equipment, or equivalent, could be operating at any one time: excavator or rock trencher, dump truck, backfill machine (rubber tire backhoe), up to three service trucks, one pulling a pipe trailer. A grader may be needed to smooth out CR 1 after trenching and backfilling, but would not be needed on a daily basis.

Existing Pump Station Upgrades

Six existing TCW pump stations would be upgraded with larger capacity pumps so they can deliver 35 gpm to the DCWC system through the new pipeline. These pump stations are located southwest of Colona on lower Log Hill Mesa and are currently operated to provide TCW residential customers with domestic water. The locations of the six stations are shown in Figure 2. Pump Stations 5, 6, and 30-32 range in size from 400 to 1,500 square feet, with most infrastructure below ground and a graveled pad on top with several vent or stand pipes, vault covers, an electric meter, carsonite markers for valves, and in some cases an antenna present (Photos 9-13). Pump Station 4 is larger, approximately 100 x 100 feet, with a storage tank and security fence around it (Photos 6-8).

Three of the six pump stations (4-6) are on land owned by TCW, one (30) is on a private easement, and two (31 and 32) are located inside the county road ROW. Proposed upgrades to the various pump stations are summarized in Table 1. No ground disturbance would be required to upgrade

Pump Stations 5 and 6; all work would be done inside the existing vaults. Upgrades requiring ground disturbance would be made to Pump Stations 4 and 30-32. Ground disturbance at these stations would be confined to previously disturbed, currently graveled areas, and no vegetation clearing would be required. All work at Pump Station 4 would be confined inside the existing security fence. The upgraded pump stations would look like the existing pump stations, with new infrastructure primarily underground. New above-ground infrastructure would consist of vault lids that look like manhole covers, vent pipes, and carsonite markers for any new valves.

At each of the existing pump stations requiring new vaults, setting the vault is expected to take about three days and would require two service trucks, one equipped with a cherry picker to set the vault; a haul truck to deliver the vault; an excavator to dig and backfill the vault; and possibly a small dump truck if rock is encountered and fill is needed for backfill operations. New pump installation at all six stations would take two weeks or so and would be completed with equipment transported in a ¾-ton service truck, with perhaps two trucks at each station.

Table 1. Proposed Upgrades at Existing TCW Pump Stations

Pump Station	X Coordinate*	Y Coordinate*	Planned Upgrade	Ground Disturbance**
4	255397	4245432	Extend vault, install a new pump	Yes
5	252951	4245080	Re-plumb in existing vault	No
6	252902	4243134	Re-plumb in existing vault	No
30	253599	4240373	Install new vault and pump	Yes
31	253496	4238567	Install new vault and pump	Yes
32	252782	4237040	Install new vault and pump	Yes

* NAD 83 UTM 13N

** Where ground disturbance is required, it would be confined within previously disturbed areas, with no vegetation clearing required.

Proposed Pump Stations

The locations of new Pump Stations 1 and 2 are shown in Figure 2 and Photos 4-5. Pump station construction would involve installation of a stationary booster pump and backup pump inside a new 6 to 8-foot wide x 15-foot long x 6 feet deep vault installed adjacent to an existing DCWC regulator vault. These new pump stations would be similar in size and appearance to TCW Stations 5, 6, and 30-32. Supervisory control and data acquisition (SCADA) stations would be installed to regulate the pumps and flow meters would be installed to measure flow in both directions, as well as instantaneous flows. The new pump stations would be very similar in appearance to the existing pump stations, with most infrastructure underground. The time and equipment required to construct the proposed pump stations would be similar to what is required to upgrade the existing pump stations with new vaults. DCWC would own, operate, and maintain the new pump stations.

Staging

Minimal staging would be needed. Pipe bedding and other materials would be delivered and installed daily. Any surplus would be stored along the pipeline route in small stockpiles situated so as not to impede traffic or threaten waterways, wetlands, or drainages.

Clearing and Grubbing

No clearing would be required at the existing pump stations or at proposed new Pump Station 1. Very little if any woody vegetation would need to be cleared and disposed of during construction of the proposed pipeline and new Pump Station 2. Most clearing would consist of mowing grass and other herbaceous or perennial vegetation. Some isolated shrubs such as rubber rabbitbrush (*Ericameria nauseosa*) may need to be cleared. All clearing and disposal of vegetation would be completed according to the Ouray County ROW permit.

Personnel

Preliminary design and cost estimates for the pipeline were completed by Temple Construction of Fort Collins, Colorado. Pipeline and new pump station construction would be completed by TCW staff, with trenching and electrical work subcontracted out as needed. Engineering design and existing pump station upgrades would be completed by TCW and DCWC staff, with electrical work subcontracted out. All contractors would operate under the supervision of TCW.

2.3.2 Restoration

Following surface disturbance from pipeline installation, previously vegetated ground would be prepared and reseeded using a Ouray County-approved seed mix. Surface disturbance at existing pump stations would be within previously disturbed areas that would be restored to current conditions following disturbance. Surface disturbance at the new pump stations would be regraded and the area of operation graveled, as at the existing pump stations.

2.3.3 Schedule

The pipeline construction work window is scheduled for late summer through early winter, as presented in Table 2. Pipeline construction would be completed during one season. New pump station construction and station upgrades are expected to take two seasons, and would commence in the spring of 2020. All work would take place during daylight hours, with no night work planned.

Table 2. Construction Schedule

Task	Start	End
Pipeline Construction	July 15, 2020	January 21, 2021
Pump Station Construction/Upgrade	Spring 2020	October 21, 2021

2.3.4 Operation and Maintenance

The new infrastructure would be operated and maintained by TCW and DCWC staff. Operation and maintenance needs are expected to be minimal. The new pipeline would need to be flushed periodically from the connection point on the existing TCW line. Operation and maintenance can typically be completed using equipment transported in a large pick-up truck with cherry picker, with no large equipment required.

2.3.5 Water Conservation

In the event that either TCW or DCWC needs to supply the other entity with emergency water via the pipeline interconnection, both entities will notify affected customers of the emergency and request that they voluntarily minimize their use of water to help reduce the need for increased diversions and minimize effects on streamflow in terms of both quality and quantity. This conservation measure is included in the Proposed Action as an environmental commitment (Chapter 4.0)

2.3.6 Permits and Authorizations

The following permits and authorizations would be required prior to the start of construction:

- Ouray County Right-of-Way Permit, for permission to construct within the county road ROW.
- The U.S. Army Corps of Engineers (Corps) has determined that proposed impacts to aquatic resources may be completed under a non-notifying Nationwide Permit (NWP) 12 for Utility Lines, bringing the Proposed Action into compliance with the Clean Water Act (CWA). This determination, submitted by the Corps as an email to TCW, is provided in Appendix E.

3.0 Affected Environment and Environmental Consequences

3.1 Environmental Resources Considered but Excluded from Analysis

In order to streamline this EA, resources determined to be *Not Present* (NP) in the area impacted by the proposed or alternative actions or which are *Present but Not Impacted* (NI) to a degree that analysis is required are not carried forward for analysis. Table 3 provides the resources considered but excluded from further analysis and the rationale for that determination.

Table 3. Resource Scoping Determinations

Resource	Rationale for Determination
Not present (NP)	
Cultural Resources	<p>A Class III Cultural Resources Inventory of the pipeline alignment and pump station locations was completed by Alpine Archaeological Consultants (Alpine) on October 4, 2019. No sites were found during the inventory, and based upon a literature review, none are known within one-half mile of the project. Alpine prepared a Limited-Results Form that Reclamation submitted to the State Historic Preservation Office (SHPO) on November 21, 2019 with a determination of <i>no historic properties affected</i>. SHPO’s concurrence with that determination was issued on December 18, 2019 and is provided in Appendix F. Environmental commitments ensuring protections for archaeological resources should the scope of work change or if such resources are encountered unexpectedly during construction area are included in Chapter 4.0</p>
Native American Religious and Other Concerns	<p>Project notifications, along with an invitation to present concerns, were provided in writing on November 21, 2019 to the Southern Ute Indian Tribe, Ute Mountain Ute Indian Tribe, and Ute Indian Tribe – Uintah and Ouray Reservation. Results of tribal consultation will be disclosed in the final EA.</p>
Socioeconomics	<p>The Proposed Action would not result in a change in economic assets for the Log Hill Mesa or Ouray County populations. Rather it would increase resiliency to drought and other emergency water shortages for residents serviced by TCW and DCWC in the Log Hill Mesa area.</p>
Environmental Justice	<p>The Proposed Action would not have disproportionately high and adverse human health or environmental effects on Executive Order 12898 minority or low-income populations. The population of Ouray County is 96.1 percent white, with 7.7 percent of people living in poverty according to the most recent U.S. Census data (US Census Bureau 2010). By establishing a back-up supply of treated water during emergency shortages for all Log Hill Mesa residents serviced by TCW or DCWC, the Proposed Action would benefit human health by ensuring access to treated water for all users.</p>
Present but not impacted to a degree requiring detailed analysis (NI)	

Resource	Rationale for Determination
Air Quality	Ouray County is currently in compliance with federal air quality standards (CDPHE 2018). During construction, soil disturbance and the use of large equipment would result in a local increase in particulates and diesel emissions. Pipeline construction is expected to take up to two months, but the area of ground disturbance is small, approximately 1.0 acre, and the number of pieces of equipment that would be working at any one time would be small (up to six, including service trucks). Effects on air quality are expected to be local, short-term, and negligible.
Soils	Impacts to soils would be negligible, given that most proposed disturbance would be in previously disturbed soils. TCW has committed to segregating top soil during excavation and following a “first out, last in” process for excavation and backfilling.
Prime Farmland	No <i>prime or unique farmlands</i> would be affected by the Proposed Action. Roughly 452 feet of the pipeline would pass through the Natural Resources Conservation Service (NRCS) soil map unit (MU) 985 <i>Mudcap loam, 6-15 percent slopes</i> (NRCS 2019). This MU is classified as <i>farmland of statewide importance</i> , defined by the NRCS as land that nearly meets the requirements for <i>prime farmland</i> and that economically produces high yields of crops when treated and managed according to acceptable farming methods. All work in MU 985 would be within the CR 1 ROW where it passes over Fisher Creek. In this area, the road bed and ROW have been built up above the native soils and all work would take place inside the ROW, resulting in no effects to prime farmland.
Vegetation	Vegetation in the Proposed Action area includes pinyon-juniper woodland at lower elevations and ponderosa pine woodland with Gambel oak and Rocky Mountain juniper at higher elevations. Open parks that have been converted to irrigated hayfield and pasture are common along the pipeline alignment. A cottonwood riparian corridor occurs along McKenzie Creek at the crossing. No clearing would be required at the existing pump stations or at proposed Pump Station 1. Very little if any woody vegetation would need to be cleared and disposed of during construction of the proposed pipeline and Pump Station 2. Most clearing would consist of mowing grass and other herbaceous or perennial vegetation. Approximately 1.0 acre would be mowed prior to pipeline construction, all inside county road ROW or along a private farm road. Disturbed ground would be reseeded after construction with a Ouray County-approved seed mix. Effects to vegetation would be negligible.

Resource	Rationale for Determination
Livestock Grazing	<p>Rangeland exists along the pipeline alignment on both sides of CR 1 and where the pipeline extends northwest to cross McKenzie Creek. Work along CR 1 would all be on the road side of the ROW fence and would have no effect on rangeland, livestock, or ranch infrastructure. Where the pipeline would extend northwest away from CR 1, the landowner grazes cattle but has granted permission to TCW to construct the project through the property. Pipeline disturbance would be reseeded, resulting in temporary and negligible effects to rangeland.</p>
Terrestrial Wildlife, not including Migratory Birds and Raptors	<p>The majority of proposed work would take place outside of CPW-mapped sensitive winter habitats for elk and mule deer (severe winter range and winter concentration area) and no work would take place inside a production area for either species. The only proposed work that would take place in sensitive winter range would be at Pump Stations 4-6, and of these locations ground disturbance would be required only at Pump Station 4. Work at the pump stations may begin as early as the spring of 2020, but could extend into the winter. Pump Station 4 is located near two residences and construction would be short-term and take place during daylight hours. Effects to any nearby overwintering elk and mule deer are expected to be negligible at Pump Stations 4-6.</p> <p>None of the proposed work would create new permanent obstructions to wildlife movements in the area. The pipeline would be buried, and aboveground infrastructure at the pump stations does not prevent wildlife movement, except at Pump Station 4, which is currently fenced but easily circumvented by wildlife. The open trenches and other excavations would be covered when work is not actively occurring to prevent wildlife from getting trapped. When uncovered, they would be reviewed to ensure that no wildlife had been trapped. Any animals found in the trenches would be safely removed to a location outside the work area before work recommences. Effects to big game and other terrestrial non-avian wildlife movements would be negligible.</p>

3.2 Water Use, Rights, and Streamflows

3.2.1 Affected Environment

Water Use

TCW and the other five domestic water distributors supplied by the UVWUA are allocated up to 28,100 ac-ft of Uncompahgre Project water a year. Of this total, 12,860 ac-ft are allocated to TCW. TCW uses roughly 2,464 ac-ft (803 million gallons) of this water a year, which is 19 percent of the Uncompahgre Project water allocated to them. The water used serves 7,700 domestic taps at a rate

of approximately 2.2 million gpd. TCW exchanges the amount they use annually from the Gunnison River out of the Ridgway Reservoir municipal and industrial pool.

Over the last 20 years (1999-2018), DCWC has used a mean of 107.24 ac-ft (34,994,255 gallons) of water a year. DCWC's current average daily demand is 70,000 gallons, increasing in summer to 100,000 gallons, or 20 percent of their top treatment and pumping capacity of 500,000 gpd. Their water serves 440 taps. Because flows in Dallas Creek factor into many of the analyses in this EA, it is important to put DCWC diversions into perspective against other downstream diversions along the creek. There are four diversion structures on Dallas Creek between the Loghill Pumping Plant and Ridgway Reservoir: Hyde-Sneva Ditch, PJ Nash Ditch, Wood Perry Ditch, and the James Stewart Ditch. The first three ditches divert between the pumping plant and the USGS gage station on Dallas Creek, and the James Stewart Ditch diverts downstream of the gage station. Based on approved diversion records for these ditches available on the Colorado Decision Support Systems (CDSS) website (only 2018 diversions from the Hyde-Sneva Ditch are provisional), the total mean annual diversion by them equals 3,967.06 ac-ft over the same 20-year time period used to calculate mean annual diversions for DCWC (CWCB/DWR 2019). The mean annual diversion by DCWC equals approximately 3 percent of these downstream diversions.

Water Rights

The water that TCW would send to DCWC under the Proposed Action is tied to Reclamation's water rights stored in Taylor Park Reservoir and direct flow rights in the Gunnison River. TCW has an absolute storage decree for 84,602 ac-ft in Ridgway Reservoir (Case 94CW052), a conditional refill right of 84,602 ac-ft (Case 96CW140), and other conditional rights. Of the water rights stored in Ridgway Reservoir, 12,860 ac-ft a year are allocated to TCW.

DCWC separated their water rights from their distribution business by creating the related company JKC Utilities, LLC (JKC) and assigning the water rights to that utility. DCWC purchases water from JKC for treatment and distribution. Under their agreement, JKC agrees to make available to DCWC all the raw water it can use to serve its domestic customers up to the full extent of JKC's decreed rights. Through JKC, DCWC has a total of 2.035 cfs decreed absolute from Dallas Creek to be used for irrigation and municipal, including domestic, industrial, residential, commercial, recreation, fish culture, and storage, with no seasonal limits. The three most senior rights all have an adjudication date of May 15, 1897. Priority Admin. No. 10744 in the amount of 0.625 cfs absolute (Case W-1358) and Priority Admin. No. 11232 in the amount of 0.125 cfs absolute (Case W-1357) are very senior; a call analysis indicates that neither right has ever been out of priority. Priority Admin. No. 13270 in the amount of 0.625 cfs absolute (Case W-1357) has been subject to call 8.3 percent of the time over the last 10 years (CWCB/DWR 2019). Additional rights are more junior, with an adjudication date of December 31, 1972 (Case 82CW0183) and Priority Admin. No. 44559.44270.

TCW and DCWC water rights are physically and legally reliable. To date, DCWC has never had to place a call on a junior water right. Their maximum pumping and treatment capacity of 500,000 gpd (0.77 cfs) is within their water rights, and all but entirely within their two most senior rights (0.75 cfs).

The CWCB has an instream flow water right (Case 98CW0234) in Dallas Creek “to preserve the natural environment to a reasonable degree.” The decree is in the amount of 20 cfs (May 1 to October 14) and 9 cfs (October 15 to April 30) absolute, with an adjudication date of December 31, 1998 and Priority Admin. No. 54250. The water right covers the stream reach from the confluence of the East and West Forks Dallas Creek downstream to Ridgway Reservoir. The Loghill Pumping Plant is within that stream reach. Because the CWCB’s instream flow water right is junior to DCWC’s subject water rights, a request for administration of the instream flow water right would not result in curtailment of DCWC’s water rights.

Streamflows

For the 20-year period 1998 to 2018, the average annual discharge at the USGS gage station Uncompahgre River near Ridgway was 155.89 cfs and at the Gunnison River below Gunnison Tunnel station was 894.78 cfs. During the same period, the average annual discharge at the USGS Dallas Creek near Ridgway gage station was 31.50 cfs. Flows fluctuate within and between years depending on precipitation and water demand. In 2002 and 2018, the worst drought years on record at the Dallas Creek gage station, average daily flows during summer months fell below 1 cfs on a continual daily basis (USGS 2019).

3.2.2 Environmental Consequences

No Action

The No Action Alternative would result in no changes to water use, water rights, or streamflows. TCW and DCWC customers on Log Hill Mesa would not benefit from an emergency backup supply of water.

Proposed Action

The Proposed Action would result in infrequent, short-term, emergency increases in water use by TCW or DCWC. All increased use would be made within each entity’s existing capacity and decreed water rights and would not adversely impact TCW or DCWC users or other downstream users. Rather, effects to the customers receiving the supplemental water would be beneficial, in support of human health and safety.

Infrequent, short-term, emergency increases in use of Gunnison River water by TCW would be exchanged out of Ridgway Reservoir, with no effects to streamflows in the Uncompahgre River and negligible effects to flows in the Gunnison River between the Gunnison Tunnel and the confluence with the Uncompahgre River. Infrequent, short-term, emergency increases in use by DCWC may affect streamflows in Dallas Creek between the Loghill Pumping Plant and Ridgway Reservoir, a reach of 3.73 stream miles (Figure 5). Potential effects would be highly dependent upon the time of year the increased use is required, precipitation levels, and demand on Dallas Creek water.

The above environmental consequences are discussed in more detail below. The future frequency of emergency shortages is unknown, as are the exact amounts of water that would be needed to address

any given shortage. TCW and DCWC have been providing domestic water to their customers since 1957 and 1975, respectively, and during that period have not had water supply shortages requiring emergency measures. Given the difficulty in estimating the increase in water use due to the Proposed Action, this analysis relies on a hypothetical 90-day emergency scenario, at the maximum flow capacity of the proposed pipeline. Under the scenario, an emergency would occur every 25 years, which is likely more frequent than the actual frequency would be.

Water Use TCW currently uses 19 percent (2,464 ac-ft) of their Gunnison River allocation (12,860 ac-ft), giving them ample capacity to supply DCWC with emergency water when needed. If DCWC experiences an emergency water shortage and TCW supplies them with the proposed pipeline top capacity of 35 gpm (0.08 cfs) for 90 days, increased use by TCW would equal approximately 50,400 gpd, or 4,536,000 gallons (14 ac-ft) total over the 90-day period. This amount equals 0.57 percent of TCW's current annual use, 0.11 percent of their allocated water, and 0.13 percent of their unallocated surplus. It is inconceivable that any demand under the Proposed Action would require more water than is decreed and available to TCW.

The ability of DCWC to provide emergency water to TCW is based upon the availability of water in Dallas Creek, their water right, and their current pumping and treatment capacity of 500,000 gpd (0.77 cfs). If TCW has an emergency shortage of water and DCWC supplies them with the proposed pipeline top capacity of 240 gpm (0.53 cfs) for 90 days, increased use would equal approximately 345,600 gpd, or 31,104,000 gallons (95.5 ac-ft) over the 90-day period. Pumping at top pipeline capacity would only be required if water were needed by TCW for fire suppression. If emergency water were needed due to failure of the TCW system on Log Hill Mesa, less water would be needed: TCW has 235 taps on the mesa, which would require approximately 25,000 gpd, or 0.04 cfs.

Focusing first on capacity, if DCWC's average daily demand in summer is 100,000 gpd, and top pumping and treatment capacity is 500,000 gpd, the maximum daily emergency supply of 345,600 gpd would represent 86 percent of the 400,000 gpd surplus. For purposes of this analysis, DCWC would not draw upon their existing storage to supply the emergency water, leaving them with a supply buffer within their own system (see Section 2.2. *Alternatives Considered but Dismissed*).

DCWC water rights generally enable them to supply TCW with emergency water at full pipeline capacity. Their Priority Admin. No. 10744 decree to 0.625 cfs absolute, which has never been subject to call, nets roughly 403,920 gpd. This is enough to provide for the 100,000 gpd average daily demand in summer and approximately 300,000 gpd of emergency water. The additional 0.125 cfs from Priority Admin. No. 11232 would add approximately 81,000 gpd. If an emergency occurs during the summer when some of DCWC's other rights are under call and they do not have sufficient water to provide TCW with 240 gpm (345,600 gpd), they would supply TCW with the maximum amount of water they could within their existing rights and capacity to pump, treat, and deliver water and without adversely affecting water availability to their users.

In terms of water availability in Dallas Creek, even during the drought of 2018, DCWC had enough water to supply average daily demand, despite the low flows recorded at the USGS Dallas Creek near Ridgway gage station, located downstream from the Loghill Pumping Plant. Flows at the gage station were much lower than those at the pumping plant due to the many diversions on the

intervening stream reach (see Section 3.2.1). If water in Dallas Creek is not sufficient to provide TCW with 240 gpm during an emergency, DCWC would supply TCW with what they could without adversely affecting water availability to their users.

Based on the above analyses, TCW and DCWC have ample water available to them to operate the pipeline interconnect project under normal circumstances. During emergencies when the proposed pipeline would be in operation, both TCW and DCWC would notify affected customers and request they implement voluntary water use restrictions to decrease the total amount of supplemental water needed and conserve available water (see Section 2.3.5). Neither entity would supply the other with emergency water if it were unavailable or would compromise their ability to provide their own customers with a sufficient supply of treated water. Even considering potential future growth and emergency responsibilities under the Proposed Action, DCWC does not anticipate ever having to increase their current treatment and pumping capacities.

Water Rights Under the Proposed Action, neither TCW nor DCWC would seek to change their water rights or apply for new rights. The Proposed Action would have no effect on water rights.

Streamflows An increase in use of Gunnison River water by TCW to supply DCWC with emergency water under the Proposed Action would be compensated for by releasing an equivalent amount into the Uncompahgre River from Ridgway Reservoir. If TCW were to supply DCWC with 0.08 cfs of emergency water over a 90-day period, this would have a negligible impact on streamflows in the Gunnison River between the Gunnison Tunnel and the confluence with the Uncompahgre River, given a 20-year mean annual flow of 894.78 cfs in the Gunnison River below the Gunnison Tunnel. Under the *Final Dallas Creek Project Environmental Impact Statement*, TCW is required to maintain certain flow rates in the Uncompahgre River downstream of Ridgway Reservoir, with rate varying by time of year and location. The Proposed Action is not expected to compromise TCW's ability to meet those requirements.

If DCWC increased diversions at their Loughill Pumping Plant to supply TCW with emergency water, it would decrease streamflows below the diversion point in an equivalent amount on a temporary basis. DCWC's mean annual use of water over the last 20 years (1999-2018) has been 107.24 ac-ft, which equates to 34,944,255 gallons per year, or 0.15 cfs. If they were to supply TCW with emergency water, this could increase diversions as much as 0.53 cfs to maintain maximum pipeline capacity of 240 gpm. This would be the maximum project-related decrease in Dallas Creek streamflows in the 3.73-mile reach between the Loughill Pumping Plant and Ridgway Reservoir (Figure 5). Actual effects on streamflows would depend upon the time of year, precipitation levels, and demand on water. If the Proposed Action were to result in reduced streamflows in Dallas Creek, it would affect flows into Ridgway Reservoir. Given the 84,000 ac-ft storage capacity of the reservoir, 20,100 ac-ft of which is unallocated, a reduction in intake of 95.5 ac-ft over a 90-day period every 25 years or more would be negligible, equaling 3.85 ac-ft a year.

Any effect from the Proposed Action on Dallas Creek streamflows would occur only when DCWC supplies TCW with supplemental water, which is likely to occur on a much less frequent basis than the other way around. Moreover, an effect on streamflows would occur infrequently and only to protect human health. In the event that DCWC would need to supply TCW with emergency water,

both entities would contact affected customers and request that they voluntarily limit water use to help conserve water and limit any effect on streamflows in Dallas Creek.

3.3 Water Quality

3.3.1 Affected Environment

The proposed pipeline would be constructed in or adjacent to several channels: a return flow irrigation ditch that parallels CR 1 (Photo 14); Fisher Creek (Photos 15-17); an unnamed tributary to McKenzie Creek (Photo 18); and McKenzie Creek (Photo 19). The USGS maps McKenzie Creek as perennial in its upper reaches inside the project area and intermittent in its lower reaches. They map Fisher Creek and the tributary to McKenzie Creek as intermittent. All three streams are influenced by irrigation practices inside the project area. At the time of the project field review in September 2019, Fisher Creek, the tributary to McKenzie Creek, and the irrigation ditch were dry and McKenzie Creek appeared to have low or no flow (the presence of bulls in the creek prevented direct observation). Both Fisher and McKenzie Creeks flow northeast from the project area to the Uncompahgre River. The irrigation ditch appears to end in fields northeast of CR 1, but some water may connect to Fisher Creek. No streams are located in the vicinity of the existing and proposed pump stations.

The Colorado Department of Public Health and Environment (CDPHE) sets water quality standards for streams in the state. According to surface water quality Regulation 35, *Classifications and Numeric Standards for Gunnison and Lower Dolores River Basins* (CDPHE 2020), the reach of Dallas Creek downstream of Loghill Pumping Plant is in Uncompahgre River Basin Stream Segment 11, which has a cold stream tier 1 (CS-I) maximum weekly average temperature standard of 17°C from June to September and 9°C from October to May.

3.3.2 Environmental Consequences

No Action

The No Action Alternative would result in no direct or indirect effects to water quality in streams and ditches on Log Hill Mesa.

Proposed Action

The proposed pipeline would be constructed in or adjacent to a number of channels. It would be:

- trenched parallel to or within a return flow irrigation ditch for roughly 440 feet;
- trenched along the road bank above Fisher Creek for 170 feet;
- bored under a culverted reach of a tributary to McKenzie Creek; and
- trenched across McKenzie Creek.

Under the Proposed Action, pipeline construction would directly affect the irrigation ditch and McKenzie Creek channels and could result in the inadvertent sidestepping of soils and rock into the Fisher Creek channel during trenching and backfill operations. Sediment from loose soils inside the construction zone might also enter channels due to water erosion during rain or snow melt. Contaminants such as fuel or oil from heavy equipment could enter waterways directly during work in channels or indirectly through sedimentation from nearby contaminated soils. The bore pits for passing under the tributary to McKenzie Creek would be set far enough away from the culvert that no direct or indirect effects to the tributary are expected.

Overall, effects to water quality from sedimentation or contamination are expected to be minimal given that work would occur when the irrigation ditch and Fisher Creek channels are dry and when McKenzie Creek is dry or has very low flow. The absence or near absence of flows would prevent loose soils or contaminant spills from being mobilized and passed downstream before they are cleaned up. If flowing water is present in McKenzie Creek at the time of pipeline construction, a water diversion would be implemented to avoid introduction of loose soils into the active channel. The affected channel would be returned to original grade and re-compacted prior to reintroducing flow. In compliance with the CWA, a Section 404 NWP for all work affecting aquatic resources will be obtained by TCW and all permit conditions will be implemented during construction. The permit will be obtained before Reclamation signs the FONSI and will be attached to the Final EA. Successful implementation of these and the additional environmental commitments presented in Chapter 4.0 are expected to minimize adverse effects to water quality from sedimentation or contamination to a non-significant level.

The Proposed Action has some potential to affect water temperature in Dallas Creek, which may contribute to the stream not meeting the CS-I temperature standard set by CDPHE. In general, low flows in summer result in increased water temperatures compared to normal and in winter result in decreased water temperatures. Changes in water temperature may affect fish metabolic rate and aspects of the aquatic environment that may indirectly affect fish, such as dissolved oxygen levels. According to CPW, water temperature in the upper Uncompahgre River watershed commonly approaches acute toxicity standards for fish during drought years. If DCWC supplies TCW with emergency water under low-flow conditions, the increase in diversions could contribute to a rise in water temperature with cascading effects on fish (see Section 3.6.2).

3.4 Wetlands

3.4.1 Affected Environment

Potential persistent emergent wetlands occur in the Fisher Creek floodplain (Photo 15) adjacent to the pipeline work area and in some locations along the irrigation ditch (Photo 14). Patchy and poorly developed scrub-shrub wetlands occur along McKenzie Creek (Photo 19) at the proposed crossing. The McKenzie Creek wetlands appeared to be heavily impacted by cattle trampling and grazing. The most common herbaceous wetland species present in the various potential wetlands are rhizomatous and include beaked sedge (*Carex utriculata*), cattail (*Typha latifolia*), Baltic rush (*Juncus balticus*), black bent grass (*Agrostis gigantea*), and creeping meadow foxtail (*Alopecurus arundinacea*). These wetland

areas may or may not meet the Corps' definition for wetlands; a formal delineation would be required to make that determination. No wetlands are found in the vicinity of the existing and proposed pump stations.

3.4.2 Environmental Consequences

No Action

The No Action Alternative would result in no direct or indirect effects to wetlands.

Proposed Action

Pipeline construction would directly affect potential wetlands in the irrigation ditch and McKenzie Creek channel and may result in temporary sidecast of soils and rock into wetlands associated with Fisher Creek. Potential direct effects would include removal of wetland vegetation, fill to wetlands, and the potential to disturb wetland hydrology. All effects would be temporary. The McKenzie Creek and irrigation ditch channels would be restored to original condition using “first out, last in” excavation and backfill practices. Excavated topsoil would be stored separately from subsoils. It is not expected that disturbed wetland areas would require reseeding, since the dominant wetland species present are rhizomatous and would re-establish fairly rapidly in the narrow disturbance area as long as wetland hydrology is not disturbed. Any sidecast into the Fisher Creek wetlands would be removed the same day with no or very minimal disturbance to existing vegetation. A NWP for all work in aquatic resources will be obtained by TCW prior to pipeline construction and all permit conditions will be implemented. Successful implementation of these and the additional environmental commitments presented in Chapter 4.0 are expected to minimize adverse effects to wetlands to a non-significant level.

3.5 Invasive Species/Noxious Weeds

3.5.1 Affected Environment

Under the Colorado Noxious Weed Act, the Colorado Department of Agriculture (CDA) maintains lists of noxious weeds to be eradicated (List A), managed to prevent further spreading (List B), or subject to support from the department for management, research, and biological control if local jurisdictions choose to require their management (List C) (CDA 2019). Table 4 presents the CDA-listed noxious weeds and unlisted nuisance weed species observed in the work area. None of the species in the table are considered priority weed species by Ouray County (Ouray County 2018).

Table 4. Weeds Present in the Proposed Action Area

Common Name	Scientific Name	List Status
CDA-Listed Species		
Canada thistle	<i>Cirsium arvense</i>	B
Cheatgrass	<i>Bromus tectorum</i>	C
Common bindweed	<i>Convolvulus arvensis</i>	C
Common mullein	<i>Verbascum thapsus</i>	C
Musk thistle	<i>Carduus nutans</i>	B
Redstem filaree	<i>Erodium cicutarium</i>	C
Russian knapweed	<i>Acroptilon repens</i>	B
Whitetop	<i>Cardaria draba</i>	B
Nuisance Species		
Alyssum	<i>Alyssum simplex</i>	--
Horehound	<i>Marrubium vulgare</i>	--
Russian thistle	<i>Salsola australis</i>	--
Sweet clover	<i>Melilotus officinalis</i>	--

3.5.2 Environmental Consequences

No Action

The No Action Alternative would have no direct or indirect effects to the distribution, abundance, or diversity of weed species in the Proposed Action area.

Proposed Action

Construction and on-going operation and maintenance of the proposed infrastructure would increase the risk of spreading noxious weeds. Equipment and service vehicles used on the project could transport weed propagules, as could footwear and clothing worn by construction personnel. Existing weeds could be spread within the project area, exported from it to new locations, and new weed species could be imported into the project area. Ouray County is responsible for spraying weeds inside their road ROW, which includes the pipeline alignment where it follows CR 1 and Pump Stations 31 and 32. To minimize the spread of noxious weeds due to the Proposed Action, TCW will implement all weed abatement measures in their Ouray County ROW permit, power-wash all equipment before and after it is used at the job site, and reseed all disturbed, previously vegetated areas with a county-approved seed mix (see Chapter 4.0).

3.6 Aquatic Wildlife

3.6.1 Affected Environment

Dallas Creek supports a recreational fishery of wild rainbow (*Oncorhynchus mykiss*) and brown trout (*Salmo trutta*), as well as a seasonal Kokanee salmon (*Oncorhynchus nerka*) fishery. Both fisheries are used by anglers at Ridgway State Park and are considered a valuable resource by CPW. All three

fishes are non-native species that have naturalized. Rainbow trout are found in Ridgway Reservoir and Dallas Creek and spawn in the spring. Kokanee salmon and brown trout are found in Ridgway Reservoir and run up Dallas Creek in the fall to spawn (Gardunio 2019). The confluence of Dallas Creek and the Uncompahgre River at Ridgway Reservoir is inside Ridgway State Park, managed by CPW.

Dallas Creek is located in the upper Uncompahgre River watershed. According to CPW, fishes in the watershed are vulnerable under drought conditions because water temperatures commonly approach acute toxicity standards during low flows.

3.6.2 Environmental Consequences

No Action

The No Action Alternative would not affect streamflows and would result in no direct or indirect effects to fishes.

Proposed Action

If DCWC increases diversions at the Loghill Pumping Plant to supply TCW with emergency water, it may decrease streamflows in Dallas Creek between the plant and Ridgway Reservoir, a 3.73-mile reach (see Section 3.2). The potential for such a decrease to affect the fishery would be highly dependent upon time of year, baseline streamflows, and calls on those flows. Impacts to fisheries during drought conditions would continue to occur regardless, but the severity of these impacts may be exacerbated under the Proposed Action for the duration of the emergency diversion or until base streamflows increase seasonally. Effects would be greatest if any decrease in flows were to occur during spawning or summer conditions when streamflow is below the CWCB-identified minimum instream flow water right, when acute mortality may occur due to increased temperatures (see Section 3.3). The frequency of such potential impacts would be every 25 or more years.

Any effect from the Proposed Action on the Dallas Creek fishery would occur only if DCWC were to supply TCW with supplemental water, which is likely to occur on a much less frequent basis than the other way around. Neither TCW nor DCWC have needed to supplement their water supplies on Log Hill Mesa since their systems were built, making it safe to assume that any increase in use by DCWC on behalf of the Proposed Action would be extremely infrequent, and if it were to occur, it would be to protect human health and safety threatened either by loss of or severe restriction to domestic water supply or wildfire. In the event that DCWC would need to supply TCW with emergency water, both entities would notify affected customers and request that they voluntarily restrict water use to help conserve water and limit any effect on fisheries in Dallas Creek.

Any effects to trout would be short-term, over a period of days, weeks, or possibly months every 25 or more years, unless acute mortality occurs due to increased diversions under drought conditions, in which case population-level effects could extend out a number of years. No long-term effects to trout habitat suitability in Dallas Creek are expected.

3.7 Migratory Birds

3.7.1 Affected Environment

A variety of migratory birds and raptors may nest in the vicinity of proposed activities. Migratory birds are protected under the Migratory Bird Act of 1918 and bald and golden eagles receive additional protection under the Bald and Golden Eagle Protection Act of 1940.

Region 16 Birds of Conservation Concern (BCC) that likely nest in the project area include pinyon jay (*Gymnorhinus cyanocephalus*), gray vireo (*Vireo vicinior*), juniper titmouse (*Baeolophus ridgwayi*), Grace's warbler (*Dendroica graciae*), and Lewis' woodpecker (*Melanerpes lewis*) (FWS 2008). Grace's warbler nests in the ponderosa pine woodland, whereas the other species nest in the pinyon-juniper woodland. Pinyon jays were heard in the vicinity of Pump Stations 4 and 30 during the September field review. The primary migratory bird nesting period is April 1 to July 15, although pinyon jays typically start setting as early as March.

The ponderosa pine woodland in the vicinity of the proposed pipeline provides unremarkable nesting habitat for golden eagle (*Aquila chrysaetos*), another BCC species. In Colorado, golden eagles strongly prefer to nest on cliffs, but will occasionally choose an isolated cottonwood or ponderosa pine. The Proposed Action would take place within CPW-mapped winter range for bald eagle (*Haliaeetus leucocephalus*), but there is no bald eagle nesting habitat in the vicinity of the project. The closest known active bald eagle nest is along the Gunnison River near the City of Delta. The ponderosa pine woodland and McKenzie Creek cottonwood riparian corridor provide nesting habitat for other raptors. Red-tailed hawk (*Buteo jamaicensis*) is the most likely raptor to nest in the vicinity of proposed work. The courtship and nesting period for golden eagles is December 15 to July 15 and for red-tailed hawks is February 15 to July 15 (CPW 2008).

The pinyon-juniper woodland in the project area does not provide suitable nesting raptor habitat. There are some low cliffs on the west face of McKenzie Butte that may provide suitable nesting habitat for ravens. The cliffs are more than 0.5 mile from CR 1, northwest of existing Pump Station 31. An area mapped by CPW as potential peregrine nesting habitat is located east of CR 1 near Colona. The area is one or more miles from existing Pump Stations 4-6.

3.7.2 Environmental Consequences

No Action

The No Action Alternative would have no direct or indirect effects to migratory birds, including raptors.

Proposed Action

Pipeline construction would take place between July 15 and January 21, inside the courtship period for golden eagles but outside the nesting window for red-tailed hawk and migratory songbirds. Golden eagles may start setting in February. The pipeline would be installed primarily along CR 1, an

unpaved road that is graded and maintained when snow free and plowed in the winter. It would extend roughly 500 feet off CR 1 to cross McKenzie Creek very close to a residence. If a pair of eagles is nesting in the vicinity of the pipeline alignment, it is likely they have chosen a site at some distance from CR 1 and the residence on McKenzie Creek and that they are habituated to some degree of human activity and noise. Human activity and noise related to pipeline construction would not be that different from baseline levels of activity due to traffic, road maintenance, and ranching and would not be expected to disrupt golden eagle breeding behavior should a pair be nesting in the vicinity of the proposed pipeline.

Work at the existing pump stations and New Pump Station 1 may take place starting in the spring of 2020. No vegetation clearing would be required at these stations. Pump Station 4 is set within an unvegetated enclosure, with a narrow cleared area between it and the pinyon-juniper woodland (Photos 6-7). The other pump stations are all located in small clearings directly adjacent to CR 1 and 22 (Photos 9-13). New Pump Station 1 is located at an intersection on CR 1, directly in front of a residence (Photo 4). Set against this backdrop of cleared vegetation and human activity, adverse effects to migratory birds, including raptors, from proposed work at these pump stations are expected to be negligible and limited to annoyance impacts.

Construction of new Pump Station 2 on Ponderosa Drive would require clearing of grass and perennials (Photo 5). Work at this Pump Station would not take place between April 1 and July 15 to avoid impacts from vegetation clearing on nesting songbirds. Golden eagles and red-tailed hawks would be unlikely to nest in the vicinity of this pump station, given its location at the entrance to a residential area. Human activity and noise related to new Pump Station 2 construction would not be that different from baseline levels of activity due to traffic, residential activity, and road maintenance and would not be expected to disrupt raptor courtship or nesting behavior in the vicinity.

3.8 Threatened and Endangered Species

On November 22, 2019, an official list of federally listed, proposed, and candidate species protected under the Endangered Species Act (ESA) of 1973, as amended, was requested for the Proposed Action from the U.S. Fish and Wildlife Service (FWS) Information for Planning and Consultation website. The list was reviewed and evaluated using information provided in the FWS rule making documents for the various species, critical habitat shapefiles from the FWS, CPW species activity mapping data, consultation with CPW personnel, and professional knowledge of the species. Of the species on the trust resources list, it was determined that the four species of endangered Colorado River fish are the only listed species having potential to be affected by the Proposed Action and are therefore carried forward for analysis in this EA.

Other federally protected species considered but dismissed include Gunnison sage-grouse (*Centrocercus minimus*), the western distinct population segment of yellow-billed cuckoo (*Coccyzus americanus*), and greenback cutthroat trout (*Oncorhynchus clarkii stomias*), all of which have threatened status. Designated critical habitat for Gunnison sage-grouse extends to within roughly 830 feet of Pump Station 4. Effects from the Proposed Action to the species and its critical habitat were dismissed because all work would be conducted outside of suitable habitat and designated critical

habitat in the Simms Mesa subpopulation of the species, and work would be confined to previously disturbed, unvegetated soils inside a fenced pump station yard. Although the FWS considers the Simms Mesa critical habitat to be occupied, CPW has downgraded it to vacant/unknown because the last sighting of a grouse there was in 2004, over 10 years ago (Phillips 2019). The closest known lek is 10 miles away. Suitable habitat for western yellow-billed cuckoo does not occur in the project area and greenback cutthroat trout do not occur in Dallas Creek, Ridgway Reservoir, or the mainstem Uncompahgre River.

3.8.1 Affected Environment

Four species of federally endangered fish are known to occur downstream of the project area in the Gunnison and/or Colorado Rivers: Colorado pikeminnow (*Ptychocheilus lucius*), razorback sucker (*Xyrauchen texanus*), bonytail (*Gila elegans*), and humpback chub (*Gila cypha*). The four fishes do not occur within or directly downstream of the project area. The nearest populations of Colorado pikeminnow and razorback sucker are found in the Gunnison River below the Hartland Diversion Dam, located in Delta. The nearest populations of bonytail and humpback chub are in the Colorado River, although isolated individuals occur in the lower reaches of the Gunnison River. The closest designated critical habitat for Colorado pikeminnow and razorback sucker is in the Gunnison River below the Hartland Diversion Dam and for bonytail and humpback chub is in the Colorado River.

The FWS has determined that the four species of endangered Colorado River fish and their designated critical habitats may be adversely affected by water depletions in the Upper Colorado River Basin, which includes the Gunnison Basin. Depletions affect backwater and floodplain spawning habitat for the fishes, with impacts to reproduction. In 2009, the FWS conducted Section 7 consultation on historic and some future depletions associated with existing federal and non-federal projects in the Gunnison Basin and issued the Gunnison River Basin Programmatic Biological Opinion (GUPBO; TAILS 65413-2009-F-0044) (FWS 2009), which avoided jeopardy to the fishes and adverse modification of their critical habitats. Federal projects consulted on in the GUPBO include the Aspinall Unit, the Dallas Creek, Uncompahgre, and Dolores Projects, and other smaller Reclamation projects. All historic depletions were brought into compliance with the ESA and are covered under the GUPBO. When private water companies are proposing an action that has a federal nexus, the FWS encourages them to sign a Recovery Agreement to bring their depletions into compliance with the GUPBO.

The FWS and a number of other Federal and State agencies and other stakeholders established the Upper Colorado River Endangered Fish Recovery Program in 1988, which the FWS considers to be the reasonable and prudent alternative to avoid the likelihood of jeopardy to the endangered fishes and adverse modification of their critical habitat. The FWS reviews implementation of the Recovery Program annually and in 2018 determined that sufficient progress towards its implementation is occurring among the GUPBO projects, including the Dallas Creek Project (FWS 2018).

3.8.2 Environmental Consequences

No Action

The No Action Alternative would result in no new depletions within the Gunnison Basin and would have no direct or indirect effects to the four species of endangered Colorado River fish and their critical habitats.

Proposed Action

TCW uses only Reclamation water from the Uncompahgre and Dallas Creek Projects. This water has been consulted on and any increase in water use by TCW under the Proposed Action would be within the sideboards of the GUPBO. In 2012, Project 7 signed a Recovery Agreement to bring their treatment facility under the umbrella of the GUPBO. DCWC has been diverting water from Dallas Creek since 1975. Formal Section 7 consultation with FWS on DCWC's depletions has been completed and both parties have signed a Recovery Agreement (TAILS 06E24100-2020-F-0126), bringing the depletions into compliance with the GUPBO. The Biological Opinion and Recovery Agreement are provided in Appendix G.

For the purposes of Section 7 consultation, DCWC depletions were calculated as the mean annual diversion by DCWC from Dallas Creek over the last 20 years (1999-2018), or 107.24 ac-ft. The depletion rate was conservatively calculated based upon 100 percent loss to the system, with no return flow to Dallas Creek or the Uncompahgre River.

Under almost all emergency scenarios, the Proposed Action would not increase consumptive use of water in the Gunnison Basin or result in new depletions affecting the fishes. This is because if TCW or DCWC increase use to supply the other entity with emergency water, it is because the entity being supplied is not able to draw upon their own water allocation due to drought limitations, contamination, or catastrophic failure of their system. Moreover, any increase in use of Gunnison River water by TCW would be offset by exchange releases out of Ridgway Reservoir, with no net effect to flows downstream of the Gunnison and Uncompahgre River confluence, which marks the upstream extent of regularly occupied and critical habitat for razorback sucker and Colorado pikeminnow.

Only in the case of fire suppression might the emergency supply provided by one entity be used to supplement baseline water use by the other entity, increasing basin-wide depletions. As explained above in Section 1.1.2, the volume of water in TCW's Log Hill Mesa distribution system is less than optimal for fire suppression, creating a potential scenario in which both TCW and DCWC combine water supplies to fight fire. Emergency water supplied under this scenario would constitute a new depletion upstream of occupied and designated critical habitat for the four fishes. If DCWC were to supply TCW with emergency water to fight fire at top pipeline interconnect capacity for a 90-day period, it is estimated that the maximum depletion would be 95.5 ac-ft. Although use of the proposed pipeline was estimated to occur every 25 years in Section 3.2, use of it by DCWC to help TCW fight fire is likely to occur with far less frequency, say perhaps every 50 years or more. Hence

an increase in Gunnison Basin-wide depletions would occur once every 50 years or more, in the amount of roughly 95.5 ac-ft.

Based on the above discussion, the effects determinations are as follows:

Colorado River Endangered Fishes and their Designated Critical Habitats The Proposed Action would not directly affect any of the four species of endangered Colorado River fish or their designated critical habitats. The FWS has determined that depletions within the Upper Colorado River Basin may adversely affect the four fishes and their critical habitats. DCWC has been depleting Dallas Creek water since 1975, and the Proposed Action may result in increased consumptive use of water by DCWC. The Proposed Action therefore may affect, is likely to adversely affect Colorado pikeminnow, razorback sucker, bonytail, and humpback chub and their designated critical habitats. By signing a Recovery Agreement, DCWC has brought their historic and ongoing depletions into compliance with the GUPBO, avoiding the likelihood of jeopardy to the four fishes and adverse modification to critical habitat due to depletion impacts. If DCWC supplies emergency water under the Proposed Action, Reclamation would reinitiate Section 7 consultation with FWS on the new depletions (see Chapter 4.0).

3.9 Access, Transportation, and Public Safety

3.9.1 Affected Environment

Proposed work would take place along Ouray County roads: CR 1, CR 22, Asters Lane, and Ponderosa Drive. CR 1 crosses Log Hill Mesa, providing access primarily to residential and agricultural lands, as well as connectivity between US 550 at Colona and State Highway 62 west of Ridgway. It also provides recreational access to McKenzie Butte, located on Bureau of Land Management (BLM) lands, and Fairway Pines golf course, located in Log Hill Village. CR 22 provides access to residential and agricultural lands and the lower flank of the Uncompahgre Plateau in the vicinity of Colona. Asters Lane is a dead end road that serves three residences. Ponderosa Drive provides access in and out of Log Hill Village and adjacent residential communities. It serves relatively few residences compared to the main part of Log Hill Village.

Average daily traffic volumes at the south end of CR 1 were 1,266 vehicles and at the north end 1,067 based on Ouray County data from 2018 and 2019. Traffic volumes on CR 1 increase significantly during the summer months, generally peaking in June (Ouray County 2019). A rush hour does not occur on CR 1 given the low density residential development, although several vehicles in succession do travel the road during commute hours.

3.9.2 Environmental Consequences

No Action

The No Action Alternative would have no direct or indirect effects to access, transportation, or public safety.

Proposed Action

The Proposed Action would result in short-term delays during construction, particularly along CR 1 during pipeline construction. TCW has developed a traffic plan for the Proposed Action that includes signage and a flagger. Planned delays of up to 20 minutes are expected along CR 1 over a one-to-two month period during pipeline construction. Delays would take place over a two-to-three day period at Pump Stations 30-32 and New Pump Station 1, primarily during delivery and setting of the new vaults. There are no alternate routes for vehicles to take to avoid delays at these locations. Delays along Asters Lane and Ponderosa Drive during work at Pump Station 4 and the New Pump Station 2 are expected to be negligible given the small populations served by the two roads. No delays along CR 22 are expected during upgrades at Pump Stations 4 and 5. The Proposed Action would not result in any detectable long-term increase to operation and maintenance traffic along the roads affected, given that TCW and DCWC each have existing infrastructure nearby to the proposed new infrastructure.

Pipeline construction would take place during the late summer into the early winter, when traffic volumes are lowest on CR 1 and 22. All work and traffic management would take place during normal commute and work hours over an approximately two-month period. Traffic plan implementation, low traffic volumes, and minimal pedestrian use of CR 1 would minimize risks to public safety from construction. Precautions to minimize risk to pedestrians from open trenches would be taken, as set forth in the environmental commitments presented in Chapter 4.0.

3.10 Noise

3.10.1 Affected Environment

Baseline levels of human-induced noise in the Proposed Action area are moderate and typical of scenic rural areas that support low density residential and agricultural developments. Noise is associated with traffic on CR 1 and 22, road maintenance, roadside utility construction and maintenance, residential land uses, and ranching operations. There are low density residential noise receptors adjacent to or near the pump stations and pipeline termini.

3.10.2 Environmental Consequences

No Action

The No Action Alternative would result in no contributions to noise in the Proposed Action area.

Proposed Action

The Proposed Action would result in a short-term increase in baseline levels of noise during pipeline construction and work at the pump stations. Increased noise would be generated by heavy equipment, support vehicles, and personnel. All work would take place during normal working hours. Although pipeline construction may take two months, concentrated work would move along

the pipeline corridor and would not last long in any one location. The use of heavy equipment at Pump Stations 4, 30-32, and the two new pump stations would be concentrated during excavation and vault placement, which are expected to take several days at each location. No heavy equipment would be needed to complete upgrades to Pump Stations 5 and 6. Noise impacts at any given location are expected to be short-term and of low to moderate intensity depending on activity. No long-term increases in noise levels are expected during operation, given the projected low frequency of required maintenance.

3.11 Recreation

3.11.1 Affected Environment

The Proposed Action would take place entirely on private land that is not open to public recreational use. CR 1 provides recreational access to McKenzie Butte, located on BLM lands, and Fairway Pines golf course, located in Log Hill Village. Dallas Creek supports a recreational non-native trout fishery accessed from Ridgway State Park.

3.11.2 Environmental Consequences

No Action

The No Action Alternative would have no direct or indirect effects to recreation in the Proposed Action area.

Proposed Action

The Proposed Action would take place on private land and would not directly affect any areas open for recreational use. Potential effects from the Proposed Action to recreational access are discussed in Section 3.9. Increased emergency use of Dallas Creek water by DCWC is expected to occur infrequently, perhaps once every 25 years, though likely at longer intervals. If increased use reduces streamflows between the Loghill Pumping Plant and Ridgway Reservoir, the Proposed Action may contribute to adverse effects to the trout fishery in Dallas Creek, although the diversions between the Loghill Pumping Plant and Ridgway Reservoir are likely to have a disproportionate effect compared to the estimated maximum 0.53 cfs increase expected from the Proposed Action (see Sections 3.2.1). If such effects occur, they may affect recreational fishing along Dallas Creek, an attraction that CPW seeks to maintain (Gardunio 2019). Any effects to recreational fishing are generally expected to be short-term, over a period of days, weeks, or months every 25 or more years, unless acute mortality occurs due to increased diversions under drought conditions, in which case population-level effects could extend out a number of years, depressing recreational opportunity over that period of time. No long-term effects to recreational fishing in Dallas Creek are expected due the anticipated infrequency of emergencies requiring that DCWC supply TCW with water.

3.12 Cumulative Effects

Cumulative effects under NEPA refer to environmental impacts resulting from the incremental impact of the Proposed Action when added to other past, present (ongoing), and reasonably foreseeable future actions undertaken by federal and non-federal agencies or private entities. The cumulative impacts analysis considers the geographic and temporal reach of potential effects, which typically vary for each resource analyzed. The Proposed Action would have no adverse cumulative effects on resources excluded from detailed analysis in this EA (see Section 3.1).

Direct and indirect effects of past and ongoing actions are part of the environmental baseline (affected environment) described for each resource in Chapter 3.0, and are summarized in this section by type of activity. Reasonably foreseeable future actions refer to specific planned actions, not speculative actions. The cumulative effects area of analysis is entirely on private land. To ascertain reasonably foreseeable future actions on private lands in the project area, we spoke to the Ouray County Planning Department (Castrodale 2020), reviewed land use applications under review on the county website (Ouray County 2020), and reviewed the Ouray County Master Plan (Ouray County 1999, as amended). There are currently no approved but unbuilt commercial actions in the project area. Following is a list of reasonably foreseeable future actions in the cumulative effects analysis areas:

- Residential construction on unbuilt lots in approved subdivisions;
- Paving CR 1 (the County has been seeking grant funding for this project);
- TCW, in cooperation with CPW, is planning to construct a steel screen at Ridgway Dam to prevent the introduced smallmouth bass (*Micropterus dolomieu*) from travelling downstream from the reservoir. This project is part of the Endangered Fish Recovery Program.

3.12.1 Water Use, Rights, and Streamflows

The area of analysis for *water use* includes TCW and DCWC customers on Log Hill Mesa, and for *streamflows* is Dallas Creek, given the negligible effect of the Proposed Action on Ridgway Reservoir and flows in the Uncompahgre and Gunnison Rivers. The Proposed Action would have no direct or indirect effects on *water rights* and therefore would not contribute to cumulative effects to water rights. The timeframe for analysis is the life of the project, which for this EA is considered to be 50 years. Past and present actions affecting water use and streamflows in the areas of analysis include water right decrees and agricultural, residential, and commercial developments that have resulted in diversions.

Cumulative effects from the Proposed Action to *water use* among TCW and DCWC customers on Log Hill Mesa would be beneficial, countering potentially adverse effects from future drought, contamination of their water supplies, system failure, or fire. The Proposed Action may result in infrequent, temporary increases in diversions from Dallas Creek, which could decrease streamflows between the Loghill Pumping Plant and Ridgway Reservoir. Any decrease would contribute incrementally to cumulative effects to streamflows in Dallas Creek, although the contribution would be temporary rather than permanent.

3.12.2 Water Quality and Wetlands

The area of analysis for effects from sedimentation and contamination is the McKenzie Creek and Fisher Creek Watersheds and the timeframe would extend out to several months after the completion of pipeline construction for water quality and several years for wetlands, to allow wetland vegetation to regrow after construction. Past and present actions that may be affecting water quality and wetlands in the area include road maintenance; application of magnesium chloride and salt to roads; agricultural practices; livestock grazing; and herbicide application for weed management along the CR 1 corridor. Work within or adjacent to waters and wetlands would be minimal and all effects would be temporary. With the successful implementation of the environmental commitments presented in Chapter 4.0, the Proposed Action would contribute negligibly to cumulative impacts to water quality and wetlands in the McKenzie Creek and Fisher Creek Watersheds.

The area of analysis for effects on the CS-I temperature standard is Dallas Creek. The timeframe for analysis is the life of the project, or 50 years. Past and present actions that may be affecting water temperature in the creek include all diversions within the Dallas Creek watershed. Given the expected infrequency of increased diversions from Dallas Creek, the Proposed Action would contribute incrementally to cumulative impacts on water temperature when the diversions are made during low-flow conditions.

3.12.3 Invasive Species/Noxious Weeds

The area of analysis is Log Hill Mesa. The timeframe for analysis is the life of the project, or 50 years, given how difficult to control some weed species can be. Past and present actions likely to be affecting the distribution and abundance of noxious weeds on Log Hill Mesa include road maintenance; agricultural practices; livestock grazing; residential and commercial developments; and Ouray County weed management. With the successful implementation of the environmental commitments presented in Chapter 4.0, the Proposed Action would contribute incrementally to cumulative impacts to the distribution and abundance of noxious weeds on Log Hill Mesa.

3.12.4 Aquatic Wildlife and Recreation

Aquatic life and recreation are addressed together because potential effects from the Proposed Action to recreation are limited to recreational fishing at Ridgway State Park. The area of analysis is Dallas Creek and Ridgway Reservoir. The timeframe for analysis is the life of the project, or 50 years. Past and present actions affecting the Dallas Creek recreational fisheries include diversions and demand on water in the Dallas Creek watershed and recreational fishing. Infrequent, temporary increases in diversions of a maximum of approximately 0.53 cfs from Dallas Creek by DCWC would contribute incrementally to cumulative adverse effects to the Dallas Creek recreational fisheries and fishing. The contribution would be larger if the increase in diversions were made under drought conditions. Assessing the cumulative contribution of the Proposed Action to the Dallas Creek recreational fishery as incremental is justified given the much larger ongoing diversions of water from Dallas Creek below the Loghill Pumping Plant (Section 3.2.1) and the expected infrequency of the increased diversions.

3.12.5 Migratory Birds

The area of analysis is Log Hill Mesa, and the timeframe for analysis extends out to one year post-construction. Past and present actions affecting migratory birds including raptors on Log Hill Mesa include vegetation clearing, residential and commercial development, roadside mowing, and agricultural practices. With the successful implementation of the environmental commitments presented in Chapter 4.0, the contribution of the Proposed Action to cumulative effects to migratory birds, including raptors, is expected to be negligible, with no population-level effects expected.

3.12.6 Threatened and Endangered Species – Colorado River Endangered Fish Species

The area of analysis is Dallas Creek and Ridgway Reservoir. The timeframe for analysis is the life of the project, or 50 years. Past and present actions affecting the endangered Colorado River fishes and their critical habitats include construction of Ridgway Dam; depletions; introduction and spread of invasive fish species that prey on or compete with the four endangered fishes; and recovery actions under the Recovery Implementation Program. The Proposed Action is expected to have a negligible contribution to cumulative effects to the four species of endangered Colorado River fish and their critical habitats given that all activities would occur far from occupied and critical habitat, and the small volume and infrequency of new depletions.

3.12.7 Access, Transportation, Public Safety and Noise

The area of analysis for access, transportation, and public safety is CR 1 and 22, Asters Lane, Ponderosa Drive, and for noise includes all noise receptors surrounding the pipeline alignment and pump stations. The timeframe is the construction phase of the Proposed Action. Past and present actions affecting access, transportation, public safety, and noise in the area of analysis include residential, commercial, and recreational (golf course) development; agricultural operations; road maintenance; utility construction and maintenance inside the county road ROW; and tourism. The Proposed Action is not expected to contribute to cumulative effects to access, transportation, public safety, or noise given the short-term nature of construction and the fact that operation and maintenance would not cause any detectable future increase in traffic or noise.

3.13 Summary of Impacts

Table 5 summarizes the expected impacts (environmental consequences) of the No Action and Proposed Action Alternatives analyzed in this EA.

Table 5. Summary of Impacts

Resource	No Action Impacts	Proposed Action Impacts
Water Use, Rights, and Streamflows	No impact	Availability of an emergency supply of water would benefit human health and safety among TCW and DCWC users on Log Hill Mesa. Increased pumping by DCWC while supplying TCW with emergency water would temporarily reduce streamflows in Dallas Creek downstream of the Loghill Pumping Plant. No impact to water rights.
Water Quality	No impact	Sediment and contaminants (e.g., fuel, oil) from heavy equipment use have some potential to enter waterways. With the implementation of the environmental commitments, adverse impacts would be minimal and short-term, reduced to the level of non-significance. Increased diversions from Dallas Creek under low-flow conditions could contribute to failure of the creek to meet the CS-I water temperature standard for the duration of low-flow conditions.
Wetlands	No impact	Short-term, temporary impacts to potential wetlands associated with McKenzie Creek, an irrigation ditch, and possibly Fisher Creek expected. Implementation of the environmental commitments and adherence to the 404 permit conditions would minimize impacts to the level of non-significance.
Invasive Species/Noxious Weeds	No impact	Construction may increase the extent of noxious weeds on Log Hill Mesa. Implementation of the environmental commitments is expected to minimize impacts to the level of non-significance.
Aquatic Wildlife	No impact	Infrequent, mostly short-term, adverse impacts to the Dallas Creek trout fishery may occur when DCWC increases pumping to supply TCW with emergency water. Impacts would be greatest during drought conditions and would extend for the duration of the diversion or until flow levels increase seasonally, every 25 years or more. There is some potential for longer-term population-level impacts if increased pumping occurs when water temperatures in the creek exceed acute toxicity standards during low flows.

Resource	No Action Impacts	Proposed Action Impacts
Migratory Birds	No impact	A timing restriction on vegetation clearing would protect nesting migratory birds. Proposed work is similar to ongoing human activities along and in the vicinity of CR 1, making it unlikely that the Proposed Action would disrupt breeding among raptors, should any be nesting locally.
Threatened and Endangered Species	No impact. Ongoing depletions would continue to affect the downstream Colorado River endangered fishes and their critical habitats.	A temporary increase in depletions would occur if DCWC supplements available TCW water for fire suppression. The downstream Colorado River endangered fishes and their critical habitats may be adversely affected but would not be jeopardized/adversely modified by the increase in depletions.
Access, Transportation, and Public Safety	No impact	Delays of up to 20 minutes are possible during pipeline construction, which is expected to take one to two months. Similar delays may occur for several days at each of the pump stations on CR 1 and Ponderosa Drive. Given the low traffic volumes on Log Hill Mesa, implementation of the traffic plan would reduce delays to the level of non-significance. With implementation of the environmental commitments, potential adverse impacts to public safety would be highly unlikely. No long-term impacts.
Noise	No impact	Noise from heavy equipment, service vehicles, and personnel would increase locally during construction and pump station upgrades. Low density residential noise receptors in the vicinity of construction would be affected by the increase. Effects would be temporary and of low to moderate intensity, depending on the type of activity, with no long-term impacts.
Recreation	No impact	Possible adverse impacts to recreational fishing in Dallas Creek may occur if increased use of water by DCWC decreases streamflows between the Loghill Pumping Plant and Ridgway Reservoir. The magnitude of impacts would depend on the volume of water diverted and flow volumes in the creek. Impacts would be temporary or may extend out a number of years if fish populations decline severely.

4.0 Environmental Commitment Plan

Table 6 lists the environmental commitments that TCW and DCWC will implement in order to protect resources and minimize adverse environmental impacts from the Proposed Action to a non-significant level. TCW and DCWC have incorporated the commitments as part of the Proposed Action. If the Proposed Action is approved, Table 6 will be used to document compliance with each commitment. Within 30 days of completion of construction, the completed checklist will be submitted to Reclamation as documentation of compliance.

Table 6. Pipeline Interconnect Environmental Commitments

Environmental Commitment	Timing	Compliance Date	TCW & DCWC Initials
General			
1. All work within the county road ROW will be completed according to Ouray County Road and Bridge standards and ROW permit requirements.	Pre-, during, and post-construction		
2. Environmental Commitments will be included as project requirements in the construction contract and aquatic resource locations will be shown in the construction atlas.	Pre-construction		
3. TCW will hold a pipeline pre-construction meeting and site walk-through with all TCW construction staff in which the environmental commitments are explained and aquatic resources reviewed in the field. If a contractor is hired to assist TCW with any of the pipeline work, TCW will conduct a site walk-through with the contractor and review all environmental commitments and aquatic resource locations before the contractor begins work.	Pre-construction		
4. During emergencies when the pipeline interconnection is in operation, both TCW and DCWC will notify affected customers and request they implement voluntary water use restrictions.	Post-construction		
Water Quality			
5. All work on the pipeline will take place outside the irrigation season, when the ditch and stream channels are dry or have very low flow.	During construction		

Environmental Commitment	Timing	Compliance Date	TCW & DCWC Initials
6. If flowing water is present in McKenzie Creek at the time of pipeline construction, a water diversion will be implemented to avoid introduction of loose soils into the active channel. The affected channel will be returned to original grade and re-compacted prior to returning flows to the channel. The details of the diversion will be worked out as part of the 404 permitting process.	During construction		
7. Silt fence, straw wattles, or other suitable erosion control measures will be installed wherever spoil has potential to enter an aquatic resource. The silt fence will be installed, maintained, and removed by TCW.	Pre-, during, and post-construction		
8. Any sidecast material that inadvertently falls into a channel or wetland during pipeline construction will be removed immediately without disturbing existing vegetation to the maximum extent practicable.	During construction		
9. The project proponents and all contractors will transport, handle, and store any fuels, lubricants, or other hazardous materials in an appropriate manner that prevents them from contaminating soil and water resources. Use of these materials and refueling of equipment will be completed at least 100 feet from all aquatic resources.	During construction		
10. Equipment will be inspected daily and immediately repaired as needed to ensure there are no leaks of hazardous materials.	During construction		
Soils and Vegetation			
11. Vegetation clearing and ground disturbance will be minimized to the maximum extent practicable that allows for safe construction practices in order to avoid unnecessary disturbance to soils and vegetation.	Pre- and during construction		
12. "First out, last in" excavation and backfill practices will be followed to promote restoration of disturbed areas. Excavated topsoil will be stored separately from subsoils and redistributed over the disturbed area after completion of construction to facilitate revegetation.	During construction		

Environmental Commitment	Timing	Compliance Date	TCW & DCWC Initials
13. Following construction, all disturbed, previously vegetated areas will be returned to as close to original grade as practicable and all natural drainage patterns will be restored to pre-construction conditions. Disturbed areas will be reseeded using a Ouray County-approved seed mix. Other restoration practices will be conducted in accordance with the Ouray County ROW permit.	Post-construction		
Visual Resources			
14. All above-ground features will be painted to blend in with the surrounding landscape.	During construction		
15. Ground will be graded to match surrounding slopes according to Ouray County Road and Bridge standards.	During construction		
Cultural Resources			
16. If previously undiscovered archaeological or paleontological resources are discovered during construction, construction activities must immediately cease in the vicinity of the discovery and Reclamation must be notified. In this event, the SHPO will be consulted and work will not be resumed until consultation has been completed.	During construction		
17. If additional areas of impact (e.g., borrow pits, new staging areas, etc.) are identified during the course of the undertaking, they will be inventoried for archaeological resources and consulted on with SHPO. No construction work will occur at or near the additional impact areas until consultation has been completed.	During construction		
Wetlands			
18. TCW will obtain a 404 permit from the Corps before the EA is finalized and FONSI issued, and will comply with all aspects of the permit during and after construction.	Pre-, during, and post-construction		
Invasive Species/Noxious Weeds			

Environmental Commitment	Timing	Compliance Date	TCW & DCWC Initials
19. Weed management inside the county road ROW is conducted by Ouray County. TCW will implement weed abatement measures required by their Ouray County ROW permit.	Pre-, during, and post-construction		
20. All equipment will be power-washed and free of soil and debris prior to entering and upon exiting the construction site to minimize the spread of weed species.	During construction		
Migratory Birds and Raptors			
21. Pipeline construction will be completed between July 15 and late January.	During construction		
22. There will be no vegetation clearing between April 1 and July 15 to protect nesting migratory songbirds.	During construction		
Threatened and Endangered Species			
23. In the event DCWC delivers water to TCW due to an emergency that increases their depletions, TCW will notify Reclamation so Reclamation can complete any needed Section 7 consultation with FWS.	Post-construction		
Wildlife			
24. All work will take place during daylight hours.	During construction		
25. Open trenches and other excavations left overnight will be kept to a minimum and covered when work is not actively occurring to prevent wildlife from getting trapped and for human safety. Once uncovered, trenches will be reviewed to ensure that no wildlife has been trapped. If wildlife is found, it will be safely removed to a location outside the work area before work recommences.	During construction		
Public Safety			
26. The pipeline work area will be marked with bright tape and signs to warn pedestrians and motorists about the presence of a construction hazard zone.	During construction		

5.0 Consultation and Coordination

5.1 Agency Consultation

The following state and federal agencies and tribes were contacted and consulted during the preparation of this EA.

- Colorado Office of Archaeology and Historic Preservation, State Historic Preservation Office
- Southern Ute Indian Tribe
- U.S. Fish and Wildlife Service
- Ute Indian Tribe – Uintah and Ouray Reservation
- Ute Mountain Ute Indian Tribe

5.2 EA Comments

Reclamation provided the public an opportunity to comment on the Draft EA from March 2, 2020 through April 10, 2020. During this time, three comment letters were received. A copy of the comment letters and Reclamation's responses to the comments are provided in Appendix B and in the revisions to this Final EA.

5.3 Distribution

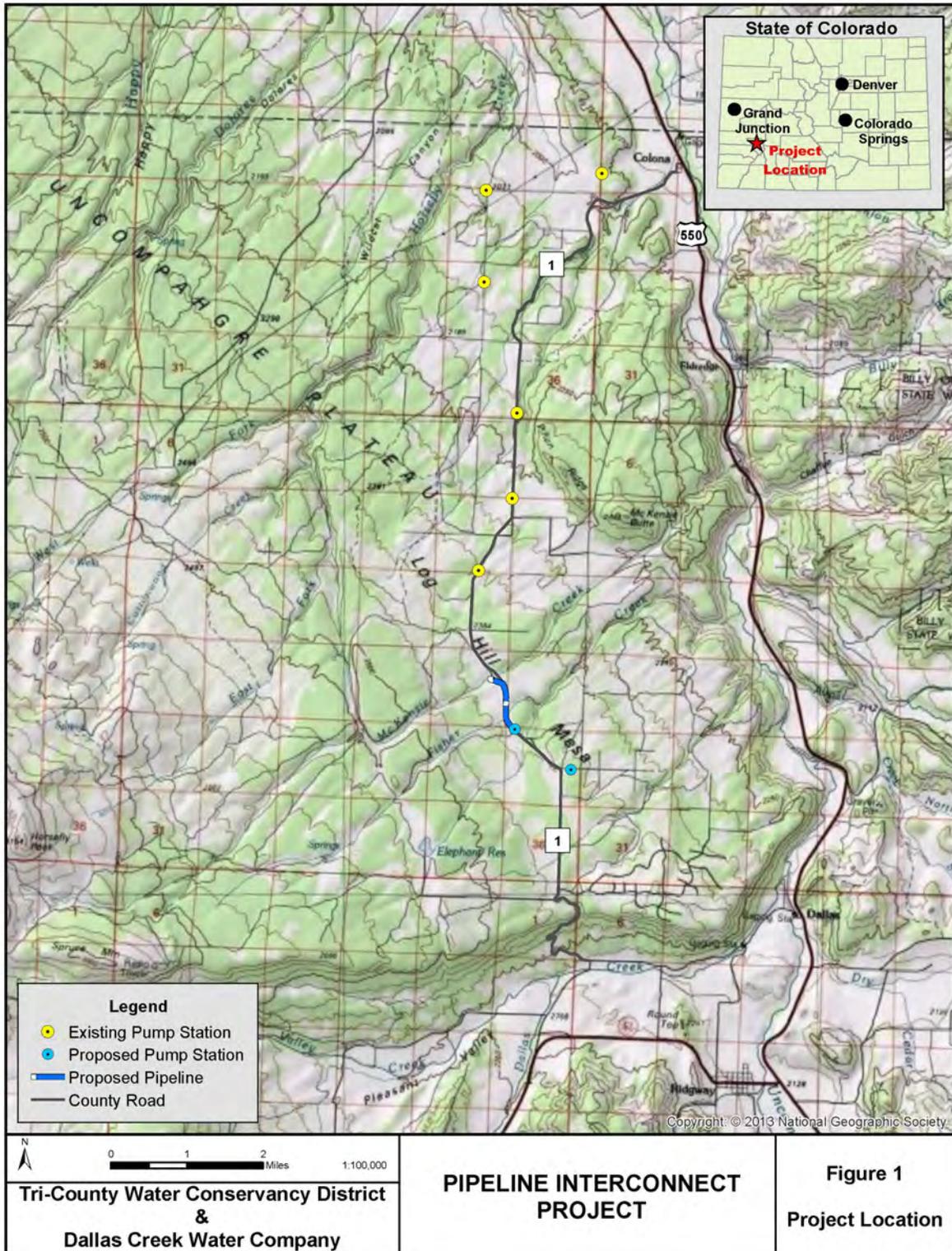
Notice of the public review period and availability of the Draft EA (posted on Reclamation's website) was distributed via U.S. mail to private landowners adjacent to the Proposed Action area and the organizations and agencies listed in Appendix C. This Final EA will also be available on Reclamation's website. Publically-available electronic versions of the Draft and Final EA meet the technical standards of Section 508 of the Rehabilitation Act of 1973, so that the documents can be accessible by people with disabilities using accessibility software tools.

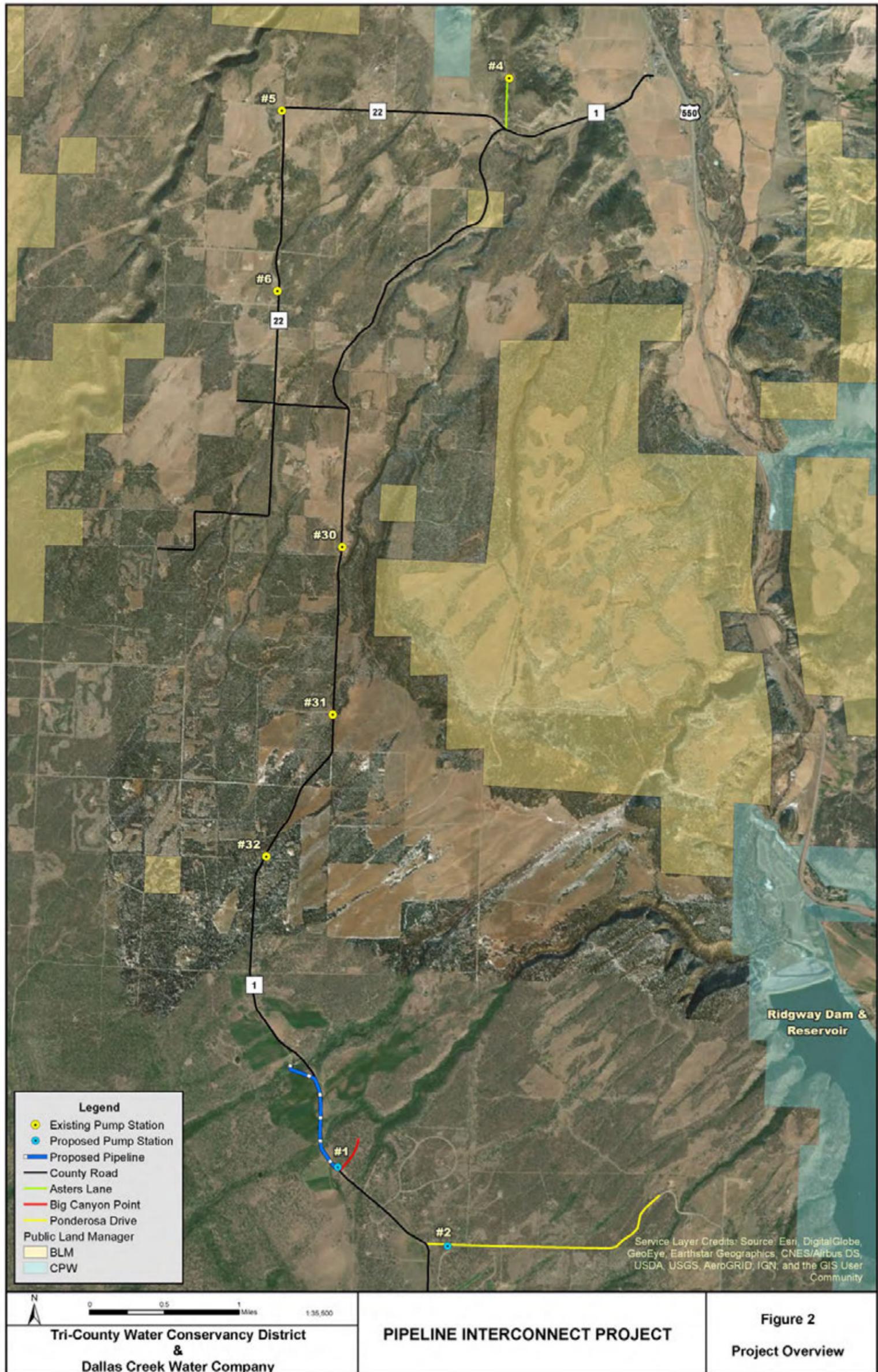
References

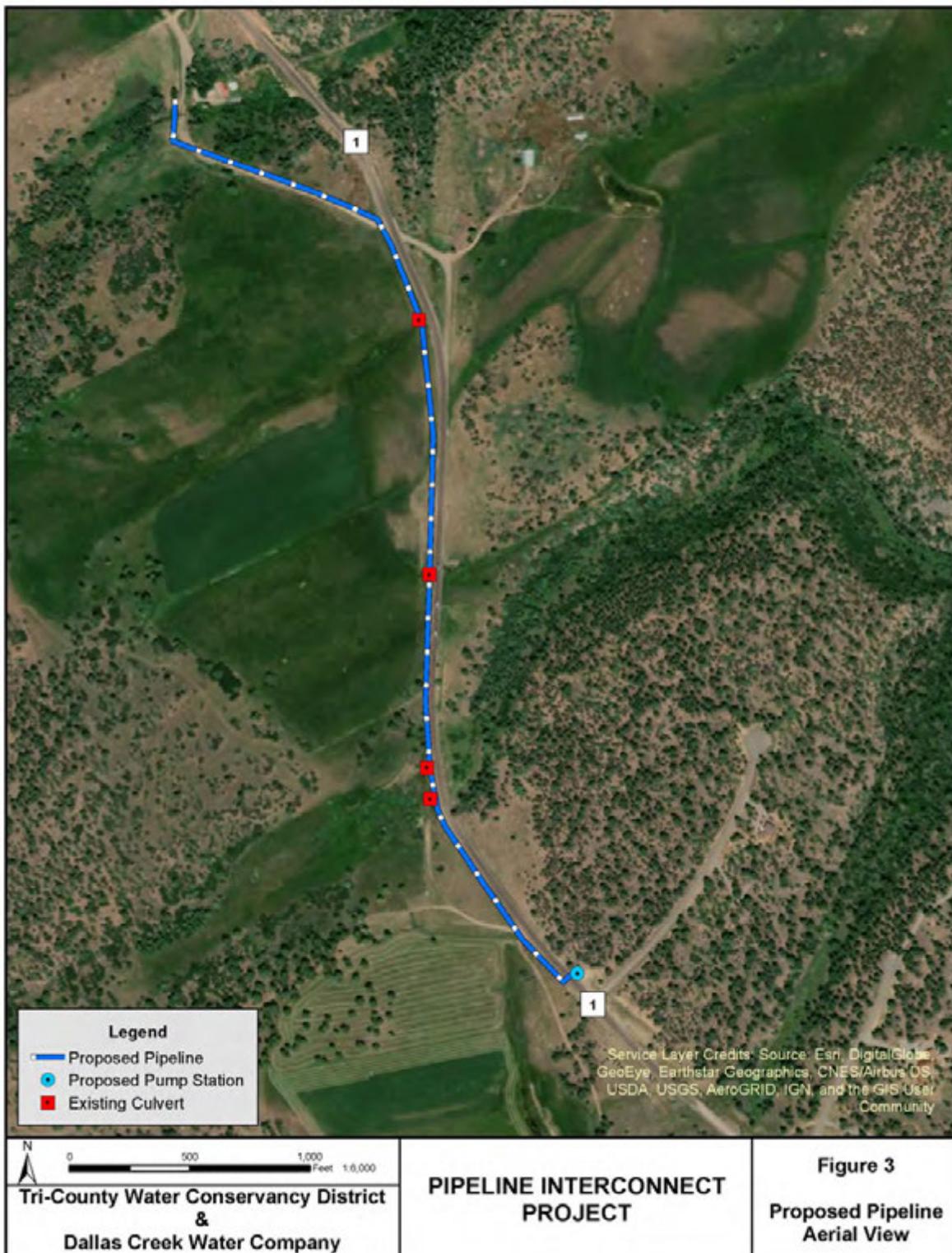
- Castrodale, M. 2020. Personal communication – phone conversation between Mark Castrodale, Ouray County Planning Director, and Alison Graff of BIO-Logic, dated January 13, 2020.
- CDA (Colorado Department of Agriculture). 2019. Noxious Weed List. <https://www.colorado.gov/pacific/agconservation/noxious-weed-species>
- CDPHE (Colorado Department of Public Health and Environment). 2020. Regulation 35, Classifications and Numeric Standards for Gunnison and Lower Dolores River Basins. <https://www.colorado.gov/pacific/cdphe/water-quality-control-commission-regulations>
- CPW (Colorado Parks and Wildlife). 2008. Recommended Buffer Zones and Seasonal Restrictions for Colorado Raptors.
- CWCB/DWR (Colorado Water Conservation Board & Colorado Division of Water Resources). 2019. Colorado's Decision Support Systems. <https://dwr.state.co.us/Tools>
- DCWC (Dallas Creek Water Company). 2018. Drought Response Plan.
- Phillips, E. 2019. Personal communication – email from Evan Phillips of the Montrose Office of Colorado Parks and Wildlife to Alison Graff of BIO-Logic, dated November 13, 2019.
- FWS (U.S. Fish and Wildlife Service). 1967. Endangered Status for Humpback Chub (*Gila cypha*) and Colorado River Squawfish (*Ptychocheilus lucius*). 32 Federal Register 4001.
- FWS (U.S. Fish and Wildlife Service). 1980. Endangered Status for Bonytail (*Gila elegans*). 45 Federal Register 27710.
- FWS (U.S. Fish and Wildlife Service). 1991. Endangered Status for Razorback Sucker (*Xyrauchen texanus*). 56 Federal Register 54957.
- FWS (U.S. Fish and Wildlife Service). 1994. Determination of Critical Habitat for the Colorado River Endangered Fishes: Razorback Sucker, Colorado Squawfish, Humpback Chub, and Bonytail. 59 Federal Register 13374.
- FWS (U.S. Fish and Wildlife Service). 2008. Birds of Conservation Concern. United States Department of Interior, Fish and Wildlife Service, Division of Migratory Bird Management, Arlington, Virginia. 85 pp. <https://www.fws.gov/migratorybirds/pdf/management/BCC2008.pdf>
- FWS (U.S. Fish and Wildlife Service). 2009. Gunnison River Basin Programmatic Biological Opinion. TAILS 65413-2009-F-0044. Ecological Services, Colorado Field Office, Denver, Colorado.

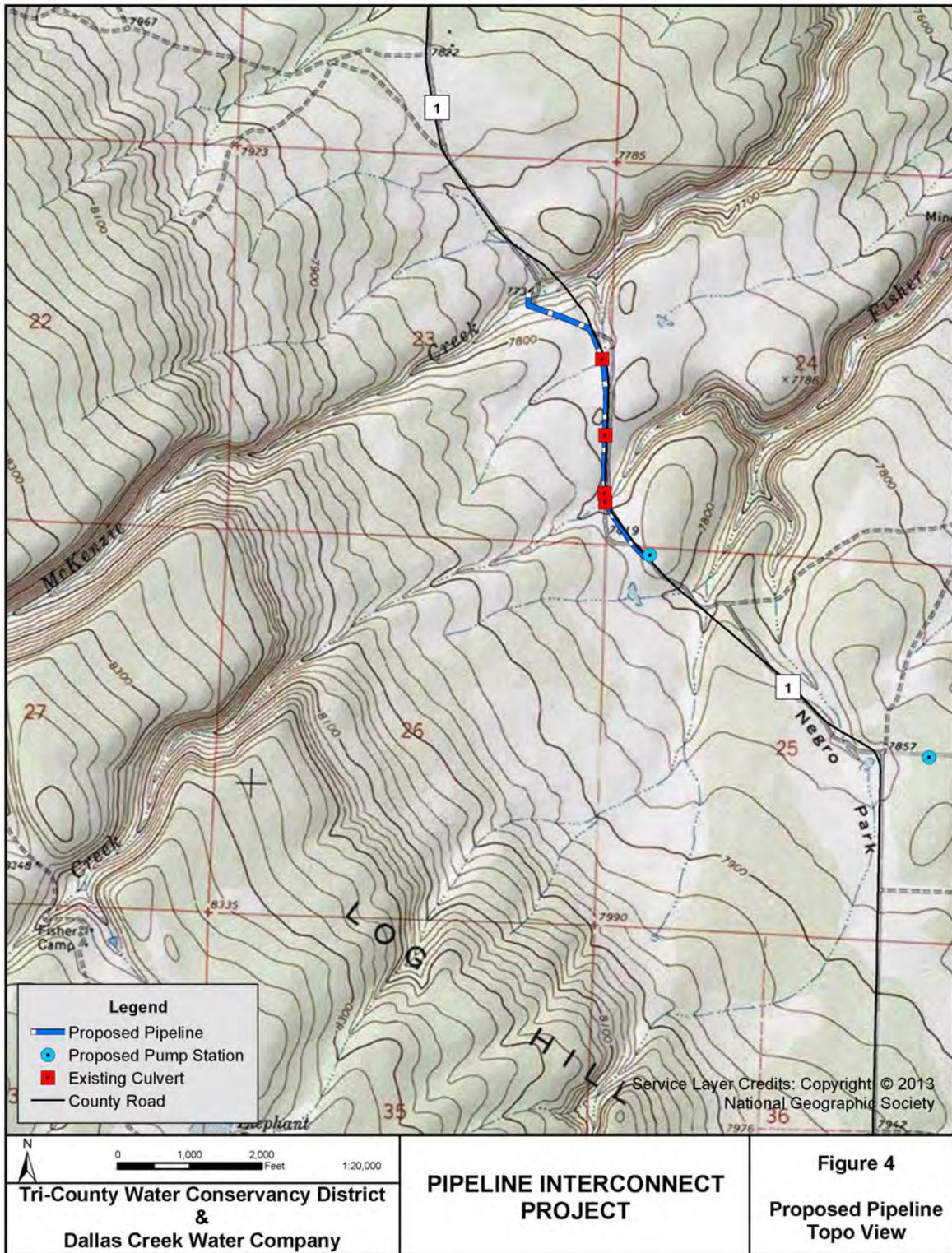
- FWS (U.S. Fish and Wildlife Service). 2018. Memorandum 2017-2018 Abbreviated Assessment of Sufficient Progress under the Upper Colorado River Endangered Fish Recovery Program in the Upper Colorado River Basin, and of Implementation of Action Items in the December 20, 1999, 15-Mile Reach Programmatic Biological Opinion, the December 4, 2009, Gunnison River Basin Programmatic Biological Opinion, and the January 10, 2005, Yampa River Basin Programmatic Biological Opinion. Mountain-Prairie Region, Denver, Colorado.
- Gardunio, E. 2019. Phone conversation between Eric Gardunio, aquatic biologist for Colorado Parks and Wildlife in Montrose, Colorado and Alison Graff of BIO-Logic, on December 9, 2019.
- Mihelich, K. 2016. Source Water Protection Plan. Unpublished report prepared by Colorado Rural Water Association for DCWC.
- NDMC (National Drought Mitigation Center). 2018. Drought Monitor.
<https://droughtmonitor.unl.edu/>
- NRCS. (Natural Resources Conservation Service). 2019. Soil Survey Ridgway Area, Colorado, Parts of Delta, Gunnison, Montrose, and Ouray Counties.
<https://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx>
- Ouray County. 1999. Ouray County Master Plan. <https://ouraycountyco.gov/147/Land-Use-Planning>
- Ouray County. 2018. Ouray County Noxious Weed Management Plan.
<https://ouraycountyco.gov/DocumentCenter/View/60/Ouray-County-Weed-Plan---2018?bidId=>
- Ouray County. 2019. Traffic Count Data for County Road 1. Ouray County Road & Bridge Department.
- Ouray County. 2020. Land Use Applications under Review. <http://co-ouraycounty.civicplus.com/215/Land-Use-Application-Under-Review>
- TCW (Tri-County Water Conservancy District). 2019. WaterSMART Grant Application.
- U.S. Census Bureau. 2010. United State Census Data for Ouray County, Year 2010.
<https://www.census.gov/quickfacts/ouraycountycolorado>
- USGCRP (U.S. Global Change Research Program). 2018. Impacts, Risks, and Adaptation in the United States: Fourth National Climate Assessment, Volume II [Reidmiller, D.R., C.W. Avery, D.R. Easterling, K.E. Kunkel, K.L.M. Lewis, T.K. Maycock, and B.C. Stewart (eds.)]. U.S. Global Change Research Program, Washington, DC, USA. 1515 pp. doi: 10.7930/NCA4.2018
- USGS. (U.S. Geological Survey). 2019. Discharge data from USGS gage stations.
<https://waterdata.usgs.gov/nwis/inventory/>

Appendix A Map Figures











Appendix B Comments on the Draft EA and Responses to Comments

Summary of Public Comments

Three comment letters were received from Trout Unlimited (TU), CWCB, and CPW. Together the letters include a total of 19 substantive comments. The comment letters have been annotated with comment numbers to facilitate this discussion. A number of the comments address the same issues, with the total number of issues raised resolving to 10. Reclamation's responses to comments are presented below, organized by issue.

1. Mitigation Measures/Environmental Commitments to Offset Potential Effects to the Dallas Creek Aquatic Environment from Increased Diversions

Comments: TU #1; CWCB #5, 6; CPW #8, 12

Comment summary: All three commenters ask that TCW and/or DCWC implement water conservation measures to mitigate impacts of increased diversions from Dallas Creek to stream health and fisheries, in the event that DCWC supplies TCW with emergency water under the Proposed Action.

- Commenters variously request that the EA include specific conservation measures or that it be clarified which entity, TCW or DCWC, would restrict water use if the DCWC to TCW exchange occurs.
- CWCB recommends that DCWC conservation measures be included as an environmental commitment.
- CPW recommends that all outside water use by TCW and DCWC be restricted to minimize demand and shorten duration of increased diversions if DCWC supplies TCW with emergency water when streamflows in Dallas Creek are below the CWCB instream flow water right.

Response: A project-related water conservation measure has been introduced into the Proposed Action in Section 2.3.5. The measure consists of TCW and DCWC notifying affected customers and requesting that they implement voluntary water use restrictions in the event the pipeline exchange is implemented. This is considered adequate given that the exchange would be made strictly for reasons of human health and safety and the expected infrequency of the exchange (on the order of decades). The conservation measure has been included as an environmental commitment in Chapter 4.0 of the EA. Water conservation measures already discussed in Sections 1.4 and 3.2.2 have been made congruent with the language in Section 2.3.5.

Additional data have been added to Section 3.2.1 on existing diversions from Dallas Creek downstream of the Loghill Pumping Plant. The 20-year mean annual diversion by DCWC equals 107.24 ac-ft (0.15 cfs) compared to 3,967.06 ac-ft (5.48 cfs) from all downstream diversions. The DCWC annual diversion is therefore roughly 3 percent of the downstream diversions. The maximum projected increase in diversions by DCWC under the DCWC to TCW exchange is 0.53 cfs (see Section 3.2.2), or less than 10 percent of 5.48 cfs. Use restrictions implemented by DCWC when the pipeline exchange is in effect would have an overall small effect on Dallas Creek streamflows compared to downstream diversions and would be infrequent, temporary, and possibly ineffectual in realizing a benefit to stream or fishery health. A more coordinated response among many users is more likely to have the intended effect that CPW is looking for. Conservation

measures addressing use of Dallas Creek water would more appropriately be addressed at a Dallas Creek watershed level in coordination with all users and are outside the scope of this EA for that reason.

The amount of additional water DCWC would divert from Dallas Creek if they were to supply TCW with emergency water depends on the need. To simplify the EA analyses, the maximum increase in pumping based on top pipeline capacity of 240 gpm (0.53 cfs) is referenced. This amount of water would only be needed for fire suppression. Additional information has been inserted into Section 3.2.2 that describes the smaller amount of water needed to supply existing TCW taps on Log Hill Mesa in the event of system failure (0.04 cfs based on 235 taps using 25,000 gpd).

2. Potential for an Increase in Exchange Releases from Ridgway Reservoir, Ensuing Effects on the Uncompahgre River Aquatic Environment and Potential Mitigation Measures

Comments: TU #2

Comment summary: Use of the supply interconnection by TCW to provide DCWC with an emergency supply of water could result in increased exchange releases from Ridgway Reservoir, adding to the frequency and duration of low flow events in the Uncompahgre River below the reservoir and negatively impacting riparian health, fisheries, and local economies. TU states that in recent years TCW has not met their 75 cfs flow requirement in the Uncompahgre River, as per the *Final Dallas Creek Project Environmental Impact Statement* (EIS). They ask that TCW continue to encourage its rate payers to conserve water, make releases only for necessary demands below the reservoir during summer months, and ensure flow requirements listed in the Final EIS are met.

Response: Releases from Ridgway Reservoir and the various flow requirements under the EIS are outside the scope of this EA, but Reclamation would continue to work with TCW to ensure that all flow requirements are being met. Language regarding required releases from Ridgway Reservoir has been added to Section 3.2.2. No related mitigation measures are included in the EA because the intention is to meet flow requirements under the EIS. TCW would continue to encourage water conservation among its customers. TCW has written a water conservation plan and taken steps to educate their customers on the subject. Once a month they put out a newsletter entitled “Splash” that includes a conservation corner offering ideas and strategies on how to conserve water. TCW also funds education on conservation. They are co-funding an “Energy Wise” program with Black Hills Energy in 2020 that teaches fifth graders how to be more aware of the resources they use and how to conserve both water and energy. They also instigated and co-sponsored (along with 13 other water entities) a similar “Water Wise” program from 2004-2012 in the Uncompahgre Valley.

3. Use of the CWCB Instream Flow Water Right as a Reference Point for the Dallas Creek Stream and Fishery Health

Comment: CPW #11, 12

Comment summary: CPW suggests that the CWCB instream flow water right be used as a scientifically-derived reference point for the minimum amount of water needed in Dallas Creek to ensure stream and fishery health to a reasonable degree. They recommend water conservation measures be implemented if the DCWC to TCW exchange is implemented when the flows in Dallas Creek are below the minimum CWCB instream flow right.

Response: The CWCB instream flow water right may be an appropriate, scientifically-derived benchmark for the Dallas Creek stream and fishery health; however, a determination on this is outside the scope of this EA. TCW and DCWC have committed to requesting voluntary water use restrictions of their customers whenever the pipeline interconnection is put under operation, regardless of flow levels, eliminating the need for a flow standard when implementing water conservation measures related to the Proposed Action.

4. Effects of Increased Diversions from Dallas Creek on Water Quality

Comment: CPW #14

Comment Summary: CPW asks that an analysis of potential impacts from the Proposed Action to the CS-I temperature standard in Dallas Creek be included in the EA.

Response: An analysis has been incorporated into Section 3.3.

5. Effects of Increased Diversions from Dallas Creek on the Trout and Salmon Fisheries

Comment: TU #1; CPW #16-19

Comment summary: TU expresses general concern regarding effects from increased diversions by DCWC to the Dallas Creek fisheries. CPW suggests modification of the Dallas Creek fisheries description in Section 3.6.1 and to the effects analysis in Section 3.6.2. They ask that population-level impacts to fish in Dallas Creek be included in Section 3.11.2, and that the cumulative effects determination for fish and recreation in Section 3.12 be justified. In two of the suggested revisions, CPW uses the CWCB instream flow right as a reference point for stream or fishery health.

Response: The description of the Dallas Creek fisheries in Section 3.6.1 has been modified to reflect CPW suggested language. In Section 3.6.2 the potential for increased diversions from Dallas Creek to exacerbate effects of low-flow conditions on fishes has been added to the discussion. Population-level effects on the Dallas Creek fishes has been added to Section 3.11.2. Additional justification for the cumulative effects determinations on aquatic wildlife and recreation has been incorporated into Section 3.12.4. Including the CWCB instream flow right as a reference point requires a determination that is outside the scope of this EA (Issue #3, above).

6. Use of DCWC Storage as an Emergency Option

Comment: CPW #13

Comment summary: Evaluate the risk or possibility of water deliveries from DCWC's storage as an emergency option.

Response: A discussion of this option has been added to Section 2.2. The alternative was dismissed because the volumes of stored water are insufficient for anything but short-term emergencies. In addition, the stored water serves as a built-in buffer to DCWC customers during short-term emergencies that DCWC seeks to maintain for that function. The proposed pipeline interconnection

is intended for longer-term emergencies such as drought, contamination, delivery system failure, or wildfire.

7. Loghill Pumping Plant and Treatment Facility System Limitations

Comment: CPW #15

Comment summary: Describe system limitations at the Loghill Pumping Plant and treatment facility during low-flow conditions (e.g., 2002 and 2018) in Dallas Creek due to water quality.

Response: The DCWC pumping and treatment facility does not have system limitations under low-flow conditions in Dallas Creek. During the 2018 drought year, pumping and treatment continued during summer months when flows at the Loghill Pumping Plant were at their low of 10.7 cfs. Under low-flow conditions in 2002, some reports from DCWC customers of sediment in their domestic water were received, but since the company installed their rapid sand filtration system, this issue has not arisen.

8. “Instream Flow” versus “Streamflow”

Comments: CWCB #3; CPW #10

Comment summary: The term “instream flow” is used in the EA when what is meant is “streamflow”. The term “instream flow” refers to the CWCB instream flow water right.

Response: The revisions have been made throughout the document. “Streamflow” has been substituted for “instream flow” when referring to streamflows in general, and “instream flow” is used only in reference to the CWCB instream flow right.

9. Instream Flow Water Right

Comment: CWCB #4, 7

Comment summary: CWCB suggests revision to text on page 16, paragraph 4 (i.e., Section 3.2.2) and revision to text in Section 3.6.2.

Response: The revisions have been made. The text formerly in Section 3.2.2 has been moved to Section 3.2.1

10. Scoping, Coordination and Public Review Process

Comment: CPW #9

Comment summary: CPW recommended that they be removed from the list of agencies in Sections 1.7 and 5.1.

Response: CPW has been removed from the lists in Sections 1.7 and 5.1.



March 27, 2020

Mr. Ed Warner
Bureau of Reclamation
445 West Gunnison Ave, Suite 221
Grand Junction, Colorado 81501

Re: Draft Environmental Assessment, Tri-County Water Conservancy District and Dallas Creek Water Company Pipeline Interconnect Project, Dallas Creek Project, Colorado

Dear Mr. Warner:

Trout Unlimited (TU) appreciates the opportunity to submit these comments on the Draft Environmental Assessment, Tri-County Water Conservancy District and Dallas Creek Water Company Pipeline Interconnect Project (EA) related to the Dallas Creek Project in near Ridgway Colorado. Trout Unlimited is the nation's largest coldwater conservation organization whose volunteer base is dedicated to protecting, reconnecting, restoring and sustaining America's coldwater fisheries. TU's staff in the Gunnison Basin has worked on many projects aimed at improving fisheries, including an ongoing water planning process in Ouray County that involves Tri-County Water Conservancy District (TCW) and Dallas Creek.

Overall, TU appreciates the efforts and vision of the Dallas Creek Water Company (DCWC) and TCW to connect the two water supply systems. This project, when completed, will add a layer of water supply resiliency and provide a buffer for potential impacts from wildfires to those residents in the Log Hill area. TU does have some concerns about water supplies and impacts from this project which we encourage the project partners and the US Bureau of Reclamation to address prior to moving forward with the proposed project.

Comment #1 The EA mentions that if DCWC were to provide water to the TCW system, the increased pumping would impact the flows on Dallas Creek and the instream flow right held by Colorado Water Conservation Board. While we understand that the increased diversions would not be in excess of the water right held by DCWC and that this right is senior to the instream flow right, we believe the partners should make efforts to mitigate the impacts of the additional pumping on the instream flow right. The instream flow right on Dallas Creek is water short even in good water years, and additional diversions would further impact stream health and the fishery Dallas Creek supports.

While we do realize that DCWC and TCW do not anticipate frequent or prolonged diversion increases as a result of the interconnect project, and that those diversion increases may be relatively slight, we believe that these pumping increases should be offset through cooperative agreements or efficiency projects with other water users on Dallas Creek to reduce impacts.

Trout Unlimited: America's Leading Coldwater Fisheries Conservation Organization
264 County Road 4, Montrose, CO 81403



Comment #2

We understand that in a circumstance where TCW were to supply water to DCWC, the impacts to TCW water supplies would be minor relative to TCW supplies. However, we feel that it is important to point out that increased releases from Ridgway Reservoir, particularly during summer months, to meet demands have been cited as cause for TCW to increase releases from Ridgway Reservoir during summer months which has reduced supply resulting in low releases in fall and winter which negatively impacts the fishery in the Uncompahgre River below the reservoir. In recent years, TCW has failed to meet the 75 cfs flow requirements in the Uncompahgre River as described in the Final Dallas Creek Project Environmental Impact Statement, even while the reservoir was increasing storage pool. Failure to meet flow requirements below the reservoir reduces refuge for trout, degrades riparian health, and impacts local economies.

Comment #2
continued

We are concerned that increased demands on the TCW system that add to the amount of water released to meet the Gunnison Tunnel exchange could add to the frequency and duration of low flow events on the Uncompahgre River. To mitigate these impacts, we ask that TCW continue to encourage its rate payers to conserve water, make releases only for necessary demands below the reservoir during summer months and ensure flow requirements listed in the Final EIS are met.

Thank you for providing us this opportunity to comment on the DCWC and TCW project EA. To summarize, we feel mitigation and conservation efforts should be made to protect Dallas Creek, the Uncompahgre River, and storage amounts within Ridgway Reservoir. Please contact us if you have any questions. We look forward to your written response.

Sincerely,

Cary Denison

Trout Unlimited: America's Leading Coldwater Fisheries Conservation Organization
264 County Road 4 Montrose, CO 81403



COLORADO

Colorado Water Conservation Board

Department of Natural Resources
1313 Sherman Street, Room 718
Denver, CO 80203

April 10, 2020

Amanda Ewing, Biologist
U.S. Bureau of Reclamation
Western Colorado Area Office
445 West Gunnison Avenue
Grand Junction, CO 81501-5711

RE: Draft Environmental Assessment for the Tri-County Water & Dallas Creek Water Company Pipeline Interconnect Project

Dear Ms. Ewing:

The Colorado Water Conservation Board (“CWCB”) appreciates the opportunity to comment on this draft Environmental Assessment and the extension of time for submitting comments. The CWCB is an agency in the Colorado Department of Natural Resources with the mission to conserve, develop, protect and manage Colorado’s water for present and future generations. The CWCB’s technical comments on the Tri-County Water & Dallas Creek Water Company Pipeline Interconnect Project are set forth below:

Comment #3 1. Global comment on document: Please clarify the meaning of the term “instream flows” as used in this document. The term “instream flows” appears to refer to streamflows in general, but the term “instream flow right” is also used in the document to refer to a water right held by the CWCB. If this interpretation is correct, the document would read more clearly if the term “instream flows” was changed to “streamflows” when referring to streamflows in general.

2. Page 16, paragraph 4: The CWCB recommends revising this paragraph as follows:

Comment #4 The CWCB has an instream flow **water** right (Case 98CW0234) ~~to~~in Dallas Creek “to preserve the natural environment to a reasonable degree.” The decree is in the amount of 20 cfs (May 1 to October 14) and 9 cfs (October 15 to April 30) absolute, with an adjudication date of December 31, 1998 and Priority Admin. No. 54250. The **water** right covers the stream reach from the confluence of the East and West Forks Dallas Creek downstream to Ridgway Reservoir. The Loghill Pumping Plant is within that stream reach. **Because the CWCB’s instream flow water right is junior to DCWC’s subject water rights, a request for administration of the instream flow water right would not result in curtailment of DCWC’s water rights.** If **stream**flows fall below the CWCB decreed instream flow rate and **water is available to be called upon**, the CWCB would place a call, **it is possible that curtailment of other water uses and users diverting too much water or applying water**

P 303.866.3441 | F 303.866.4474 | www.cwcb.colorado.gov
Jared Polis, Governor | Dan Gibbs, DNR Executive Director | Rebecca Mitchell, CWCB Director



~~outside their decreed uses would need to stop violating their rights and junior water rights would need to yield, which could help offset effects from increased diversions by DCWC. The CWCB right is junior to and cannot call upon the water rights decreed to DCWC.~~

Comment #5 3. Page 16, last sentence: Please clarify which entity, or if both entities, would restrict water use among their customers and identify what restrictions would be imposed. “In the event that DCWC would need to supply TCW with emergency water, they would restrict water use among their customers to help conserve water and limit any effect on instream flows in Dallas Creek.”

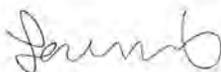
4. The CWCB recommends adding an Environmental Commitment to Section 4.0 as follows:

Comment #6 Category: Water Use, Rights, and Streamflows
Timing: Post-construction - (DCWC would initial this commitment)
Commitment: The DCWC will only provide water to TWC for domestic and fire suppression use only in response to emergency shortages caused by drought, contamination, wildfire, catastrophic system failure, or other emergency conditions. In the event that DCWC would need to supply TCW with emergency water, they would restrict water use among their customers to help conserve water and limit any effect on instream flows in Dallas Creek. *(The last sentence needs clarification on which entity, or if both entities would restrict water use among their customers, and what restrictions would be imposed).*

Comment #7 5. 3.6.2 Environmental Consequences - Under the proposed action section, either delete or revise the sentence “Potential effects to the fishes from increased diversions by DCWC may be offset if CWCB places a call (see Section 3.2).” to reflect CWCB changes suggested to Page 16, paragraph 4. “If streamflows fall below the CWCB decreed instream flow rate and the CWCB placed a call, it is possible that curtailment of other water uses could help offset effects from increased diversions by DCWC.”

Thank you for considering the CWCB's comments. Please contact Linda Bassi of the CWCB's Stream and Lake Protection Section at 303-866-3441, ext. 3204 with any questions.

Sincerely,



Lauren Ris, Deputy Director





COLORADO
Parks and Wildlife

Department of Natural Resources

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April 9, 2020

Amanda Ewing, Biologist
U.S. Bureau of Reclamation
Western Colorado Area Office
445 West Gunnison Avenue
Grand Junction, CO 81501-5711

Re: Draft Environmental Assessment for the Tri-County Water & Dallas Creek Water Company Pipeline Interconnect Project

Dear Ms. Ewing,

Colorado Parks and Wildlife (CPW) appreciates the opportunity to comment on the subject project. We would also like to thank you for extending the deadline to provide comments. CPW staff received a copy of the draft EA on March 25, 2020, relatively late in the public comment period, so the additional time has been helpful to coordinate a review and response.

Tri-County Water (TCW) and the Dallas Creek Water Company (DCWC) are proposing to construct 4,530 feet of pipeline, upgrade six pump stations, and construct two new pump stations that would connect the water supplies of both entities and enable each to provide a back-up emergency supply of treated water to the other in the event of drought, hazardous material contamination, or other emergency situation impacting their water supplies. The water would be for domestic and fire suppression use only.

Comment #8

The primary focus of CPW's comments on the draft EA is related to the vulnerability of the aquatic environment from water withdrawals in Dallas Creek during drought conditions. The draft EA alluded to this vulnerability by referencing that the daily streamflow at the USGS Dallas Creek gage dropped below 1 cubic foot per second (cfs) during the summer months of 2018. CPW understands from the draft EA that TCW has drought resiliency built into their municipal water supply, whereas the DCWC may be more vulnerable to drought. As a result, it is far more likely that TCW would provide emergency water to the DCWC rather than the other way around. However, the proposed interconnection of the two water systems also evaluates a potential, future scenario where TCW may require water from the DCWC for fire suppression or as a result of system contamination or catastrophic failure. It is during this potential, future scenario where the EA could be improved by presenting specific mitigation measures that afford protections to the aquatic environment when streamflows fall below the recommended minimum instream flow water right held by the Colorado Water Conservation District (CWCB) but that said, CPW recognizes that human health and safety are of the utmost importance.

CPW has the following additional comments and recommendations after reviewing the draft EA:

General

Comment #9

- CPW is unsure if the amount communication would constitute being named as a consulting agency and therefore recommends CPW be removed from the list of agencies in Section 1.7 "Scoping, Coordination and Public Review" and in Section 5.1 "Agency Consultation." CPW

Dan Preuzlow, Director, Colorado Parks and Wildlife • Parks and Wildlife Commission: Talisha Adams • Betsy Blecha • Robert W. Bray • Charles Garcia
Marie Haskett • Carrie Besnetle Hausz • Marvin McDaniel, Vice-Chair • Luke B. Schafer • Eden Vardy • James Vigil, Secretary • Michelle Zimmerman, Chair



had minimal knowledge of the proposed action until a copy of the draft EA was shared with us by another agency late in the public comment period but would welcome in the future to be incorporated in the planning process early on.

- Comment #10**
- The repeated use of the term "instream flow" is misleading. Please substitute "streamflow," except when there is a direct reference to existing CWCB instream flow (ISF) water right.

Streamflow

- Comment #11**
- Please consider using the Dallas Creek ISF water right as a scientifically derived reference point for the minimum amount of water necessary to protect the natural environment to a reasonable degree. While DCWC water rights are senior to the ISF water right and streamflows in Dallas Creek typically do drop below the minimum ISF water right, the fishery is particularly vulnerable during these periods and fish are susceptible to acute mortality and potential population-level impacts.

- Comment #12**
- If the DCWC to TCW water exchange is implemented, CPW recommends restricting the type of water use available to all customers during emergency operations when streamflows in Dallas Creek are below the minimum ISF water right. CPW recommends specific language that restricts all outside water use in both systems, including raw water supplies to golf courses, to minimize system-wide water demands and to shorten the duration of increased water demands (i.e., impacts to the aquatic environment) from Dallas Creek water diversions.

- Comment #13**
- Under the DCWC to TCW water exchange, please evaluate the risk or possibility of allowing water deliveries from DCWC's storage as an emergency option, particularly when water withdrawals result in streamflow below the ISF water right.

Water Quality

- Comment #14**
- Please include an analysis of potential impacts to the cold stream tier 1 temperature standard in Dallas Creek from increased water withdrawals during drought conditions in the DCWC to TCW water exchange. Temperatures commonly approach acute toxicity standards during drought conditions in the upper Uncompahgre watershed and aquatic habitat for fish in Dallas Creek could be further stressed if implemented when streamflows fall below the existing CWCB ISF water right.

- Comment #15**
- Please include a description or examples of any system limitations at the Log Hill Pumping Plant and treatment facility during low-flow conditions in Dallas Creek due to water quality. For example, using 2002 or 2018 drought years, evaluate and describe how the proposed interconnection potentially alters operations if the ability to provide water exchanges between the two systems were an option during those years.

Fisheries

- Comment #16**
- Please modify the discussion in Section 3.6.1 to reflect the following: Dallas Creek supports a valuable public recreational fishery of wild rainbow and brown trout, as well as a seasonal Kokanee salmon fishery that is utilized by anglers at Ridgway State Park.

- Comment #17**
- In Section 3.6.2, effects would be greatest if any decrease in flows were to occur during spawning or during low flow conditions when streamflow is below the minimum CWCB ISF water right and acute mortality may occur due to increased temperatures.

- Comment #18**
- In Section 3.11.2, please include population-level impacts to fish in Dallas Creek from acute mortality when diversions occur during drought conditions or when the Dallas Creek minimum ISF is not being met as a result of the emergency activity.

Comment #19

- In Section 3.12.4, please add justification for “negligible to incremental” effects on aquatic wildlife and recreation by season or year type and include potential population-level impacts from acute fish mortality.

Again, thank you for providing us an opportunity to comment on the draft EA. Please continue to consult and/or notice CPW of any future National Environmental Policy (NEPA) actions by the Western Colorado Area Office. If you have any questions you can contact me at 970-252-6010.

Sincerely,

A handwritten signature in black ink, appearing to read "Renzo DelPiccolo". The signature is fluid and cursive, with the first name "Renzo" being more prominent and the last name "DelPiccolo" following in a similar style.

Renzo DelPiccolo, Area 18 Wildlife Manager

Appendix C Public Distribution List

All landowners adjacent to the Proposed Action
Citizens for a Healthy Community
City of Ouray
Colorado Department of Transportation, Region 5
Colorado Office of Archaeology and Historic Preservation Office
Colorado Parks and Wildlife
Colorado River Water Conservation District
Colorado Water Conservation Board
Dallas Creek Water Company
Natural Resources Conservation Service
Ouray County Administrator
Ouray County Commissioners
Ouray County Land Use, Planning, and Building
Ouray County Road and Bridge
Southern Ute Tribe
Town of Ridgway
Tri-County Water Conservancy District Board
Trout Unlimited
U.S. Army Corps of Engineers
U.S. Bureau of Land Management
U.S. Fish and Wildlife Service
Ute Indian Tribe
Ute Mountain Ute Tribe
Western Slope Conservation Center

Appendix D Photographs

Appendix B. Photos of the Proposed Action Area



Photo 1. A view north along the proposed pipeline alignment where it follows the west side of CR 1.



Photo 2. A view northwest along the proposed pipeline alignment where it turns away from CR 1 to cross private land and McKenzie Creek. The flagged lath indicates the alignment.

Appendix B. Photos of the Proposed Action Area



Photo 3. A view along the proposed pipeline alignment where it approaches the McKenzie Creek riparian corridor. The pipeline would be constructed between the fence and the road.



Photo 4. New Pump Station 1 would be constructed in this disturbed area on the east side of CR 1, at the southern terminus of the pipeline. The view is north.

Appendix B. Photos of the Proposed Action Area



Photo 5. A view west of the clearing where proposed new Pump Station 2 would be built, located at the intersection of Ponderosa Drive (right) and a two-track (left).



Photo 6. Existing Pump Station 4 is surrounded by a 100 x 100 foot security fence. No work would take place outside the fence. The view is northeast, taken from Asters Lane.

Appendix B. Photos of the Proposed Action Area



Photo 7. A view north across the clearing behind Pump Station 4, vegetated primarily by annual alyssum (non-native) and rubber rabbitbrush, with sagebrush near the edge.



Photo 8. At the east end of the clearing behind Pump Station 4, pinyon-juniper woodland begins and the ground slopes away steeply to the east.

Appendix B. Photos of the Proposed Action Area



Photo 9. Existing Pump Station 5, located along CR 22. No ground disturbance would be required for the proposed upgrade to this station.



Photo 10. Existing Pump Station 6, located along CR 22. No ground disturbance would be required for the proposed upgrade to this station.

Appendix B. Photos of the Proposed Action Area



Photo 11. Existing Pump Station 30, located along CR 1. A new vault with pump would be installed here.



Photo 12. Existing Pump Station 31, located along CR 1. A new vault with pump would be installed here.

Appendix B. Photos of the Proposed Action Area



Photo 13. Existing Pump Station 32, located along CR 1. A new vault with pump would be installed here.



Photo 14. A view south (upstream) along an irrigation ditch that runs within the proposed pipeline alignment. The ditch would be disturbed during pipeline installation and then restored to current conditions.

Appendix B. Photos of the Proposed Action Area



Photo 15. A view west (upstream) along the Fisher Creek drainage. A culvert is visible in the lower right corner of the photo. The pipeline would be aligned between the ROW fence (shown) and CR 1.



Photo 16. A view north along the proposed pipeline alignment where it would pass above Fisher Creek. The flagged lath (upper right) shows the location of the pipeline.

Appendix B. Photos of the Proposed Action Area



Photo 17. An unnamed ephemeral tributary to McKenzie Creek flows through this culvert. The proposed pipeline would be bored beneath the culvert, between CR 1 and the ROW fence, with no impacts to the stream feature.



Photo 18. A view southwest and upstream along the unnamed tributary to McKenzie Creek. The feature, mapped by the USGS, may be natural or may a constructed ditch.

Appendix B. Photos of the Proposed Action Area



Photo 19. A view north of the McKenzie Creek crossing. The northern terminus of the proposed pipeline is just the other side of the creek. Patchy willows and cattail grow in the stream channel at the crossing and may delineate as wetlands.

Appendix E Clean Water Act Section 404 Compliance Documentation

From: [Adams, Tyler R CIV USARMY CESPK \(US\)](mailto:Adams.Tyler.R.CIV.USARMY.CESPK.US)
To: mike@tricitywater.org
Cc: [Troy Gore](mailto:Troy.Gore); [Kathleen Margetts](mailto:Kathleen.Margetts); ['Alison Graff'](mailto:'Alison.Graff'); [Ewing, Amanda](mailto:Ewing.Amanda); iward@usbr.gov
Subject: Tri-County Water - Dallas Creek Water Company Interconnect Pipeline Project
Date: Thursday, April 2, 2020 9:46:48 AM
Attachments: [2017-NWP-12.pdf](#)
[Final 2017 Regional Conditions in Colorado.pdf](#)

Mike -

It appears this project would qualify for NWP 12. As described, this work does not require notification prior to construction. I've attached a description of NWP 12 and the current RGCs for Colorado.

If anything changes, feel free to give me a call to discuss.

Respectfully,

Tyler R. Adams
U.S. Army Corps of Engineers
Project Manager, Colorado West Section
400 Rood Avenue, Room 224
Grand Junction, Colorado 81501
PH: (970) 243-1199, #1013
FAX: (970) 241-2358
Tyler.R.Adams@usace.army.mil

In response to COVID-19, Regulatory Division staff are teleworking from home or other approved location. We will do our best to administer the Regulatory Program in an effective and efficient manner. Priority will be given to health and safety activities and essential infrastructure. Action on your permit application or other request may be delayed during this emergency. We appreciate your patience over the next several weeks.

Please note: Our out-of-office notification has been disabled. If I do not respond to your message in a few days, I may be out of the office. I will respond as soon as I am able.

-----Original Message-----

From: mike@tricitywater.org [<mailto:mike@tricitywater.org>]
Sent: Tuesday, February 11, 2020 9:35 AM
To: Adams, Tyler R CIV USARMY CESPK (US) <Tyler.R.Adams@usace.army.mil>
Cc: Troy Gore <troy@tricitywater.org>; Kathleen Margetts <kathleen@tricitywater.org>; 'Alison Graff' <alison@bio-geo.com>
Subject: [Non-DoD Source] Tri-County Water - Dallas Creek Water Company Interconnect Pipeline Project - REVISED

Here is a clean copy with corrected request for NWP12 for your use in response Mike

Tyler -

As you requested today, here is some information for our subject Project and our request.

Need for 404 Permit:

Tri-County Water Conservancy District (TCW) was awarded a Water Smart grant by the Bureau of Reclamation and because of the federal funding provided, TCW is required to provide Reclamation with an Environmental Assessment (EA) for the Project. As an environment commitment in the EA, TCW is required to get a 404 permit. TCW has retained Bio-Logic (Alison Graff) to prepare the EA for Reclamation. As part of that work, Alpine Archeological Services has provided a cultural resource survey for the project.

Description:

Proposed pipeline will connect the TCW domestic water system with Dallas Creek Water Company (DCWC) to provide emergency domestic water supplies to both in case of the need. The pressurized transmission line is 4500 feet of 6" PVC along with 2 new pump stations on DCWC system and upgrades to 6 existing pump stations on our system leading to the connection pipeline. The proposed pipeline will cross McKenzie Creek at approximately location: 38°13' 38"N and 107°49'17"W. The crossing will consist of a 30 foot, 10 PVC casing through which a 6 inch PVC pipe will be placed. McKenzie Creek at this location is shown to be a perennial stream by the USGS.

The excavation across the stream will be approximately 3' wide and 6' deep. The normal water line at this location is very small and estimated to be 3 or so feet. We plan to return the excavation to original ground and do whatever we need to armor the crossing to prevent future erosion form the channel.

Attached are 2 maps prepared by Bio-Logic showing the pipeline alignment and vicinity of the project.

Request:

Our request is to use Nationwide 404 Permit 12 (Utility Line Activities). Our consultants have told us that there are no historic properties or endangered species to be impacted. We believe there will be no impact or threat to any of the other conditions or requirements listed in the NWP 12. We believe this to be a "non-reporting" event dismissing the requirement for Pre-Construction Notification to the Corps as well.

Your timely response would be very much appreciated as Reclamation can not issue their opinion on the EA until we have been granted authorization or acknowledgment for use of NWP 12.

Thank you for discussing our project with Troy and me today.

Mike Berry

General Manager

Tri-County Water Conservancy District

647 N. 7th Street

Montrose, Colorado 81401

970-249-3369

mike@tricountywater.org <<mailto:mike@tricountywater.org>>

Appendix F National Historic Preservation Act Compliance Documentation

REC'D W/ CAD DURANGO CO
DEC 26 2019 AM 7:00



Ed Warner
Area Manager
Bureau of Reclamation
Western Colorado Area Office
Durango Field Division
185 Suttle Street, Suite 2
Durango, Colorado 81303-7911

DEC 18 2019

Re: National Historic Preservation Act Section 106 Consultation for the Dallas Creek Interconnect Pipeline Project, Ouray County, Colorado (HC#76936)

Dear M. Warner:

Thank you for your correspondence dated 25 November 2019 and received by our office on 2 December 2019 regarding the review of the above referenced projects under Section 106 of the National Historic Preservation Act.

After review of the documentation provided, we concur that the recommended effect finding of *no historic properties affected* [36 CFR 800.4(d)(1)] is appropriate for the proposed installation of a 6-inch interconnect pipeline within the Area of Potential Effect (APE) using Reclamation (WaterSMART) funding.

Should unidentified archaeological resources be discovered in the course of the project, work must be interrupted until the resources have been evaluated in terms of the National Register eligibility criteria (36 CFR 60.4) in consultation with our office pursuant to 36 CFR 800.13. Also, should the consulted-upon scope of the work change, please contact our office for continued consultation under Section 106 of the National Historic Preservation Act.

We request being involved in the consultation process with the local government, which as stipulated in 36 CFR 800.3 is required to be notified of the undertaking, and with other consulting parties. Additional information provided by the local government or consulting parties might cause our office to re-evaluate our eligibility and potential effect findings. Please note that our compliance letter does not end the 30-day review period provided to other consulting parties.

Thank you for the opportunity to comment. If we may be of further assistance, please contact Lindsay Johansson, Section 106 Compliance Manager, at (303) 866-4678 or lindsay.johansson@state.co.us.

Sincerely,

A handwritten signature in black ink that reads "Steve Turner".

Steve Turner, AIA
State Historic Preservation Officer

Appendix G Endangered Species Act Compliance Documentation



DE DEEPLY REFER TO
FWW/ISS/AR/07

United States Department of the Interior

FISH AND WILDLIFE SERVICE
445 West Gunnison Ave, Suite 240
Grand Junction, Colorado 81501



TAILS 06E24100-2020-F-0126

April 16, 2020

Memorandum

To: Area Manager, Bureau of Reclamation, Western Colorado Area Office, Grand Junction, Colorado

From: *J. Creed Clayton*
for Western Slope Supervisor, U.S. Fish and Wildlife Service, Ecological Services, Grand Junction, Colorado

Subject: Biological Opinion for the Tri-County Water Conservancy and Dallas Creek Water Company Pipeline Interconnect Project

In accordance with section 7 of the Endangered Species Act of 1973 (ESA), as amended (16 U.S.C. 1531 et seq.), and the Interagency Cooperation Regulations (50 CFR 402), the Fish and Wildlife Service (Service) transmits this correspondence to serve as the final biological opinion (BO) for the Tri-County Water Conservancy (TCW) and Dallas Creek Water Company (DCWC) Pipeline Interconnect project.

The TCW and DCWC are proposing to construct a 4,530-foot pipeline, upgrade six pump stations, and construct two new pump stations in Ouray County, Colorado to connect the water supplies of both entities. The project would reduce the risk of emergency water shortages in both the TWC and DCWC.

The water that TWC uses is owned by the Bureau of Reclamation (BOR) as part of the Dallas Creek and Uncompahgre projects, and depletions were consulted on under the Gunnison River Basin Programmatic Biological Opinion (GUPBO; TAILS: 65413-2009-F-0044). Any increase in water use by TCW from utilizing the interconnected pipeline would be within the sideboards of the GUPBO. DCWC is a privately-owned public water system that has been providing domestic water since 1975 to residents of Log Hill Mesa. The water comes from Dallas Creek and its tributaries: East and West Fork Dallas Creek, Beaver Creek, and Pleasant Creek. Dallas

INTERIOR REGION 5
MISSOURI BASIN

KANSAS, MONTANA*, NEBRASKA, NORTH DAKOTA,
SOUTH DAKOTA

*PARTIAL

INTERIOR REGION 7
UPPER COLORADO RIVER BASIN

COLORADO, NEW MEXICO, UTAH, WYOMING

Creek is tributary to the Uncompahgre River. DCWC depletions are historic, and the annual 107.24 acre-feet per year (AF/yr) water use would not change due to this project except under emergency situations.

A Recovery Implementation Program for Endangered Fish Species in the Upper Colorado River Basin was initiated on January 22, 1988. The Recovery Program was intended to be the reasonable and prudent alternative for individual projects to avoid the likelihood of jeopardy to the endangered fishes from impacts of depletions to the Upper Colorado River Basin. In order to further define and clarify the process in the Recovery Program, a section 7 agreement was implemented on October 15, 1993, by the Recovery Program participants. Incorporated into this agreement is a Recovery Implementation Program Recovery Action Plan (RIPRAP) which identifies actions currently believed to be required to recover the endangered fishes in the most expeditious manner.

On December 4, 2009, the Service issued a final Gunnison River Basin Programmatic Biological Opinion (PBO) (this document is available for viewing at the following internet address: <http://www.coloradoriverrecovery.org/documents-publications/section-7-consultation/GUPBO.pdf>). The Service has determined that projects that fit under the umbrella of the Gunnison River PBO would avoid the likelihood of jeopardy and/or adverse modification of critical habitat for depletion impacts. The Gunnison River PBO states that in order for actions to fall within the umbrella of the PBO and rely on the RIPRAP to offset its depletion, the following criteria must be met.

1. A Recovery Agreement must be offered and signed prior to conclusion of section 7 consultation.
2. A fee to fund recovery actions will be submitted as described in the proposed action for new depletion projects greater than 100 AF/yr. There is no fee for historic depletions.
3. Reinitiation stipulations will be included in all individual consultations under the umbrella of this programmatic.
4. The Service and project proponents will request that discretionary Federal control be retained for all consultations under this programmatic.

The Recovery Agreement was signed by the Service and the Water User. The depletions associated with this project are historic depletions which do not make contributions to fund recovery actions. The BOR has agreed to condition its approval documents to retain jurisdiction should section 7 consultation need to be reinitiated. Therefore, the Service concludes that the subject project meets the criteria to rely on the Gunnison PBO to offset depletion impacts and is not likely to jeopardize the continued existence of the species and is not likely to destroy or adversely modify designated critical habitat. The reinitiation criteria, outlined in the Gunnison PBO, apply to all projects under the umbrella of the PBO. Therefore, if the PBO is reinitiated, reinitiation of this biological opinion would follow as well.

Area Manager – Western Colorado Area Office

3

The Service and the Recovery Program track all water depletions that are covered under the Gunnison PBO and other water depletion PBOs within the Upper Colorado River Basin on a quarterly basis. A summary of those depletions are available at: <http://www.coloradoriverrecovery.org/documents-publications/section-7-consultation/consultation-list.html>. Also, in accordance with the Section 7, Sufficient Progress, and Historic Projects Agreement, the Service reviews cumulative accomplishments and shortcomings of the Recovery Program in the upper Colorado River basin. Per that Agreement, the Service uses the following criteria to evaluate whether the Recovery Program is making “sufficient progress” toward recovery of the four listed fish species:

- actions which result in a measurable population response, a measurable improvement in habitat for the fishes, legal protection of flows needed for recovery, or a reduction in the threat of immediate extinction;
- status of the fish populations;
- adequacy of flows;
- and magnitude of the impact of projects.

Through these bi-annual Sufficient Progress reviews the Service evaluates the best available and current information to determine if the Recovery Program continues to offset depletion effects identified in existing Section 7 consultations including the depletions covered by these PBOs. In the most recent assessment (dated February 7, 2020), the Service determined that sufficient progress has been made towards recovery. Sufficient Progress reports can be found at: <http://www.coloradoriverrecovery.org/documents-publications/section-7-consultation/sufficient-progress-letters.html>.

If you have any questions regarding this consultation or would like to discuss it in more detail, please contact Aimee Crittendon of our Western Slope Field Office at (970) 628-7195, Email: aimee_crittendon@fws.gov.

Attachment: Recovery Agreement

cc: FWS/UCREFRP, Lakewood; Email: Kevin_McAbee@fws.gov
Amanda Ewing, Bureau of Reclamation, Email: aewing@usbr.gov

RECOVERY AGREEMENT

This RECOVERY AGREEMENT is entered into this 7th day of January 2020, by and between the United States Fish and Wildlife Service (Service) and Dallas Creek Water Company, Inc. (Water User).

WHEREAS, in 1988, the Secretary of Interior, the Governors of Wyoming, Colorado and Utah, and the Administrator of the Western Area Power Administration signed a Cooperative Agreement to implement the Recovery Implementation Program for Endangered Fish Species in the Upper Colorado River Basin (Recovery Program); and

WHEREAS, the Recovery Program is intended to recover the endangered fish while providing for water development in the Upper Basin to proceed in compliance with state law, interstate compacts and the Endangered Species Act; and

WHEREAS, the Colorado Water Congress has passed a resolution supporting the Recovery Program; and

WHEREAS, December 4, 2009, the Service issued a programmatic biological opinion (2009 Opinion) for the Gunnison River Basin and the operation of the Wayne N. Aspinall Unit concluding that implementation of specific operation of the Aspinall Unit, implementation of a Selenium Management Plan and specified elements of the Recovery Action Plan (Recovery Elements), along with existing and a specified amount of new depletions, are not likely to jeopardize the continued existence of the endangered fish or adversely modify their critical habitat in the Gunnison River subbasin and Colorado River subbasin downstream of the Gunnison River confluence; and

WHEREAS, Water User is the co-owner of TriCountyConservancy District and Dallas Creek Water Company, Inc Emergency Interconnection (Water Project), which causes or will cause depletions to the Gunnison River subbasin; and

WHEREAS, Water User desires certainty that its depletions can occur consistent with section 7 and section 9 of the Endangered Species Act (ESA); and

WHEREAS, the Service desires a commitment from Water User to the Recovery Program so that the Program can actually be implemented to recover the endangered fish and to carry out the Recovery Elements.

NOW THEREFORE, Water User and the Service agree as follows¹⁸:

1. The Service agrees that implementation of the Recovery Elements specified in the 2009 Opinion will avoid the likelihood of jeopardy and adverse modification under section 7 of the ESA, for depletion impacts caused by Water User's Water Project. Any consultations under section 7 regarding Water Project's depletions are to be governed by the provisions of the 2009 Opinion. The Service agrees that, except as provided in the 2009 Opinion, no other measure or action shall be required or imposed on Water Project to comply with section 7 or section 9 of the ESA with regard to Water Project's depletion impacts or other impacts covered by the 2009 Opinion. Water User is entitled to rely on this Agreement in making the commitment described in paragraph 2.

2. Water User agrees not to take any action which would probably prevent the implementation of the Recovery Elements. To the extent implementing the Recovery Elements requires active cooperation by Water User, Water User agrees to take reasonable actions required to implement those Recovery Elements. Water User will not be required to take any action that would violate its decrees or the statutory authorization for Water Project, or any applicable limits on Water User's legal authority. Water User will not be precluded from undertaking good faith negotiations over terms and conditions applicable to implementation of the Recovery Elements.

3. If the Service believes that Water User has violated paragraph 2 of this Recovery Agreement, the Service shall notify both Water User and the Management Committee of the Recovery Program. Water User and the Management Committee shall have a reasonable opportunity to comment to the Service regarding the existence of a violation and to recommend remedies, if appropriate. The Service will consider the comments of Water User and the comments and recommendations of the Management Committee, but retains the authority to determine the existence of a violation. If the Service reasonably determines that a violation has occurred and will not be remedied by Water User despite an opportunity to do so, the Service may request reinitiation of consultation on Water Project without reinitiating other consultations as would otherwise be required by the Reinitiation Notice section of the 2009 Opinion. In that event, the Water Project's depletions would be excluded from the depletions covered by 2009 Opinion and the protection provided by the Incidental Take Statement.

4. Nothing in this Recovery Agreement shall be deemed to affect the authorized purposes of Water User's Water Project or The Service's statutory authority.

5. This Recovery Agreement shall be in effect until one of the following occurs.

a. The Service removes the listed species in the Upper Colorado River Basin from the endangered or threatened species list and determines that the Recovery Elements are no longer needed to prevent the species from being relisted under the ESA; or

¹⁸Individual Recovery Agreement may be changed to fit specific circumstances.

- b. The Service determines that the Recovery Elements are no longer needed to recover or offset the likelihood of jeopardy to the listed species in the Upper Colorado River Basin; or
- c. The Service declares that the endangered fish in the Upper Colorado River Basin are extinct; or
- d. Federal legislation is passed or federal regulatory action is taken that negates the need for [or eliminates] the Recovery Program.

i. Water User may withdraw from this Recovery Agreement upon written notice to the Service. If Water User withdraws, the Service may request reinitiation of consultation on Water Project without reinitiating other consultations as would otherwise be required by the Reinitiation Notice section of the 2009 Opinion.



Water User Representative
Dallas Creek Water Company, Inc
President

01/07/2020
Date

J. Creed Clayton

Western Colorado Supervisor
U.S. Fish and Wildlife Service

04/17/2020
Date

(TS/GJ-6-CO-09-F-0001-CU__/___)