Finding of No Significant Impact

Final Environmental Assessment

Reconnecting Canyon Creek to Teton River and Restoring Instream Flows Project

Fremont and Madison Counties, Idaho

U.S. Department of the Interior Bureau of Reclamation Columbia-Pacific Northwest Region Snake River Area Office

CPN FONSI # 23-02

Introduction

The Bureau of Reclamation (Reclamation) has prepared this Finding of No Significant Impact (FONSI) to comply with the Council on Environmental Quality regulations for implementing procedural provisions of the National Environmental Policy Act. This document briefly describes the Proposed Action, other alternatives considered, the scoping process, Reclamation's consultation and coordination activities, and Reclamation's finding. The Final Environmental Assessment (EA) fully documents the analyses of the potential environmental effects of implementing the changes proposed.

Location and Background

The proposed project is located in the Canyon Creek sub-watershed in Fremont and Madison Counties, southeast Idaho. Project activities would occur in the area of the mainstem of the Teton River between its confluence with Canyon Creek and the historic Teton Dam site, as well as along the Canyon Creek Canal and lateral diversion. The Canyon Creek sub-watershed drains approximately 130 square miles and sits within the Teton watershed, which drains 1,133 square miles in eastern Idaho and areas near the western border of Wyoming. The Teton River spans 64 miles beginning near Victor, Idaho, to approximately Rexburg, Idaho, where it flows into the Henrys Fork of the Snake River. The Teton River area consists largely of agricultural fields but also includes ample recreational land in the form of designated wild and scenic rivers, ski areas, and national parks and forests. There are no designated wild and scenic rivers in the project area.

Canyon Creek is currently dewatered from June–October each year due to irrigation diversion at the Canyon Creek Canal and the other points of diversion (PODs) on Canyon Creek. Dewatered conditions significantly reduce available habitat for Yellowstone cutthroat trout (YCT) by preventing

access to the cold water refugia found in the perennial flowing, headwater portions of Canyon Creek. The canal also entrains all age classes of YCT in irrigation fields and prevents outmigration of fluvial spawners and juvenile YCT.

Friends of the Teton River (FTR) is a non-profit 501(c)(3) organization based in Teton County, Idaho, that is working with Canyon Creek Canal Company (CCCC), the controlling water right holder on Canyon Creek, and their irrigators to implement a phased water management plan that would address mutually beneficial water supply and conservation goals. This project is supported by the Canyon Creek Water Management Plan which was funded in part through a WaterSMART Phase 1 grant to seek solutions that provide for more efficient water delivery, improved water reliability, and improved stream function for the benefit of fish and wildlife.

A large unlined canal system located approximately 10.25 miles upstream from the confluence of Canyon Creek and the Teton River has been operated by CCCC since the early 1900s. Historically, up to 70 cubic feet per second (cfs) of water was diverted into the Canyon Creek Canal to provide water for 10,615 acres of high value farmland. Water rights owned by CCCC have been diverted at four locations since the mid-1970s, in addition to the unlined canal diversion. The first POD is located approximately 7.75 miles upstream from the confluence of Canyon Creek, two are located approximately 6.25 and 6.65 miles upstream from the confluence, and the final is on the mainstem of the Teton River.

Each of the 11 shareholders that comprise CCCC already divert other water rights and storage water (as opposed to their CCCC water shares) from PODs located on the Teton River. These three PODs are the Schwendiman Teton River POD, Rick's POD, and the CCCC Lateral POD. These three PODs on the Teton River are not flow-limited and, by implementing the infrastructure changes proposed in the project, 8 of the 11 CCCC shareholders will be able to divert their CCCC shares (in addition to their other water rights) at their Teton River PODs.

The implementation of this project would allow for the Canyon Creek Canal to be decommissioned due to the upgrades on each of the three Teton River PODs providing capacity to divert CCCC water rights. This would allow restoration of up to 10,680 acre-feet of water annually to Canyon Creek and a water savings of 4.73 cfs, providing greater water reliability for the irrigation company and for downstream users. Additionally, fish entrainment, habitat connectivity, and water quality impairment would be addressed by the canal decommissioning.

Purpose and Need

The purpose and need for the Proposed Action is to fulfill the WaterSMART grant allowing FTR to perform a watershed management project. The dewatering of Canyon Creek annually causes water reliability issues for irrigators and entrains YCT, stopping outmigration to the Teton River. The WaterSMART grant project would work cooperatively with local entities as they plan for and implement a phased water management plan that would address mutually beneficial water supply and conservation goals. These projects would provide more efficient water delivery, improve water reliability, and improve stream function for the benefit of fish and wildlife.

Alternatives Considered and Recommended Action

The range of alternatives developed for analysis of this Proposed Action was based on the purpose and need for the project, and on the issues raised during internal, external, and Tribal scoping. The alternatives analyzed include a No Action alternative (Alternative A) and the Proposed Action (Alternative B). The No Action alternative does not meet the defined purpose and need for action but was evaluated because it provides an appropriate baseline to which the recommended action is compared.

Under Alternative B, Reclamation would provide funding through a WaterSMART grant for FTR to perform a watershed management project occurring within Fremont and Madison Counties in southeastern Idaho. These infrastructure changes would address the specific capacity constraints unique to each system which, once addressed, would allow for eight of the eleven CCCC shareholders to divert their CCCC shares (in addition to their other water rights) at their Teton River PODs. Implementation of this project would allow the canal located on Canyon Creek to be closed, which would address the entrainment issues associated with the canal and restore flow to Canyon Creek. The action would restore instream flows in Canyon Creek, a productive spawning tributary for a core conservation population of YCT. The project would consist of the following three main actions: 1) irrigation system improvements at three sites, 2) a water right transfer application, and 3) development of a flow monitoring plan with accompanying equipment installation. These three main actions are described in more detail in the EA.

Summary of Environmental Effects

The following summarizes the effects that the preferred alternative – the Proposed Action (Alternative B) – would have on each resource category analyzed in the EA. Chapter 3 of the EA provides a full analysis and explanation of how each resource was evaluated.

Hydrology and Geomorphology

Temperature

Water temperature in the Teton River would be cooled by the additional water from Canyon Creek.

Groundwater

The subsurface water table of Canyon Creek and the Teton River are in close proximity to each other. The Teton River Aquifer is connected to the Eastern Snake Plain Aquifer (IWRRI 2007). Approximately 4.73 cfs (annual combined total of 10,680 acre-feet) is lost from use of the Canyon Creek Canal structure. It is likely the water lost from Canyon Creek would return to the Teton River in the vicinity of the project area upon the proposed decommissioning of the Canyon Creek Canal. The net loss or gain of water from the Teton River basin due to any changes in interactions between the Canyon Creek Canal and the Teton River, and the interactions between the Canyon Creek Canal and the Eastern Snake Plain Aquifer, would be minimal.

Flow

Historically, water has been diverted into the Canyon Creek Canal and delivered to 11 shareholders that draw water from the canal system. Under the Proposed Action, water that would have been diverted into the Canyon Creek Canal structure would remain in Canyon Creek and be diverted downstream on the Teton River. the EA analyzed diversion levels for Canyon Creek Canal for the 30-year period 1991-2020 and showed that the difference in flows in Canyon Creek due to decommissioning the canal structure would be in the range of 0 to approximately 70 cfs. This represents the amount of water that would remain in Canyon Creek and which would reduce or eliminate affects to the surrounding environment.

Water Rights

Water rights in the state of Idaho are administered and managed by the Idaho Department of Water Resources (IDWR). Ten of the eleven Canyon Creek Canal shareholders that have historically received water from the Canyon Creek Canal system would divert their Canyon Creek water shares from the Teton River downstream at several different PODs; these PODs are being improved in conjunction with this project to convey the water transported downstream. The remaining Canyon Creek Canal shareholder (Crapo) that currently doesn't have a POD downstream of the Canyon Creek-Teton River confluence would divert water from Canyon Creek. These POD transfers would be coordinated with IDWR by the project proponent to ensure they are tracked and accounted for appropriately in the overall management of water rights in the system. Other PODs on Canyon Creek would continue per historic practice within the water rights in the system. It is not anticipated that these POD transfers would affect water rights or water delivery in the local vicinity or in the broader management system.

Biota – Vegetation, Wetlands, Fish and Wildlife

Impacts and effects associated with Alternative B are presented below.

Terrestrial and Riparian Biota

Under Alternative B, the action would restore instream flows in Canyon Creek. Implementation of the project would close the canal located on Canyon Creek and allow for continual flow year-round (instead of being dewatered June-October). This would enhance the terrestrial and riparian biota within the canyon. No negative impacts are anticipated.

Irrigation improvements at the Schwendiman, Rick's, and Canyon Creek irrigation/lateral systems would cause a loss of some terrestrial and riparian vegetation within the areas where pipe removals and replacement/relocation of pumps occur. This may affect terrestrial and riparian species using the area and displace them for the duration of the project. In the long term, species using the terrestrial and riparian habitat should reestablish, adjust, and find new areas to use after the construction is complete.

Avian Communities

The project may affect waterfowl nesting and production in the impact area and would reduce the riparian habitat for shoreline bird species. Noise during construction would also cause short-term

avoidance of the area. In the long term, species should adjust and find new areas to use as the construction noise stops and as the riparian zone reestablishes.

Fisheries and Wetlands

The project would enhance spawning habitat for the YCT population as well as other fish species. In the long term, the fish species would benefit with improved habitat conditions from the river being returned to a more natural state, i.e., similar to pre-canal conditions. The wetland habitat would also benefit from the project which would allow for wetland expansion and stabilization of existing plants. No negative impacts are anticipated. Due to the need for a drawdown of the pond where action 3A would occur, a fish salvage would be completed to ensure all YCT and other fish are not stranded within the pond. FTR would conduct the fish salvage in coordination with Reclamation and IDFG. When the water is low enough, stranded fish would be electroshocked or netted and removed to be placed back into the Teton River downstream.

Irrigation improvements at the Schwendiman, Rick's, and Canyon Creek irrigation/lateral systems would cause a loss of some fishery habitat and wetlands within the areas where pipe removals, and replacement/relocation of pumps occurs. A reseeding effort would be conducted to mitigate for the loss of habitat by spreading a native seed mix by hand throughout the area. This project aligns with an overarching long-term plan to improve fish habitat in the river and promote responsible irrigation use within the entire Teton River system.

Amphibian and Reptile Communities

The project activities would have an effect on amphibians, primarily frogs. Leopard frogs may be found around the Schwendiman, Rick's, and Canyon Creek lateral irrigation projects. The destruction of the shoreline habitat within the proposed project sites could harm any northern leopard frog population that may occur in the area. The other amphibian and reptile species using the impact area would also be affected by the permanent habitat loss and they would be displaced for a short time period. In the long term, these species should adjust and find new areas to use as the riparian zone reestablishes itself.

Threatened and Endangered Species

Under the Proposed Action, the decommissioning of the Canyon Creek Canal would allow Canyon Creek to carry natural instream flows year-round; this would allow for an eventual reestablishment of riparian corridor habitats and functions along the length of Canyon Creek to its confluence with the Teton River. This would result in a long-term beneficial impact to Threatened and Endangered (T&E) species such as grizzly bears, wolverines, and yellow-billed cuckoo in the form of higher quality habitat with increased year-round connectivity of a potential migratory corridor.

During construction at each POD site to be improved, any T&E species present would likely be temporarily displaced by the noise and disturbance of increased human activity. In the long-term, the operation of each improved POD would involve a similar amount of human activity and presence as currently occurs. This avoidance behavior would therefore be short-term and limited to the duration of each construction period.

Water Quality

Effects from the Proposed Action on water quality in the Teton River and Canyon Creek are separated into two categories: short-term construction effects and long-term post-construction effects. Short-term effects include direct and indirect effects associated with 1) irrigation system improvements at three sites, 2) water right transfers, and 3) flow monitoring (including equipment installation). Long-term effects include direct and indirect effects after the Teton River and Canyon Creek channels have come to equilibrium after construction has concluded. It is assumed that all requirements and procedures, including best management practices (BMPs) for water quality and ecological protection, identified in the various city, state, and federal permits will be followed by the proponent. The proponent contacted the U.S. Army Corps of Engineers to confirm that a 404 permit was not necessary. However, a 401 Water Quality certification and IDWR channel adjustment permit may be necessary.

Construction Direct and Indirect Effects

Schwendiman Irrigation System

Temporary incidences of excess sediment and increases in turbidity and total suspended sediment (TSS) are expected during excavating the pump channel, reclaiming and filling an existing boat ramp, creating a floodplain through filling toward the west end of the channel, reinforcing the check structure with rock, and elevating the existing dike. All heavy equipment work would be conducted outside the waterway as much as possible to minimize sediment effects to the river.

- Excavating the pump channel could loosen soil, dislodge sediment, and/or disturb channel bottom sediments. The construction would be performed during low river flows, allowing the least disturbance and transport of fine sediment material downstream. The sediment disturbance that would occur would be short in duration, localized, and not expected to appreciably affect turbidity or TSS in the Teton River.
- Reclaiming and filling an existing boat ramp would be done when river flows are the lowest and could be accomplished without disturbing the river channel. There is a possibility of disturbed riverbank sediment entering the river. This would be minimized through typical construction BMPs such as erosion cloth/barriers. Additionally, once the area has been revegetated either through natural means or seeding, these measures would minimize sediment movement into the river.
- The construction of a floodplain by placing fill toward the west end of the channel, reinforcing the check structure with rock, and elevating the existing dike could temporarily increase sediment in the river. Placing fill would disturb the channel bottom and would cause a brief increase in sediment and turbidity. The resulting sediment plume would dissipate downstream within minutes of entering the channel and would be distributed downstream based on mass of the individual sediment particles and flow velocity. In channel areas that experience direct flows, the higher-velocity water has likely removed much of the lighter sediment and would experience less turbidity, while depositional areas that are protected from the direct current would experience more turbidity during the placement of fill. It is expected that turbidity during this construction period may exceed 25 nephelometric

turbidity units (NTUs) over background, and TSS and substrate fines would increase. These effects would not persist for more than 10 consecutive days because of the small amount of sediment disturbed by fill placement and how quickly dissipation would occur with water flow downstream. By the same logic, turbidity should not exceed background by more than 50 NTUs taken instantaneously. The fill material itself would not add to the sediment/turbidity because it would be cleaned before placement into the channel and any sediment on the fill would be very minor. This is also true for the rock used to reinforce the check structure and fill material used to elevate the existing dike.

• The construction and addition of the pump equipment funded by the National Fish and Wildlife Foundation's America the Beautiful Grant Program would not likely increase sediment or negatively affect water quality in the Teton River. Two of the projects (a new concrete pad and rotating drum fish screens) may have slight water quality effects. Construction of the pad and installation of the rotating drum fish screens could introduce unconsolidated sediment into the river. This would be a short-duration and temporary occurrence that would be further minimized through common construction BMPs such as erosion cloth or barriers for sediment.

Rick's Irrigation System

The removal of 7,920 feet of 8-inch mainline pipe and the installation of new 12-inch mainline pipe are unlikely to have any direct water quality effects. The trenching and exposed soil could pose a minor potential source of sediment from wind due to proximity to the river. These sedimentation effects would be temporary and are unlikely to affect turbidity and TSS in the Teton River.

Canyon Creek Lateral System

The replacement of two pumps at site 3A and the installation of new rotating screens would not affect water quality. The installation of the rotating screens may introduce slight amounts of sediment into the channel, but this construction would be conducted when the channel is dry, and any excess sediment could be removed before the upcoming irrigation season.

Trenching, installation, and backfilling 6,540 feet of new 12-inch conveyance at site 3C and 1,700 feet of 16-inch conveyance and 720 feet of 12-inch conveyance at site 3D would have similar effects as identified for Rick's Irrigation System above. The trenching and exposed soil could pose a minor potential source of sediment from wind due to proximity to the river. These sedimentation effects would be temporary and are unlikely to affect turbidity and TSS in the Teton River.

IDWR Water Rights Transfers

The water rights transfers indirectly affect water quality in Canyon Creek by potentially transferring PODs from Canyon Creek (or canals on Canyon Creek) to the Teton River. This would eventually allow more water to flow through Canyon Creek; although no water quality issues have been identified by the Idaho Department of Environmental Quality, more water flowing on a perennial basis is usually better for overall water quality. Consequently, water would be removed from the Teton River. This reach of the Teton River is reportedly not flow-limited, and no water quality issues are expected from the withdrawals. These water withdrawals would be coordinated with

IDWR and would likely be negligible overall when compared to the water gained through Canyon Creek.

Flow Monitoring and Equipment Installation

Installation of flow loggers and water temperature gauges on Canyon Creek would not affect water quality in Canyon Creek. Installation of these devices is simple and requires very little soil disturbance.

Staging Area

The proposed staging area is over 2 miles from the Teton River and Canyon Creek and is expected to have no effect on water quality.

Post-Construction Direct and Indirect Effects

In the long term, as the construction areas stabilize and Canyon Creek begins to have a perennial flow into the Teton River, water quality in both areas is likely to continue to meet beneficial uses. Canyon Creek would continue to fully support cold water aquatic life, secondary contact recreation, and salmonid spawning and meet its other beneficial uses. The Teton River water quality, especially that portion immediately downstream of the project area that is not meeting cold water aquatic life beneficial use due to exceedance in total phosphorus, may slightly improve due to the proposed irrigation efficiencies. However, it is important to note that the water quality would not degrade and that the incremental sediment effects from the various construction projects are not expected to continue in the long term.

Tribal Interests – Treaty Rights

Under Alternative B, there are anticipated beneficial long-term effects to reserved Treaty Rights, such as access to or impacts to traditional or customary places for hunting, fishing, or gathering, or for livestock grazing in the area. The anticipated benefit is to restore instream flows in Canyon Creek, a productive spawning tributary for a core conservation population of YCT. The proposed project construction ingress and egress routes may cause a temporary, short-term adverse effect on access to traditional or customary hunting, fishing, or gathering sites, or for livestock grazing areas during the construction periods.

Reclamation requested information from the Shoshone-Bannock Tribes of the Fort Hall Reservation, the Shoshone-Paiute Tribes of the Duck Valley Reservation, the Northwestern Band of the Shoshone Nation, and the Eastern Shoshone Tribe, who traditionally and currently use the area for hunting, fishing, and gathering of plants; however, no responses were received. The lack of specific information about the area is not indicative of a lack of importance to Tribes. With no specific response, Reclamation assumes that there would be no adverse effects to reserved Treaty Rights, such as access or impacts to areas for hunting, fishing, or gathering, or for livestock grazing.

Mitigation efforts may be required to reduce the effects of construction ingress and egress on Tribal access to hunting, fishing, or gathering should construction ingress and egress activity take place in the same location and at the same time of year as traditional or customary hunting, fishing, and gathering of plants, or for livestock grazing. If this were to occur, Reclamation would meet with Tribes to formulate an appropriate mitigation measure.

Recreation

The Proposed Action involves construction at sites 1, 2, and 3 with associated construction activities of varying intensities. However, all construction would be temporary in nature and all would replace existing infrastructure. Delays on roadways or closures of areas for construction work should be limited in size and short in duration, as should noise disturbance that may affect the quality of a recreator's enjoyment of peaceful and scenic areas. At the end of the project, the sites will look similar to the landscape as it was prior to construction and recreation would take place consistent with prior uses.

Returning water to the Teton River drainage and creating more reproductive habitat for the YCT is a positive gain for recreators. Fishing is one of the most popular activities in the project area; therefore, any positives effects for fish are also positive effects for recreation.

At the conclusion of the project, there would be no alterations to roadways, trails, boat ramps, campsites or access. Therefore, interruptions to recreation activities would be temporary and have little or no long-term negative effect.

Greenhouse Gas Emissions

Under Alternative B, the Proposed Action is cumulatively estimated to emit approximately 92 metric tons of carbon dioxide, or the equivalent energy use of 20.5 gasoline-powered passenger vehicles driven for one year. The greenhouse gases emitted as a result of this project would be considered negligible due to the localized area in which the project would occur and the short duration of the action, with October to April being the timeframe of construction. Given that the population in Fremont and Madison Counties was approximately 65,000 at the time of the 2020 census, the energy use equivalent of 20.5 gasoline-powered passenger vehicles driven for one year being added to emission levels generated by a population this size would be considered inconsequential.

Unaffected Resources

The Proposed Action would not cause any short- or long-term direct, indirect, or cumulative effects to the following resource categories:

- Cultural Resources
- Indian Sacred Sites
- Indian Trust Assets
- Environmental Justice

Consultation, Coordination, and Public Involvement

In compliance with Section 106 of the National Historic Preservation Act of 1966 (as amended in 1992), Reclamation consulted with the Idaho State Historic Preservation Office (SHPO) to identify cultural and historic properties in the area of potential effect. Reclamation initiated consultation with

Idaho SHPO on August 15, 2023. SHPO concurrence with Reclamation's finding of No Effect to Historic Properties for the action area was received on March 23, 2022 (see Appendix B of the Final EA).

Reclamation mailed scoping letters to the Shoshone-Bannock Tribes, Shoshone-Paiute Tribes, Eastern Shoshone Tribe, and the Northwestern Band of the Shoshone Nation Tribe on November 25, 2022. No responses or concerns from the Tribes were brought forward during the scoping period. The mailing list, scoping letters, and comments received are presented in Appendix C of the Final EA.

Finding

Based on the analysis of the environmental effects presented in the Final EA and consultation with potentially affected agencies, Tribes, organizations, and the general public, Reclamation concludes that implementation of the preferred alternative – the Proposed Action (Alternative B) – will not have a significant impact on the quality of the human environment or natural and cultural resources. The effects of the Proposed Action will be minor, temporary, and localized. Therefore, preparation of an Environmental Impact Statement (EIS) is not required.

Decision

Based on the analysis in the EA, it is my decision to select for implementation the preferred alternative (i.e., the Proposed Action, Alternative B). The Proposed Action will best meet the purpose and need identified in the EA.

Recommended:



Date

Rochelle Ochoa Natural Resources Specialist Snake River Area Office, Boise, Idaho

Approved:

MELANIE PAQUIN

Digitally signed by MELANIE PAQUIN Date: 2023.09.15 11:16:52 -06'00'

Melanie Paquin Snake River Area Manager Columbia-Pacific Northwest Region, Boise, Idaho Date



Environmental Assessment

Reconnecting Canyon Creek to Teton River and Restoring Instream Flows Project

Fremont and Madison Counties, Idaho Columbia-Pacific Northwest Region



Mission Statements

The U.S. Department of the Interior protects and manages the Nation's natural resources and cultural heritage; provides scientific and other information about those resources; and honors 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.

Cover photograph: Looking upstream at Canyon Creek at its confluence with the Teton River (Reclamation photo by Rochelle Ochoa)

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Acronyms and Abbreviations

Acronym or Abbreviation	Definition
APE	Area of potential effect
BLM	Bureau of Land Management
ВМР	Best management practice
BP	Before present
СССС	Canyon Creek Canal Company
CEQ	Council on Environmental Quality
CH ₄	Methane
CO ₂	Carbon dioxide
CFR	Code of Federal Regulations
cfs	Cubic feet per second
CWA	Clean Water Act
DOI	Department of the Interior
EA	Environmental Assessment
EIS	Environmental Impact Statement
EO	Executive Order
ESA	Endangered Species Act
FONSI	Finding of No Significant Impact
FTR	Friends of the Teton River
GIS	Geographic information system
HECP	Hazardous energy control program
hp	Horsepower
IA	Interagency Agreement
IDEQ	Idaho Department of Environmental Quality
IDFG	Idaho Department of Fish and Game
IDWR	Idaho Department of Water Resources
IPaC	Information for Planning and Conservation
ITAs	Indian Trust Assets
National Register	National Register of Historic Places
NEPA	National Environmental Policy Act
NFWF	National Fish and Wildlife Foundation

Acronym or Abbreviation	Definition
NHPA	National Historic Preservation Act
N ₂ O	Nitrous oxide
NTU	Nephelometric turbidity unit
O ₃	Ozone
POD	Point of diversion
Reclamation	Bureau of Reclamation
SHPO	State Historic Preservation Office
T&E	Threatened and Endangered
TMDL	Total maximum daily load
ТР	Total phosphorus
TSS	Total suspended sediment
USFWS	U.S. Fish and Wildlife Service
УСТ	Yellowstone cutthroat trout

Chapter 1 Purpose and Need

1.1 Introduction

The Bureau of Reclamation (Reclamation) prepared this Environmental Assessment (EA) in accordance with the National Environmental Policy Act (NEPA). This EA analyzes the potential environmental effects that could result from the proposed construction activities for the project titled the Reconnecting Canyon Creek to Teton River and Restoring Instream Flows project.

This EA serves as a tool to aid the authorized official in making an informed decision that is in conformance with applicable federal laws and regulations. The proposed action and additional alternatives are described in Chapter 2 of this document, and the effects of each alternative are evaluated for each of the affected resource areas in Chapter 3. The evaluated effects involve direct and indirect, short- and long-term, adverse and beneficial, and public health and safety effects, along with effects that would violate federal, state, Tribal, or local law protecting the environment.

The NEPA process requires analysis of any federal action that may have an impact on the human environment. This EA is being prepared to assist Reclamation in finalizing a decision on the proposed action, and to determine whether to issue a Finding of No Significant Impact (FONSI) or a notice of intent to prepare an Environmental Impact Statement (EIS).

1.2 Location, Background, and Action Areas

1.2.1 Location and Background

The proposed project is located in the Canyon Creek sub-watershed located in Fremont and Madison Counties in southeast Idaho. Project activities would occur in the mainstem of the Teton River between the confluence of Canyon Creek and the historic Teton Dam site as well as along the Canyon Creek Canal and lateral diversion (Figure 1). The Canyon Creek sub-watershed drains approximately 130 square miles and sits within the Teton watershed which drains 1,133 square miles in eastern Idaho and areas near the western border of Wyoming. The Teton River spans 64 miles beginning near Victor, Idaho, to approximately Rexburg, Idaho, where it flows into the Henrys Fork of the Snake River. The Teton River area consists largely of agricultural fields but also includes ample recreational land in the form of designated wild and scenic rivers, ski areas, and national parks and forests. This project does not have any designated wild and scenic rivers in the project area.



Figure 1. Project location in eastern Idaho; the map also shows areas of western Wyoming

Canyon Creek is currently dewatered from June–October each year due to irrigation diversion at the Canyon Creek Canal and the other points of diversion (POD) on Canyon Creek. Dewatered conditions significantly reduce available habitat for Yellowstone cutthroat trout (YCT) by preventing access to the cold water refugia found in the perennial flowing, headwater portions of Canyon Creek. The canal also entrains all age classes of YCT in irrigation fields and prevents outmigration of fluvial spawners and juvenile YCT.

Friends of the Teton River (FTR) is a non-profit 501(c)(3) organization based in Teton County, Idaho, that is working with Canyon Creek Canal Company (CCCC), the controlling water right holder on Canyon Creek, and their irrigators to implement a phased water management plan that would address mutually beneficial water supply and conservation goals. This project is supported by the Canyon Creek Water Management Plan, which was funded in part through a WaterSMART Phase 1 grant to seek solutions that provide for more efficient water delivery, improved water reliability, and improved stream function for the benefit of fish and wildlife.

A large unlined canal system located approximately 10.25 miles upstream from the confluence of Canyon Creek and the Teton River has been operated by CCCC since the early 1900s. Historically, up to 70 cubic feet per second (cfs) of water was diverted into the Canyon Creek Canal to provide water for 10,615 acres of high-value farmlands. Water rights owned by CCCC have been diverted at four locations Canyon Creek since the mid-1970s, in addition to the unlined canal diversion. The first POD is located approximately 7.75 miles upstream from the confluence of Canyon Creek; two PODs are located approximately 6.25 and 6.65 miles upstream from the confluence, respectively; and the final POD is on the mainstem of the Teton River.

Each of the 11 shareholders that comprise CCCC already divert other water rights and storage water (as opposed to their CCCC water shares) from PODs located on the Teton River. These three PODs are the Schwendiman Teton River POD, Rick's POD, and the CCCC Lateral POD.

Environmental Assessment

These three PODs on the Teton River are not flow-limited, and by implementing the infrastructure changes proposed in this project, 8 of the 11 CCCC shareholders would be able to divert their CCCC shares (in addition to their other water rights) at their Teton River PODs.

The implementation of this project would allow for the Canyon Creek Canal to be decommissioned due to the upgrades on each of the three Teton River PODs providing capacity to divert CCCC water rights. This would restore up to 10,680 acre-feet of water annually to Canyon Creek and a water savings of 4.73 cfs, providing greater water reliability for the irrigation company and for downstream users. Additionally, fish entrainment and habitat connectivity would be addressed by the canal decommissioning.

1.2.2 Land Use

Construction of the Lower Teton Division of the Teton Basin Project was authorized by the Act of September 7, 1964 (78 Stat. 925, Public Law 88-853). The authorized purposes of the Teton Basin Project were irrigation and hydroelectric generation and, as incidents to these purposes, to enhance recreational opportunities and provide for the conservation and development of fish and wildlife resources. The affected lands were acquired in the 1960s and 1970s to support the project.

The landscape consists of sagebrush and agricultural lands along a steep canyon with a river and various brushes, grasses, and trees. Existing land uses include agriculture and associated uses, native habitat for wildlife, and public recreational opportunities. There are currently eleven Reclamation authorizations that include a pivot crossing, three farming permits, five power lines, four irrigation pipelines, three pumping stations, and an access road.

Additionally, Reclamation manages lands for another federal agency in the Teton area. The Bureau of Land management (BLM) acquired lands within the Lower Teton Division Project and entered into an Interagency Agreement, 2-07-10-:0504 (IA) on December 4, 1981, with Reclamation regarding these lands. The IA requires Reclamation to manage all lands identified within the agreement area for recreation, wildlife, public access, and other public purposes, and to issue and administer all authorizations located on the lands identified within the IA. Areas involved with the proposed project are within this area.

On September 12, 2021, Reclamation and Madison County entered into a Management Agreement, 21-07-14-L02055, for recreation at Teton Dam Recreation Area. Madison County manages approximately 329 acres in the Teton area for Reclamation. A portion of the proposed project area is located within this agreement area.

1.2.3 Nematode

Eastern Idaho produces the highest number of seed potatoes in the nation (USDA 2000) and the proposed project area includes a large amount of potato acreage. Equipment and supplies entering the seed potato crop areas to access the project could create a high risk for exposure and infestation of invasive species, including nematodes. Accordingly, and throughout construction of the proposed project, all parties, including Reclamation, potential contractors, and partners, will have to operate within the relevant Idaho Administrative Rules (IDAPA Title 06 Chapter 26 02.06.26 – Rules Concerning Seed Potato Crop Management Areas, adopted under the legal authority of Sections 22-505, 22-2004, and 22-2006 of the Idaho Code). As stated in Section 050-04-Equipment, all ground working, earth moving, or potato handling equipment shall be cleaned of soil and plant debris and be disinfected before entering the Seed Potato Crop Management Areas in order to prevent the introduction of disease(s) or pest(s) of concern. This project falls within the boundaries of the Teton and Portions of Madison County Seed Potato Crop Management Area, which includes: all of Teton County; that portion of Madison County located in Township 6 North and Township 7 North lying East of Canyon Creek; and that portion of Madison County located in Township 6 North, Range 42 East which includes portions of Sections 11 and 13 located south of Highway 33 and all of Sections 14, 15, 23, and 24.

1.3 Purpose and Need

The purpose and need for the Proposed Action is to fulfill the WaterSMART grant allowing FTR to perform a watershed management project. The dewatering of Canyon Creek annually causes water reliability issues for irrigators and entrains YCT, stopping outmigration to the Teton River. The WaterSMART grant project proponent would work cooperatively with local entities as they plan for and implement a phased water management plan that would address mutually beneficial water supply and conservation goals. These projects would provide more efficient water delivery, improve water reliability, and improve stream function for the benefit of fish and wildlife.

1.4 Regulatory Compliance

The following major laws, executive orders, and secretarial orders apply to the proposed project, and compliance with their requirements is documented in this EA:

- NEPA
- Endangered Species Act (ESA)
- National Historic Preservation Act (NHPA)
- Clean Water Act (CWA)
- Executive Order (EO) 13007, Indian Sacred Sites
- EOs 12898 and 14008, Environmental Justice
- EO 13175, Consultation and Coordination with Tribal Governments
- EO 13990, Protecting Public Health and the Environment and Restoring Science to Tackle the Climate Crisis
- Secretarial Order 3175, Department Responsibilities for Indian Trust Assets (ITAs)

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1.5 Scoping Summary

The scoping process provides an opportunity for the public, governmental agencies, and Tribes to identify their concerns or other issues and aids in developing a full range of potential alternatives that address meeting the project's purpose and need as stated in this document. To accomplish this, Reclamation provided information through a mailed information package and solicited comments from the public, governmental agencies, and potentially affected Tribes. Details regarding the public and agency scoping are presented in Chapter 4.

Chapter 2 Description of Alternatives

2.1 Introduction

This chapter describes the two alternatives analyzed in this EA: Alternative A, the No Action alternative; and Alternative B, the Proposed Action alternative.

2.2 Alternative Development

The alternatives presented in this chapter were developed based on the purpose and need for the project, as described in Chapter 1, and the issues raised during internal, external, and Tribal scoping. The alternatives analyzed in this document include the No Action alternative, which would result in the projects not occurring due to the WaterSMART grant not being administered, and the Proposed Action alternative, which would result in administering the WaterSMART grant and FTR proceeding with implementation of the watershed management project. A no action alternative is evaluated because it provides an appropriate basis to which the other alternative is compared. No new alternatives were identified during the scoping process.

2.3 Alternative A – No Action

Under the No Action alternative, Reclamation would not fulfill the WaterSMART grant to support FTR completing the watershed management project. Canyon Creek would continue to experience flow limitations which would entrain YCT. The Teton River and surrounding canyon would continue to change due to anthropogenic and natural events. For the purposes of this analysis, the assumption is that the project would not go forward so that the environmental effects associated with taking no action can be compared to the other alternative as required under NEPA.

2.4 Alternative B – Proposed Action

Reclamation would provide funding through a WaterSMART grant for FTR to perform a watershed management project occurring within Fremont and Madison Counties in southeastern Idaho (Figure 1). These infrastructure changes would address the specific capacity constraints unique to each system which, once addressed, would allow for eight of the eleven CCCC shareholders to divert their CCCC shares (in addition to their other water rights) at their Teton River PODs. Implementation of this project would allow the canal located on Canyon Creek to be closed, which would address the entrainment issues associated with the canal and restore flow to Canyon Creek. The action would restore instream flows in Canyon Creek, a productive spawning tributary for a core conservation population of YCT. The project would consist of the following three main actions: 1) irrigation system improvements at three sites, 2) a water right transfer application, and 3) development of a flow monitoring plan with accompanying equipment installation.

2.4.1 Irrigation System Improvements

Irrigation system improvements would occur at three separate sites along the Teton Canyon and agricultural lands above the rim to the south. Improvements to each system to be completed through the grant are described below for each location. Although a Clean Water Act (CWA) 404 permit would not be needed due to the exemption letter provided by the U.S. Army Corps of Engineers (Appendix C), a 401 Water Quality Certification and/or Channel Adjustment Permit from the State of Idaho may still needed for the project to be completed. The three separate sites where irrigation system improvements will be implemented are the Schwendiman irrigation system, the Rick's irrigation system, and the Canyon Creek lateral system. Figure 2 shows the locations of each system.



Figure 2. Canyon Creek project overview

Site 1-Schwendiman Irrigation System

This pump station sits on the Teton River just downstream from the river's confluence with Canyon Creek. The pumping capacity at this POD would increase through addressing the pump channel flow limitations. This would include excavating the pump channel, reclaiming and filling an existing boat ramp, creating a floodplain through filling toward the west end of the channel, reinforcing the check structure with rock, and elevating the existing dike (Figure 3). This improvement would allow the two shareholders to divert their Canyon Creek Canal water shares at this Teton River POD and continue to divert water shares that have historically been diverted at this location.



Figure 3. Proposed design for changes in pump channel and pump station at the Schwendiman site

Additionally, FTR, in partnership with the CCCC, have secured separate funding through the National Fish and Wildlife Foundation's (NFWF) America the Beautiful Grant Program to address irrigation infrastructure capacity constraints at the Schwendiman POD located on the Teton River. This project is completely separate from the Reclamation WaterSMART grant and would involve the following:

- Constructing a new concrete pump bay to house eight pumps
- Installing new rotating drum screens with high-pressure hose flushes on each pump to prevent the entrainment of fish
- Purchasing eight new HydroFlow pumps and maintaining Schwendiman's existing pump motors, which would increase pumping capability

- Purchasing and installing seven new 700 horsepower (hp) pump panels with breakers, starters, and safeties; the shareholder has one existing variable frequency drive that would be re-used
- Purchasing eight new motor runs and power runs for the pump panels, including conduit, transformers, and labor to install the panels, meters, cans, and wiring (including trenching)
- Setting the pumps in the new pump bay and tying them in to the 30-inch steel mainline with new 12-inch high-pressure check valves and bypasses

Although this is a separate action with a different funding source, it is analyzed within this document as a connected action due to the overlap in timing, setting, and duration. However, Reclamation's Snake River Area Office Area Manager does not have the authority to grant or deny the NFWF-funded portion of the project.



Figure 4. Teton River looking upstream at the rock check structure in the pump channel and existing dike (to be elevated) above Site 1-Schwendiman Irrigation System

Site 2-Rick's Irrigation System

This irrigation system sits downstream from the Schwendiman POD. The irrigation mainline pipe capacity at this site would increase through removal of 7,920 feet of 8-inch mainline pipe and installation of new 12-inch mainline pipe. This increase in pipe capacity would allow this shareholder to divert water shares, currently provided via Canyon Creek Canal at this POD, on the Teton River instead, in addition to the other water right historically diverted at this location.

Site 3-Canyon Creek Lateral System

This irrigation system sits downstream from Rick's Irrigation System and diverts water from the Teton River near the old Teton Dam site (Figure 2). The irrigation pumping capacity would increase through the replacement of two pumps at site 3A. New rotating screens would also be installed to prevent the entrainment of fish. To replace the pumps and screens at this site, a drawdown of the surrounding backwater pond (Figure 6) would occur for approximately 4 weeks. The work would need to be done out of the water, which would necessitate the drawdown of the pond that the nearby pumps use as a source of water.



Figure 5. Canyon Creek project overview: sites 2, 3A, 3B, 3C and 3D

A 2,200-foot-long pipe connects the pond to be drawn down to the Teton River and was originally constructed to supply water from the Teton River to power penstocks within the

powerhouse. The powerhouse was planned to be at the current location of site 3A. Due to the failure of the Teton Dam, this powerplant was never constructed and CCCC now uses the flow to supply the pumping station that would be replaced at site 3A. To perform the inspection, CCCC would begin by closing the stop log gate at Pond A at the end of the irrigation season for site 3A. This gate closing would drain Pond B due to the source of water supplying this pond being cut off by the stop logs. Upon completion of the action, CCCC would remove the stop logs and water would flow from Pond A to Pond B again. These ponds are further described in Section 2.5.1.

Additionally, the mainline pipe capacity would increase through removal of 10,460 feet of 24inch mainline pipe and installation of new 36-inch mainline pipe at site 3B. Lastly, the conveyance line capacity would increase through trenching, installation, and backfilling of 6,540 feet of new 12-inch conveyance pipe at site 3C, as well as 1,700 feet of 16-inch and 720 feet of 12-inch conveyance pipe at site 3D. Upon completion, five of the eleven CCCC shareholders can divert their Canyon Creek Canal water shares to this POD, in addition to the other water rights historically diverted there.

2.4.2 Water Right Transfer Application

The process for adding legal PODs to a water right in Idaho requires a water right transfer application submitted to the Idaho Department of Water Resources (IDWR). This application would be completed by CCCC and FTR to add three PODs to the water rights: the Schwendiman POD located on the Teton River near the confluence of Canyon Creek; the Rick's POD located on the Teton River; and the shareholder POD located on the Teton River. Currently, the CCCC water rights only allow for water to be diverted at four locations: the canal on canyon Creek; the two pump stations on Canyon Creek at mile 7.75 and mile 6.25, respectively; the augmentation well on Canyon Creek; and the Canyon Creek Lateral POD located near the historic Teton Dam site.

2.4.3 Flow Monitoring Plan and Equipment Installation

Upon completion of the irrigation system improvements, a Canyon Creek instream flow monitoring and data management plan would be established. This plan would establish the collection of data to assist IDWR with the long-term administration of CCCC water rights by installing real-time flow loggers on Canyon Creek below the canal to quantify the amount of water in Canyon Creek, as well as to monitor the temperature of the water. This plan would also include annual reporting of the data by CCCC to FTR and IDWR to ensure water is not being diverted into the canal on Canyon Creek, as it would be closed; water rights would be diverted at downstream PODs.

The proposed actions would also require the following actions from Reclamation: for site 1, Reclamation would modify and/or renew an existing authorization in coordination with BLM; for site 2, Reclamation would issue a new authorization; and for site 3, Reclamation would modify and/or renew an existing authorization in coordination with Madison County.

2.5 Actions Considered for Cumulative Effects

Cumulative Effects are defined in 40 CFR 1508.7 as the effect on the environment that results from the incremental effects of the action when added to other past, present, and reasonably foreseeable future actions. The Council on Environmental Quality (CEQ) interprets this regulation as referring only to the cumulative effect of the direct and indirect effects of the proposed action and its alternatives when added to the aggregate effects of past, present, and reasonably foreseeable future actions. Cumulative effects can result from individually minor but collectively significant actions taking place over a period of time.

Past, present, and reasonably foreseeable actions identified in the area (public or private) that could affect the same resource areas evaluated in this EA would be additive effects to the proposed project.

2.5.1 Reclamation Pipe Inspection

Reclamation is planning to conduct a tunnel inspection at site 3A (Figure 6); this is the CCCC lateral diversion. This inspection would opportunistically take place during the 4-week drawdown proposed to replace pumps at site 3A. Once Pond B is drawn down, Reclamation would ensure the gate is sealed at Pond A and would place locks using Reclamation's Hazardous Energy Control Program (HECP) protocol to enter the pipe through Pond B. The pipe inspection would include visually scanning the entire length of the pipe and then exiting back out the drained pond B pipe opening. Reclamation would then remove locks and complete all HECP protocols to exit the site. Once CCCC has completed their action at site 3A, they would reopen the stoplog gate and water would continue to flow into Pond B. Reclamation would perform this inspection every 5-10 years to ensure the pipe continues to be maintained properly.



Figure 6. Map of pipeline to be opportunistically inspected spanning between Pond A and Pond B (site 3A of proposed action)

2.6 Alternatives Considered but Eliminated from Further Study

NEPA requires Reclamation to consider alternatives developed through public scoping. However, only those alternatives that are reasonable and meet the purpose and need of the proposed action must be analyzed. There were no additional alternatives presented through the public and agency scoping process.

Chapter 3 Affected Environment and Environmental Consequences

3.1 Introduction

This chapter evaluates the environmental consequences of implementing each of the alternatives described in Chapter 2. The level and depth of the environmental analysis corresponds to the potentially affected environment and the degree of the effects of the action anticipated for each environmental component (resource). The affected environment (proposed action area) addressed in this EA is defined in varying contexts, depending on the affected resource being analyzed.

Resources evaluated in this document and analyzed in this chapter were selected based on: Reclamation requirements; compliance with laws, statutes, and EOs; public and internal scoping; and the potential for resources to be affected by the proposed project.

3.2 Hydrology and Geomorphology

3.2.1 Affected Environment

The analysis area is in the vicinity of the confluence of Canyon Creek with the Teton River, in eastern Idaho. The Teton River is a tributary of the Henrys Fork, which is a tributary to the Snake River, a large tributary of the Columbia River in the Pacific Northwest. Figure 7 shows the connectivity of Canyon Creek in relation to the Snake River. Figure 8 shows seasonal daily flow data for the U.S. Geological Survey gage for the Teton River near St. Anthony, located downstream of Canyon Creek's confluence with the Teton River. This figure illustrates the general seasonal flow seen in the Teton River. Spring runoff on the Teton River peaks in the May-through-June timeframe and can range from 1,000 cfs up to 6,000 cfs, depending on high or low runoff years, but is typically on the order of approximately 2,250 cfs. Subsurface waters in the analysis area are closely interrelated, with the close proximity of Canyon Creek to the Teton River as the primary river in this drainage.

The drainage area of the Canyon Creek basin is 90 square miles, which is 8.1 percent of the total Teton River drainage basin.



Figure 7. Map of the Snake River headwaters and surrounding basins, including the Teton basin where the project is located



Figure 8. Daily historic flow data for the Teton River near St. Anthony, Idaho for the 30-year period from 1981 to 2010. Flow data can be retrieved from Reclamation's historical database: <u>https://www.usbr.gov/pn/hydromet/arcread.html</u>.

The current hydrology and geomorphology of Canyon Creek and the Teton River have been primarily shaped by farming and grazing practices. These influences have created conditions in the watershed in which runoff can occur more quickly, and sediment load in the river system has increased over time.

3.2.2 Environmental Consequences

Alternative A – No Action

Effects to hydrology and geomorphology would continue to be driven by historic land use effects. Canyon Creek would continue to be dewatered from June-October each year due to irrigation diversions at the Canyon Creek Canal and other PODs on Canyon Creek. Reliability of water levels on Canyon Creek would continue to be impacted due to dewatering and lowering of river levels at various locations on the river. A conveyance loss of approximately 4.73 cfs for surface water use would continue due to the use of the Canyon Creek Canal structure.

Alternative B – Proposed Action

Under the Proposed Action, the water that has historically been diverted from Canyon Creek into the Canyon Creek Canal would remain in Canyon Creek and be diverted from the Teton River downstream of the confluence of Canyon Creek with the Teton River. This difference in flow management in the analysis area is expected to affect water temperature, groundwater interactions, and flow. The difference in the water management system is not expected to affect water rights or water diversions. These effects are covered in additional detail in the following sections.

There is no anticipated affect to geomorphology or sediment load transport in the system due to this project. Substantial geomorphic changes resulted from landslides triggered from the rapid drawdown of the reservoir when the Teton Dam failed. Mainstem riffle-pool habitat was converted to a series of 27 larger, steeper rapids, backing up long, deep, and slow-moving pools that have altered how the YCT use the channel. There is no longer any mainstem spawning habitat, so fish are spawning in the tributaries where there are gravels and shallow water (Schrader and Jones 2004).

Temperature

Water temperature in the Teton River would be cooled by the additional water from Canyon Creek.

Groundwater

The subsurface water table of Canyon Creek and the Teton River are in close proximity to each other. Approximately 4.73 cfs (annual combined total of 10,680 acre-feet) is lost from use of the Canyon Creek Canal structure. It is likely the water lost from Canyon Creek would return to the Teton River in the vicinity of the project area upon the proposed decommissioning of the Canyon Creek Canal. The net loss or gain of water from the Teton River basin due to any changes in interactions between the Canyon Creek Canal and the Teton River, and the interactions between the Canyon-Creek Canal and the Eastern Snake Plain Aquifer, would be minimal.

Flow

Historically, water has been diverted into the Canyon Creek Canal and delivered to eleven shareholders that draw water from the canal system. Under the Proposed Action, water that would have been diverted into the Canyon Creek Canal structure would remain in Canyon Creek and be diverted downstream on the Teton River. Figure 9 shows the diversion levels for Canyon Creek Canal for the 30-year period from 1991 to 2020. Figure 9 indicates that the difference in flows in Canyon Creek due to decommissioning the canal structure would be in the range of 0 to approximately 70 cfs. This represents the amount of water that would remain in Canyon Creek and which would reduce or eliminate affects to the surrounding environment.


Figure 9. Daily historic diversion data for Canyon Creek Canal from April 15 to October 31 for the 30year period of 1991-2020, obtained from IDWR records

Water Rights

Water rights in the state of Idaho are administered and managed by IDWR. Figure 10 shows the PODs in the project area as identified by IDWR's interactive web-viewer. Ten of the eleven Canyon Creek Canal shareholders that have historically received water from the Canyon Creek Canal system would divert their Canyon Creek water shares from the Teton River downstream at several different PODs; these PODs are being improved in conjunction with this project to convey the water transported downstream. The remaining Canyon Creek Canal shareholder that currently doesn't have a POD downstream of the Canyon Creek-Teton River confluence would divert water from Canyon Creek. These POD transfers would be coordinated with IDWR by the project proponent to ensure they are tracked and accounted for appropriately in the overall management of water rights in the system. It is not anticipated that these POD transfers would affect water rights or water delivery in the local vicinity or in the broader management system.



Figure 10. IDWR map showing PODs in the vicinity of the project area

3.3 Biota – Vegetation, Wetlands, Fish and Wildlife

3.3.1 Affected Environment

Habitat – Terrestrial and Riparian Vegetation

The analysis area includes Reclamation-managed lands adjacent to and within Teton Canyon and the vicinity of the Canyon Creek-Teton River confluence as well as the area around the CCCC canal just above Highway 33 located Northwest of Rexburg, Idaho. The vegetation within Teton Canyon and lower Canyon Creek was altered by Teton Dam construction activities and the rapid draining of the reservoir. Prior to the reservoir, the south-facing slopes of Teton Canyon were covered with sagebrush, bitterbrush, and rabbitbrush, which offered winter forage for large game. The large shrubs and juniper offered cover habitat (Herrig et al. 1980). These south-facing slopes were the most important habitat for the large game animals who wintered in the area (Reclamation 2003). The north-facing slopes had larger trees, including Douglas fir and aspen; this vegetation provided food and cover for game during the milder winters. The riparian area along the river, mainly in the downstream reaches but also in smaller areas along the upper reaches, had cottonwood, alder, and willow, which provided habitat for game and small animals (Herrig et al. 1980; Reclamation 1965, 1968, 1977, and 1981).

During construction of the dam, trees and larger shrubs were removed from the riparian area and from the hillslopes up to the reservoir fill line. As the reservoir filled, many of the remaining plants were killed due to the inundation. All of the shrubs died after one day of inundation, but many perennial grasses were able to survive at the higher elevations where they were covered with less than 90 feet of water (Monsen 1976). After dam failure, sagebrush and rabbitbrush were able to reestablish in many places, but there was very little bitterbrush reestablishment (Reclamation 2003). Landslides affected the vegetation as well; slides and slumps disrupted the soil profiles and, with a lack of soil and native seed stock, the recovery was slow (Reclamation 1965, 1968, 1977, and 1981).

Shortly after the dam failure, reseeding of the area was done to help recover vegetation and stabilize the slide deposits and hillslopes. Reed canary grass (*Phalaris arundinacea*) was one of the plants that was seeded to stabilize the exposed sediments. Reed canary grass now dominates the riverbanks. Unfortunately, it does not provide much riparian shading, riparian cover, or habitat itself, and it outcompetes other vegetation that would provide these benefits. This is a non-native and highly invasive plant which is excellent at erosion prevention (Monsen 1976). This grass persists today and outcompetes most native plants. It also grows too densely to provide habitat for most animals.

A study titled *Comparison of Vegetation on Historically Inundated and Non-Inundated South-Facing Slopes in the Teton River Canyon, Fremont County, Idaho; Implications for Mule Deer Winter Habitat* was completed 23 years after the dam failure to assess the recovery of the vegetation (Reclamation 2003). This study found that on the south-facing slopes, the total shrub density was higher on the inundated, non-sliding slopes. The study also found that species richness was higher on these slopes compared to the inundated slopes that failed after the reservoir drained. On the northfacing slopes, it was noted that there was a large reduction in Douglas fir and juniper shrubs (Reclamation 2001; as cited in Reclamation 2003).

Noxious Weeds

Noxious weeds have been actively controlled by Reclamation natural resource staff in coordination with Idaho Department of Fish and Game (IDFG) fishery and habitat biologists. Control measures include proper land management practices such as biological control, physical removal, and use of domestic goats. The five main weed species being controlled are musk thistle (*Carduus nutans*), Canada thistle (*Cirsium arvense*), salt cedar (*Tamarix*), leafy spurge (*Euphorbia esula*), and Russian olive (*Elaeagnus angustifolia*). Additionally, monitoring and active control of aquatic noxious weeds has been conducted on the Teton River since 2008 with the Idaho Department of Agriculture. Annual salt cedar surveys are also conducted by Reclamation specialists and the IDFG.

The long-term noxious weed control objective is to eliminate most of the chemical control and to rely on biological weed control in the canyon. Reclamation started biological control for Canada and musk thistle on much of the federal land in the early 1980s. Chemical control is still used on infestations found along roadways, in areas on top of the canyon, and around the dam. However, bio-control and rapid revegetation of disturbed soil prior to noxious weed infestation is the preferred management option because of the remoteness of the canyon. Bio-control is used as an alternative to chemical spraying. The decision to use this alternative approach was determined by Reclamation's Upper Snake Field Office.

Wildlife - Mammals

During the winter months, a large concentration of mule deer (*Odocoileus hemionus*) congregates on the south-facing slopes of the canyon adjacent to the Canyon Creek-Teton River confluence, and a small population of Shiras moose (*Alces americanus*) occupies the general area year-round. Predators that may be encountered include mountain lion (*Felis concolor*), bobcat (*Lynx rufus*), numerous coyotes (*Canis latrans*), gray wolf (*Canis lupus*) and black bears (*Ursus americanus*). Grizzly bear (*Ursus arctos horribilis*) have occasionally been documented in the canyon in recent years. Some abundant or common mammal species that can be found in the analysis area are listed in Table 1.

Common Name	Scientific Name
Mule deer	Odocoileus hemionus
Shiras moose	Alces
Elk	Cervus elaphus
Mountain lion	Felis concolor
Bobcat	Felis rufus
Coyote	Canis latrans
Red fox	Vulpes
Gray wolf	Canis lupus
Black bear	Ursus americanus
Grizzly bear	Ursos arctos
Yellow-bellied marmot	Marmota flaviventris
American beaver	Castor canadensis
American mink	Neovison vison
American marten	Martes americana
Weasel	Mustela spp.
Racoon	Procyon lotor
Skunk	Mephitis
Badger	Taxidea taxus
Porcupine	Erethizon dorsatum
Several rodent spp.	Peromyscus maniculatus spp.
Several bat spp.	Vespertilionidae
Several squirrel spp.	Sciuridae

Table 1. Common mammals found on federal lands in Teton Canyon and the Canyon Creek area

Wildlife - Birds

The peregrine falcon (*Falco peregrinus*) is known to occur in eastern Idaho (Levine et al. 1998), although none nest in the immediate Canyon Creek-Teton river analysis area. There are several nests within 100 miles of the analysis area and peregrines certainly pass through during migration and juvenile dispersal. Numbers of nesting waterfowl are low in the immediate analysis area. Mallards (*Anas platyrhynchos*) and Canada geese (*Branta Canadensis*) are the most common species within the river corridor, along with a few trumpeter swans (*Cygnus buccinator*). Many bald eagles (*Haliaeetus leucocephalus*) nest along the side of the canyon and use the canyon to feed year-round. A few of the more common avian species include those listed in Table 2 as well as many neotropical migrants.

Common Name	Scientific Name
Mallard	Anas platyrhynchos
Canada geese	Branta Canadensis
Trumpeter swans	Cygnus buccinator
Bald eagle	Haliaeetus leucocephalus
Golden eagle	Aquila chrsaetos
Northern harrier	Circus cyaneus
Red-tailed hawk	Falco sparverius
Mourning dove	Zenaida macroura
Black-billed magpie	Pica pica
Sharptailed grouse	Tympanuchus phasianellus
Common nighthawk	Chordeiles minor
Hummingbirds	Trochilidae
Killdeer	Charadrius vociferus
Sandpipers and allies	Scolopacidae
Osprey	Pandion haliaetus
Several owl spp.	Strigidae
Several woodpecker spp.	Picidae
American robin	Turdus migratorius

Table 2. Common birds found on federal lands in Teton Canyon and the Canyon Creek area

Wildlife - Amphibians and Reptiles

Some of the more common amphibians and reptiles that could occur in the analysis area include the western rattlesnake (*Crotalus viridus lutosus*), yellow-bellied racer (*Coluber constrictor mormon*),

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western terrestrial garter snake (*Thamnophis elegans*), common garter snake (*T. sirtalis*), gopher snake (*Pituophis melanoleucus deserticola*), sagebrush lizard (*Sceloporus graciosus*) rubber boas (*Charina bottae*) and northern leopard frogs (*Rana pipiens*). Northern leopard frog habitat includes permanent ponds, marshes, and slow-moving streams throughout forested areas, along with abundant aquatic vegetation which can be found along Canyon Creek.

Fisheries and Wetlands

Some of the most abundant or common fish species that can be found in the analysis area are listed in Table 3. The most vulnerable and aggressively managed fish species are the YCT (*Oncorhynchus clarkii bouvieri*). The YCT are found in the Snake River watershed above Shoshone Falls and in the Yellowstone River watershed (Gresswell 2009). Prior to the Teton Dam construction and subsequent failure, the canyon section of the river, which became the reservoir area, was important habitat for this salmonid. After the inundation and draining of the reservoir, this area still remains a species stronghold for YCT even though it is altered from the pre-dam conditions. There may be a few YCT trapped in the project area once the 4-week drawdown occurs, at which time a salvage would occur to move the fish into the main Teton River.

Common Name	Scientific Name
Yellowstone cutthroat trout	Oncorhynchus clarkii bouvieri
Rainbow trout	Oncorhynchus mykiss
Cutbow – cutthroat-rainbow trout hybrid	Oncorhynchus clarkii x O. mykiss
Brown trout	Salmo trutta
Brook trout	Salvelinus fontinalis
Mountain whitefish	Prosopium williamsoni
Sucker spp.	Catostomus

Table 3. Common fish species found on federal lands in Teton Canyon and Canyon Creek

Substantial geomorphic changes resulted from landslides triggered from the rapid drawdown of the reservoir when the Teton Dam failed. Mainstem riffle-pool habitat was converted to a series of 27 larger, steeper rapids, backing up long, deep, and slow-moving pools that have altered how the YCT use the channel. There is no longer any mainstem spawning habitat, so fish are spawning in the tributaries where there are gravels and shallow water (Schrader and Jones 2004). Badger Creek and Bitch Creek both have excellent spawning habitat that was not affected by the dam inundation or irrigation diversions. Canyon Creek is also important spawning habitat, but the lowest 3 miles were inundated by the reservoir, causing landslides with similar effects and consequences as those for the mainstem Teton River (IDFG 2007). These deposits have not been drastically altered since the event because the flows are not sufficient to move the larger sediment size-classes.

The change from lotic (fast moving) stream conditions to more lentic-like (slow moving) stream conditions has also had negative effects on water quality and food production. The slow-moving pools and lack of riparian vegetation have resulted in increased water temperatures (Reclamation 1999), which can lead to increased stress for fish and susceptibility to diseases (Schrader 2004). The deep pools likely provide refugia from the warm temperatures, but the stagnant non-complex conditions are not ideal habitat for the YCT. Lentic conditions are not ideal for food production, either; macroinvertebrates thrive in shallow gravel riffles which provide lots of oxygen, making the current conditions on the Teton River less desirable for macroinvertebrates and therefore less desirable for fish to feed in.

3.3.2 Environmental Consequences

Alternative A – No Action

Terrestrial and Riparian Biota

Under the No Action alternative, the habitat and human activity within the analysis area would not be affected by the proposed construction activities. The terrestrial and riparian habitat available in Canyon Creek would continue to be negatively impacted by irrigation needs as it has in the past. Habitat availability would likely decrease if less natural water flow were experienced over time due to impacts of the current irrigation system. The present distribution of riparian and wetland habitat in the area around and within the analysis area may decline and there could be adverse impacts on the aquatic and terrestrial biota, mammalian communities, avian communities, amphibian, or reptile communities.

Alternative B – Proposed Action

Impacts and effects associated with Alternative B, are presented below.

Terrestrial and Riparian Biota

Under Alternative B, the action would restore instream flows in Canyon Creek. Implementation of the project would close the canal located on Canyon Creek and allow for continual flow year-round (instead of being dewatered June-October). This would enhance the terrestrial and riparian biota within the canyon. No negative impacts are anticipated.

Irrigation improvements at the Schwendiman, Rick's, and Canyon Creek irrigation/lateral systems would cause a loss of some terrestrial and riparian vegetation within the areas where pipe removals and replacement/relocation of pumps occurred. This may affect terrestrial and riparian species using the area and displace them for the duration of the project. In the long term, species using the terrestrial and riparian habitat should reestablish, adjust, and find new areas to use after the construction is complete.

Avian Communities

The project may affect waterfowl nesting and production in the impact area and would reduce the riparian habitat for shoreline bird species. Noise during construction would also cause shortterm avoidance of the area. In the long term, species should adjust and find new areas to use as the construction noise stops and as the riparian zone reestablishes.

Fisheries and Wetlands

The project would enhance the spawning habitat for the YCT population as well as other fish species. In the long term, the fish species would benefit with improved habitat conditions from the river being returned to a more natural state, i.e., similar to pre-canal conditions. The wetland habitat would also benefit from the project which would allow for wetland expansion and stabilization of existing plants. No negative impacts are anticipated. Due to the need for a drawdown of the pond where action 3A would occur, a fish salvage would be completed to ensure all YCT and other fish are not stranded within the pond. FTR would conduct the fish salvage in coordination with Reclamation and IDFG. When the water is low enough, stranded fish would be electroshocked or netted and removed to be placed back into the Teton River downstream.

Irrigation improvements at the Schwendiman, Rick's, and Canyon Creek irrigation/lateral systems would cause a loss of some fishery habitat and wetlands within the areas where pipe removals and replacement/relocation of pumps occurs. Without restoration, these areas would be considered a permanent loss; however, a reseeding effort would be conducted to mitigate for the loss of habitat by spreading a native seed mix by hand throughout the area. This project also aligns with an overarching long-term plan to improve fish habitat in the river and promote responsible irrigation use within the entire Teton River system.

Amphibian and Reptile Communities

The project activities would have an effect on amphibians, primarily frogs. Leopard frogs may be found around the Schwendiman, Rick's, and Canyon Creek lateral irrigation projects. The destruction of the shoreline habitat within the proposed project sites could harm any northern leopard frog population that may occur in the area. The other amphibian and reptile species using the impact area would also be affected by the permanent habitat loss and they would be displaced for a short time period. In the long term, these species should adjust and find new areas to use as the riparian zone reestablishes itself.

Cumulative Effects

The Reclamation pipe inspection that is slated to occur concurrently with other construction activities would not be expected to create any additive effects in terms of habitat disturbance or duration of construction. There would therefore be no cumulative effects from these projects to vegetation, wetlands, or fish and wildlife species. Amphibians and reptile communities should not experience cumulative effects and any damaged habitat would repair over time.

3.4 Threatened and Endangered Species

3.4.1 Affected Environment

A Geographic Information System (GIS)-based query for known ranges of species listed and/or critical habitats designated under the ESA was used to generate a preliminary report for the general project areas in Madison and Fremont Countries, Idaho through the U.S. Fish and

Wildlife Service (USFWS) Information for Planning and Consultation (IPaC) online tool. A map of the polygon identified for analysis is shown on page 1 of the report (Appendix A). This report indicated the potential presence of the following species:

- Grizzly bear (Ursus arctos horribilis) Threatened
- Yellow-billed cuckoo (Coccyzus americanus) Threatened
- Ute ladies' tresses (Spiranthes diluvialis) Threatened
- North American wolverine (*Gulo gulo luscus*) Proposed Threatened
- Monarch butterfly (Danaus plexippus) Candidate for listing

No proposed or designated critical habitats associated with any listed species overlap with the project's area of influence. Each species identified is discussed in further detail below and the full IPaC report is included as Appendix A.

Grizzly bear (Ursus arctos horribilis)

Species Life History and Distribution

Grizzly bears (*Ursus arctos horribilis*) are generally solitary, long-lived omnivores that may weigh up to 300 kilograms (males), which occupy individual but often overlapping home ranges of up to 2,800 square kilometers. Home ranges encompass a mosaic of numerous habitat types, related to the species' widely varied diet and opportunistic feeding behavior. Grizzlies require protein and carbohydrate intake that exceed daily maintenance needs, as the species spends up to 6 months of the year in winter dens. Historically abundant, grizzly populations have substantially declined due to human-caused mortality and habitat alteration, particularly the cumulative effects of road construction associated with timber harvest, mining, recreation, and other forest uses. Habitat fragmentation and the potential for genetic isolation are among the biggest threats to this species. Critical Habitat has been proposed for this species but it does not intersect with the project area. The species is currently listed as threatened (USFWS 2023a).

Occurrence in Action Area

According to data made public by the IDFG for a period of record from 1990 to present, there is one verified grizzly bear observation in Madison County which occurred in 2011; there are no other observations reported in the county. For the same period of record in Fremont County, two verified observations occurred in 2011 (IDFG 2023). While the fragmentation of surrounding habitat due to agricultural use and development reduces the likelihood that this species regularly occupies habitat in the project area at present, individuals moving through the greater area may be present at or near the project sites when human activity is low.

Yellow-billed cuckoo (Coccyzus americanus)

Species Life History and Distribution

The yellow-billed cuckoo (*Coccyzus americanus*) is a neo-tropical migrant bird that winters in South America and summers in North America, where breeding, nesting, and rearing occur from June through August. In the North American part of its range, the species is a riparian obligate,

nesting exclusively in willow-cottonwood complexes greater than 50 acres in extent that occur adjacent to water. While the yellow-billed cuckoo is common east of the Continental Divide, biologists estimate that more than 90 percent of the bird's riparian habitat in the West has been lost or degraded as a result of conversion to agriculture, dams and river flow management, bank protection, overgrazing, and competition from exotic plants such as tamarisk. It is currently listed as Threatened. Critical Habitat has been designated for this species but it does not intersect with the project area (USFWS 2023b).

Occurrence in Action Area

Riparian habitat in eastern Idaho represents the northernmost edge of the species' occupied breeding and nesting range. Although no reliable population trend data exist for the species, it has been theorized that from fewer than ten to a maximum of a few dozen breeding pairs of yellow-billed cuckoo breed annually in Idaho (Taylor 2000). A species assessment completed by the USFWS concluded that "the yellow-billed cuckoo appears to be hanging on precariously in Idaho" and that it could easily become extirpated from the state (USFWS 2004).

Yellow-billed cuckoo have been very infrequently historically detected near the town of Newdale, Idaho (Reclamation 2017), so it is reasonable to assume that this species may occasionally be present in riparian habitat near the Teton River in or near the project areas. In the project areas, no habitat patches sizeable enough to be considered suitable for nesting exist. Any sporadic occurrences of yellow-billed cuckoo would be attributable to non-nesting individuals moving through the area during migration to and between nesting sites.

Ute ladies'-tresses (Spiranthes diluvialis)

Species Life History and Distribution

The Ute ladies'-tresses (*Spiranthes diluvialis*) is a perennial plant species that occurs at low elevations in the moist soils of wet or mesic riparian meadows near springs, lakes, or perennial streams. This plant is a shade intolerant orchid that primarily occurs where co-occurring vegetation is relatively open and is known to establish on seasonally-flooded gravel bars and other riparian edges. It is also known to establish in previously heavily disturbed sites (e.g., heavily grazed riparian edges or revegetated gravel pits). The Ute ladies'-tresses is highly susceptible to impacts from grazing; it may also be negatively affected by upstream pesticide and herbicide applications for both agricultural and noxious weed control, both directly through exposure and indirectly through adverse impacts to the bumblebee, its primary pollinator (USFWS 2023c).

Occurrence in Action Area

Given the hydrologic profile and geographic locations, Ute ladies' tresses may be present in the project area.

Although many known element occurrences of the species exist relatively nearby along the South Fork and Henrys Fork of the Snake River, no historic detections of Ute ladies'-tresses exist on the Teton River. However, given the hydrologic profile and geographic locations in conjunction with the species' range as identified in the IPaC tool, it was determined that the species could be present in the project areas.

Environmental Assessment

Reclamation biologists performed a survey of three of the project areas; the review indicated potential suitable habitat for Ute ladies'-tresses could be present. Surveys were conducted in accordance with existing USFWS protocols (USFWS 1992) on August 6 and 7, 2023. The timing of surveys was selected based on the presumption of concurrent flowering with the nearest known populations of Ute ladies'-tresses at a similar elevation range (on the South Fork of the Snake River) and information from a USFS botanist familiar with the species in the area (Lehman 2019). This survey found that most of the riparian habitat in the action area is not suitable for this species due to vegetation community composition and overstory densities of reed canary grass that would preclude successful establishment or persistence of the species. No occurrences of this species were observed. The full survey documentation is included in Appendix A.

North American wolverine (Gulo gulo luscus)

Species Life History and Distribution

The North American wolverine (*Gulo gulo luscus*) is the largest member of the Mustelidae family. Wolverines occur in alpine, boreal, and arctic habitats including boreal forests, tundra, and western mountains. The wolverine has a relationship with persistent spring snow that is obligate at the den scale; that is, the wolverine requires deep (greater than 1.5 meters deep), stable, and persistent spring snow for successful denning and reproduction. Due to this habitat requirement for conditions cold enough to support persistent snow, the southern portion of their range (California, Colorado, Idaho, Montana, Washington, and Wyoming) is limited to high-elevation alpine habitats. In Idaho, natal den sites are known to occur only in locations above 8,200 feet in elevation. It is currently proposed for listing as Threatened (USFWS 2023d).

Occurrence in Action Area

Due to the relatively low elevation range of the project areas (approximately 5,100-5,800 feet) and the lack of suitable alpine or boreal habitat conditions required by this species, denning populations of wolverines would not be expected to be present. However, wolverines are known to occasionally travel long distances between patches of suitable habitat. Therefore, although unlikely, it is possible individuals could infrequently utilize habitat in or adjacent to the action area as a migration corridor.

Monarch butterfly (Danaus plexippus)

Species Life History and Distribution

The monarch butterfly is a butterfly species that is globally distributed, with the North American populations being well-known for long-distance migration. They are obligate to their larval host plant, milkweed (primarily *Asclepias spp.*; five species of which are widespread in Idaho) (Kinter 2019), on which they lay eggs and larvae emerge in 2 to 5 days. Multiple generations of monarchs are produced in a breeding season; most individuals live approximately 2 to 5 weeks, but overwintering adults enter reproductive diapause (suspended reproduction) and may live 6 to 9 months.

Migratory individuals in western North America generally fly shorter distances south and west to overwintering groves along the California coast into northern Baja California. In the spring in western North America, monarchs migrate north and east over multiple generations from coastal California toward the Rockies and to the Pacific Northwest. Adult monarch butterflies during breeding and migration require a diversity of blooming nectar resources, which they feed on throughout their migration routes and breeding grounds (spring through fall). Monarchs also need milkweed (for both oviposition and larval feeding) embedded within this diverse nectaring habitat. The correct phenology, or timing, of both monarch presence as well as nectar plants and milkweed is important for monarch survival. In western North America, nectar and milkweed resources are often associated with riparian corridors, and milkweed may function as the principal nectar source for monarchs in more arid regions (USFWS 2020).

Occurrence in Action Area

The interagency Western Monarch Milkweed Mapper (<u>www.monarchmilkweedmapper.org</u>) does not show documentation of milkweed or monarchs in any of the project areas (Figure 11). The nearest mapped occurrence of monarch breeding is a sighting of breeding individuals documented in 2016 between the towns of Teton and Newdale, approximately 5 miles east of the general project area. The nearest documented milkweed occurrences are located along the Henrys Fork approximately 7.5 miles northwest of the project area, and along E 2000 Road N, which runs south of Saint Anthony, ID approximately 6 miles west of the project area.

Currently, only positive detections are listed on the website; therefore, it is unknown if a lack of mapped detections shown in a particular area indicates a lack of milkweed and monarchs in areas that have been surveyed or is simply due to a lack of survey data. The monarch butterfly, as a candidate species, has not yet been proposed for listing. There are no requirements under Section 7 of the ESA for candidate species, but agencies are encouraged to take advantage of opportunities for conservation. No Critical Habitat has been designated for this species.



Figure 11. Map of documented monarch and milkweed occurrences nearest to the project sites, period of record 1900-present

3.4.2 Environmental Consequences

Alternative A – No Action

Under the No Action alternative, current habitat conditions in the Action Area would continue to follow current trends, including seasonal dewatering of Canyon Creek due to canal diversions which would continue to affect the vegetation species composition of the riparian area. As no ground-disturbing construction would occur, there would be no effect from the No Action alternative to any host and habitat vegetation for monarch butterflies that may presently exist in the project areas. Infrequent migratory passage by individual grizzly bears, wolverines, and yellow-billed cuckoo would continue to occur, though this trend would be expected to decline with increased habitat fragmentation and development in the greater general area of the project. There would be no additional effects to Threatened and Endangered (T&E) species from the No Action alternative.

Alternative B – Proposed Action

Under the Proposed Action, the decommissioning of the Canyon Creek Canal would allow Canyon Creek to carry natural instream flows year-round; this would allow for an eventual reestablishment of riparian corridor habitats and functions along the length of Canyon Creek to its confluence with the Teton River. This would result in a long-term beneficial impact to T&E species such as grizzly bears, wolverines, and yellow-billed cuckoo in the form of higher quality habitat with increased year-round connectivity of a potential migratory corridor. It would also lead to the creation of streamside habitat with year-round riparian conditions along Canyon Creek, which could be conductive to establishment of riparian obligate species such as the Ute ladies'-tresses.

During construction at each POD site to be improved, any T&E species individuals present would likely be temporarily displaced by the noise and disturbance of increased human activity in the short term, and for the duration of construction at each site. In the long term, the operation of each improved POD would involve a similar amount of human activity and presence as currently occurs. This avoidance behavior would therefore be short-term and limited to the duration of each construction period.

Cumulative Effects

The Reclamation pipe inspection that is slated to occur concurrently with other construction activities would not be expected to create any additive effects in terms of habitat disturbance or duration of construction. There would therefore be no cumulative effects from these projects to T&E species.

3.5 Water Quality

3.5.1 Affected Environment

The Teton River is 64 miles long and is located within the Teton River subbasin (17040204) in southeast Idaho. The Idaho Department of Environmental Quality (IDEQ) has designated the 5.52-mile Teton River reach from Canyon Creek to the Teton Dam (Assessment Unit ID17040204SK004_05) for these specific beneficial uses: aesthetics, agricultural water supply, cold water aquatic life, domestic and industrial water supply, primary and secondary contact recreation, salmonid spawning, and wildlife habitat (IDEQ 2022). This assessment unit is identified by IDEQ as Category 3, meaning this reach has not been specifically monitored and beneficial uses assessed. It is important to note that immediately downstream of the proposed project areas, the Teton River is not meeting cold water aquatic life beneficial use due to exceedance in total phosphorus (TP) concentrations (IDEQ 2022). A total maximum daily load (TMDL) to control the amount of TP coming into the waterway has been active since 2003 (IDEQ 2003). IDEQ's Teton Subbasin TMDL Implementation Plan for Agriculture (2014) identifies that this type of pollutant is usually carried into the streams with sediment from croplands and/or animal feeding operations (IDEQ 2014).

Canyon Creek and tributaries in total account for approximately 45 stream-miles and is a tributary to the Teton River. IDEQ has designated the 11.25-mile reach from Warm Creek to the confluence with the Teton River (Assessment Unit ID17040204SK008_04) for aesthetics, agricultural water supply, cold water aquatic life, industrial water supply, secondary contact recreation, salmonid spawning, and wildlife habitat (IDEQ 2022). This reach of Canyon Creek is fully supporting cold water aquatic life, secondary contact recreation, and salmonid spawning beneficial uses since IDEQ's last monitoring event in 2020.

3.5.2 Environmental Consequences

Alternative A – No Action

Under the No Action alternative, the water quality of the Teton River and Canyon Creek would continue to change, directly and indirectly, from anthropogenic and natural upstream watershed inputs and snowpack/precipitation events. Water quality conditions would be similar to that described in the Affected Environment section (above).

In the long term, due to continuing water quality improvements from best management practices (BMPs) in the watershed to meet the TP TMDL in the Teton River below the dam site, water quality should slowly improve in the Teton River. TP should slowly decrease to acceptable levels and, ultimately, beneficial uses criteria should be met. Canyon Creek would continue to be dewatered from June–October for irrigation and would likely experience water quality issues associated with dewatering, such as higher stream temperatures and possibly increased turbidity until irrigation demand declines in October.

Alternative B – Proposed Action

For the Proposed Action, effects to water quality in the Teton River and Canyon Creek are separated into two categories: short-term construction effects and long-term post-construction effects. Short-term effects include direct and indirect effects associated with 1) irrigation system improvements at three sites, 2) water right transfers, and 3) flow monitoring (including equipment installation). Long-term effects include direct and indirect effects after the Teton River and Canyon Creek channels have come to equilibrium after construction has concluded. It is assumed that all requirements and procedures, including BMPs for water quality and ecological protection, identified in the various city, state, and federal permits will be followed by the proponent. The proponent contacted the Army Corps of Engineers to confirm that a 404 permit was not necessary. However, a 401 Water Quality certification and IDWR channel adjustment permit may be necessary.

Construction Direct and Indirect Effects

Schwendiman Irrigation System

Temporary incidences of excess sediment, increases in turbidity, and total suspended sediment (TSS) are expected during excavating the pump channel, reclaiming and filling an existing boat ramp, creating a floodplain through filling toward the west end of the channel, reinforcing the

check structure with rock, and elevating the existing dike. All heavy equipment work would be conducted outside the waterway as much as possible to minimize sediment effects to the river.

- Excavating the pump channel could loosen soil, dislodge sediment, and/or disturb channel bottom sediments. The construction would be performed during low river flows, allowing the least disturbance and transport of fine sediment material downstream. The sediment disturbance that would occur would be short in duration, localized, and not expected to appreciably affect turbidity or TSS in the Teton River.
- Reclaiming and filling an existing boat ramp would be done when river flows are the lowest and could be accomplished without disturbing the river channel. There is a possibility of disturbed riverbank sediment entering the river. This would be minimized through typical construction BMPs such as erosion cloth/barriers. Additionally, once the area has been revegetated either through natural means or seeding, these measures would minimize sediment movement into the river.
- The construction of a floodplain by placing fill toward the west end of the channel, reinforcing the check structure with rock, and elevating the existing dike could temporarily increase sediment in the river. Placing fill would disturb the channel bottom and would cause a brief increase in sediment and turbidity. The resulting sediment plume would dissipate downstream within minutes of entering the channel and would be distributed downstream based on mass of the individual sediment particles and flow velocity. In channel areas that experience direct flows, the higher-velocity water has likely removed much of the lighter sediment and would experience less turbidity, while depositional areas that are protected from the direct current would experience more turbidity during the placement of fill. It is expected that turbidity during this construction period may exceed 25 nephelometric turbidity units (NTUs) over background, and TSS and substrate fines would increase. These effects would not persist for more than 10 consecutive days because of the small amount of sediment disturbed by fill placement and how quickly dissipation would occur with water flow downstream. By the same logic, turbidity should not exceed background by more than 50 NTUs taken instantaneously. The fill material itself would not add to the sediment/turbidity because it would be cleaned before placement into the channel and any sediment on the fill would be very minor. This is also true for the rock used to reinforce the check structure and fill material used to elevate the existing dike.
- The construction and addition of the pump equipment funded by NFWF's America the Beautiful Grant Program would not likely increase sediment or negatively affect water quality in the Teton River. Two of the projects (a new concrete pad and rotating drum fish screens) may have slight water quality effects. Construction of the pad and installation of the rotating drum fish screens could introduce unconsolidated sediment into the river. This would be a short-duration and temporary occurrence that would be further minimized through common construction BMPs such as erosion cloth or barriers for the sediment to enter into the river.

Rick's Irrigation System

The removal of 7,920 feet of 8-inch mainline pipe and the installation of new 12-inch mainline pipe are unlikely to have any direct water quality effects. The trenching and exposed soil could pose minor potential sources of sediment from wind due to proximity to the river. These sedimentation effects would be temporary and are unlikely to affect turbidity and TSS in the Teton River.

Canyon Creek Lateral System

The replacement of two pumps at site 3A and the installation of new rotating screens would not affect water quality. The installation of the rotating screens may introduce slight amounts of sediment into the channel, but this construction would be conducted when the channel is dry and any excess sediment could be removed before the upcoming irrigation season.

Trenching, installation, and backfilling 6,540 feet of new 12-inch conveyance at site 3C and, 1,700 feet of 16-inch conveyance and 720 feet of 12-inch conveyance at site 3D would have similar effects as identified for Rick's Irrigation System above. The trenching and exposed soil could pose minor potential sources of sediment from wind due to proximity to the river. These sedimentation effects would be temporary and are unlikely to affect turbidity and TSS in the Teton River.

IDWR Water Rights Transfers

The water rights transfers indirectly affect water quality in Canyon Creek by potentially transferring PODs from Canyon Creek (or canals on Canyon Creek) to the Teton River. This would eventually allow more water to flow through Canyon Creek. Although no water quality issues have been identified by IDEQ, more water flowing on a perennial basis usually is better for overall water quality. Consequently, water would be removed from the Teton River. This reach of the Teton River reach is reportedly not flow-limited, and no water quality issues are expected from the withdrawals. These water withdrawals would be coordinated with IDWR and would likely be negligible overall when compared to the water gained through Canyon Creek. Please see Section 3.2.2 of the Hydrology and Geomorphology section for more details.

Flow Monitoring and Equipment Installation

Installation of flow loggers and water temperature gauges on Canyon Creek would not affect water quality in Canyon Creek. Installation of these devices is simple and requires very little soil disturbance.

Staging Area

The proposed staging area is over 2 miles from the Teton River and Canyon Creek and is expected to have no effect on water quality.

Post-Construction Direct and Indirect Effects

In the long term, as the construction areas stabilize and Canyon Creek begins to have a perennial flow into the Teton River, water quality in both areas is likely to continue to meet beneficial

uses. Canyon Creek would continue to fully support cold water aquatic life, secondary contact recreation, and salmonid spawning and meet its other beneficial uses. The Teton River water quality, especially that portion immediately downstream of the project area that is not meeting cold water aquatic life beneficial use due to exceedance in TP, may slightly improve due to the proposed irrigation efficiencies. However, it is important to note that the water quality would not degrade and that the incremental sediment effects from the various construction project are not expected to continue in the long term.

Cumulative Effects

The Reclamation pipe inspection effects, combined with the water quality effects identified for the Teton River and Canyon Creek, would be negligible. Both projects require a pond (pond B) to be drained; this would occur concurrently, so no additional effects would occur.

3.6 Cultural Resources

3.6.1 Affected Environment

A total of five cultural resources are within a half-mile of the project area, including the Teton Dam Historic District. The latter is discussed below and all sites are listed in Table 4. In addition, 13 surveys have been performed within the same distance, including a reconnaissance survey of the Teton Dam Historic District in 2019.

Site No.	Description	Age	Eligibility	In APE?
10MO93/10FM540/ 65-5060/43-5060	Teton Dam Historic District	Historic	Eligible	Yes
43-16377	Teton Dam Spillway	Historic	Eligible	No
43-16378	Teton Dam Auxiliary Intake Structure	Historic	Eligible	No
65-15954	Teton Dam South Shaft House	Historic	Eligible	No
65-15933	Canyon Creek Canal	Historic	Not Eligible	No

Table 4. Cultural resources within one mile of APE¹

¹APE = Area of Potential Effect

Teton Dam Historic District

Reclamation recorded and evaluated the Teton Dam Historic District in 2019. It is composed of more than 30 features and subfeatures, both contributing and not-contributing to its eligibility for listing in the National Register of Historic Places (National Register). The Teton Dam was constructed between 1972 and 1975. It is most known for its catastrophic failure on June 5, 1976. Several investigations followed the failure of the dam to determine the cause of the failure

resulting in additional features on the landscape. The 2019 evaluation focused on the effect the failure of the Teton Dam had on the national consciousness of the need for a dam safety program. The significance of the Teton Dam truly lies in its being a linchpin to the national discussion, legislation, regulation, and policy that has become the dam safety program of today.

The area of the Proposed Action includes an area of the Teton Dam Historic District classified as Feature 12. Feature 12 is a modern agricultural feature used to supply water to local farmers. Water is moved through the South Intake (Feature 9), then pumped through underground pipes from Feature 12. Feature 12 was determined to be a non-contributing (not significant) element of the Teton Dam Historic District as it post-dates the period of significance and is not related to the operation nor failure of the dam.

3.6.2 Cultural Resources Investigations

A cultural resources survey of 58.95 acres of the proposed pipeline routes and each of the pump locations was completed between May 31 and June 2, 2023. No new cultural resources were encountered. All agricultural and irrigation features post-date the construction of the dam and are fully within the modern period. Feature 12 consists of a pond and pumping equipment on the south side of the river, immediately downstream of the Teton Dam. As the Teton Dam Historic District was recently recorded, no updates to this resource were performed.

3.6.3 Environmental Consequences

Alternative A – No Action

The no action alternative would not introduce any changes to the Teton Dam Historic District and therefore would have no adverse effect on historic properties.

Alternative B – Proposed Action

Reclamation reviewed the proposed changes to Feature 12 and their potential to affect the Teton Dam Historic District, namely removing the existing pump bay, creating a new pump bay, and installing mainline, and found that the replacement of modern pumping equipment with modern pumping equipment is consistent with its existing use and would not affect any of the contributing elements or characteristics that make the Teton Dam Historic District eligible for listing in the National Register. Therefore, Reclamation determined that the proposed project would result in no adverse effects to historic properties.

3.7 Indian Sacred Sites

3.7.1 Affected Environment

Evidence of human occupation in southcentral Idaho dates as early as 14,500 years before the present (BP). The three major prehistoric cultural periods that have been identified for southeastern Idaho also apply to south central Idaho:

• Early Prehistoric Period (15,000 to 7,500 BP)

- Middle Prehistoric Period (7,400 to 1,300 BP)
- Late Prehistoric Period (1,300 to 150 BP)

These periods reflect a shift over time from a highly mobile lifestyle involving hunting and gathering (such as seeds, roots, mammals, and fish) to reduced mobility and intensified use of certain highly productive resources (such as camas and salmon). The area of potential effect (APE) is within the Snake River Basin, which was traditionally used by the Shoshone and Bannock Tribes for gathering plants for food and medicine, hunting, fishing, trading, and for ceremonial purposes. Because the environment could not sustain large populations, people moved from one resource to the next, relying on a wide variety of resources, including roots, berries, nuts, marmots, squirrels, rabbits, insects, large game, and fish. By the time of the earliest Euroamerican contact in the early 1800s, the Shoshone and Bannock Tribes had acquired the horse, making it easier to procure bison and other resources and to trade.

No known Indian Sacred Sites are within or near the project area.

3.7.2 Environmental Consequences

Alternative A – No Action and Alternative B – Proposed Action

As no Indian Sacred Sites have been identified in or near the project area, both Alternative A and Alternative B would have no effect on these resources.

Cumulative Effects

The Reclamation pipe inspection that is planned to occur concurrently with other construction activities would not be expected to create any additive effects to Indian Sacred Sites. There would therefore be no cumulative effects from these projects to Indian Sacred Sites.

3.8 Tribal Interests

3.8.1 Indian Trust Assets

Indian Trust Assets (ITAs) are legal interests in property held in trust by the United States for Indian Tribes or individual Indian trust landowners. ITAs include trust lands, natural resources, trust funds, or other assets held by the federal government in trust. An Indian trust asset has three components: (1) the trustee, (2) the beneficiary, and (3) the trust asset. Treaty-reserved rights, for instance, fishing, hunting, and gathering rights on and off reservation, are usufructuary rights that do not meet the Department of Interior (DOI) definition of an ITA (a usufruct is the legal right to use and derive profit or benefit from property that belongs to another person). The United States does not own or otherwise hold these resources in trust. ITAs do not normally include usufructuary rights alone (i.e., rights to access for hunting or fishing). Rather, they require first a possessory interest; that is, the asset must be held or owned by the federal government as trustee. The DOI requires that all impacts to trust assets, even those considered nonsignificant, must be discussed in a trust analysis in NEPA documents and appropriate compensation and/or mitigation implemented. Additionally, Reclamation's NEPA Handbook (2012) recommends a separate ITA section in all NEPA documents. These sections should be prepared in consultation with potentially affected Tribal and other trust beneficiaries.

Affected Environment

This analysis pertains to any federally managed land included in the project. Most if not all of the project would be on private land. No Indian trust land assets were identified in the proposed action area or staging areas during the scoping process, such as those held in trust by the Bureau of Indian Affairs for the benefit of Tribes or individual Indian trust landowners. As part of the scoping process, Reclamation researched Tessel, a federal GIS land database that includes federal lands held in trust for Tribes and individual Indian trust landowners. This research indicated there are no Indian trust land assets in the Proposed Action area or staging areas.

ITAs in the closest proximity to the proposed action area are the Fort Hall Reservation occupied by the Shoshone-Bannock Tribes, which is situated approximately 54 miles southwest of the Proposed Action area. The Shoshone-Bannock Tribes have an on-reservation water right in the portion of the Snake River basin upstream from Hells Canyon Dam, the furthest downstream of the three dams authorized as Federal Energy Regulatory Commission Project No. 1971 (Fort Hall Indian Water Rights Act of 1990; 104 Stat 3059 (1990)). Additionally, the Shoshone-Bannock Tribes have water storage rights in Palisades Reservoir and American Falls Reservoir, which are reserved under the Michaud Flats Project for irrigation in the State of Idaho (68 Stat. 741 at 1027 (1954)).

ITAs in the second closest proximity to the Proposed Action area are the Wind River Indian Reservation occupied by the Eastern Shoshone and the Northern Arapaho Tribes, which is situated approximately 88 miles east of the proposed action area.

The Nez Perce Reservation, occupied by the Nez Perce Tribe, is situated approximately 263 miles northwest of the Proposed Action area. The Nez Perce Tribe has a water right in the Snake River basin as described in the Snake River Basin Adjudication, Case No. 39576, paragraph 3 of the Commencement Order issued by the Snake River Basin Adjudication Court on November 19, 1987 (118 Stat. 3433 (2004)).

Environmental Consequences

Alternative A – No Action

Under the No Action alternative, Reclamation would not fulfill the WaterSMART grant and FTR would not perform the watershed management project. Existing short-term or long-term effects, either beneficial or adverse, or effects on public health and safety in relationship to nearby ITAs, would remain unchanged.

Alternative B – Proposed Action

Under Alternative B, the Proposed Action, Reclamation proposes to provide funding through a WaterSMART grant for FTR to perform a watershed management project occurring within

Teton and Madison Counties in southeastern Idaho. If the Proposed Action occurs, there are no known beneficial or adverse effects to ITAs.

Reclamation requested information from the Shoshone-Bannock Tribes of the Fort Hall Reservation, the Shoshone-Paiute Tribes of the Duck Valley Reservation, the Northwestern Band of the Shoshone Nation, and the Eastern Shoshone Tribe who traditionally or currently use the area under their reserved Treaty Rights; however, no responses were received. The lack of specific information about the area is not indicative of a lack of importance to Tribes. With no specific responses, Reclamation assumes that there would be no adverse effects to ITAs, such as adverse impacts to water, water rights, or land held in trust for the Tribes.

Cumulative Effects

The Reclamation pipe inspection planned to occur concurrently with other construction activities would not be expected to create any additive effects to ITAs. There would therefore be no cumulative effects from these projects to ITAs.

3.8.2 Treaty Rights

Affected Environment

The United States has a fiduciary responsibility to protect and maintain rights reserved by Indian Tribes or Indian individuals by treaties, statues, EOs, and allotments. These rights are sometimes further interpreted through court decisions and regulations.

The Proposed Action area is surrounded by areas historically used by many Tribes (Figure 12). Treaty Rights at issue here are access and impacts to off-reservation hunting, fishing, gathering rights, livestock grazing rights, and cultural or ceremonial use rights. Although the Proposed Action area may include federally-owned property, courts have ruled that members of federally recognized Tribes with reserved Treaty Rights have the right to cross private or state lands in order to gain access to treaty areas (United States v. Winans, 1905).



Figure 12. Native American lands in the general vicinity of the Proposed Action

The Shoshone-Bannock Tribes of the Fort Hall Reservation are federally recognized Tribes in southeast Idaho, situated approximately 54 miles southwest of the Proposed Action area. The Wind River Indian Reservation, occupied by the Eastern Shoshone and the Northern Arapaho Tribes, is situated approximately 104 miles east of the Proposed Action area. On July 3, 1868, the Fort Bridger Treaty was signed and agreed to by the eastern and western bands of the Northern Shoshone and the Bannock (or Northern Paiute Bands). Article IV of the treaty states that members of the Shoshone-Bannock Tribes "…shall have the right to hunt on the unoccupied lands of the United States…" Courts interpreted this to mean "unoccupied federal lands."

In the case of State of Idaho v. Tinno, an off-reservation fishing case in Idaho, the Idaho Supreme Court interpreted the Fort Bridger Treaty of the Shoshone-Bannock Tribes. The Court determined that the Shoshone word for 'hunt' also included to 'fish.' Under Tinno, the Court affirmed the Tribal members' right to take fish off-reservation pursuant to the Fort Bridger Treaty. The Court also recognized "that treaty Indians have subsistence and cultural interests in hunting and fishing..." and "The Fort Bridger Treaty ... contains a unified hunting and fishing right, which...is unequivocal." The treaty did not grant a hunting, fishing, or gathering right, it reserved a right the Shoshone-Bannock Tribes have always exercised. The Shoshone-Paiute Tribes of the Duck Valley Reservation are federally recognized Tribes in southern Idaho and northern Nevada, situated approximately 250 miles southwest of the Proposed Action area. The reservation was established by EOs dated April 16, 1877; May 4, 1886; and July 1, 1910. The Shoshone-Paiute sometimes claim the interests of the Tribes that are reflected in the Bruneau, Boise, Fort Bridger, Box Elder, Ruby Valley, and other treaties and EOs that the Tribes' ancestors agreed to with the United States. The Tribes continue to observe these treaties and EOs in good faith; however, the Federal Government did not ratify treaties that reserved off-reservation hunting and fishing rights. The Tribes assert they have aboriginal title and rights to those areas. All such treaties and EOs recognize the need for the Tribes to continue to be incapable of sustaining tribal populations. This need continues and has not diminished from the time of the first treaties and EOs that established the Duck Valley Reservation v. Leavitt, 2005).

The Northwestern Band of the Shoshone Indians, a federally recognized Tribe located near Washakie, Utah, is situated approximately 141 miles southwest of the Proposed Action area. The Tribe maintains reserved treaty-protected hunting, fishing, and gathering rights, also pursuant to the 1868 Treaty of Fort Bridger. As noted above, these reserved rights may be exercised on unoccupied lands within the area acquired by the United States.

The Nez Perce Tribe of the Nez Perce Reservation are a federally recognized Tribe in northern Idaho, situated approximately 263 miles northwest of the Proposed Action area. The United States and the Tribe entered into three treaties (Treaty of 1855, Treaty of 1863, and Treaty of 1868) and one agreement (Agreement of 1893). The rights of the Nez Perce Tribe include the right to hunt, gather, and graze livestock on open and unclaimed lands, and to fish in all usual and accustomed places.

The Northern Arapaho of the Wind River Reservation are a federally recognized Tribe located in central Wyoming, situated approximately 104 miles east of the Proposed Action area. The United States and the Northern Arapaho entered into the Fort Laramie Treaty of 1851 (Horse Creek Treaty), which reserved the right of the Northern Arapaho "to roam and hunt while game shall be found in sufficient quantities to justify the chase."

Environmental Consequences

The United States Supreme Court has ruled that treaties with Indian Tribes are to be construed liberally in favor of Tribes, as the Tribes would have understood the language of the treaty at the time the treaty was signed. It is likely that the ratified or unratified treaties listed above include areas surrounding 10.25 miles upstream from the confluence of Canyon Creek on the Teton River, Idaho, the Proposed Action area.

Alternative A - No Action

Under the No Action alternative, Reclamation would not fulfill the WaterSMART grant and FTR would not perform the proposed watershed management projects. There would be no short-term or long-term effects, either beneficial or adverse to existing reserved Treaty Rights,

for tribal hunting, fishing, or gathering in traditional or customary places or for livestock grazing in the area.

Alternative B – Proposed Action

Under Alternative B, there are anticipated beneficial long-term effects to reserved Treaty Rights, such as access to or impacts to traditional or customary places for hunting, fishing, or gathering, or for livestock grazing in the area. The anticipated benefit is to restore instream flows in Canyon Creek, a productive spawning tributary for a core conservation population of YCT. The proposed project construction ingress and egress routes may cause a temporary, short-term adverse effect on access to traditional or customary hunting, fishing, or gathering sites, or for livestock grazing areas during the construction periods.

Reclamation requested information from the Shoshone-Bannock Tribes of the Fort Hall Reservation, the Shoshone-Paiute Tribes of the Duck Valley Reservation, the Northwestern Band of the Shoshone Nation, and the Eastern Shoshone Tribe, who traditionally and currently use the area for hunting, fishing, and gathering of plants; however, no responses were received. The lack of specific information about the area is not indicative of a lack of importance to Tribes. With no specific response, Reclamation assumes that there would be no adverse effects to reserved Treaty Rights, such as access or impacts to areas for hunting, fishing, or gathering, or for livestock grazing.

Mitigation Summary

Mitigation efforts may be required to reduce the effects of construction ingress and egress on Tribal access to hunting, fishing, or gathering should construction ingress and egress activity take place in the same location and at the same time of year as traditional or customary hunting, fishing, and gathering of plants, or for livestock grazing. If this were to occur, Reclamation would meet with Tribes to formulate an appropriate mitigation measure.

Cumulative Effects

The Reclamation pipe inspection planned to occur concurrently with other construction activities would not be expected to create any additive effects to Treaty Rights. There would therefore be no cumulative effects from these projects to Treaty Rights.

3.9 Environmental Justice

EO 12898 (59 FR 7629) requires each federal agency to achieve environmental justice by addressing disproportionately high and adverse human health and environmental effects on minority and low-income populations. The demographics of the action area are examined to determine whether minority populations, low-income populations, and/or Native American Tribes are present in the area impacted by a proposed action. If present, the agency must determine if implementation of the proposed action would cause disproportionately high and adverse human health or environmental effects on the populations.

3.9.1 Affected Environment

Racial Minorities

The project construction areas are located in Fremont and Madison Counties. The general proportions of race and ethnicity in Fremont and Madison Counties are similar to Idaho as a whole, with a white population being the largest and making up 95.6 percent of Fremont County and 94.8 percent of Madison County according to the Census Bureau's 2017-2021 5-year American Community Survey (Table 5).

Table 5. 2021 Summary of racial and ethnic minority distribution in Idaho, Fremont and Madison Counties (USCB 2022)

Race or Ethnicity	Idaho	Fremont County	Madison County
White	92.8%	95.6%	94.8%
Black or African American	0.9%	0.9%	0.8%
Asian	1.6%	0.5%	1.4%
Native Hawaiian and Other Pacific Islander	0.2%	0.5%	0.3%
American Indian and Alaska Native	1.7%	1.1%	0.7%
Two or More Races	2.7%	1.9%	1.9%
Hispanic or Latino (any race) ¹	13.3%	12.2%	8.5%

¹By definition from the Federal Office of Management and Budget, race and Hispanic or Latino origin are two separate categories. People who report themselves as Hispanic or Latino can be of any race.

Low-Income Populations

Low-income populations are identified by several socioeconomic characteristics. As categorized by the 2020 Census, specific characteristics include income (median family and per capita), percentage of population below poverty (individuals), and unemployment rates. The Census Bureau's 2017-2021 5-year American Community Survey shows a slightly lower median household income of \$53,498 for Madison County, and a slightly higher median household income of \$75,837 for Fremont County, than the \$63,377 value for Idaho (USCB 2022). The Census Bureau reported that about 17.6 and 11.8 percent of the population of Madison and Fremont Counties, respectively, and 11 percent of the state of Idaho's population were living in poverty in 2021 (USCB 2022). Relevant information is shown in Table 6.

Description	Idaho	Fremont County	Madison County
Median household income (in 2021 dollars), 2017-2021	\$63,377	\$75,837	\$53,498
Per capita income in past 12 months (in 2021 dollars), 2017-2021	\$31,509	\$24,371	\$20,983
Persons in poverty, percent	11%	11.8%	17.6%
Persons unemployed (2022), percent	3%	2.7%	1.7%

Table 6. 2021 Income and poverty status and 2021 unemployment status for Fremont and Madison Counties and the State of Idaho

Other measures of low income, such as unemployment, characterize demographic data in relation to environmental justice. The 1.7 percent and 2.7 percent unemployed values for Madison and Fremont County, respectively, are slightly lower than the State of Idaho's 3 percent unemployed (IDL 2022).

Climate and Economic Justice Screening Tool

In January of 2020, EO 14008 directed the CEQ to develop a new tool titled the Climate and Economic Justice Screening Tool which uses an interactive map and multiple datasets to identify communities that are disadvantaged because they are overburdened and underserved. These communities could be experiencing any of the eight categories of burdens which include climate change, energy, health, housing, legacy pollution, transportation, water and wastewater, and workforce development. Each of these larger categories have sub-categories with burden thresholds and associated socioeconomic thresholds to help determine if the census tract is identified as disadvantaged. A community that is experiencing these categories is highlighted in the interactive map and a toolbar shows which categories are of concern.

One census tract (number 16043970200) within the project area shows climate change and energy as categories of concern due to the exceedance of a set percentile. Regarding climate change, expected population loss and low income are determined to be of concern due to each being above the 90th and 65th percentile, respectively. Expected population loss is in the 96th percentile and is described as fatalities and injuries resulting from natural hazards each year. Low-income is in the 82nd percentile and is describes as people in households where income is less than or equal to twice the federal poverty level, not including students enrolled in higher education. Regarding energy, energy cost and low income are determined to be of concern due to each being above the 90th and 65th percentile, respectively. Energy cost is in the 92nd percentile and is described as average annual energy costs divided by household income and lowincome is the same as above. Therefore, this tract is considered disadvantaged because it meets more than one burden threshold and the associated socioeconomic threshold (CEQ 2023).

3.9.2 Environmental Consequences

Alternative A – No Action

The No Action alternative would not alter the current regional environmental justice status, based on the lack of action and the information presented above, and therefore would have no environmental justice effects.

Alternative B – Proposed Action

Under Alternative B, there are no minority groups and one census tract (number 16043970200) that fits the Climate and Economic Justice Screening Tool's percentile threshold for low-income groups, as identified for further analysis by EO 12898. However, upon further analysis, this census tract would not be disproportionately affected by health or environmental effects as the result of the implementation of the Proposed Action due to any effect being from localized actions with relatively unpopulated areas of effect. As a result, there would be no significant effect to the greater area's low-income or minority populations.

Cumulative Effects

The Reclamation pipe inspection planned to occur concurrently with other construction activities would not be expected to create any additive effects to environmental justice. Therefore, there would be no cumulative effects from these projects to environmental justice.

3.10 Recreation

3.10.1 Affected Environment

Reclamation manages lands for another federal agency in the Teton area. The BLM acquired lands within the Lower Teton Division Project and entered into IA 2-07-10-L0504 with Reclamation on December 4,1981. This IA requires Reclamation to manage all lands identified within the agreement area for recreation wildlife, public access, and other public purposes; and to issue and administer all authorizations located on the lands identified within the IA. The proposed project areas are within the scope of the lands included in the IA.

On September 12, 2021, Reclamation and Madison County entered into Management Agreement 21-07-14-L02055 for recreation at Teton Dam Recreation Area. Madison County manages approximately 329 acres in the Teton area for Reclamation. A portion of the proposed project area is located within this agreement area.

Recreation in the Teton River canyon is widespread through the entire river corridor and is diverse in its use. Upper reaches are popular for floating and fishing, while the project area draws rafters, kayakers, drift boaters, campers, day users, and swimmers; it also offers great fishing. Spring, summer, and fall are the most popular seasons for users in the area, though winter does see some minimal activity. Water flow in the Teton River is critical to positive recreation experiences, whether related to good water flows for floating and kayaking or flows to promote fish habitat and reproduction.

Recreation activities are monitored and managed by Reclamation, BLM, and Madison County. At project site 3 (Figure 5), Madison County manages recreation consisting of campsites, a boat ramp, and hiking trails. Under this agreement with Madison County, further development and build-out of recreation facilities are proposed for the coming years. These developments include more defined campsites, better boater access to the river, well-defined trails, better route definition, and more accessible fishing and outdoor experiences, along with highlighting the unique history of the area through interpretive signage and information kiosks.

3.10.2 Environmental Consequences

Alternative A – No Action

Under this alternative, the status quo would remain and no impact to recreation would occur. Irrigation and water delivery do not currently effect recreationists at the proposed sites in most circumstances.

Alternative B – Proposed Action

The Proposed Action at sites 1, 2, and 3 involve construction activities of varying intensities. However, all are temporary in nature and all will replace existing infrastructure. Delays on roadways or closures of areas for construction work should be limited in size and short in duration, as should noise disturbance in that may affect the quality of a recreator's enjoyment of peaceful and scenic areas. At the end of the project, the sites would look similar to the landscape as it was prior to construction and recreation would take place consistent with prior uses.

Returning water to the Teton River drainage and creating more reproductive habitat for the YCT is a positive gain for recreators. Fishing is one of the most popular activities in the project area; therefore, any positive effects for fish are also positive effects for recreation.

At the conclusion of the project, there would be no alterations to roadways, trails, boat ramps, campsites, or access. Therefore, interruptions to recreation activities would be temporary and have little or no long-term negative effects.

Cumulative Effects

The Reclamation pipe inspection planned to occur concurrently with other construction activities would not be expected to create any additive effects to recreation; this is due to the lack of recreation activities on the pond being drained. There would therefore be no cumulative effects from these projects to recreation.

3.11 Greenhouse Gas Emissions

EO 13990, Protecting Public Health and the Environment and Restoring Science to Tackle the Climate Crisis, states that scientific means will be followed to advance public health and the environment. As a result of the EO, CEQ has issued interim NEPA guidance on consideration of Greenhouse Gas Emissions and Climate Change. This guidance directs federal agencies to analyze greenhouse gas and climate change effects of their proposed actions under NEPA.

3.11.1 Affected Environment

Greenhouse gases are gases that trap heat in the Earth's atmosphere such as carbon dioxide (CO_2) , methane (CH_4) , nitrous oxide (N_2O) , and ozone (O_3) . These gases act like glass walls of a greenhouse (hence the name greenhouse gas) and the emission of these gases within the Earth's atmosphere makes the planet warmer. Larger quantities of greenhouse gases have been released into the atmosphere at a higher rate since the American industrial revolution. The largest source of greenhouse gases in the United States comes from human activities such as burning fossil fuels for electricity, heat and transportation (EPA 2023a). The most prominent of those gases and the ways they enter the atmosphere are as follows:

- Carbon dioxide: This gas enters the atmosphere naturally through processes like volcanic eruptions and wildfires. There are also processes such as burning fossil fuels (coal, natural gas, and oil), cement production, and burning solid waste that release carbon dioxide into the atmosphere.
- Methane: Emissions of methane are a result of raising livestock, land use, and the decay of organic waste in municipal solid waste landfills.
- Nitrous oxide: This gas is emitted in activities such as agriculture, land use, and industry, as well as treatment of wastewater and combustion of fossil fuels and solid waste.

For the reconnection of Canyon Creek to the Teton River, equipment use would be the only relevant greenhouse gas emissions considered necessary to complete the project. The tables below show estimates of each type of equipment that would be used, the duration, and the amount of fuel used to complete the proposed project.

Equipment Type	Quantity	Hours of Use	Gallons of Fuel per Hour	Total Fuel Used
John Deere 210 excavator	1	20	9	180
Concrete pump truck	1	10	10	100
Equipment transport	1	3	5	15
Boom truck	1	20	3	60

Table 7. Equipment usage for pump structure construction

Equipment Type	Quantity	Hours of Use	Gallons of Fuel per Hour	Total Fuel Used
John Deere 310F backhoe	2	10	3	30
3500 1-ton truck	2	5	3	15
Total				400

*Assumptions and sources: construction window 2-3 weeks, 18 workdays with 9-hour shifts equals 162 hours of construction time; all fuel consumed is diesel. <u>https://www.jscole.com/fueltables</u>

Equipment Type	Quantity	Hours of Use	Gallons of Fuel per Hour	Total Fuel Used
John Deere 210 excavator	1	590	9	5,310
John Deere 310 excavator	1	350	11	2,850
John Deere 310 backhoe	1	75	3	225
Boom truck	1	50	3	150
3500 1-ton truck	1	40	2	80
Equipment transport	1	6	5	30
Total				8,645

Table 8. Equipment usage for sites 2, 3B, 3C, and 3D Main Lines

*Assumptions and sources: construction window 60 days; all fuel consumed is diesel. <u>https://www.jscole.com/fueltables</u>

The Environmental Protection Agency's Greenhouse Gas Equivalencies Calculator is a tool that converts emissions to the equivalent amount of carbon dioxide emissions. This tool aids in the explanation of abstract measurements into more understandable terms. The total amount of gallons of diesel fuel estimated to be used to complete the proposed project is approximately 9,045 gallons (Table 7 and Table 8). This would be equivalent to approximately 92 metric tons of carbon dioxide emitted or enough to equal 20.5 gasoline-powered passenger vehicles driven for one year according to the greenhouse gas equivalencies calculator (EPA 2023b).

3.11.2 Environmental consequences

Alternative A-No Action

The No Action alternative would result in no changes to the project area because Reclamation would not fulfill the WaterSMART grant that is designed to support FTR completing the

watershed management project. There would be no greenhouse gas emissions emitted; therefore, there would be no significant effect.

Alternative B- (Proposed Action)

Under Alternative B, the Proposed Action is cumulatively estimated to emit approximately 92 metric tons of carbon dioxide, or the equivalent energy use of 20.5 gasoline-powered passenger vehicles driven for 1 year. The greenhouse gases emitted as a result of this project would be considered negligible due to the localized area in which the project would occur and the short duration of the action, with October to April being the timeframe of construction. Given that the population in Fremont and Madison Counties was approximately 65,000 at the time of the 2020 Census, the energy use equivalent of 20.5 gasoline-powered passenger vehicles driven for 1 year being added to emission levels generated by a population this size would be considered inconsequential.

Cumulative Effects

The Reclamation pipe inspection planned to occur concurrently with other construction activities would not be expected to create any additive effects to greenhouse gas emissions. Therefore, there would be no cumulative effects from these projects to greenhouse gas emissions.

Chapter 4 Consultation and Coordination

On December 2, 2022, Reclamation mailed a scoping document including a letter, project information, and a map to agencies, Indian Tribes, members of Congress, organizations, and individuals, soliciting their help in identifying any issues and concerns related to the Proposed Action. Reclamation received three comments during the scoping period. One comment from the U.S. Army Corps of Engineers included an exemption letter for Department of Army authorization; one comment from IDEQ offered full support for the project; and one comment from a member of the public stated they have interest in protecting both the watershed and the agriculture of the area through balance of not burdening our food source with restoring flows of water for habitat. The mailing list, scoping letters, and comments received are presented in Appendix C.

4.1 Agency Consultation and Coordination

4.1.1 National Historic Preservation Act

Reclamation initiated consultation with the Idaho State Historic Preservation Office (SHPO) on August 15, 2023. SHPO concurrence with Reclamation's finding of No Effect to Historic Properties for the action area was received on August 30, 2023.

4.1.2 Endangered Species Act

Reclamation generated a preliminary endangered species report through the USFWS IPaC site (Appendix A). The report indicated that five species are expected to be present in the action area for the proposed project:

- Grizzly bear (Ursus arctos horribilis) Threatened
- Yellow-billed cuckoo (Coccyzus americanus) Threatened
- Ute ladies' tresses (Spiranthes diluvialis) Threatened
- North American wolverine (*Gulo gulo luscus*) Proposed Threatened
- Monarch butterfly (Danaus plexippus) Candidate for listing

Since the Proposed Action would not adversely affect any listed species, no need exists for formal Section 7 consultation under the ESA.

4.2 Tribal Consultation and Coordination

Reclamation mailed scoping letters to the Shoshone-Bannock Tribes, Shoshone-Paiute Tribes, Eastern Shoshone Tribe, and the Northwestern Band of the Shoshone Nation Tribe on November 25, 2022 (Appendix C). No responses or concerns from the Tribes were brought forward during the scoping period.

Chapter 5 References

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Reclamation 1977	Bureau of Reclamation. 1977. <i>Teton Reservoir and Dam, Teton Basin Project, Idaho</i> . Bureau of Reclamation, Snake River Development Office, Boise, Idaho.
Reclamation 1981	Bureau of Reclamation. 1981. <i>Post Failure Landslides, Teton Reservoir, Minidoka Project, Idaho</i> . Bureau of Reclamation, Snake River Development Office, Boise, Idaho.
Reclamation 1999	Bureau of Reclamation. 1999. <i>Teton River Water Temperature</i> <i>Investigation Report</i> . U.S. Bureau of Reclamation Land Suitability and Water Quality Group, Technical Service Center, Denver, Colorado.
Reclamation 2001	Bureau of Reclamation. 2001. <i>Teton River Canyon Management Plan: Vegetation Restoration Study</i> . Bureau of Reclamation.
Reclamation 2003	Bureau of Reclamation. 2003. Comparison of Vegetation on Historically Inundated and Non-Inundated South-facing Slopes in the Teton River Canyon, Fremont County, Idaho; Implications for Mule Deer Winter Habitat. Bureau of Reclamation.
Reclamation 2017	Bureau of Reclamation. 2017. Yellow-Billed Cuckoo (Coccyzus americanus) Biological Assessment for Bureau of Reclamation Operations and Maintenance in the Snake River Basin Above Brownlee Reservoir. Bureau of Reclamation, Pacific Northwest Region. June 30, 2017. Boise, Idaho.

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Schrader and Jones 2004	Schrader, W.C. and M. Jones. 2004. <i>Teton River Investigations, Part III: Fish Movements and Life History 25 years after Teton Dam</i> . Idaho Department of Fish and Game, Boise.
Taylor 2000	Taylor, D.M. 2000. "Status of the Yellow-billed Cuckoo in Idaho." <i>Western Birds</i> 31, pp. 252-254.
USCB 2022	United States Census Bureau. 2022. Quickfacts Table for State of Idaho, Fremont County and Madison County. Available online at: <u>https://www.census.gov/quickfacts/fact/table/madisoncountyidaho,fremontcountyidaho,ID/PST045222</u> (last accessed July 25, 2023).
USDA 2000	United States Department of Agriculture. 2000. <i>Crop Profile for</i> <i>Potatoes in Idaho</i> . Available online at: <u>https://ipmdata.ipmcenters.org/documents/cropprofiles/IDpotatoes.p</u> <u>df</u> (last accessed August 17, 2023)
USFWS 1992	U.S. Fish and Wildlife Service. 1992. Interim Survey Requirements for Ute Ladies'-tresses Orchid (Spiranthes Diluvialis). November 23, 1992.
USFWS 2004	U.S. Fish and Wildlife Service. 2004. <i>Species Assessment and Listing Priority Assignment Form</i> . Sacramento Office.
USFWS 2020	U.S. Fish and Wildlife Service. 2020. <i>Monarch (Danaus plexippus)</i> <i>Species Status Assessment Report</i> . V2.1 96 pp + appendices. Available online at <u>https://www.fws.gov/media/monarch-butterfly-species-</u> <u>status-assessment-ssa-report</u> (last accessed August 2023).
USFWS 2023a	US Fish and Wildlife Service. 2023. <i>Environmental Conservation Online System Species Profile, Grizzly Bear</i> . Available online at: https://ecos.fws.gov/ecp/species/7642 (last accessed February 2023).
USFWS 2023b	US Fish and Wildlife Service. 2023. <i>Environmental Conservation Online System Species Profile, Yellow-Billed Cuckoo</i> . Available online at: https://ecos.fws.gov/ecp/species/3911 (last accessed February 2023).
USFWS 2023c	US Fish and Wildlife Service. 2023. <i>Environmental Conservation Online System Species Profile, Ute Ladies'-Tresses</i> . Available online at: <u>https://ecos.fws.gov/ecp/species/2159</u> (last accessed February 2023).
USFWS 2023d	US Fish and Wildlife Service. 2023. <i>Environmental Conservation Online System Species Profile, North American Wolverine</i> . Available online at: <u>https://ecos.fws.gov/ecp/species/5123</u> (last accessed February 2023).
Appendices

Appendix A – Information for Planning and Conservation (IPaC) Report

Appendix B – Cultural Resources and Sacred Sites Consultation with State Historic Preservation Office and Shoshone-Bannock Tribes

Appendix C – Scoping Documents, Mailing List, and Scoping Comments Received

Appendix D – Request for Comment Letters and Delivery Verification This page intentionally left blank.

Appendix A

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IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

Location

Fremont and Madison counties, Idaho



Local office

Idaho Fish And Wildlife Office

(208) 378-5243

<u

1387 South Vinnell Way Suite 368 https://ipac.ecosphere.fws.gov/location/FPBPOAS5KVCANDXUQQM5BRBQEU/resources Boise, ID 83709-1657

NOTFORCONSULTATION

Endangered species

This resource list is for informational purposes only and does not constitute an analysis of project level impacts.

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

- 1. Draw the project location and click CONTINUE.
- 2. Click DEFINE PROJECT.
- 3. Log in (if directed to do so).
- 4. Provide a name and description for your project.
- 5. Click REQUEST SPECIES LIST.

Listed species¹ and their critical habitats are managed by the <u>Ecological Services Program</u> of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries²).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact <u>NOAA Fisheries</u> for <u>species under their jurisdiction</u>.

 Species listed under the <u>Endangered Species Act</u> are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the <u>listing status page</u> for more information. IPaC only shows species that are regulated by USFWS (see FAQ). 2. <u>NOAA Fisheries</u>, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

The following species are potentially affected by activities in this location:

Mammals

NAME	STATUS
Grizzly Bear Ursus arctos horribilis There is proposed critical habitat for this species. <u>https://ecos.fws.gov/ecp/species/7642</u>	Threatened
North American Wolverine Gulo gulo luscus Wherever found No critical habitat has been designated for this species. <u>https://ecos.fws.gov/ecp/species/5123</u>	Proposed Threatened
Birds	
NAME	STATUS
Yellow-billed Cuckoo Coccyzus americanus There is final critical habitat for this species. Your location does not overlap the critical habitat. <u>https://ecos.fws.gov/ecp/species/3911</u> Insects NAME	Threatened
Monarch Butterfly Danaus plexippus Wherever found No critical habitat has been designated for this species. <u>https://ecos.fws.gov/ecp/species/9743</u>	Candidate
Flowering Plants	STATUS
Ute Ladies'-tresses Spiranthes diluvialis Wherever found No critical habitat has been designated for this species. <u>https://ecos.fws.gov/ecp/species/2159</u>	Threatened

Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

There are no critical habitats at this location.

Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act^{1} and the Bald and Golden Eagle Protection Act^{2} .

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described <u>below</u>.

- 1. The Migratory Birds Treaty Act of 1918.
- 2. The <u>Bald and Golden Eagle Protection Act</u> of 1940.

Additional information can be found using the following links:

- Birds of Conservation Concern https://www.fws.gov/program/migratory-birds/species
- Measures for avoiding and minimizing impacts to birds <u>https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds</u>
- Nationwide conservation measures for birds <u>https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf</u>

The birds listed below are birds of particular concern either because they occur on the USFWS Birds of Conservation Concern (BCC) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ below. This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the <u>E-bird data mapping tool</u> (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found <u>below</u>.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
American White Pelican pelecanus erythrorhynchos This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA <u>https://ecos.fws.gov/ecp/species/6886</u>	Breeds Apr 1 to Aug 31
Bald Eagle Haliaeetus leucocephalus This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.	Breeds Dec 1 to Aug 31
Cassin's Finch Carpodacus cassinii This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. <u>https://ecos.fws.gov/ecp/species/9462</u>	Breeds May 15 to Jul 15
Evening Grosbeak Coccothraustes vespertinus This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 15 to Aug 10
Lewis's Woodpecker Melanerpes lewis This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. <u>https://ecos.fws.gov/ecp/species/9408</u>	Breeds Apr 20 to Sep 30
Olive-sided Flycatcher Contopus cooperi This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. <u>https://ecos.fws.gov/ecp/species/3914</u>	Breeds May 20 to Aug 31
Rufous Hummingbird selasphorus rufus This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. <u>https://ecos.fws.gov/ecp/species/8002</u>	Breeds Apr 15 to Jul 15

Breeds Apr 15 to Aug 10

Sage Thrasher Oreoscoptes montanus This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA <u>https://ecos.fws.gov/ecp/species/9433</u>

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

- 1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
- 2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is 0.25/0.25 = 1; at week 20 it is 0.05/0.25 = 0.2.
- 3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

Breeding Season (=)

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (I)

Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

To see a bar's survey effort range, simply hover your mouse cursor over the bar.

No Data (–)

A week is marked as having no data if there were no survey events for that week.

Survey Timeframe

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.



Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

IPaC: Explore Location resources

<u>Nationwide Conservation Measures</u> describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. <u>Additional measures</u> or <u>permits</u> may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the list of migratory birds that potentially occur in my specified location?

The Migratory Bird Resource List is comprised of USFWS <u>Birds of Conservation Concern (BCC)</u> and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the <u>Avian Knowledge</u> <u>Network (AKN)</u>. The AKN data is based on a growing collection of <u>survey</u>, <u>banding</u>, <u>and citizen science</u> <u>datasets</u> and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle (<u>Eagle Act</u> requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the <u>Rapid Avian Information Locator (RAIL) Tool</u>.

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the <u>Avian Knowledge Network (AKN)</u>. This data is derived from a growing collection of <u>survey</u>, <u>banding</u>, <u>and</u> <u>citizen science datasets</u>.

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering or migrating in my area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may query your location using the <u>RAIL Tool</u> and look at the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are <u>Birds of Conservation Concern</u> (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);

- 2. "BCC BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
- 3. "Non-BCC Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the <u>Eagle Act</u> requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the <u>Northeast Ocean Data</u> <u>Portal</u>. The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the <u>NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird</u> <u>Distributions and Abundance on the Atlantic Outer Continental Shelf</u> project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the <u>Diving Bird Study</u> and the <u>nanotag studies</u> or contact <u>Caleb Spiegel</u> or <u>Pam Loring</u>.

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to <u>obtain a permit</u> to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

Facilities

National Wildlife Refuge lands

Any activity proposed on lands managed by the <u>National Wildlife Refuge</u> system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

There are no refuge lands at this location.

Fish hatcheries

There are no fish hatcheries at this location.

Wetlands in the National Wetlands Inventory (NWI)

Impacts to <u>NWI wetlands</u> and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local <u>U.S. Army Corps of</u> <u>Engineers District</u>.

Wetland information is not available at this time

This can happen when the National Wetlands Inventory (NWI) map service is unavailable, or for very large projects that intersect many wetland areas. Try again, or visit the <u>NWI map</u> to view wetlands at this location.

Data limitations

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

IPaC: Explore Location resources

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tuberficid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

Data precautions

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate Federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

JIFO

Survey Report for *Spiranthes diluvialis:* Reconnecting Canyon Creek to Teton River and Restoring Instream Flows Project

Prepared by:

Amy Goodrich Natural Resource Specialist US Bureau of Reclamation Snake River Area Office, Boise, ID

AMY **Digitally signed** GOODRI GOODRICH Date: 2023.08.09 CH / 10:10:07 -06'00'

Surveyors and Qualifications

Amy Goodrich-Natural Resource Specialist

- o Training with known *Spiranthes diluvialis* experts (Edna Rey-Vizgerdas, Reclamation 2019)
- Degree: M.S. in Rangeland Ecosystem Science
- o Conversations with others familiar with species
- Site visit with others familiar with species
- Documentation of correct identification of *Spiranthes diluvialis* in the field (USFS 2019) (Section F-Figure 2)
- o Herbaria visit
- Previous project surveys

Rochelle Ochoa-Natural Resource Specialist

- o Training with known *Spiranthes diluvialis* experts (Edna Rey-Vizgerdas, Reclamation 2019)
- o Herbaria visit
- o Conversations with others familiar with species
- o Previous project surveys

Project Descriptions

Reclamation proposes to provide funding through a WaterSMART grant for Friends of the Teton River to perform a watershed management project in Madison and Fremont Counties in southeastern Idaho. The dewatering of Canyon Creek annually causes water reliability issues for irrigators and entrains Yellowstone cutthroat trout, creating a barrier to outmigration to the Teton River. The WaterSMART grant project proponent would work cooperatively with local entities as they plan for and implement a phased water management plan that would address mutually beneficial water supply and conservation goals. These projects would provide more efficient water delivery, improve water reliability, and improve stream function for the benefit of fish and wildlife. The project includes multiple actions; those occurring in areas where biologist review indicated potential suitable habitat for Ute ladies' tresses (*Spiranthes diluvialis*) could be present include the following three separate locations:

• Site 1: Schwendiman Point of Diversion (POD) – diversion to be upgraded to a new pumpstation, pumps, and electrical

- Site 2: Rick's Property mainline replacement
- Site 3A: Canyon Creek Lateral POD diversion to be upgraded with new pumps

Additional detail on the actions proposed at each site can be found in section 2.4 of the full Environmental Assessment for the proposed project.

Species Occurrence in the Area

A Geographic Information System (GIS)-based query for known ranges of species listed and/or critical habitats designated under the Endangered Species Act (ESA) was used to generate a preliminary report for the overall project area through the US Fish and Wildlife Service (USFWS) Information for Planning and Consultation (IPaC) online tool. This report indicated that the project is within the identified range of Ute ladies' tresses.

Although many known element occurrences of the species exist relatively nearby along the South and Henrys Forks of the Snake River, there is no record of historic detections of Ute ladies'-tresses on the Teton River. Based on the hydrologic profile and geographic locations in conjunction with the species' overall range as identified in the IPaC tool, and because of the project's potential for ground disturbance at the above three sites, it was determined that the species could be present and a ground survey was required.

Date, time, and method of surveys

Surveys were conducted throughout the days of August 6 and 7, 2023. At each site, surveyors walked the water margins, pumpstation pads, vehicular access points, and any other low-lying areas where suitable hydrologic conditions for *Spiranthes* establishment appeared to be present, noting vegetation species coverage and scanning for *Spiranthes* or other species closely associated with occurrence of this species per USFWS survey protocol (USFWS 1992). Plants were classified according to USFWS Regional Indicator categories for Region 9, Northwest (USFWS 1988).

Ecological and site features

<u>Site 1: Schwendiman Point of Diversion (POD)</u>: The site is in the Teton River canyon just downstream of the inflow of Canyon Creek to the Teton River. The pumpstation is located in a cleared and compacted area elevated from river water level, and accessed by a steep, switchbacking private gravel road (Figure 1 and Figure 2). In the river channel, a long low manmade gravel bar is present with rock checkdams at the upstream and downstream ends, which serves as a pushup berm to direct water toward the pumpstation (Figure 3). The berm is heavily vegetated almost entirely by reed canarygrass on the downstream half; the upper portion is unvegetated gravel and cobble, indicating it is likely manipulated more frequently, or that it has been more recently disturbed by mechanized dike-shaping activity (Figure 4).

The site is heavily vegetated along the river margin, most prevalently by reed canarygrass with interspersed willows, which rapidly transitions with elevation gain approximately 5-10 meters from either river bank to more upland species community composition dominated by smooth brome, western wheatgrass, and rabbitbrush (Figure 4). Surveyors were not able to reach the gravel dike due to flow conditions, but it was observed from the right bank. The downstream half of the dike was densely

covered by reed canarygrass similar to the left river margin. The upstream half is almost entirely unvegetated cobble. Dominant species observed at this site are listed in Table 1.

<u>Site 2: Rick's Property POD</u>: The site is in the Teton River canyon just downstream of the inflow of Canyon Creek to the Teton River, and is accessed by a steep switchbacking dirt road. The pumpstation is located at the bank in an area densely covered by reed canarygrass at the river margin, and smooth brome mixed with other species at slightly higher elevation (Figure 5 and Figure 6). The water conveyance pipeline fed by this pumpstation is visible ascending the south canyon wall slope (Figure 7). The mainline area was not surveyed due to inaccessibility and a lack of observed features of suitable *Spiranthes* habitat.

<u>Site 3A: Canyon Creek Lateral POD</u>: The site is in the Teton canyon directly downstream from the former Teton Dam site. The pumpstation is located in a cleared compacted area elevated from river water level and is accessed by a steep, switchbacking private gravel road (Figure 8). The pumpstation sits between Pond B, which is supplied with water by a pipe gravity-fed from another pond upstream of the Teton Dam site, and the Teton River (Figure 9). The riparian margin of the Teton River and the margins of Pond B are heavily vegetated, most prevalently by reed canarygrass, western wheatgrass, prickly lettuce, and showy milkweed. Dominant observed species are listed in Table 3.

Conclusion

No *Spiranthes* were observed at any of the three sites surveyed. The upper portions of sites, due to elevation from the water table/xeric conditions that do not support species assemblages in the obligate or facultative wetland vegetation classification categories, are not suitable habitat for the species. The remaining habitat at each site can be categorized as not requiring further survey due to their coverage being entirely composed of dense stands of reed canarygrass (USFWS 1992, Sec. 5(f)) throughout water margins and low-lying areas, which would preclude persistence or new establishment of *Spiranthes diluvialis*. It is therefore highly unlikely *Spiranthes diluvialis* are present or would be likely to become established at these sites.

References

Text Citation	Bibliographic Reference
USFWS 1988	US Fish and Wildlife Service. 1988. Biological Report (88)24: National List of Plant Species that Occur in Wetlands: 1988 National Summary. September 1988.
USFWS 1992	US Fish and Wildlife Service. 1992. Interim Survey Requirements for Ute Ladies'-tresses Orchid (<i>Spiranthes Diluvialis</i>). November 23, 1992.



Figure 1. Schwendiman site access road descending into Teton Canyon. Surface pipe for water conveyance along roadway is visible at right; Teton River and elevated dike upstream from the pumpstation are visible (partially obscured by roadside grasses) at left.



Figure 2. Schwendiman site pumpstation, situated in cleared vehicle access area at river left of the Teton River.



Figure 3. Second view of Schwendiman site from the access road. Pumpstation is visible on the near bank of the Teton River at far right and the entire length of the elevated gravel dike with upstream rock check structure (circled) are visible running diagonally through the photo. The Teton River flows from left to right of this photo.



Figure 4. Dense coverage of reed canarygrass visible on riverbank and downstream portion of gravel dike (water in foreground is the side channel created by the dike; the Teton River is flowing on the opposite side of this narrow island). At higher elevations at the site, vegetation species composition transitions to a more xeric community dominated by smooth brome, western wheatgrass, and rabbitbrush. Photo taken facing upstream.

Table 1. Dominant vegetation species observed at the Schwendiman POD site,	with species wetlands indicator	categorization for
Region 9 – Northwest (WA,OR,ID,MT(Western),WY(Western))1		

Common Name	Genus/Species	Region 9 Indicator
Reed Canarygrass	Phalaris arundinacea	FACW
Smooth Brome	Bromus inermis	Not listed
Western wheatgrass	Elymus smithii (Agropyron smithii)	FACU
Rabbitbrush sp.	Chrysothamnus sp.	Not listed
Horsetail	Equisetum sp.	FAC/FACW
Leafy spurge	Euphorbia esula	Not listed
Prickly lettuce	Lactuca serriola	FAC-
Coyote willow	Salix exigua	OBL
Common yarrow	Achillea millefolium	FACU
Showy milkweed	Asclepias speciosa	FAC+
Scotch thistle	Onopordum acanthium	Not listed
Sagebrush	Artemisia tridentata	Not listed
Chickpea milkvetch	Astragalus cicer	Not listed
Cheatgrass	Bromus tectorum	Not listed
Houndstongue	Cynoglossum officinale	Not listed
Rough cocklebur	Xanthium strumarium	FAC

¹ Indicator Categories: Obligate Wetland (OBL): Occur almost always (estimated probability >99%) under natural conditions in wetlands; Facultative Wetland (FACW): Usually occur in wetlands (estimated probability 67%-99%), but occasionally found in nonwetlands; Facultative (FAC): Equally likely to occur in wetlands or nonwetlands (estimated probability 34%-66%); Facultative Upland (FACU): Usually occur in nonwetlands (estimated probability 67%-99%), but occasionally found in wetlands (estimated probability 1%-33%); Obligate Upland (UPL): Occur in wetlands in another region, but occur almost always (estimated probability >99%) under natural conditions in nonwetlands in the region specified. If a species does not occur in wetlands in any region, it is not on the National list. The positive sign indicates a frequency toward the higher end of the category (more frequently found in wetlands), and a negative sign indicates a frequency toward the lower end of the category (less frequently found in wetlands).



Figure 5. Pumpstation at Rick's Property POD site at river left on the Teton River, photo taken facong downstream. Access road from top of Teton Canyon is situated to the right, outside of photo frame.



Figure 6. Second angle of pumpstation at Rick's Property POD site. Reed canarygrass densely covers the river margin; higher elevation areas at this site are covered with a mixed community dominated by smooth brome. Photo taken facing downstream.



Figure 7. Rick's Property POD site, taken from pumpstation location (to right out of photo frame) and facing downriver. Access road leading to canyon rim is visible at right of photo; main water conveyance pipeline visible at left.

Common Name	Genus/Species	Region 9 Indicator
Reed Canarygrass	Phalaris arundinacea	FACW
Smooth Brome	Bromus inermis	Not listed
Western wheatgrass	Elymus smithii (Agropyron smithii)	FACU
Curlycup gumweed	Grindelia squarrosa	FACU
Prickly lettuce	Lactuca serriola	FAC-
Rush skeletonweed	Chondrilla juncea	Not listed
Coyote willow	Salix exigua	OBL
Common yarrow	Achillea millefolium	FACU
Yellow salsify	Tragopogon dubius	Not listed
Scotch thistle	Onopordum acanthium	Not listed
Houndstongue	Cynoglossum officinale	Not listed

Table 2. Dominant vegetation species observed at the Rick's Property POD site with species wetlands indicator categorization for Region 9 – Northwest (WA, OR, ID, MT(Western), WY(Western))²

² Indicator Categories: Obligate Wetland (OBL): Occur almost always (estimated probability >99%) under natural conditions in wetlands; Facultative Wetland (FACW): Usually occur in wetlands (estimated probability 67%-99%), but occasionally found in nonwetlands; Facultative (FAC): Equally likely to occur in wetlands or nonwetlands (estimated probability 34%-66%); Facultative Upland (FACU): Usually occur in nonwetlands (estimated probability 67%-99%), but occasionally found in wetlands (estimated probability 1%-33%); Obligate Upland (UPL): Occur in wetlands in another region, but occur almost always (estimated probability >99%) under natural conditions in nonwetlands in the region specified. If a species does not occur in wetlands in any region, it is not on the National list. The positive sign indicates a frequency toward the higher end of the category (more frequently found in wetlands), and a negative sign indicates a frequency toward the lower end of the category (less frequently found in wetlands).



Figure 8. Canyon Creek Lateral POD pumpstation with part of Pond B visible at right, taken from downstream side (facing upstream). The Teton River is to the left out of photo frame. Access road leading to canyon rim visible at left.



Figure 9. Canyon Creek Lateral POD pumpstation taken from opposite (upstream) side, facing downstream. Visible water is adjacent Pond B. The Teton River is to the right out of photo frame.

Table 3. Dominant vegetation species observed at Canyon Creek Lateral POD site with species wetlands indicator categorization for Region 9 – Northwest (WA, OR, ID, MT (Western), WY (Western))³

Common Name	Genus/Species	Region 9 Indicator
Reed canarygrass	Phalaris arundinacea	FACW
Smooth Brome	Bromus inermis	Not listed
Japanese brome	Bromus japonicus	FACU
Cheatgrass	Bromus tectorum	Not listed
Slender wheatgrass	Elymus trachycaulus (Agropyron trachycaulum)	FAC
Western wheatgrass	Elymus smithii (Agropyron smithii)	FACU
Crested wheatgrass	Agropyron cristatum	Not listed
Common yarrow	Achillea millefolium	FACU
Leafy spurge	Euphorbia esula	Not listed
Curlycup gumweed	Grendelia squarrosa	FACU
Rabbitbrush sp.	Chrysothamnus sp.	Not listed
Showy milkweed	Asclepias speciosa	FAC+
Scotch thistle	Onopordum acanthium	Not listed
Curly dock	Rumex crispus	FACW
Houndstongue	Cynoglossum officionale	Not listed
Prickly lettuce	Lactuca serriola	FAC-
Red root amaranth	Amaranthus retroflexus	FACU+
Coyote willow	Salix exigua	OBL
Juniper unk.	Juniperus sp.	FACU-/Not listed

³ Indicator Categories: Obligate Wetland (OBL): Occur almost always (estimated probability >99%) under natural conditions in wetlands; Facultative Wetland (FACW): Usually occur in wetlands (estimated probability 67%-99%), but occasionally found in nonwetlands; Facultative (FAC): Equally likely to occur in wetlands or nonwetlands (estimated probability 34%-66%); Facultative Upland (FACU): Usually occur in nonwetlands (estimated probability 67%-99%), but occasionally found in wetlands (estimated probability 1%-33%); Obligate Upland (UPL): Occur in wetlands in another region, but occur almost always (estimated probability >99%) under natural conditions in nonwetlands in the region specified. If a species does not occur in wetlands in any region, it is not on the National list. The positive sign indicates a frequency toward the higher end of the category (more frequently found in wetlands), and a negative sign indicates a frequency toward the lower end of the category (less frequently found in wetlands).

Appendix B

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United States Department of the Interior

BUREAU OF RECLAMATION Snake River Area Office 230 Collins Road Boise, ID 83702-4520



VIA FEDERAL EXPRESS

Honorable Lee Juan Tyler Chairman Fort Hall Business Council Shoshone-Bannock Tribes 85 W. Agency Rd., Building #82 Fort Hall, ID 83203-0306

Subject: Invitation to Consult on the Proposed Canyon Creek Reconnect Project in Madison County, Idaho

Dear Chairman Tyler:

The Bureau of Reclamation received a grant application from the Friends of the Teton River (FTR) in partnership with the Canyon Creek Canal Company (CCCC) to restore instream flows in Canyon Creek. The project is located south of the Teton River in Township 7 North, Ranch 41 East Section 7; Township 7 North, Range 42 East, Sections 23, 28-33; and Township 6 North, Range 42 East Section 6. At this time, Reclamation is consulting on the area of potential effects (APE), finding of no adverse effects to historic properties and requesting any information concerning cultural resources known to the Shoshone-Bannock Tribes that may be affected by this project.

FTR and the CCCC propose to restore instream flows in Canyon Creek by discontinuing use of the Canyon Creek Canal. The current project proposes to make infrastructure improvements and management changes at three existing pump stations on the Teton River to increase their capacity and ability to deliver water. The APE includes each of the three pump areas and the new pipeline alignments as depicted on Figures 3-5 of the enclosed report. The APE includes a 100-foot corridor on the centerline of the proposed pipeline for approximately 58.95 acres. The APE was surveyed and reported by Cannon Heritage Consultants.

Feature 12 of the Teton Dam Historic District (TDHD) was identified within the APE. Reclamation recorded and found the TDHD eligible for listing in the National Register of Historic Places (National Register), for its contributions to the development of the National Dam Safety Program under Criterion A and Criteria Consideration G in 2019. Features that contribute to that eligibility are related to its function as a dam and the inspection following its failure. Feature 12, a modern irrigation pump station and pond, was found to be a non-contributing element. No other cultural resources were identified within the APE. Additional details are available in the enclosed report. Reclamation reviewed the proposed changes to Feature 12 and their potential to affect the TDHD, namely removing the pump bay, creating a new pump bay and installation of mainline. Reclamation found that replacing the existing pump equipment is consistent with current authorized use and would not affect any of the contributing elements or characteristics that make the TDHD eligible for listing in the National Register. Therefore, Reclamation determined that the proposed project would result in no adverse effects to historic properties.

Please advise this office as to whether the Shoshone-Bannock Tribes wish to join in this consultation by contacting me directly at (208) 383-2246 or via email at <u>mpaquin@usbr.gov</u>. You may also contact my staff archaeologist, Ms. Nikki Polson, by phone at (208) 678-0461, extension 13, or by email at <u>mpolson@usbr.gov</u> with any project-related questions regarding this letter or report. Please direct any other concerns to Ms. Jessica Asbill-Case, Native American Affairs Advisor, by phone at (208) 383-2282 or by email at <u>jasbillcase@usbr.gov</u>. *If you are deaf, hard of hearing, or have a speech disability, please dial 7-1-1 to access telecommunications relay services.*

Sincerely,

MELANIE PAQUIN Digitally signed by MELANIE PAQUIN Date: 2023.08.14 20:06:03 -06'00'

Melanie Paquin Area Manager

Enclosure

cc: Ms. Carolyn Smith Cultural Resources Coordinator Cultural Resources/Heritage Tribal Office (HeTO) Shoshone-Bannock Tribes
85 W. Agency Rd, Building #82 Fort Hall, ID 83203

Ms. Christina Cutler Environmental Coordinator Shoshone-Bannock Tribes 85 W. Agency Rd, Building #82 Fort Hall, ID 83203 (w/encl to each above)



USF-1219 2.1.1.04 United States Department of the Interior

BUREAU OF RECLAMATION Snake River Area Office 230 Collins Road Boise, ID 83702-4520



VIA ELECTRONIC MAIL ONLY

Ms. Ashley Molloy Historical Review Officer State Historic Preservation Office 210 Main Street Boise, ID 83702

Subject: Invitation to Consult on the Proposed Canyon Creek Reconnect Project in Madison County, Idaho

Dear Ms. Molloy:

The Bureau of Reclamation received a grant application from the Friends of the Teton River (FTR) in partnership with the Canyon Creek Canal Company (CCCC) to restore instream flows in Canyon Creek. The project is located south of the Teton River in Township 7 North, Ranch 41 East Section 7; Township 7 North, Range 42 East, Sections 23, 28-33; and Township 6 North, Range 42 East Section 6, Madison County, Idaho. At this time, Reclamation is consulting on the area of potential effects (APE) and finding of no adverse effects to historic properties.

FTR and the CCCC propose to restore instream flows in Canyon Creek by discontinuing use of the Canyon Creek Canal. The current project proposes to make infrastructure improvements and management changes at three existing pump stations on the Teton River to increase their capacity and ability to deliver water. The APE includes each of the three pump areas and the new pipeline alignments as depicted on Figures 3-5 of the enclosed report. The APE includes a 100-foot corridor on the centerline of the proposed pipeline for approximately 58.95 acres. The APE was surveyed and reported by Cannon Heritage Consultants.

Feature 12 of the Teton Dam Historic District (TDHD) was identified within the APE. Reclamation recorded and found the TDHD eligible for listing in the National Register of Historic Places (National Register), for its contributions to the development of the National Dam Safety Program under Criterion A and Criteria Consideration G in 2019 (See SHPO Review No. 2019-822). Features that contribute to that eligibility are related to its function as a dam and the inspection following its failure. Feature 12, a modern irrigation pump station and pond, was found to be a non-contributing element. No other cultural resources were identified within the APE. Additional details are available in the enclosed report.

Reclamation reviewed the proposed changes to Feature 12 and their potential to affect the TDHD, namely removing the pump bay, creating a new pump bay and installation of mainline.

Reclamation found that replacing the existing pump equipment is consistent with current authorized use and would not affect any of the contributing elements or characteristics that make the TDHD eligible for listing in the National Register. Therefore, Reclamation determined that the proposed project would result in no adverse effects to historic properties.

In accordance with procedures specified in 36 CFR § 800, Reclamation requests your concurrence with our APE and finding that this project will result in no adverse effects to historic properties. Please direct any questions to Ms. Nikki Polson, Upper Snake Field Office Archaeologist, at (208) 678-0461, extension 13, or by email at <u>npolson@usbr.gov</u>.

If you are deaf, hard of hearing, or have a speech disability, please dial 7-1-1 to access telecommunications relay services.

Sincerely,

MELANIE PAQUIN Digitally signed by MELANIE PAQUIN Date: 2023.08.14 20:05:36 -06'00'

Melanie Paquin Area Manager

Enclosures



30 August 2023



Brad Little Governor of Idaho

Janet Gallimore Executive Director

State Historic Preservation Officer

Administration: 2205 Old Penitentiary Rd. Boise, Idaho 83712 208.334.2682 Fax: 208.334.2774

Idaho State Museum: 610 Julia Davis Dr. Boise, Idaho 83702 208.334.2120

Idaho State Archives and State Records Center: 2205 Old Penitentiary Rd. Boise, Idaho 83712 208.334.2620

State Historic Preservation Office: 210 Main St. Boise, Idaho 83702 208.334.3861

Old Idaho Penitentiary and Historic Sites: 2445 Old Penitentiary Rd. Boise, Idaho 83712 208.334.2844

HISTORY.IDAHO.GOV

Melanie Paquin Bureau of Reclamation npolson@usbr.gov

Via Email RE: Invitation to Consult on the Proposed Canyon Creek Reconnect Project in Madison County, Idaho / SRA-1219 / 2.1.1.04 / SHPO Rev. No. 2023-770

Dear M. Paquin:

Thank you for consulting with our office on the above-referenced project. The Idaho State Historic Preservation Office (SHPO) is providing comments to the Bureau of Reclamation pursuant to Section 106 of the National Historic Preservation Act and its implementing regulations, 36 CFR § 800. Consultation with the SHPO is not a substitution for consultation with Tribal Historic Preservation Offices, other Native American tribes, local governments, or the public.

It is our understanding that the scope of the undertaking will include Reclamation funding a grant for Friends of the Teton River (FTR) in partnership with the Canyon Creek Canal Company (CCCC) to restore instream flows in Canyon Creek. The project is located south of the Teton River in TRS: 6N42E Section 6; 7N41E Section 36; 7N42E Sections 23, 28-33 in Madison County, Idaho.

Pursuant to 36 CFR § 800.5, we have applied the criteria of effect to the proposed undertaking. Based on the information received 15 August 2023, we concur the proposed project actions will have **no adverse effect to historic properties.**

If cultural material is inadvertently encountered during the implementation of this project, work shall be halted in the vicinity of the finds until they can be inspected and assessed by the appropriate consulting parties.

Thank you for the opportunity to comment. Please note that our response does not affect the review timelines afforded to other consulting parties. Additionally, the information provided by other consulting parties may cause us to revise our comments. If you have any questions or the scope of work changes, please contact me via phone or email at 208.488.7463 or ashley.molloy@ishs.idaho.gov.

Sincerely, cn=Ashley L Molloy.o=Idaho State Historical Society, ou=State Historic Preservation Office, email=ashley.molloy@ishs.idah

Ashley L. Molloy, M.A. Historical Review Officer Idaho State Historic Preservation Office

o.gov, c=05 2023.08.30 12:52:36 -06'00'

Appendix C

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Scoping Information Package

Reconnecting Canyon Creek to Teton River and Restoring Instream Flows Project in Teton and Madison Counties, Idaho

This information package summarizes the proposal from the Friends of the Teton River (FTR) to be partially funded by a WaterSMART (Sustain and Manage America's Resources for Tomorrow) grant to reconnect Canyon Creek to the Teton River and restore instream flows approximately 8 miles east of Newdale, Idaho. This project aims to address water supply needs, water quality concerns, and conservation objectives.

Federal actions must be analyzed in accordance with the National Environmental Policy Act (NEPA) and other relevant Federal and State laws and regulations to determine potential environmental consequences. The Bureau of Reclamation is asking for comments to better identify issues and concerns associated with this proposal.

The U.S. Department of the Interior's WaterSMART Program establishes a framework to provide Federal leadership and assistance on the efficient use of water; integrate water and energy policies to support the sustainable use of all natural resources; form strong diverse partnerships with states, tribes and local entities; and coordinate with other Department bureaus and offices on water conservation activities. Through the WaterSMART Grants Program, Reclamation provides a 50/50 cost share funding entities and promoting the sustainable use of water resources, improving the ecological resilience of rivers and streams, and conserving water for multiple uses through collaborative conservation efforts.

Location and Background

The proposed project is located in the Canyon Creek sub-watershed located in Teton and Madison counties in southeast Idaho. Project activities would occur in the mainstem of the Teton River between the mouth of Canyon Creek and the historic Teton Dam site as well as along the Canyon Creek Canal and lateral diversion (Figure 1). The Canyon Creek sub-watershed drains approximately 130 square miles and sits within the Teton Watershed which drains 1,133 square miles in eastern Idaho and the western border of Wyoming. The Teton River spans 64 miles beginning near Victor, Idaho, to approximately Rexburg, Idaho, where it flows into the Henrys Fork of the Snake River. The project area is largely agricultural fields but also possesses ample recreational land in the form of designated wild and scenic rivers, ski areas, and national parks and forests.

FTR is a non-profit 501(c)(3) organization based in Teton County, Idaho, that is working with Canyon Creek Canal Company (CCCC), the controlling water right holder on Canyon Creek, and their irrigators to implement a phased water management plan that would address mutually beneficial water supply and conservation goals. This project is supported by the *Canyon Creek Water Management Plan* which was funded in part through a WaterSMART Phase 1 grant to

seek solutions that provide for more efficient water delivery, improved water reliability, and improved stream function for the benefit of fish and wildlife.

Existing Current Condition

A large unlined canal system located approximately 10.25 miles upstream from the mouth of Canyon Creek has been operated by CCCC since the early 1900's. Historically, up to 70 cubic feet per second of water was diverted into the Canyon Creek Canal to provide water for 10,615 acres of high value farm ground. Water rights owned by CCCC have been diverted at four locations since the mid-1970's, in addition to the unlined canal diversion. The first point of diversion (POD) is located approximately 7.75 miles upstream from the mouth of Canyon Creek, two are located approximately 6.25 and 6.65 miles upstream from the mouth, and the final is on the mainstem of the Teton River.

Each of the 11 shareholders that comprise CCCC, divert other water rights and storage water (as opposed to their CCCC water shares) from PODs located on the Teton River which includes the Schwendiman Teton River POD, Rick's POD, and the CCCC Lateral POD, which are not flow limited.

Canyon Creek is dewatered from June–October each year due to irrigation diversion at the Canyon Creek Canal and the other PODs on Canyon Creek. Dewatered conditions significantly reduce available habitat for Yellowstone Cutthroat Trout (YCT) by preventing access to the cold water refugia found in the perennial flowing, headwater portions of Canyon Creek. The canal also entrains all age classes of YCT in irrigation fields and prevents outmigration of fluvial spawners and juvenile YCT.

Proposed Action

Reclamation proposes to provide funding through a WaterSMART grant for FTR to perform a watershed management project occurring within Teton and Madison counties in southeastern Idaho (Figure 1). The action would restore instream flows in Canyon Creek, a productive spawning tributary for a core conservation population of YCT. The action would consist of the following three main actions: 1) irrigation system improvements at three sites, 2) a water right transfer application, and 3) development of a flow monitoring plan with accompanying equipment installation.

These infrastructure changes would address the specific capacity constraints unique to each system which, once addressed, would allow for eight of the eleven CCCC shareholders to divert their CCCC shares (in addition to their other water rights) at their Teton River PODs. Implementation of this project would allow the canal located on Canyon Creek to be closed which would address the entrainment issues associated with the canal and restore flow to Canyon Creek and portions of the Teton River.

1) Irrigation System Improvements:

Improvements to each system to be completed through the grant are described by location below. Figure 1 shows the locations of each system for reference.

Site 1-Schwendiman Irrigation System:

This pump station sits on the Teton River just downstream from the mouth of Canyon Creek. The pumping capacity at this POD would increase through replacement of pumps, relocation of the pump bay approximately 60 feet east and improvement of the pump channel. This would allow the two shareholders to divert their Canyon Creek Canal water shares at this Teton River POD, in addition to the other water rights historically diverted at this location.

Site 2-Rick's Irrigation System:

This irrigation system sits downstream from the mouth of Canyon Creek and the Schwendiman's POD. The irrigation mainline capacity at this site would increase through removal of 7,920 feet of 8-inch mainline and installation of new 12-inch mainline, allowing this shareholder to divert Canyon Creek Canal water shares at this POD, in addition to the other water right historically diverted at this location.

Site 3-Canyon Creek Lateral System:

This irrigation system diverts water from the Teton River, near the old Teton Dam site. The irrigation pumping capacity would increase through the replacement of 2 pumps at site 3A. The mainline capacity would increase through removal of 10,460 feet of 24-inch mainline and installation of new 36-inch mainline at site 3B. Lastly, the conveyance line capacity would increase through trenching, installation, and backfilling of 6,540 feet of new 12-inch conveyance at Site 3C, as well as 1,700 feet of 16-inch and 720 feet of 12-inch conveyance at site 3D. Upon completion, five of the eleven CCCC shareholders can divert their Canyon Creek Canal water shares to this POD, in addition to the other water rights historically diverted there.

2) Water Right Transfer Application:

The process for adding legal PODs to a water right in Idaho requires a water right transfer application submitted to the Idaho Department of Water Resources (IDWR). This application would be completed by CCCC and FTR to add three PODs to the water rights: the Schwendiman's POD located on the Teton River near the mouth of Canyon Creek, the Rick's POD located on the Teton River, and the Crapo's POD located on the Teton River. Currently the CCCC water rights only allow for water to be diverted at four locations: the canal on canyon Creek, the two pump stations on Canyon Creek at mile 7.75 and mile 6.25, the augmentation well on Canyon Creek, and the Canyon Creek Lateral POD located near the historic Teton Dam site.

3) Flow Monitoring Plan Development and Equipment Installation:

Upon completion of the irrigation system improvements, a Canyon Creek instream flow monitoring and data management plan would be established. This plan would establish the collection of data to assist IDWR with the long-term administration of CCCC water rights by installing real-time flow loggers on Canyon Creek below the canal to quantify the amount of

water in Canyon Creek, as well as monitor the temperature of the water. This plan would also include annual reporting of the data by CCCC to FTR and IDWR to ensure water is not being diverted into the canal on Canyon Creek as it would be closed, and water rights would be diverted at downstream PODs.

Purpose and Need of Action

The purpose and need for the Proposed Action is to fulfill the WaterSMART grant allowing FTR to perform a watershed management project. The dewatering of Canyon Creek annually causes water reliability issues for irrigators and entrains YCT, stopping outmigration to the Teton River. The WaterSMART grant project would work cooperatively with local entities as they plan for and implement a phased water management plan that would address mutually beneficial water supply and conservation goals. These projects would provide more efficient water delivery, improve water reliability, and improve stream function for the benefit of fish and wildlife.

Preliminary Alternative Development

The EA would include consideration of the Proposed Action Alternative and the No Action Alternative. Additionally, alternatives would be developed with the identified issues throughout the NEPA process.



Figure 1. Irrigation System Improvements Map

Category	First Name	Last Name	Organization
State Agencies	Troy	Staffle	Idaho DEQ
	Brett	High	Idaho Department of Fish & Game
	James	Cefalo	Idaho Department of Water Resources
	Casey	Attebery	Senator Crapo's Office
	Mitch	Silvers	Senator Crapo's Office
	Rachel	Burkett	Senator Risch's Office
	Darren	Parker	Senator Risch's Office
	Morgan	Brummund	Governor's Office of Energy & Mineral Resources
	Katrine	Franks	Office of the Governer
		Chatburn	Governor's Office of Energy & Mineral Resources
	John		
	Scott	Pugrud	Office of Species Conservation
		-	
Federal Agencies	Mary	D'Aversa	Bureau of Land Management
	James	Joyner	USACE - Regulatory Division
			U.S. Department of Fish and Wildlife
			Department of Indian Affairs (tribes below)
City Government			City of Newdale
			City of Teton
Tribes			**TBD by NEPA Staff
County Govt.			- Commissioners
			Madison County Commissioners
			Madison County Highway District
			Teton County Commissioners
			- Commissioners
	Clav	Smith	Teton County Highway District
Spaceholders	Dale	Swenson	Fremont Madison Irrigation District
			Canyon Creek Lateral Ditch Association
			Canyon Creek Canal Company

Adjacent land owners				
Fremont County	Brian	Haynie		
	Randall	Hillman		
			Gen 5 Ag LLC	
Madison County			RGC Farms LLC	
	Brent	Ricks		
			Little Land LLC	
			Walters Windy Ridge LLC	
			Unit 1 LLC	
	Stanley	Schwendiman		
			3 B LLC	
	Layne	Harris		
	Shayne	Harris		
			Baker Farms INC	
			4 B LMT PRT	
			Schwendiman Legacy LLC	
	Reed	Parkinson		
			Skyline Farms Idaho GP	
			Skyline Farms	
	Conn	Crapo		
	Brian	Stevens		
			Valley View Ranch	
	Phil	Neibaur		
	Randall	Neibaur		
	Robert	Archibald		
	Randall	Beard		
	Jack	Walker		
			Green Canyon Hot Springs	
	David	Schwendiman		

Discharges Not Requiring Permits Section 323.4(a)(3)

(a) General. Except as specified in paragraphs (b) and (c) of this section, any discharge of dredged or fill material that may result from any of the following activities is not prohibited by or otherwise subject to regulation under Section 404:

(3) Construction or maintenance of farm or stock ponds or irrigation ditches, or the maintenance (but not construction) of drainage ditches. Discharges associated with siphons, pumps, headgates, wingwalls, weirs, diversion structures, and such other facilities as are appurtenant and functionally related to irrigation ditches are included in this exemption.

(b) If any discharge of dredged or fill material resulting from the activities listed in paragraphs (a)(1) - (6) of this section contains any toxic pollutant listed under Section 307 of the CWA such discharge shall be subject to any applicable toxic effluent standard or prohibition, and shall require a Section 404 permit.

(c) Any discharge of dredged or fill material into waters of the United States incidental to any of the activities identified in paragraphs (a)(1) - (6) of this section must have a permit if it is part of an activity whose purpose is to convert an area of the waters of the United States into a use to which it was not previously subject, where the flow or circulation of waters of the United States may be impaired or the reach of such waters reduced. Where the proposed discharge will result in significant discernible alterations to flow or circulation, the presumption is that flow or circulation may be impaired by such alteration. For example, a permit will be required for the conversion of a cypress swamp to some other use or the conversion of a wetland from silvicultural to agricultural use when there is a discharge of dredged or fill material into waters of the United States in conjunction with construction of a Section 404 wetland to a non-wetland is a change in use of an area of waters of the United States. A discharge which elevates the bottom of waters of the United States without converting it to dry land does not thereby reduce the reach of, but may alter the flow or circulation of, waters of the United States.

(d) Federal projects which qualify under the criteria contained in Section 404(r) of the CWA are exempt from Section 404 permit requirements, but may be subject to other state or Federal requirements.

[EXTERNAL] NWW-2022-491-I04, Bureau of Reclamation Canyon Creek Reconnection

Jones, Brendan V CIV USARMY CENWW (USA) <Brendan.V.Jones@usace.army.mil> Thu 12/8/2022 1:24 PM To: NEPA Mailbox, BOR SRA <sra-nepa-comments@usbr.gov>

2 attachments (195 KB)

323-4a3.pdf; NWW-2022-00491-I04-Exempt-Activity.pdf;

This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.

Hello Ms. Ochoa,

Please see attached in regards to the request for public comments on the Canyon Creek Reconnection project (SRA-1214 2.1.4.17).

Best,

Brendan Jones Environmental Resource Specialist U.S. Army Corps of Engineers Walla Walla District Idaho Falls Regulatory Office 900 N Skyline Drive, Suite A Idaho Falls, Idaho 83402 (208) 522-1645 brendan.v.jones@usace.army.mil



DEPARTMENT OF THE ARMY U.S. ARMY CORPS OF ENGINEERS IDAHO FALLS REGULATORY OFFICE 900 NORTH SKYLINE DRIVE, SUITE A IDAHO FALLS, IDAHO 1718

December 08, 2022

Regulatory Division

SUBJECT: NWW-2022-491-I04, Bureau of Reclamation Canyon Creek Reconnection

Ms. Rochelle Ochoa Natural Resource Specialist Bureau of Reclamation, Snake River Office 230 Collins Road Boise, Idaho 83702

Dear Ms. Ochoa:

We have reviewed the information contained within your 12/05/2022 invitation for comment (SRA-1214 2.1.4.17) in accordance with Section 404 of the Clean Water Act. We have determined that the subject property/project appears to contain Water(s) of the United States (U.S.), including wetlands; however, your proposed project would involve construction and maintenance of irrigation infrastructure, adjacent to Canyon Creek and the Teton River. This activity is exempt in accordance with 33 CFR 323.4(a)(3), copy enclosed. Therefore, a Department of Army (DA) authorization is not required. An authorization may be required if you alter the method, scope, or location of your proposed work. Please contact us if you make changes to your project.

The site is located within Section 6 of Township 6 North, Range 42 East, near latitude 43.876054° N and longitude -111.548807° W, in Madison County, near Newdale, Idaho. Your project has been assigned Department of Army (DA) File # NWW-2022-491-I04, which should be referred to in all future correspondence.

AUTHORITY

The DA exerts regulatory jurisdiction over Waters of the United States (U.S.), including wetlands, pursuant to Section 404 of the Clean Water Act (33 U.S.C. 1344) and Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 403). Section 404 of the Clean Water Act requires a DA permit be obtained prior to discharging dredged or fill material into Waters of the U.S., which includes most perennial and intermittent rivers and streams, natural and man-made lakes and ponds, irrigation and drainage canals and ditches that are tributaries to other waters, and wetlands.

Please be advised that discharges considered placement of dredged or fill material under our jurisdiction may include those associated with mechanized land-clearing

involving vegetation removal with equipment such as front-end loaders, backhoes, or bulldozers with sheer blades, rakes, or discs, windrowing of vegetation, land leveling, or other soil disturbances in wetlands are activities which result in a discharge of dredged material that destroys or degrades a Waters of the United States.

Nothing in this letter shall be construed as excusing you from compliance with other Federal, state, or local statutes, ordinances or regulations which may affect this work.

CUSTOMER SERVICE

We actively use feedback to improve our delivery and provide you with the best possible service. Please take our online customer service survey to tell us how we are doing. Follow this link to take the survey: http://corpsmapu.usace.army.mil/cm_apex/f?p=regulatory_survey

If you have questions or if you would like a paper copy of the survey, call our office at 208-433-4464.

For more information about the Walla Walla District Regulatory program, visit us online at <u>http://www.nww.usace.army.mil/BusinessWithUs/RegulatoryDivision.aspx</u>.

If you have any questions or need additional information about this permit, you can contact me at (208)-522-1645 by mail at the address in the letterhead, or email at <u>Brendan.v.jones@usace.army.mil</u>.

Sincerely,

Brendan Jones

Brendan Jones Project Manager, Regulatory Division

Enclosures:

Section 323.4(a)(3): Discharges Not Requiring Permit

[EXTERNAL] WaterSMART Grant to Reconnect Canyon Creek to the Teton River.

Brian Stevens <brianjosephstevens74@gmail.com> Tue 12/20/2022 9:30 AM To:NEPA Mailbox, BOR SRA <sra-nepa-comments@usbr.gov>

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Ms. Ochoa,

I feel it is vital to protect both the watershed and the Agriculture of the area. A balance must be struck that does not burden our food source yet also restores flows of water for habitat.

I have two loyalties here and see both sides benefiting if a reasonable agreement and arrangement can be made. I am a landscape architect and environmental planner from USU so I see this as a big win if done fairly.

My first loyalty which is more self serving is that I'm a owner of land that currently has very little flow if any by it in the summer. I would love to have water flowing and be able to fish from the banks and or even put in a kayak or just soak my feet in the water.

My second loyalty is to my heritage and my family farm. I grew up in Newdale and along green canyon. I know how precious this water is to the farmers of the region and only support this if a better method that has less water loss through evaporation, bank leaking, etc. can be created. With this I'm very hesitant to make this a power reliant system dependent on large expensive pumps. I have always believed that piping from the source using gravity to be an effective method.

Feel free to share my thoughts with others or ask any clarifying questions.

Thank you,

Brian J. Stevens 163 E 20th St. Idaho Falls, Idaho 83404 (208) 313-7199 BrianJosephStevens74@gmail.com https://www.facebook.com/brian.j.stevens.1



[EXTERNAL] Idaho DEQ Comments Regarding a WaterSMART Grant to Reconnect Canyon Creek to the Teton River and Restore Instream Flows Project in Teton and Madison Counties, Idaho

Alex Bell <Alex.Bell@deq.idaho.gov> Thu 12/29/2022 10:32 AM To: NEPA Mailbox, BOR SRA <sra-nepa-comments@usbr.gov>

This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.

Hello,

Please see the attached file for the DEQ comments regarding the request for public comments on a proposed WaterSMART grant to reconnect Canyon Creek to the Teton River in Teton and Madison Counties, Idaho.

Thank you,

Alex Bell | Water Quality Manager Idaho Department of Environmental Quality 900 Skyline Dr #B, Idaho Falls, ID, 83402 Office: (208) 528-2679 http://www.deq.idaho.gov/

Our mission: To protect human health and the quality of Idaho's air, land, and water.



900 N Skyline Drive, Suite B, Idaho Falls, ID 83402 (208) 528-2650 Brad Little, Governor Jess Byrne, Director

December 29, 2022

Ms. Rochelle Ochoa Natural Resources Specialist Bureau of Reclamation Snake River Area Office 230 Collins Road, Boise, Idaho, 83702

Subject: Request for Public Comments Regarding a WaterSMART Grant to Reconnect Canyon Creek to the Teton River and Restore Instream Flows Project in Teton and Madison Counties, Idaho

Dear Ms. Ochoa,

Thank you for the opportunity to comment on the proposed WaterSMART grant to reconnect Canyon Creek to the Teton River. The proposed actions that include irrigation system improvements, a water rights transfer, and a flow monitoring plan will result in reduced fish entrainment, restored seasonal flows to Canyon Creek, and improved flows to the Teton River. Given the clear benefits to cold water aquatic life and surface water quality that will result from these proposed activities, the Department of Environmental Quality (DEQ) is fully supportive of this project.

DEQ looks froward to working with the Bureau of Reclamation and Friends of the Teton River on future water quality improvement projects in the Teton Valley.

Sincerely,

Alex Bell Water Quality Manager Idaho Falls DEQ Regional Office

Appendix D

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United States Department of the Interior BUREAU OF RECLAMATION Snake River Area Office

230 Collins Road Boise, ID 83702-4520



VIA FEDERAL EXPRESS

Honorable John St. Clair Chairman, Eastern Shoshone Business Council Eastern Shoshone Tribe #14 N. Fork Road Fort Washakie, WY 82514

Subject: Request for Comments Regarding a Proposed WaterSMART Grant to Reconnect Canyon Creek to the Teton River and Restore Instream Flows Project in Teton and Madison Counties, Idaho

Dear Chairman St. Clair:

The Bureau of Reclamation has received a proposal from the Friends of the Teton River (FTR) for a WaterSMART (Sustain and Manage America's Resources for Tomorrow) grant to reconnect Canyon Creek to the Teton River and restore instream flows approximately 8 miles east of Newdale, Idaho. This project aims to address water supply needs, water quality concerns, and conservation objectives.

The U.S. Department of the Interior's WaterSMART Program establishes a framework to provide Federal leadership and assistance on the efficient use of water; integrate water and energy policies to support the sustainable use of all natural resources; form strong diverse partnerships with states, tribes and local entities, and coordinate with other Department bureaus and offices on water conservation activities. Reclamation provides a 50/50 cost share for WaterSMART grant projects.

For more information, please see the scoping information package included. Comments received in response to this request will be used to identify potential environmental issues related to the proposed action and to identify alternatives to the proposed action that meet the purpose of and need for the project.

Please send your written comments by **January 3, 2023,** to: Ms. Rochelle Ochoa, Natural Resources Specialist, Bureau of Reclamation, Snake River Area Office, 230 Collins Road, Boise, Idaho, 83702, or via email at sra-nepa-comments@usbr.gov.

The primary contact for questions or comments for this analysis is Ms. Rochelle Ochoa, Natural Resources Specialist, at (208) 383-2277. Please direct any other concerns to Ms. Jessica Asbill-Case, Native American Affairs Advisor, by phone at (208) 383-2282 or by email at

jasbillcase@usbr.gov. If you are deaf, hard of hearing, or have a speech disability, please dial 7-1-1 to access telecommunications relay services.

Sincerely,

MELANIE PAQUIN Digitally signed by MELANIE PAQUIN Date: 2022.11.21 14:39:04 -07'00'

Melanie Paquin Area Manager

Enclosure

cc: Ms. Alejandra Silva Public Relations #14 N. Fork Road Washakie, Wyoming 82514

> Mr. Joshua Mann Historic Preservation #15 N. Fork Road Washakie, Wyoming 82514 (w/encl to each)



United States Department of the Interior

BUREAU OF RECLAMATION Snake River Area Office 230 Collins Road Boise, ID 83702-4520



VIA FEDERAL EXPRESS

Honorable Dennis Alex Tribal Chairman Northwestern Band of the Shoshone Nation Pocatello Tribal Office 505 Pershing Ave, Suite 200 Pocatello, ID 83201

Subject: Request for Comments Regarding a Proposed WaterSMART Grant to Reconnect Canyon Creek to the Teton River and Restore Instream Flows Project in Teton and Madison Counties, Idaho

Dear Chairman Alex:

The Bureau of Reclamation has received a proposal from the Friends of the Teton River (FTR) for a WaterSMART (Sustain and Manage America's Resources for Tomorrow) grant to reconnect Canyon Creek to the Teton River and restore instream flows approximately 8 miles east of Newdale, Idaho. This project aims to address water supply needs, water quality concerns, and conservation objectives.

The U.S. Department of the Interior's WaterSMART Program establishes a framework to provide Federal leadership and assistance on the efficient use of water; integrate water and energy policies to support the sustainable use of all natural resources; form strong diverse partnerships with states, tribes and local entities, and coordinate with other Department bureaus and offices on water conservation activities. Reclamation provides a 50/50 cost share for WaterSMART grant projects.

For more information, please see the scoping information package included. Comments received in response to this request will be used to identify potential environmental issues related to the proposed action and to identify alternatives to the proposed action that meet the purpose of and need for the project.

Please send your written comments by **March 6, 2023,** to: Ms. Rochelle Ochoa, Natural Resources Specialist, Bureau of Reclamation, Snake River Area Office, 230 Collins Road, Boise, Idaho, 83702, or via email at sra-nepa-comments@usbr.gov.

The primary contact for questions or comments for this analysis is Ms. Rochelle Ochoa, Natural Resources Specialist, at (208) 383-2277. Please direct any other concerns to Ms. Jessica Asbill-

Case, Native American Affairs Advisor, by phone at (208) 383-2282 or by email at jasbillcase@usbr.gov.

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Sincerely,

MELANIE PAQUIN Digitally signed by MELANIE PAQUIN Date: 2023.01.30 16:19:43 -07'00'

Melanie Paquin Area Manager

Enclosure



United States Department of the Interior BUREAU OF RECLAMATION

Snake River Area Office 230 Collins Road Boise, ID 83702-4520



VIA FEDERAL EXPRESS

Honorable Nathan Small Chairman, Fort Hall Business Council Shoshone-Bannock Tribes 85 W. Agency Rd., Building #82 Fort Hall, ID 83203

Subject: Request for Comments Regarding a Proposed WaterSMART Grant to Reconnect Canyon Creek to the Teton River and Restore Instream Flows Project in Teton and Madison Counties, Idaho

Dear Chairman Small:

The Bureau of Reclamation has received a proposal from the Friends of the Teton River (FTR) for a WaterSMART (Sustain and Manage America's Resources for Tomorrow) grant to reconnect Canyon Creek to the Teton River and restore instream flows approximately 8 miles east of Newdale, Idaho. This project aims to address water supply needs, water quality concerns, and conservation objectives.

The U.S. Department of the Interior's WaterSMART Program establishes a framework to provide Federal leadership and assistance on the efficient use of water; integrate water and energy policies to support the sustainable use of all natural resources; form strong diverse partnerships with states, tribes and local entities, and coordinate with other Department bureaus and offices on water conservation activities. Reclamation provides a 50/50 cost share for WaterSMART grant projects.

For more information, please see the scoping information package included. Comments received in response to this request will be used to identify potential environmental issues related to the proposed action and to identify alternatives to the proposed action that meet the purpose of and need for the project.

Please send your written comments by **January 3, 2023,** to: Ms. Rochelle Ochoa, Natural Resources Specialist, Bureau of Reclamation, Snake River Area Office, 230 Collins Road, Boise, Idaho, 83702, or via email at sra-nepa-comments@usbr.gov.

The primary contact for questions or comments for this analysis is Ms. Rochelle Ochoa, Natural Resources Specialist, at (208) 383-2277. Please direct any other concerns to Ms. Jessica Asbill-Case, Native American Affairs Advisor, by phone at (208) 383-2282 or by email at

jasbillcase@usbr.gov. If you are deaf, hard of hearing, or have a speech disability, please dial 7-1-1 to access telecommunications relay services.

Sincerely,

MELANIE PAQUIN Digitally signed by MELANIE PAQUIN Date: 2022.11.21 14:38:42 -07'00'

Melanie Paquin Area Manager

Enclosure

cc: Mr. Wes Jones Emergency Manager Shoshone-Bannock Tribes
85 W. Agency Rd., Building #82 Fort Hall, ID 83203-0306

> Mr. Cleve Davis Environmental Program Manager Shoshone-Bannock Tribes 85 W. Agency Rd., Building #82 Fort Hall, ID 83203-0306

Mr. Chad Colter Fish and Wildlife Director Shoshone-Bannock Tribes 85 W. Agency Rd., Building #82 Fort Hall, ID 83203-0306

Mr. Candon Tanaka Tribal Water Engineer Water Resources Department Shoshone-Bannock Tribes 85 W. Agency Rd., Building #82 Fort Hall, ID 83203-0306

Ms. Christina Cutler Environmental Specialist Shoshone-Bannock Tribes 85 W. Agency Rd, Building #82 Fort Hall, ID 83203-0306

Continued on next page.

Continued from previous page.

Mr. Lester Galloway Tribal Water Resources Commissioner Shoshone-Bannock Tribes 85 W. Agency Rd., Building #82 Fort Hall, ID 83203-0306

Ms. Gail Martin Tribal Water Resources Shoshone-Bannock Tribes 85 W. Agency Rd., Building #82 Fort Hall, ID 83203-0306

Mr. Frances Roy Tribal Water Resources Sergeant At Arms Shoshone-Bannock Tribes 85 W. Agency Rd., Building #82 Fort Hall, ID 83203-0306

Mr. Claudeo Broncho Supervisor, Natural Resources and Fish and Wildlife Policy Representative Shoshone-Bannock Tribes 85 W. Agency Rd., Building #82 Fort Hall, ID 83203-0306

Ms. Yvette Tuell Tribal Policy Analyst Shoshone-Bannock Tribes 85 W. Agency Rd., Building #82 Fort Hall, ID 83203-0306

Ms. Carolyn B. Smith Cultural Resources Coordinator Water Resources Department Shoshone-Bannock Tribes 85 W. Agency Rd., Building #82 Fort Hall, ID 83203-0306 (w/encl to each)



United States Department of the Interior

BUREAU OF RECLAMATION Snake River Area Office 230 Collins Road Boise, ID 83702-4520



VIA FEDERAL EXPRESS

Honorable Brian Mason Chairman Shoshone-Paiute Tribes 1036 Idaho State Highway 51 Owyhee, NV 89832

Subject: Request for Comments Regarding a Proposed WaterSMART Grant to Reconnect Canyon Creek to the Teton River and Restore Instream Flows Project in Teton and Madison Counties, Idaho

Dear Chairman Mason:

The Bureau of Reclamation has received a proposal from the Friends of the Teton River (FTR) for a WaterSMART (Sustain and Manage America's Resources for Tomorrow) grant to reconnect Canyon Creek to the Teton River and restore instream flows approximately 8 miles east of Newdale, Idaho. This project aims to address water supply needs, water quality concerns, and conservation objectives.

The U.S. Department of the Interior's WaterSMART Program establishes a framework to provide Federal leadership and assistance on the efficient use of water; integrate water and energy policies to support the sustainable use of all natural resources; form strong diverse partnerships with states, tribes and local entities, and coordinate with other Department bureaus and offices on water conservation activities. Reclamation provides a 50/50 cost share for WaterSMART grant projects.

For more information, please see the scoping information package included. Comments received in response to this request will be used to identify potential environmental issues related to the proposed action and to identify alternatives to the proposed action that meet the purpose of and need for the project.

Please send your written comments by **March 6, 2023**, to: Ms. Rochelle Ochoa, Natural Resources Specialist, Bureau of Reclamation, Snake River Area Office, 230 Collins Road, Boise, Idaho, 83702, or via email at sra-nepa-comments@usbr.gov.

The primary contact for questions or comments for this analysis is Ms. Rochelle Ochoa, Natural Resources Specialist, at (208) 383-2277. Please direct any other concerns to Ms. Jessica Asbill-

Case, Native American Affairs Advisor, by phone at (208) 383-2282 or by email at jasbillcase@usbr.gov.

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Sincerely,

MELANIE PAQUIN Digitally signed by MELANIE PAQUIN Date: 2023.01.30 16:20:22 -07'00'

Melanie Paquin Area Manager

Enclosure

 cc: Ms. Marissa Snapp Environmental Director Shoshone-Paiute Tribes 1036 Idaho State Highway 51 Owyhee, NV 89832

> Mr. Buster Gibson Fish, Wildlife & Parks Director Shoshone-Paiute Tribes 1036 Idaho State Highway 51 Owyhee, NV 89832

Ms. Nancy Egan Interim Chief Executive Officer Shoshone-Paiute Tribes 1036 Idaho State Highway 51 Owyhee, NV 89832 Mr. Pawan Upadhyay, PhD Water Resources Director Water Resources Department Shoshone-Paiute Tribes 1036 Idaho State Highway 51 Owyhee, NV 89832

Ms. Maurissa Bigjohn Tribal Administrator Shoshone-Paiute Tribes 1036 Idaho State Highway 51 Owyhee, NV 89832 (w/encl to each)



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