RECLAMATION

Managing Water in the West

Environmental Assessment and Finding of No Significant Impact

Aspen Canal Piping Project

U.S. Department of the Interior
Bureau of Reclamation
Upper Colorado Region
Western Colorado Area Office
Grand Junction, Colorado

February 2019

Mission Statements

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

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

FINDING OF NO SIGNIFICANT IMPACT

United States Department of the Interior
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Grand Junction, Colorado

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Introduction

In compliance with the National Environmental Policy Act of 1969, as amended (NEPA), the Bureau of Reclamation (Reclamation) has conducted an environmental assessment (EA) for the Proposed Action of replacing approximately 5.6 miles of the existing earthen Aspen Canal with 5.1 miles of HDPE pipe, installing a supervisory control and data acquisition (SCADA) system at Crawford Reservoir, and implementing a habitat enhancement project. Under the legislative authority of the Colorado River Storage Project (CRSP) Act, Reclamation will provide hydropower revenue funds for construction of the Aspen Canal Piping Project, and is the lead agency for purposes of compliance with the NEPA for this proposed action.

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

Alternatives

The EA analyzes the No Action Alternative and the Proposed Action Alternative to implement the Aspen Canal Piping Project.

Decision and Finding of No Significant Impact

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

Context

The project is located in Delta County, Colorado. The affected locality is the initial 5.6 miles of the Aspen Canal. Affected interests include Reclamation, the Crawford Water Conservancy District (CWCD), Aspen Canal shareholders, and adjacent landowners.

Intensity

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

1. **Impacts may be both beneficial and adverse.** The proposed action would impact resources as described in the EA. Mitigating measures were incorporated into the design of the action alternative to reduce impacts. The predicted short-term effects of the proposed action include temporary increases in noise during construction, and minor, localized decreases in air quality due to ambient dust generated by construction. Dust suppression best management practices (BMPs) would be implemented to reduce ambient dust in the construction area. Vegetation in the Project Area would transition to similar species found in the surrounding vegetation types. Noxious weeds are expected to be reduced through weed control by the CWCD and implementation of a habitat enhancement project. The predicted long-term effects of the proposed action include an adverse effect to a National Register of Historic Places (NRHP)-eligible historic property (the Aspen Canal). Beneficial effects include rehabilitating aging federal infrastructure, and the potential reduction of salinity and selenium loading into the Colorado River basin, although these benefits have not been quantified.

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

2. **The degree to which the selected alternative will affect public health or safety or a minority or low-income population.** The proposal will have no significant impacts on public health or safety. No minority or low-income populations would be disproportionately affected by the proposed action.

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

4. **The degree to which the effects on the quality of the human environment are likely to be highly controversial.** Reclamation contacted representatives of other federal agencies, state and local governments, public and private organizations, and individuals regarding the proposal and its effects on resources. Based on the responses received, the effects of the proposal on the quality of the human environment are not highly controversial.

5. **The degree to which the possible effects on the human environment are highly uncertain or involve unique or unknown risks.** There are no predicted effects on the human environment that are considered highly uncertain or that involve unique or unknown risks.

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

7. **Whether the action is related to other actions which are individually insignificant but cumulatively significant.** Cumulative impacts are possible when the effects of the proposed action are added to other past, present, and reasonable foreseeable future actions as described under related NEPA documents and plans; however, significant cumulative effects are not predicted, as described in the EA in Section 3.3.

8. **The degree to which the action may adversely affect sites, districts, buildings, structures, and objects listed in or eligible for listing in the National Register of Historic Places.** The State Historic Preservation Officer has concurred with a determination of adverse effect to the Aspen Canal. Reclamation has entered into a Memorandum of Agreement (MOA) with the Colorado State Historic Preservation Officer (SHPO) to mitigate the impacts to the Aspen Canal.

9. **The degree to which the action may adversely affect an endangered or threatened species or its habitat that has been determined to be critical under the Endangered Species Act of 1973.** There are no threatened and endangered species or suitable habitat in the Project Area. The Project Area overlaps the northern outermost extent of Gunnison sage-grouse designated potential/unoccupied critical habitat. Habitat in this area lacks the essential features that support this species. Furthermore, project work would be temporary and would not preclude or delay the development of essential features in the future. There would be no effect to any threatened or endangered species, or occupied critical habitat, from implementing the proposed action.

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

Environmental Commitments

The following environmental commitments will be implemented as part of the Proposed Action:

- BMPs will be implemented, as specified in the EA, to protect water quality and soils; to minimize ground and vegetation disturbance; to protect wildlife resources; and to minimize the spread of weeds. The environmental commitments described in Chapter 4 of the EA are incorporated herein by reference.
- Required permits, licenses, clearances, and approvals will be acquired prior to implementation of the Proposed Action.

- If previously undiscovered cultural or paleontological resources are discovered during construction, construction activities must immediately cease in the vicinity of the discovery and Reclamation must be notified. In this event, the SHPO will be consulted and work will not be resumed until consultation has been completed, as outlined in the Unanticipated Discovery Plan in the MOA.
- In the event that threatened or endangered species are discovered during construction, construction activities will halt until consultation is completed with the U.S. Fish and Wildlife Service and protection measures are implemented. Additional surveys will be required for threatened or endangered species if construction plans or proposed disturbance areas are changed.

Approved by:

Ed Warner
Area Manager, Western Colorado Area Office

2-27-19
Date

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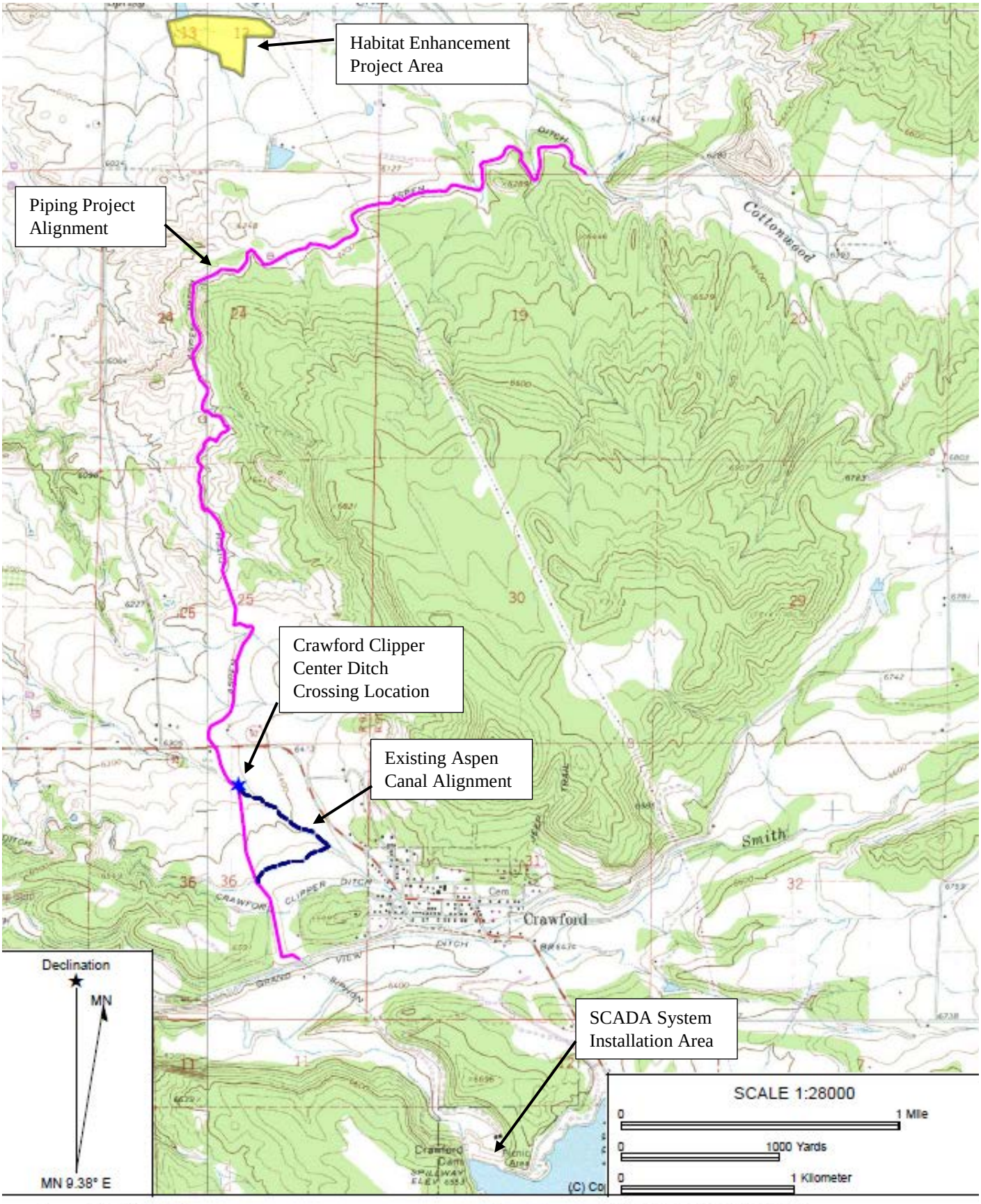


Figure 1. Location of Aspen Canal Piping Project

CHAPTER 1 – INTRODUCTION

This Environmental Assessment (EA) has been prepared to disclose and evaluate the potential environmental effects of the Bureau of Reclamation's (Reclamation) proposed Aspen Canal Piping Project ("Project" or "Proposed Action"). The Federal action evaluated in this EA is whether Reclamation should expend Colorado River Storage Project (CRSP) Act Upper Colorado River Basin funds (Basin Funds) to replace approximately 5.6 miles of the existing earthen Aspen Canal with 5.1 miles of HDPE pipe and to install a supervisory control and data acquisition (SCADA) system at Crawford Reservoir (Proposed Action or Proposed Project). This document has been prepared in compliance with the National Environmental Policy Act (NEPA), the Council on Environmental Quality (CEQ), and the U.S. Department of the Interior's (Interior) NEPA implementing regulations.

1.1 – Project Location and Legal Description

The Project Area begins approximately 0.3 mile west of the Town of Crawford, and extends to a location approximately 2.5 miles north of the Town of Crawford, Colorado. The Project Area is located within Sections 18 and 19, Township 15 South, Range 91 West, and Sections 24, 25, and 36, Township 15 South, Range 92 West, Colorado 6th Principal Meridian, Delta County, Colorado. The Aspen Canal receives water from Crawford Reservoir, and is a component of the Reclamation owned, federal Smith Fork Project (see Figure 1).

1.2 – Need for and Purpose of the Proposed Action

The need for the Proposed Action is to comply with the CRSP Act to utilize Basin Fund revenues to repay costs associated with the extraordinary maintenance of the CRSP-participating Smith Fork Project, of which the Aspen Canal is a component. The purpose of the proposed action is to rehabilitate and maintain the Aspen Canal so it may continue to be utilized for the authorized use of irrigation under the Smith Fork Project, and to install a supervisory control and data acquisition (SCADA) system at Crawford Reservoir to allow for flow adjustments into the Aspen Canal from Crawford Reservoir.

The Aspen Canal is an aging feature of the Smith Fork Project, and has been in service for over 50 years. The Aspen Canal has experienced increases in the maintenance required on its slide gates, check structures, and pipe drop structures. There have also been changes in the operation of the system over time. These changes include water exchange agreements with other water users in the Crawford Water Conservancy District (CWCD), and changes in the delivery flows and locations. Both the higher maintenance costs and the operational changes have led to the Proposed Action.

1.3 – Decision to be Made

Reclamation will decide whether to expend CRSP Basin Funds to implement the Proposed Action.

1.4 – Background

1.4.1 – CRSP Basin Funds

The Basin Fund was established under Section 5 of the CRSP Act (43 U.S.C. 620 et seq.). The CRSP Act authorized a separate fund in the Treasury of the United States to be known as the Upper Colorado River Basin Fund for carrying out the provisions of the Act. Revenues derived from operation of the CRSP and participating projects are deposited in the Basin Fund. Most of the revenues come from sales of hydroelectric power and transmission services. (Reclamation 2018)

1.5 – Relationship to Other Piping Projects

1.5.1 – CRSP Basin Funds Projects

Reclamation's Western Colorado Area Office recently utilized CRSP Basin Funds to implement the following piping projects on CRSP-participating projects in the vicinity of the proposed Project Area (Figure 2):

- Uncompahgre Project: GK Lateral Piping Project

1.5.2 Salinity Control Program

Reclamation, under the authority of the Colorado River Basin Salinity Control Act, Public Law 93-320, provides funding through the Basinwide Salinity Control Program and the Basin States Program to implement cost-effective salinity control projects in the Colorado River Basin. Reclamation's Western Colorado Area Office has recently utilized Salinity Control Program funds for the following salinity control projects in the vicinity of the proposed Project Area (Figure 2):

- Bostwick Park Siphon Lateral Piping Project
- C Ditch/Needle Rock Piping Project
- Cattleman's Ditches Piping Project Phases I and II
- Center Lateral Piping Project
- Eastside Laterals Piping Project Phases VII, VIII, and IX
- Fire Mountain Canal Piping Project
- Forked Tongue/Holman Ditch Piping Project
- Grandview Canal Piping Project
- Lower Stewart Ditch Piping Project
- Minnesota Canal Piping Project Phase I and II
- Minnesota L75 Piping Project
- North Delta Canal Piping Project
- Slack and Patterson Lateral Piping Project
- Spurlin Mesa Lateral Piping Project
- Zanni Lateral Piping Project

1.6 – Scoping

Scoping for this EA was completed by Reclamation, in consultation with the following agencies and organizations, during the planning stages of the Proposed Action to identify the potential

environmental and human environment issues and concerns associated with implementation of the Proposed Action and No Action Alternatives:

- U.S. Bureau of Land Management, Uncompahgre Field Office, Montrose, CO
- Colorado State Historic Preservation Office, Denver, CO
- Colorado Parks and Wildlife, Gunnison, CO
- U.S. Fish and Wildlife Service, Ecological Services, Grand Junction, CO
- U.S. Army Corps of Engineers, Colorado West Regulatory Branch, Grand Junction, CO
- Southern Ute Indian Tribe, Ute Mountain Ute Tribe, and Ute Indian Tribe (Uintah and Ouray Reservation)
- Crawford Water Conservancy District

Issues determined to be of potential significance, and therefore appropriate for further impact analysis under this EA, are discussed in Chapter 3. The following issues were determined to be insignificant or not applicable, and are not analyzed in greater detail within this document:

Table 1. Resources Eliminated from Further Analysis

Resource	Rationale for Elimination from Further Analysis
Waters of the United States	The Proposed Action would affect surface and shallow subsurface hydrology supplied by the existing canal to wetland and riparian areas along the Proposed Action alignment. As an irrigation construction project, the Proposed Action is exempt from regulation under Section 404 of the Clean Water Act (CWA). The applicable exemption is for Farm or Stock Pond or Irrigation Ditch Construction or Maintenance.
Threatened and Endangered Species	An evaluation of the Project Area found an absence of threatened and endangered species and suitable habitat. The Project Area overlaps the northern outermost extent of Gunnison sage-grouse designated critical habitat. Habitat in this area lacks the essential features that support this species. Furthermore, project work would be temporary and would not preclude or delay the development of essential features in the future.
Prime, Unique, and Statewide Important Farmland	There are no farmlands of prime, unique, or statewide importance within the Project Area.
Indian Trust Assets and American Indian Sacred Sites	Reclamation consulted with American Indian Tribes with historic presence in the Project Area. No Indian Trust Assets or American Indian Sacred Sites were identified in the project area.
Environmental Justice	The Proposed Action would not involve any relocations, health hazards, hazardous waste, property takings, or substantial economic impacts. The project would not have disproportionately high or adverse human health or environmental effects on minority or low-income populations or Indian Tribes.

Aspen Canal Relationship to Other Projects

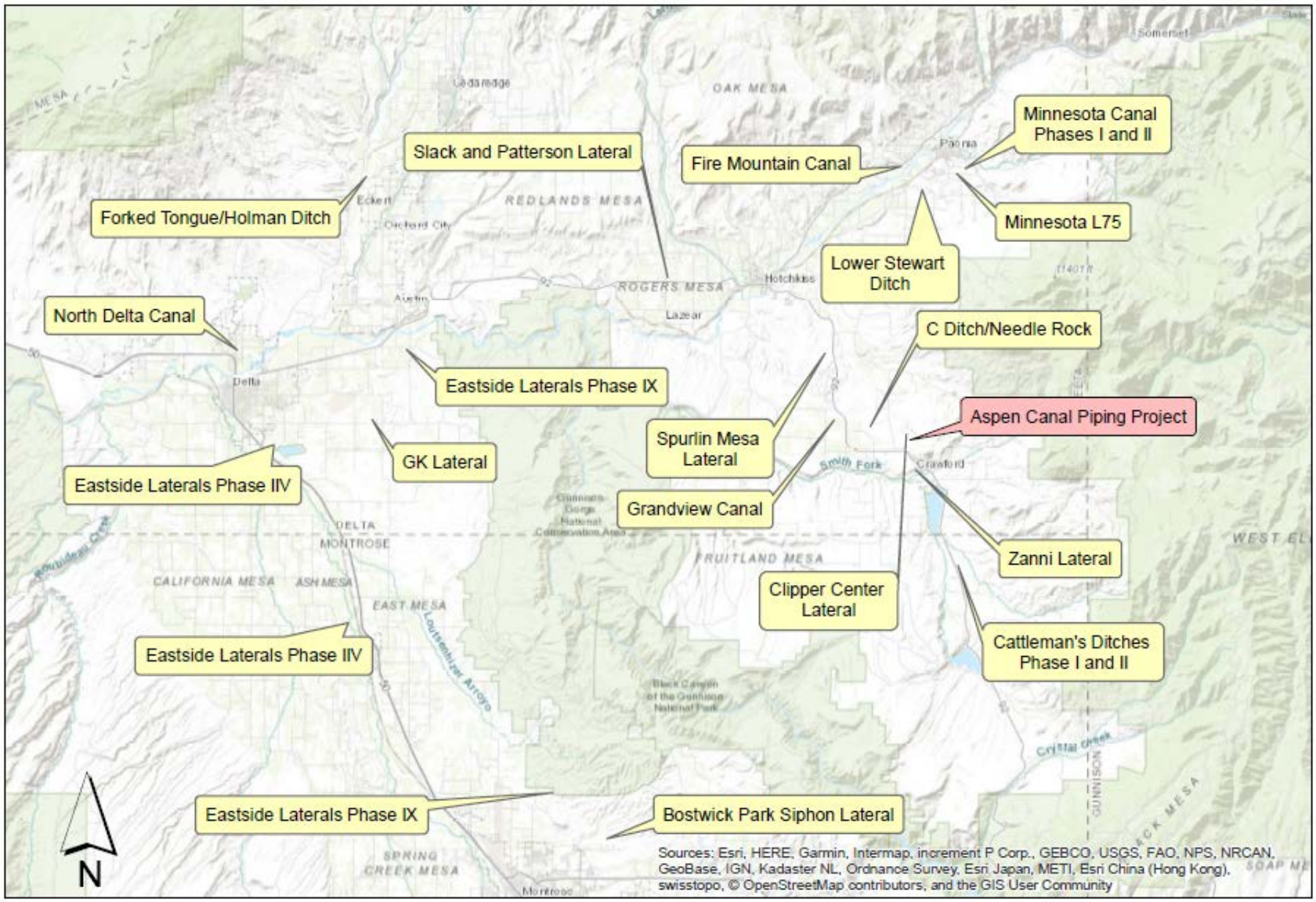


Figure 2. Map of Aspen Canal Piping Project Area in relation to other piping projects in the vicinity.

CHAPTER 2 – PROPOSED ACTION AND ALTERNATIVES

Alternatives evaluated in this EA include the No Action Alternative and the Proposed Action Alternative.

2.1 – Alternatives Considered but Not Carried Forward

One other alternative was considered by Reclamation, but was eliminated from detailed analysis in accordance with 40 CFR 1502.14. This alternative included lining the canal throughout the Project Area. This alternative was found to not be as economical or as effective as piping the canal. Piped systems typically have lower associated maintenance costs than lined systems. In addition, there are operational advantages with a piped system, such as quicker responses to changes in flows in the system.

2.2 – No Action Alternative

Under the No Action Alternative, Reclamation would not expend CRSP Basin Funds to replace any portion of the Aspen Canal with HDPE pipe. The Aspen Canal would continue to operate as an earthen irrigation canal.

2.3 – Proposed Action

Under the Proposed Action, Reclamation would expend CRSP Basin Funds to replace approximately 5.6 miles of the existing earthen Aspen Canal with 5.1 miles of HDPE pipe, install a SCADA system at Crawford Reservoir, and implement a habitat enhancement project.

2.3.1 – Canal Piping

Approximately 5.6 miles of the existing earthen Aspen Canal would be replaced with approximately 5.1 miles of HDPE pipe (see Figure 3). Pipe size would range from approximately 63” at the upstream end of the project to approximately 10” at the downstream end of the project. Once placed in pipe, the existing canal prism would be backfilled. Throughout the Project Area, the construction footprint would average 20 to 30 feet on each side of the Aspen Canal centerline. The Project Area lies within existing Reclamation easements on private lands and lands managed by the U.S. Bureau of Land Management (BLM), and is outlined in yellow in Figure 3.

The HDPE pipe would be placed within the existing canal alignment, with the exception of a section of existing canal, which would be bypassed. At a location approximately 0.3 mile downstream from the beginning of the Proposed Project, the northbound Aspen Canal turns toward the east for approximately 0.6 mile before discharging into the Crawford Clipper Center Ditch, which is a natural drainage in this area. Aspen Canal water is then carried by the Crawford Clipper Center Ditch approximately 0.4 mile before being diverted back into the earthen Aspen Canal and continuing northward. Under the Proposed Action, the Aspen Canal would not turn east at this location, and would instead continue north for approximately 0.4 mile on a new alignment, at which point it would cross Crawford Clipper Center Ditch and continue

in its existing alignment for the remainder of the project. The newly aligned segment would be located within an existing Reclamation easement.

Although the Aspen Canal would bypass a portion of the existing alignment, two HDPE pipes would be installed within the bypassed alignment. A 60" diameter pipe would be placed to act as a Smith Fork Project water delivery pipeline to the Crawford Clipper Center Ditch, and to act as the Aspen Canal's emergency spillway. A 10" diameter pipe would be placed to make Aspen Canal water deliveries to water users in that area. Directly west of the bypassed alignment, two additional HDPE pipes would be installed. A 36" diameter pipe would deliver water to the West Canal. A 10" diameter pipeline would be utilized for Aspen Canal water delivery. (see Figure 3).

The piped Aspen Canal would cross the existing alignment of the Crawford Clipper Center Ditch (see Figure 1). The pipeline crossing would be constructed by trenching the pipe across the Crawford Clipper Center Ditch. Construction of this crossing would occur during low flows. Temporary fill would be placed within the Crawford Clipper Center Ditch, and water would be routed around the Project Area either via a temporary pipeline or a temporary lined ditch. After construction, the temporary fill would be removed, the ground would be returned to its existing contours and elevation, and the Crawford Clipper Center Ditch would continue to function as it currently functions.

Currently, headgates are located along the Aspen Canal, and divert canal water into delivery pipelines for on-farm water use. Under the Proposed Action, the headgates along the Aspen Canal would be removed, and the Aspen Canal pipeline would directly deliver water to the on-farm delivery structures (see Figure 3 for delivery locations). All structures within the Project Area, such as check structures, would either be removed, modified, or abandoned in place.

Vegetation slash would be scattered on site or hauled to a staging area and chipped. All disturbed areas would be revegetated with an appropriate seed mixture (see Appendix B). Erosion control BMPs would be implemented to prevent or reduce nonpoint source pollution during and following construction. All construction equipment would be power-washed and free of soil and debris prior to entering the construction site to reduce the spread of noxious and invasive weeds.

2.3.2 – SCADA System

A SCADA system would be installed at Crawford Reservoir. This work would involve mounting a motor to the valve located in the gatehouse at Crawford Reservoir, and mounting a flow meter to the Aspen Canal just downstream of the Crawford Reservoir outlet works. The SCADA system would allow for flow adjustments into the Aspen Canal from Crawford Reservoir.

2.3.3 – Habitat Enhancement Project

Reclamation would implement a habitat enhancement project to replace wildlife habitat lost by piping the Aspen Canal and eliminating seepage which has historically contributed to the development of riparian and wetland habitat along the canal corridor. The habitat enhancement site is 36 acres on private land located less than a mile northwest of the northern portion of the Project Area. The habitat enhancement project would include controlling and/or removing

noxious weeds, such as Russian olive and Russian knapweed, using a combination of mechanical and chemical treatments. A variety of shrubs, trees, forbs, and grasses would be planted within the habitat enhancement site. Plant species selection would focus on species that provide forage and/or cover for deer. Fencing would be placed around plantings to protect them from damage until established. Figure 4 is a diagram of the habitat enhancement project.

2.4 – Construction

2.4.1 – Equipment

Equipment would be appropriately sized, and would include excavators, loaders, pickup trucks with trailers, fusion machines, and dozers/graders.

2.4.2 – Access

The Project Area would be accessed from existing roads, including Highway 92, Fruitland Mesa Road, and Crawford Road. An existing BLM road would also be utilized, and would need to be graded to provide a stable road surface for the transport of construction equipment.

2.4.3 – Staging and Borrow Areas

Four staging areas for equipment and materials have been identified in uplands within the Project Area. All of the staging areas are located within Reclamation's existing easements or temporary construction rights-of-way. Borrow material would be generated within the pipeline construction footprint along the Aspen Canal (see Figure 3).

2.4.4 – Construction Timeframe

Construction would take place during the non-irrigation season when no water is in the canal, and would potentially take place over a span of two years. Construction would occur between approximately November 1 and April 1. The habitat enhancement project would span the course of two years to provide for optimal timing for weed treatments and planting/seeding.

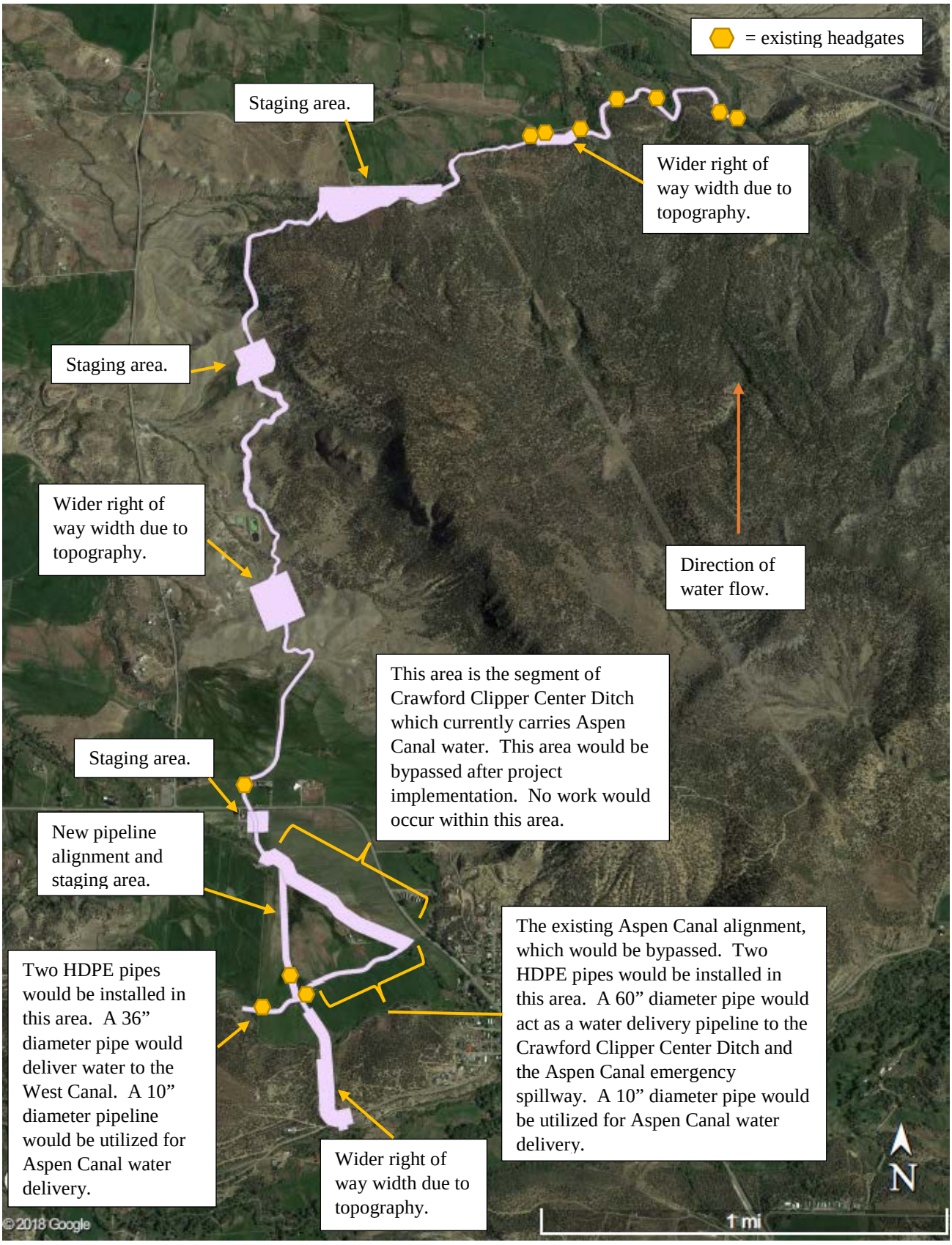


Figure 3. Map of the canal piping area, with labeled project components.

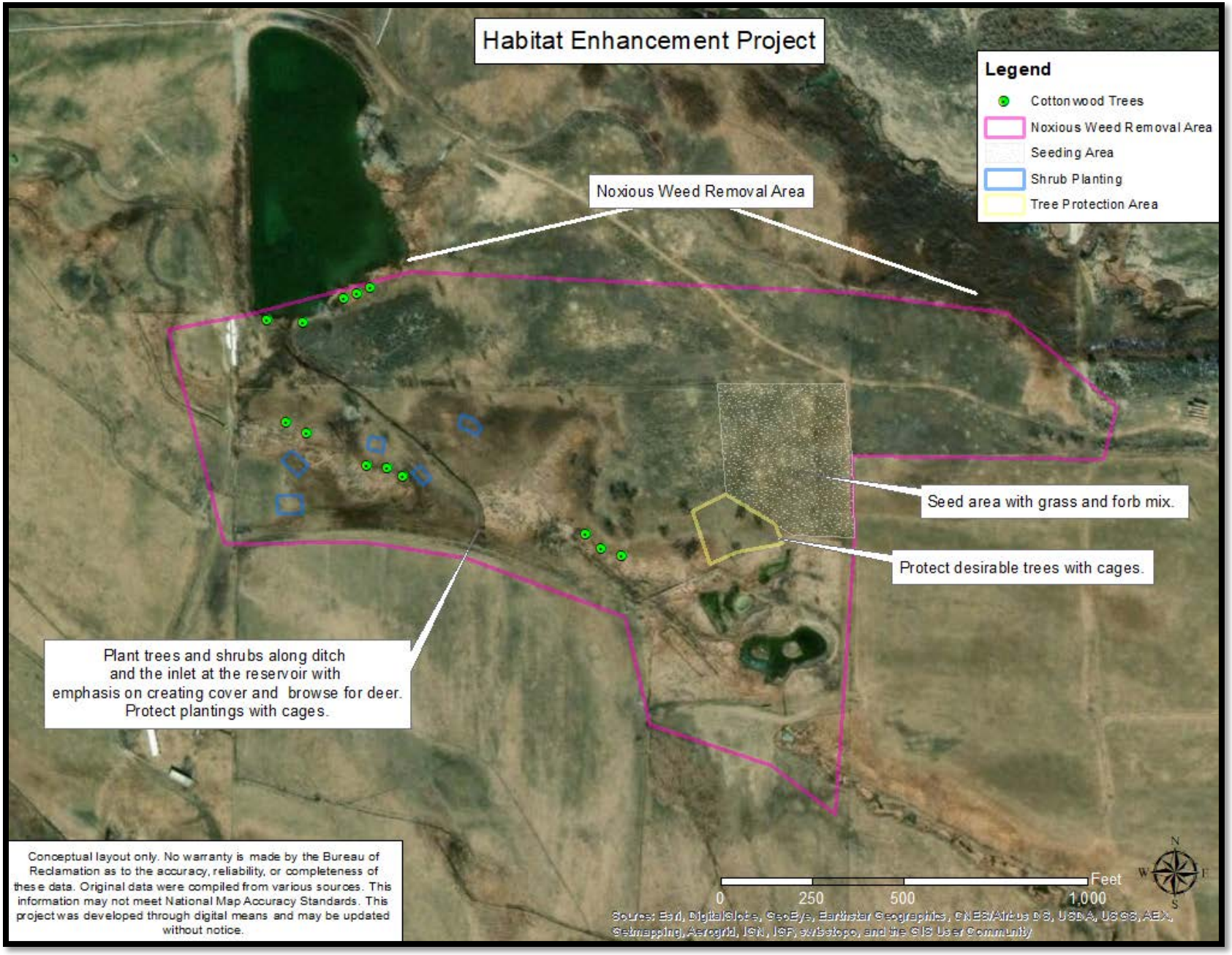


Figure 4. Diagram of Habitat Enhancement Project

2.5 – Permits and Authorizations

If the Proposed Action is approved, the following permits would be required prior to project implementation:

- BLM Temporary Right-of-Way Permit

Compliance with the following laws and Executive Orders (E.O.) are required prior to and during project implementation:

2.5.1 – Natural Resource Protection Laws

- Endangered Species Act of 1973 as amended (16 U.S.C. 1531-1544, 87 Stat. 884)
- Clean Water Act of 1972 as amended (33 U.S.C. 1251 et seq.)
- Migratory Bird Treaty Act of 1918 (16 U.S.C. 703-712)
- Bald and Golden Eagle Protection Act of 1940 (16 U.S.C. 668- 668c)

2.5.2 – Cultural Resource Laws

- National Historic Preservation Act of 1966 (16 U.S.C. 470 et seq.)
- Archaeological Resources Protection Act of 1979 (16 U.S.C. 470aa-470mm et seq.)
- Native American Graves Protection and Repatriation Act of 1990 (25 U.S.C. 3001 et seq.)
- American Indian Religious Freedom Act of 1978 (42 U.S.C. Public Law 95-341)
- Archaeology and Historic Preservation: Secretary of the Interior's Standards and Guidelines (48 FR 44716)

2.5.3 – Paleontological Resource Laws

- Paleontological Resources Preservation Act of 2009 [Section 6301-6312 of the Omnibus Land Management Act of 2009 (Public Law 111-11 123 Stat. 991-1456)]

CHAPTER 3 – AFFECTED ENVIRONMENT & ENVIRONMENTAL CONSEQUENCES

3.1 - Introduction

This chapter discusses resources that may be affected by the Proposed Action Alternative and the No Action Alternative. For each resource, the potentially affected area and/or interests are identified, existing conditions described, and potential impacts predicted under the No Action and Proposed Action Alternatives. This section is concluded with a summary of impacts and a list of environmental commitments.

3.2 – Affected Environment and Environmental Consequences

3.2.1 – Water Rights

The Proposed project is located within the Gunnison River Basin. This basin encompasses approximately 7,800 square miles, extending from the Continental Divide to the confluence of the Gunnison and Colorado Rivers near Grand Junction. Several drainages near the project drain west and northwest toward the Gunnison River and the North Fork Gunnison River, including the Smith Fork of the Gunnison River (aka Smith Fork Creek) and Cottonwood Creek.

Flood irrigation is currently the primary means of irrigating agricultural crops within the Proposed Action Area. Furrows and gated pipe are used in most fields to help facilitate flood irrigation. The CWCD operates and maintains the Aspen Canal; however, the Aspen Canal is part of the federal Smith Fork Project, and water within the Aspen Canal is Smith Fork Project water.

No Action Alternative: Under the No Action Alternative, there would be no change in water rights or uses in the Gunnison River Basin. The water delivery systems would continue to function as they have in the past.

Proposed Action: Under the Proposed Action Alternative, there would be an increase in water efficiency in the Aspen Canal system. The Proposed Action would eliminate seepage through the existing earthen ditch. The Proposed Action would not include new storage or irrigation of new lands. No additional water rights, new storage rights, or changes to water rights would be required under the Proposed Action.

3.2.2 – Water Quality

The Project Area lies within the Smith Fork of the Gunnison River and Cottonwood Creek basins, which are tributaries to the North Fork of the Gunnison River. Water quality of the Gunnison and Colorado Rivers is threatened by high salinity and selenium levels. From 2005 through 2015, it is estimated that an average of 97.5 million tons of salt were loaded annually into the Colorado River (Reclamation 2017). Irrigated agriculture is the largest user of water in the Colorado River Basin and is a major contributor of salinity to the watershed. Irrigation increases salinity by depleting the amount of water flowing to the Colorado River and by dissolving salts found in underlying saline soils and geologic formations, usually marine (Mancos) shale. Deep percolation of irrigation water mobilizes the salts found naturally in the soils, especially if the lands are over-irrigated, which often occurs with flood irrigation practices. High salinity levels make it difficult to grow agricultural crops. Salt in water systems plugs and damages municipal and household pipes and fixtures.

Selenium is a nonmetal that most often occurs in soils in soluble forms such as selenite, which is easily leached into rivers by runoff. Though trace amounts of selenium are necessary for cellular functioning of many organisms, it becomes toxic in slightly elevated amounts. Elevated selenium levels can cause reproductive failure and deformities in fish and aquatic birds.

No Action Alternative: Under the No Action Alternative, existing water quality trends and water resource designations would not change. Salt would continue to reach to the Colorado River annually from seepage of irrigation waters from the unlined earthen ditch. Seepage from the Aspen Canal would continue to contribute to the high selenium levels of the waterways in the general vicinity of the Project Area.

Proposed Action: Under the Proposed Action Alternative, seepage from the Aspen Canal would be eliminated. Implementation of the Proposed Action would result in the reduction of an unquantified amount of salinity and selenium loading into the Smith Fork of the Gunnison River and Cottonwood Creek basins, and ultimately the Gunnison and Colorado Rivers. Thus, the Proposed Action is anticipated to have a long-term beneficial impact on water quality.

Construction activities within the ditch alignment would occur outside of the irrigation season when no water is in the canal. Therefore, there would be no impact to water quality resulting from construction activities.

The U.S. Army Corps of Engineers (USACE) was provided with project details, and made the determination that the project qualifies for the Irrigation Exemption from Section 404 of the CWA (see Appendix C). Therefore, neither a CWA Section 404 permit nor a Section 401 Water Quality Certification are required to implement the Proposed Action.

Additionally, Section 402 of the CWA requires that all construction sites that involve the dewatering of a construction site or that disturb one acre or more of land must obtain a storm water discharge permit pursuant to the National Pollutant Discharge Elimination System (NPDES). Because the Proposed Project would disturb more than one acre, a Storm Water Pollution Prevention Plan would be prepared, and the construction contractor would obtain a permit from the Colorado Department of Public Health and Environment (CDPHE) prior to initiating construction activities.

3.2.3 – Air Quality

Air quality in the State of Colorado is regulated by the U.S. Environmental Protection Agency (EPA) and Colorado's Air Quality Control Commission. The National Ambient Air Quality Standards (NAAQS) established by the EPA under the Clean Air Act (CAA) specify limits of air pollutants levels for several criteria pollutants: carbon monoxide, particulate matter (PM) 10, PM 2.5, ozone, sulfur dioxide, lead, and nitrogen. When an area exceeds the specified pollutant limits, that area is identified as a non-attainment area. Air quality is generally excellent in the Project Area, and there are no air quality non-attainment areas in the vicinity (EPA 2018).

No Action Alternative: Under the No Action Alternative, there would be no change in air quality.

Proposed Action: Under the Proposed Action Alternative, there would be a temporary, short-term adverse effect on air quality in the immediate vicinity of the Project Area as a result of dust and vehicle emissions from construction activities. There would be no long-term impacts on air quality from the Proposed Action. Dust control measures, such as watering disturbed areas, would be implemented during construction as appropriate to reduce dust emissions.

3.2.4 – Vegetation

Vegetation within the Project Area is characterized by Colorado Plateau pinyon-juniper woodland, Inter-Mountain Basins mixed salt desert scrub, and cultivated cropland (irrigated hayfields and/or pastures). Other landcover types intersecting or existing near the Project Area are minor amounts of big sagebrush shrubland, Rocky Mountain Gambel oak-mixed montane shrublands, and lower montane riparian woodlands and shrublands.

Within the compositions of the greater vegetation types, localized occurrences of riparian and wetland vegetation exist due to irrigation, drainages, and canal seepage. The canal corridor is vegetated mostly with pasture grasses, common ruderal weeds, and noxious weeds, but also supports stands of coyote willow, cattails, and occasional mature cottonwoods. The habitat enhancement site is situated amongst irrigated agricultural hayfields and pastures and is vegetated with pasture grasses, Russian olive trees, willows, cattails, and isolated occurrences of cottonwood trees near the wetter areas, and sagebrush, pasture grasses, Russian knapweed, and whitetop in the dryer areas.

Vegetation along the canal corridor and access roads are routinely disturbed due to use and maintenance activities. The proposed new pipeline alignment segment and the habitat enhancement site are exposed to frequent agricultural practices.

Plant species classified by the state of Colorado as noxious weeds (synonymous with invasive species) occur in the Project Area. The canal and travel routes provide vectors for transporting and spreading seeds from these undesirable species. The most prevalent noxious weed species in the Project Area are Russian knapweed, tamarisk, Russian olive, whitetop, Canada thistle, and jointed goatgrass.

No Action Alternative: Water flowing through the Aspen Canal would continue to be a vector of noxious weed transport.

Proposed Action: Direct impacts associated with the Proposed Action include an initial decrease in vegetation due to disturbance from construction activities. Vegetation would be cleared for staging areas and canal piping activities and strategically removed at the habitat enhancement site. The severity of degradation to vegetation resources resulting from the Proposed Action would be minor given the existing level of disturbance and prevalence of noxious weeds along the canal and at the habitat enhancement site. To minimize impacts to vegetation, construction activities would be confined to previously disturbed areas where possible and vegetation disturbance would be minimized as much as practicable. To reduce the establishment or spread of noxious weeds, equipment would be cleaned prior to moving on-site and before moving off-site. After construction, all areas that were disturbed for construction purposes would be graded and seeded or planted at appropriate times with weed-free seed mixes (see Appendix B), consisting of species associated with the surrounding vegetation communities. The riparian and wetland vegetation along and downgradient of the canal would transition to species similar to those present in the surrounding upland vegetation community types. There would be an increase in riparian vegetation at the habitat enhancement site from tree and shrub plantings. A reduction in noxious weeds would occur through habitat enhancement activities and implementation of BMPs.

3.2.5 – Aquatic and Terrestrial Wildlife

Colorado Parks and Wildlife (CPW) has mapped habitat for elk, mule deer, mountain lion, black bear, and wild turkey in the Proposed Action area. The Proposed Action is within overall range for all these species and severe winter range for elk and mule deer. The Proposed Action is within a mule deer resident population area that encompasses the entire Crawford and North Fork Valley. The habitat enhancement site and the northern half of the Aspen Canal is within an elk winter concentration area. These species are highly mobile and tend to roam throughout the day. Numerous other small mammals, birds, amphibians, and reptiles are likely to occur in the area. The Aspen Canal does not contain suitable habitat for fish; however, it intersects Cottonwood Creek and Smith Fork Creek. The proximity of natural and modified habitats provides reliable shelter and sources of food and water.

Birds of conservation concern and raptors protected under the Migratory Bird Treaty Act or the Bald and Golden Eagle Protection Act that are likely to occur in or in the immediate vicinity of the Proposed Action include the following: brewer's sparrow (breeding), golden eagle (year round), Virginia's warbler (breeding), and bald eagle (breeding), [USFWS 2018; NatureServe 2018; Cornell Lab of Ornithology 2018]. The surrounding area is likely to provide foraging habitat for eagles, but no roosts or nesting sites are documented or were observed for these species within the Proposed Action area. The nearest bald eagle roost is over a mile away. Brewer's sparrow uses sagebrush for breeding habitat. Virginia's warbler nests on the ground and prefers Gambel oak on steeper slopes. Peak breeding season for migratory birds occurs between May 1 and July 15.

No Action Alternative: Under the No Action Alternative, terrestrial and aquatic wildlife habitat would remain in its current condition, and no displacement of wildlife beyond current levels would occur.

Proposed Action: Construction work would create a short-term increase in disturbance to the area, creating minor temporary impacts to wildlife species. Project timing would avoid peak breeding season for migratory birds. Small animals, such as burrowing amphibians, reptiles, and small mammals could suffer direct mortality during construction. Permanent displacement due to habitat modification along the Aspen Canal, specifically riparian and wetland type habitat, would occur. The riparian vegetation along and downgradient of the canal represents a small percentage of the overall habitat available in the vicinity and similar habitat is in close proximity (within ~1 mile). Effects to wildlife would be isolated and not contribute to declines in local population levels. The Proposed Action would decrease the frequency of maintenance along the canal which would decrease long-term disturbances to wildlife. The habitat enhancement project would be beneficial to wildlife by increasing available forage and shelter, through plantings. The increase in riparian vegetation would help off-set the habitat losses that would occur along the canal.

3.2.6 – Noise

The Proposed Project area is located in a rural area with limited noise sources, including but not limited to vehicle use of Crawford Road, operation and maintenance of the Aspen Canal and other area canals, and farming activities.

No Action Alternative: Under the No Action Alternative, there would be no change in noise levels at the Project Area.

Proposed Action: There would be no long-term increases to the ambient noise levels from the implementation of the Proposed Action. Short-term and temporary increases in noise levels would occur during construction. Noise impacts would be minimized by limiting construction activities to daylight hours.

3.2.7 – Public Safety, Access, and Transportation

The major transportation routes in the general vicinity of the Project Area are Highway 92 and Crawford Road. The existing Aspen Canal dirt access roads to the Project Area and all staging areas.

No Action Alternative: Under the No Action Alternative, there would be no change in public safety, access, and transportation.

Proposed Action: Equipment necessary for project construction would be transported along Highway 92. The equipment would be hauled away along the same route. Equipment and vehicles would be staged and parked at the Project Area during construction. The equipment and worker vehicles would be parked and staged at the project site at identified areas on both BLM and private land. Reclamation would be authorized to utilize the access road on BLM land via a temporary Right-of-Way Grant from BLM. There would be minimal effects to transportation associated with equipment hauling on- and off-site and construction personnel's vehicles.

The Project Area is located predominantly on private land and on BLM land. Transportation along Highway 92 or Crawford Road would not be impeded, and there would be no effects on public safety as a result of implementation of the Proposed Action. There would be no impacts to existing access routes as a result of implementation of the Proposed Action.

3.2.8 – Cultural Resources

Cultural resources are defined as physical or other expressions of human activity or occupation. Section 106 of the National Historic Preservation Act (NHPA) requires Federal agencies to take into account the potential effects of a proposed Federal undertaking on historic properties. Historic properties are any prehistoric or historic district, site, building, structure, or object included, or eligible for inclusion, in the NRHP.

Reclamation archaeologists conducted Class III cultural resource inventories within the Area of Potential Effect in July and August 2018. All proposed buried pipe alignments in a 100-foot-wide corridor, proposed construction disturbance areas, the SCADA installation area, the habitat replacement site, and proposed staging areas were examined. The inventories resulted in the documentation of the segment of the Aspen Canal from where it intersects with Fruitland Mesa Road then north to where it intersects with Cottonwood Creek, Crawford Dam and its associated features, one isolated find, and two historic linear components.

No Action Alternative: Under the No Action Alternative, there would be no effect to historic properties.

Proposed Action: Reclamation consulted with the State Historic Preservation Officer (SHPO) regarding the eligibility of and the Proposed Action's effect on historic properties. The SHPO concurred that the Proposed Action would have an adverse effect to the Aspen Canal. A

Memorandum of Agreement (MOA) has been executed to mitigate any adverse effects to the Aspen Canal as a result of implementing the Proposed Action, and is included as Appendix D.

Reclamation provided the Ute tribes with historic presence in the region with a description of the Proposed Action and a written request for comments regarding any potential effects to cultural resources, Indian trust assets, or Native American Sacred Sites as a result of the Proposed Action. No comments were received.

3.3 – Cumulative Effects

NEPA requires federal agencies to consider the cumulative effects of proposals under their review. Cumulative effects are defined in the CEQ regulations 40 CFR §1508.7 as "…the impact on the environment that results from the incremental impact of the action when added to other past, present, and reasonably foreseeable actions regardless of what agency…or person undertakes such other actions." The CEQ states that the "cumulative effects analyses should be conducted on the scale of human communities, landscapes, watersheds, or airsheds" using the concept of "project impact zone" or more simply put, the area that might be affected by the Proposed Action.

The analysis of cumulative effects for the Proposed Action considers both spatial (geographic) boundaries and temporal limits of impacts, on a resource-by-resource basis. Spatial and temporal analysis limits vary by resource, as appropriate (see Table 2 for the spatial and temporal limits of analysis for each resource). Spatial analysis limits were selected to be commensurate with the impacts on, and realm of influence of, each resource type. The temporal limits of analysis were established as 50 years for each resource type (a standard timeframe for cumulative impacts analysis), except for resource types perceived to have only temporary impacts (impacts that end following construction of the Proposed Action or within a few seasons following construction).

Table 2. Cumulative Effects Analysis Spatial & Temporal Limits by Resource

Resource	Spatial Limits of Analysis	Temporal Limits of Analysis
Water Rights	Smith Fork of the Gunnison River drainage and Cottonwood Creek drainage, from the Project Area to their confluence with the North Fork of the Gunnison River	50 years
Water Quality	Smith Fork of the Gunnison River drainage and Cottonwood Creek drainage, from the Project Area to their confluence with the North Fork of the Gunnison River	50 years
Air Quality	Project Area plus 1-mile buffer	Duration of Proposed Action construction
Vegetation	Project Area plus 1-mile buffer	50 years
Aquatic and Terrestrial Wildlife	Project Area plus 1-mile buffer	50 years
Noise	Project Area plus 1-mile buffer	Duration of Proposed Action construction

Resource	Spatial Limits of Analysis	Temporal Limits of Analysis
Public Safety, Access, and Transportation	Project Area	Duration of Proposed Action construction
Cultural Resources	Project Area	50 years

The direct and indirect effects of past and ongoing (present) actions are reflected in the current conditions described in the affected environment above in each of the resource topics of Section 3. Reasonably foreseeable future actions are *specific* actions in that they have approved NEPA documentation or approved plans with the potential to impact the same resources affected by the Proposed Action. Reasonably foreseeable future actions potentially affecting resources within the spatial and temporal limits of this analysis (Table 2) are:

- Crawford Clipper Ditch Company's Center Lateral Piping Project – This reasonably foreseeable future action lies within the spatial and temporal boundaries of the Proposed Action, and has potential impacts to the following same resources which would be affected by the Proposed Action: water rights, water quality, air quality, vegetation, aquatic and terrestrial wildlife, and noise.

Cumulative impacts of the Proposed Action when added to the reasonably foreseeable future action are described in Table 3.

Table 3. Cumulative Impacts of the Proposed Action on potentially impacted resources.

Resource	Cumulative Impacts
Water Rights	The Proposed Action and the reasonably foreseeable future action would result in an increase in water delivery efficiency, which is a potential benefit to irrigation water users in the area. No adverse cumulative effects to water rights would occur.
Water Quality	The Proposed Action and the reasonably foreseeable future action would result in the reduction of an unquantified amount of salinity and selenium loading into downstream waterways, and ultimately the Gunnison and Colorado Rivers. No adverse cumulative effects to water quality would occur.
Air Quality	Potential impacts to air quality would be temporary and minor, and would be mitigated with BMPs. Therefore, the Proposed Action would not contribute a measurable impact to the cumulative effects, if any, of the reasonably foreseeable future action on this resource.
Vegetation	The Proposed Action and reasonably foreseeable future action would result in minor vegetation composition changes. The riparian and wetland vegetation species sustained by the conveyance of irrigation water would convert to upland species similar to those occurring in the surrounding vegetation community types. This impact is being mitigated for the Proposed Action and the reasonably foreseeable future action.

Resource	Cumulative Impacts
Aquatic and Terrestrial Wildlife	Disturbance to wildlife would be temporary and habitat modification would be minor. There would be an increase in riparian habitat at the habitat enhancement site and a reduction of wetland and riparian habitat along the canal. This impact is being mitigated for the Proposed Action and the reasonably foreseeable future action.
Noise	Noise impacts would be temporary and minor. Therefore, the Proposed Action would not contribute a measurable impact to the cumulative effects, if any, of the reasonably foreseeable future action on this resource.

3.4 – Summary

Table 4 provides a summary of environmental consequences for the resources evaluated in this EA. Resource impacts are outlined for both the No Action and the Proposed Action Alternatives. Mitigation, if required, is also described.

Table 4. Summary of Impacts for the No Action Alternative and Proposed Action Alternative.

Resource	Impacts: No Action Alternative	Impacts: Proposed Action Alternative
Water Rights	No change.	There would be an increase in water efficiency in the Aspen Canal system. The Proposed Action would not include new storage or irrigation of new lands. No additional water rights, new storage rights, or changes to water rights would be required under the Proposed Action.
Water Quality	No change.	The Proposed Action would result in the reduction of an unquantified amount of salinity and selenium loading into downstream waterways, and ultimately the Gunnison and Colorado Rivers. Thus, the Proposed Action is anticipated to have a long-term beneficial impact on water quality.
Air Quality	No change.	There would be a minor, short-term effect on air quality in the immediate vicinity of the Project Area as a result of dust and exhaust emissions from construction equipment. There would be no long-term impacts on air quality from the Proposed Action.
Vegetation	No change.	Short-term and temporary disturbance to vegetation would occur. Riparian and wetland vegetation along the canal would transition to an upland vegetation community. Noxious weeds would be reduced and riparian and wetland vegetation would increase at the habitat enhancement site. Impacts to vegetation would be minor with the implementation of the habitat enhancement project and reseeding disturbed areas.

Resource	Impacts: No Action Alternative	Impacts: Proposed Action Alternative
Aquatic and Terrestrial Wildlife	No change.	There would be a short-term increase in disturbance to the area, creating minor temporary impacts to wildlife species. Rare instances of small animal mortality could occur from construction.
Noise	No change.	Short-term and temporary increases in noise levels would occur during construction. No long-term increases in ambient noise levels.
Public Safety, Access, and Transportation	No change.	The Project Area will not impede transportation along Highway 92 or Crawford Road. There would be no effects on public safety as a result of implementation of the Proposed Action. There would be no impacts to existing access routes as a result of the Proposed Action.
Cultural Resources	No effects.	Reclamation consulted with the SHPO regarding the eligibility of and the Proposed Action's effect on historic properties. An MOA has been executed to mitigate any adverse effects to historic properties as a result of implementing the Proposed Action.
Cumulative Effects	No effects.	There would be potential beneficial cumulative effects to water rights and water quality. The Proposed Action would not contribute an unmitigated or measurable adverse impact to the cumulative effects, if any, of the reasonably foreseeable future action on any resources.

CHAPTER 4 – ENVIRONMENTAL COMMITMENTS

This section discusses the environmental commitments developed to protect resources and reduce unavoidable adverse impacts to a non-significant level. The environmental commitments will be implemented by Reclamation if the Proposed Action is implemented. The environmental commitments will be included in the contractor bid specifications.

- All construction activities will be confined to Reclamation’s right-of-way on BLM land, and within existing easements on private land.
- Reclamation will continue coordination with the Town of Crawford to avoid any impacts to the Town of Crawford Sewer main pipe.
- Existing roads will be used to access the construction and staging areas.
- Straw wattles, silt curtains, cofferdams, dikes, straw bales, or other suitable erosion control measures will be used to prevent or minimize erosion into water bodies during construction.

- Fuels, lubricants, hydraulic fluids, and other petrochemicals will be stored and dispensed in an approved staging area.
- All construction equipment will be power-washed and free of soil and debris prior to entering and exiting the project site to reduce the spread of noxious and invasive weeds.
- Equipment will be inspected daily and immediately repaired as necessary to ensure equipment is free of petrochemical leaks.
- Construction equipment will be parked, stored, and serviced only at an approved staging area.
- A spill response plan will be prepared by the contractor in advance of construction. All employees and workers will be briefed and made familiar with this plan.
- A Storm Water Pollution Prevention Plan would be prepared and a NPDES permit would be obtained from the CDPHE prior to initiating any construction activities.
- Vegetation removal will be confined to the smallest portion of the Project Area necessary for completion of work.
- Construction limits will be flagged to avoid unnecessary plant loss or ground disturbance.
- Topsoil will be stockpiled and then redistributed after completion of the construction activities.
- Following construction, all disturbed areas will be smoothed with tracked equipment (without back dragging blade), shaped, and contoured to as near to their pre-project conditions as practicable.
- Seeding of disturbed areas will occur at appropriate times with the prescribed seed mix.
- Vegetation disturbing activities will not be conducted during the primary nesting season of migratory birds protected under the Migratory Bird Treaty Act. No vegetation removal April 1 through July 15.
- Pipeline trenches left over overnight will be kept to a minimum and covered to reduce potential hazards to wildlife. Covers will be secured in place and strong enough to prevent livestock or wildlife from falling through. Where trench covers would not be practical, wildlife escape ramps will be utilized.
- To minimize noise impacts near the construction area, construction activities will occur during the daylight hours.
- Stipulations in the Memorandum of Agreement with the SHPO are incorporated by reference.
- The contractor implementing the habitat enhancement project will provide Reclamation with copies of spray records for all herbicide use.
- If previously undiscovered cultural or paleontological resources are discovered during construction, construction activities must immediately cease in the vicinity of the discovery and Reclamation must be notified. The SHPO will be consulted, and work will not be resumed until consultation has been completed, as outlined in the Unanticipated Discovery Plan in the attached MOA. Additional surveys and evaluation will be required for cultural resources if construction plans or proposed disturbance areas are changed.
- In the event that threatened or endangered species are discovered during construction, construction activities will halt until consultation is completed with the U.S. Fish and Wildlife Service and protection measures are implemented. Additional surveys and evaluation will be required for threatened or endangered species if construction plans or proposed disturbance areas are changed.

CHAPTER 5 – CONSULTATION AND COORDINATION

5.1 – Introduction

Reclamation's public involvement process presents the public with opportunities to obtain information about a given project, and allows interested parties to participate in the project through written comments. This chapter discusses public involvement activities taken to date for the Proposed Action.

5.2 – Public Involvement

News Releases were issued announcing the availability of the EA and draft FONSI, and the documents were placed on Reclamation's website at: www.usbr.gov/uc/envdocs. The EA and draft FONSI were also announced with request for comments in a distribution letter mailed or emailed to agencies, ditch companies, stakeholders, and landowners adjacent to the Project Area, including, but not limited to, those listed below:

- State Representative Jared Polis
- State Representative Mike Coffman
- State Representative Diana DeGette
- State Representative Ken Buck
- State Representative Ed Perlmutter
- State Representative Doug Lamborn
- State Representative Scott Tipton
- State Senator Michael Bennet
- State Senator Cory Gardner
- U.S. Fish and Wildlife Service, Grand Junction, CO
- U.S. Army Corps of Engineers, Grand Junction, CO
- U.S Bureau of Land Management, Montrose, CO
- Colorado Parks and Wildlife, Gunnison, CO
- Colorado State Historic Preservation Office, Denver, CO
- Colorado Water Conservation Board, Denver, CO
- Western Slope Conservation Center, Paonia, CO
- Southern Ute Indian Tribe, Ignacio, CO
- Ute Mountain Ute Tribe, Towaoc, CO
- Ute Indian Tribe – Uintah and Ouray Reservation, Ft. Duchesne, UT
- Delta County Commissioners, Delta, CO
- Colorado River Water Conservation District, Glenwood Springs, CO
- 24 Adjacent Landowners

5.3 – Draft EA Public Review

The Draft EA was released for a 30-day public review period beginning December 6, 2018, and ending January 4, 2019. During this time, one comment document was received. A copy of the

comment document and responses to the comments are provided in Appendix A and in revisions to this Final EA.

CHAPTER 6 – PREPARERS

The following list contains the Reclamation employees who participated in the preparation of this EA.

Name	Title	Areas of Responsibility
Jenny Ward	Environmental Protection Specialist	Cultural Resources, Native American Religious Concerns, Soils, Air Quality, Water Resources, Water Quality, Land Use, Environmental Justice
Amanda Ewing	Biologist	T&E Species, Migratory Bird Treaty Act, Terrestrial & Aquatic Wildlife, Vegetation, Recreation
Lesley McWhirter	Environmental and Planning Group Chief	NEPA Coordinator and Editor, Clean Water Act
Josh Dunham	Civil Engineer	Design, Operations, Construction Procedures, Review

CHAPTER 7 – REFERENCES

EPA 2018. Environmental Protection Agency. Criteria Pollutant Nonattainment Summary Report. Available at https://www3.epa.gov/airquality/greenbook/ancl3.html. Accessed on November 15, 2018.

Reclamation 2017. Bureau of Reclamation. Quality of Water – Colorado River Basin Progress Report No. 25. Available at https://www.usbr.gov/uc/progact/salinity/pdfs/PR25final.pdf. Accessed on November 15, 2018.

Reclamation 2018. Bureau of Reclamation. Colorado River Storage Project Basin Fund [Online]. Available at https://www.usbr.gov/uc/rm/crsp/index.html. Accessed on November 15, 2018.

CHAPTER 8 – ABBREVIATIONS AND ACRONYMS

Abbreviation or Acronym	Definition
BLM	U.S. Bureau of Land Management
BMP	Best management practice
CAA	Clean Air Act
CDPHE	Colorado Department of Public Health and Environment
CEQ	Council on Environmental Quality
CPW	Colorado Parks and Wildlife
CRSP	Colorado River Storage Project
CWA	Clean Water Act
CWCD	Crawford Water Conservation District
EA	Environmental Assessment
EIS	Environmental Impact Statement
E.O.	Executive Order
EPA	Environmental Protection Agency
FONSI	Finding of No Significant Impact
Interior	U.S. Department of the Interior
MOA	Memorandum of Agreement
NAAQS	National Ambient Air Quality Standards
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NPDES	National Pollutant Discharge Elimination System
NRHP	National Register of Historic Places
PM	Particulate Matter
Reclamation	U.S. Bureau of Reclamation
SCADA	Supervisory control and data acquisition
SHPO	State Historic Preservation Officer
USACE	U.S. Army Corps of Engineers

APPENDIX A – Comment on the Draft EA and Responses

One comment document was received during the comment period containing one distinct, substantive comment. The comment requested project coordination with the Town of Crawford.

Reclamation reviewed the comment. A summary of the comment and response follows.

Comment Number: 1

Summary comment: Commenter was concerned about the avoidance of the Town of Crawford Sewer main pipe.
Response: The CWCD has coordinated with the Town of Crawford to obtain location and depth information regarding the location of the Town of Crawford Sewer main pipe. Reclamation will continue coordination with the Town of Crawford to avoid any impacts to the Town of Crawford Sewer main pipe. This coordination has been included as an environmental commitment in the Final EA.

TOWN OF CRAWFORD

Ed Warner

12/17/18

Area Manager

Bureau of Reclamation

445 West Gunnison Ave, Suite 221

Grand Junction, CO 81501

Dear Ed Warner and Bureau of Reclamation,

This letter is in response to a news release the Town of Crawford received regarding a draft Finding of No Significant Impact and Environmental Assessment on the Aspen Canal Piping Project located in Delta County, Colorado. After viewing the draft FONSI and EA, the Town of Crawford would like to make the following comments regarding the project.

The Town of Crawford owns and operates a wastewater collection and treatment facility in order to maintain compliance with Colorado Department of Health and Environmental Protection Agency regulations. The Town of Crawford Sewer main pipe crosses beneath the Aspen Canal a few hundred yards north of Hwy 92 on private property (Hallock). The sewer main then closely parallels the Aspen Canal for close to a mile before terminating at the Town's wastewater treatment facility (Lagoon system). The Town of Crawford wishes to be on record and advise that both consideration and care be used when working close to the Town's Sewer mains and treatment facility. The Town would also welcome communication between the Aspen Canal Project and the Town's Public Works Director in an effort to minimize the chance for infrastructure damage and subsequently, environmental damages resulting from a breached sewer.

Thank you for the opportunity to comment. Sincerely,

Bruce Bair

Public Works Director

Town of Crawford

townofcrawford@tds.net

425 Hwy 92, Crawford, CO 81415 970-921-4725 Fax 970-921-4726

ASPEN CANAL PIPELINE SEED MIX
MENU-BASED NATIVE SEED MIXES BY HABITAT TYPE
FOR FINAL SITE RESTORATION

- All seed placed on Reclamation land shall be approved by Reclamation.
- Seed mix and test results shall be provided to Reclamation for approval before application.
- All seed shall be tested by a registered seed analyst for viability/germination and noxious weeds at official state seed analysis lab, within a year of acceptance date.
- Certification shall include a minimum germination rate of 80%, a minimum purity of 90%, source-identification, no noxious weed seeds and no more than 0.5% weight of other weed seeds. Mulch shall be certified weed free.

Seeding rates are for drilled seed. Double seeding rate when broadcast seeding.

Low Elevation Semi/Salt-Desert Grass/Shrubland, Basin big Sagebrush (8"-10" annual precip)

Grass Components (Required)

Common Name	Species Name	Variety or Species	Soil Preference	Lb/ac (PLS)
Plant All of the Following Grasses				
Indian Ricegrass	*Achnatherum [Oryzopsis] hymenoides*	Native Colorado or Utah source preferred. If not, then Nezpar, Paloma, Rimrock	No Limitation Good for dry, rocky sites	3.7
Alkali Sacaton**	*Sporobolus airoides*	Native Colorado or Utah sources preferred	Alkali/Salt Tolerant	0.1
Sand Dropseed**	*Sporobolus cryptandrus*	UP* Dolores, if available. Native Colorado or Utah sources preferred	No Limitation	0.1
And at Least Two of the Following				
Salina Wildrye	*Leymus salinus*	Native Colorado or Utah sources preferred	No Limitation Salt/Clay Tolerant	1.0
Bottlebrush squirreltail	*Elymus elymoides, Sitanion hystrix*	Fish Creek, Toe Jam, Wapiti	No Limitation	2.4
Western Wheatgrass	*Pascopyrum [Agropyron] smithii*	UP* variety, if available. If not, then: Rosana, Recovery, Rodan (Do not use Arriba)	No Limitation	1.5
And at Least One of the Following				
Galleta	*Pleuraphis jamesii*	Native Colorado or Utah sources preferred	No Limitation	1.0
Purple Three-Awn	*Aristida purpurea*	(Not parishii or perplexa)	No Limitation	1.0

Low Elevation Semi/Salt-Desert Grass/Shrubland, Basin big Sagebrush Continued

Forb and Shrub Components (Required)

Common Name	Species Name	Variety or Species	Soil Preference	Lb/ac (PLS)
Plant Both of the Following Shrubs				
4-Wing Saltbush	*Atriplex canescens*	Native Colorado or Utah sources preferred	No Limitation	2.7
Shadscale	*Atriplex confertifolia*	Native Colorado or Utah sources preferred If not available, then Rincon, Snake River Plains, Wytana	No Limitation Salt Tolerant	2.0
Plant One to Three of the Following, as Site-Appropriate				
Globemallow	*Sphaeralcea coccinea*	Native Colorado or Utah sources preferred	No Limitation	0.5
Winterfat	*Krascheninnikovia lanata*	Native Colorado or Utah sources preferred	No Limitation	2.4
Gardner's Saltbush	*Atriplex gardneri*	Native Colorado or Utah sources preferred	No Limitation Alkali/Salt Tolerant	0.3

Pinon-Juniper Woodland and/or Mountain/Wyoming Big Grass/Sagebrush Shrubland (12"-16" annual precip)

Grass Components (Required)

Common Name	Species Name	Variety or Species	Soil Preference	Lb/ac (PLS)
Plant All Three of the Following				
Western Wheatgrass	*Pascopyrum [Agropyron] smithii*	Uncompahgre Project* (UP), Native Colorado or Utah variety, if available. If not, then: Rosana, Recovery, Rodan (not Arriba)	No Limitation	2.0
Thickspike Wheatgrass	*Elymus lanceolatus, Agropyron dasystachyum*	Critana, Schwendimar	No Limitation Some Salt Tolerance	3.3
Indian Ricegrass	*Achnatherum [Oryzopsis] hymenoides*	Native Colorado or Utah source preferred. If not, then Nezpar, Paloma, Rimrock	No Limitation Good for dry, rocky sites	2.7
And at Least Two of the Following				
Slender wheatgrass	*Elymus trachycaulus, Agropyron trachycaulum*	San Luis	No Limitation	3.5
Bottlebrush squirreltail	*Elymus elymoides, Sitanion hystrix*	Fish Creek, Toe Jam, Wapiti	No Limitation	2.0
Sandberg bluegrass	*Poa sandbergii, Poa secunda*	UP* Colorado-Sims Mesa	No Limitation	0.3
Bluebunch Wheatgrass	*Pseudoroegneria spicata*	Native Colorado or Utah sources preferred, then Anatone or Goldar	No Limitation	2.8
And at Least Two of the Following				
Sand Dropseed**	*Sporobolus cryptandrus*	UP* Dolores, if available. Native Colorado or Utah sources preferred	No Limitation	0.1
Needle and Thread Grasses (Letterman, Columbia or comata)	*Hesperostipa comata, Achnatherum nelsonii or lettemanii or columbianar*	Native source within 500 miles	No Limitation Good in Sandy	0.3
Galleta	*Pleuraphis jamesii*	Native Colorado or Utah sources preferred	No Limitation	1.0
Basin wildrye	*Leymus cinereus*	Intermountain Tetraploid	No Limitation	1.0

Pinon-Juniper Woodland and/or Mountain/Wyoming/Big Sagebrush Grass/Shrubland

Continued

Forb and Shrub Components (Required)

Common Name	Species Name	Variety or Species	Soil Preference	Lb/ac (PLS)
Plant Three to Five of the Following				
Scarlet globemallow	*Sphaeralcea coccinea*	Native Colorado or Utah sources preferred	No Limitation	0.5
Sulfur buckwheat	*Eriogonum umbellatum*	UP* Burn Canyon	No Limitation	0.5
Winterfat	*Krascheninnikovia lanata*	Native Colorado or Utah sources preferred	No Limitation	2.4
Western yarrow	*Achillea millefolium*	UP* Dry Fork	No Limitation	0.3
Bluestem or Dusty Penstemon	*Penstemon cyanocaulis or Penstemon comarrhenus*	UP* San Miguel or UP* Delta	No Limitation	1.0
Broom Snakeweed	*Gutierrizia sarothrae*	Native Colorado or Utah sources preferred	No Limitation	0.2
Utah sweetvetch	*Hedysarum boreale*	Upper Colorado Environmental Plant Center***	No Limitation	2.0
American vetch	*Vicia Americana*		No Limitation	2.0
Fernleaf biscuitroot	*Lomatium dissectum*	Native Colorado or Utah sources preferred	No Limitation	0.3
Rocky mountain beeplant	*Cleome serrulata*	Native Colorado or Utah sources preferred	No Limitation	0.5
Hairy golden aster	*Chrysopsis villosa*	Native Colorado or Utah sources preferred	No Limitation	0.5
Fourwing Saltbush	*Atriplex canescens*	Native Colorado or Utah sources preferred	No Limitation	1.0
Showy fleabane**	*Erigeron speciosus*	UP* Dry Fork	No Limitation	0.1
Lewis/Blue flax	*Linum lewisii*	Maple Grove. Native Colorado or Utah sources preferred	No Limitation	0.5

*Uncompahgre Project (UP), Kathy See, nativeplant@upartnership.org , 970-240-9498, 970-901-8247

UP seed - commercial growers/distributors:
- Granite Seed, http://www.graniteseed.com/ 888-577-5650
- Southwest Seed, Walt Hennes, http://www.southwestseed.com/ 970-565-8722
- Benson Farms, Jerry Benson, http://www.bfinativeseeds.com/ 509-765-6348
- L & H Seed, Paul Herman, http://www.lhseeds.com/ 509-234-1010
- Seed-rite, Keith Schafer, http://www.seedrite.com/ 509-982-2400
- Bear Tooth Seed (was Heart Mountain Seed), Brian Duyck, 307-272-7779

**If planning to drill seed, small seeds must be packaged separately to allow for separate application. Small seeds, such as alkali sacaton, fleabane, flax and sand dropseed shall be planted no deeper than 0.25 inch or broadcast. If an entire site will be broadcast, the small seeds can go in the mix.

***Upper Colorado Environmental Plant Center, Meeker, CO; 970-878-5003

APPENDIX C – USACE Exemption Verification Letter

DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS, SACRAMENTO DISTRICT
1325 J STREET
SACRAMENTO CA 95814-2922

March 15, 2018

Regulatory Division (SPK-2017-00870)

U.S. Bureau of Reclamation
Attn: Ms. Jenny Ward
445 W. Gunnison Ave.
Grand Junction, Colorado 81501

Dear Ms. Ward:

This concerns your proposed Aspen Canal Piping Project which would replace 5.6 miles of earthen irrigation delivery canal with 5.1 miles of HDPE pipe. The linear-project site is located on Aspen Ditch, in the S ½ of Section 18, and N ½ of Section 19, Township 15 South, Range 91 West, and Sections 24, 25, and 36, Township 15 South, Range 92 West , 6th PM, centered approximately at Latitude 38.748773°, Longitude -107.604250°, near the Town of Crawford, Delta County, Colorado.

Based on the information you have provided, we have determined that the proposed work is the type of activity that is included in the Section 404(f) exemption found at 33 C.F.R. Part 323.4(a)(3) for the construction and maintenance of irrigation ditches. Discharges associated with irrigation ditch construction, including ditch conversion into pipe, is included in this exemption. Therefore, a Department of the Army Permit is not required for this work.

Our disclaimer of jurisdiction is only for this activity as it pertains to Section 404 of the Federal Clean Water Act and does not refer to, nor affect jurisdiction over any waters present on site. Other Federal, State, and local laws may apply to your activities. Therefore, in addition to contacting other Federal and local agencies, you should also contact state regulatory authorities to determine whether your activities may require other authorizations or permits.

Please refer to identification number SPK-2017-00870 in any correspondence concerning this project. If you have any questions, please contact me at the Grand Junction Regulatory Office, 400 Rood Avenue, Room 224, Grand Junction, Colorado 81501, by email at w.travis.morse@usace.army.mil, or telephone at (970) 243-1199 ext. 1014.

For more information regarding our program, please visit our website at www.spk.usace.army.mil/Missions/Regulatory.aspx. We appreciate your feedback. At your earliest convenience, please tell us how we are doing by completing the customer survey on our website under *Customer Service Survey*.

Sincerely,

Travis Morse
Senior Project Manager
Colorado West Section
Regulatory Division

cc:
Ms. Jennifer Ward, U.S. Bureau of Reclamation, jward@usbr.gov
Ms. Lesley McWhirter, U.S. Bureau of Reclamation, lmcwhirter@usbr.gov
Ms. Jeanie McCulloch, Delta County, planning@deltacounty.com
Ms. Sarah Fowler, U.S. Environmental Protection Agency, fowler.sarah@epa.gov

MEMORANDUM OF AGREEMENT
BETWEEN
THE WESTERN COLORADO AREA OFFICE, BUREAU OF RECLAMATION,
AND THE COLORADO STATE HISTORIC PRESERVATION OFFICER
REGARDING THE ASPEN CANAL PIPING PROJECT,
SALINITY CONTROL PROGRAM,
DELTA COUNTY, COLORADO

WHEREAS, the Bureau of Reclamation (Reclamation) plans to pipe approximately 5.8 miles of the Aspen Canal in Delta County, Colorado (Project), thereby making the Project an undertaking subject to review under Section 106 of the National Historic Preservation Act (NHPA), 54 U.S.C. § 306108, and its implementing regulations, 36 CFR Part 800; and

WHEREAS, Reclamation has defined the undertaking's area of potential effect (APE) as the canal easement which is typically a 100-foot-wide corridor centered on 5.8 miles of existing canal, as well as additional proposed staging areas, and 6 acres of temporary construction easements on two tracts of private land, totaling 89.14 acres as described in Attachment A; and

WHEREAS, Reclamation has determined, in consultation with the Colorado State Historic Preservation Officer (SHPO), that the recorded segment of the Aspen Canal (5DT1584) supports the eligibility of the property for listing to the National Register of Historic Places (NRHP) under Criterion A, and that the undertaking will result in an adverse effect to the historic property; and

WHEREAS, the Crawford Water Conservancy District (CWCD) operates the Aspen Canal, and has been invited to sign the Memorandum of Agreement (MOA), and it has chosen not to participate as a signatory to the MOA; and

WHEREAS, Reclamation has consulted with the Southern Ute Indian Tribe, the Ute Indian Tribe of the Uintah and Ouray Reservation, and the Ute Mountain Ute Tribe on the proposed undertaking, and the tribes have chosen not to participate in the consultation as concurring parties; and

WHEREAS, Reclamation has consulted with the Delta County Commissioners on the proposed undertaking, and they have chosen not to participate in the consultation as a concurring party; and

WHEREAS, Reclamation has consulted with the Delta County Historical Society on the proposed undertaking, and they have chosen not to participate in the consultation as a concurring party; and

WHEREAS, in accordance with 36 CFR § 800.6(a)(l), Reclamation has notified the Advisory Council on Historic Preservation (ACHP) of its adverse effect determination and provided the specified documentation, and the Council has chosen not to participate

in the consultation pursuant to 36 CFR § 800.6(a)(l)(iii);

NOW, THEREFORE, pursuant to Section 106 of the NHPA, Reclamation and the SHPO agree that the undertaking shall be implemented in accordance with the following stipulations in order to take into account the effect on historic properties.

STIPULATIONS

Reclamation shall ensure that the following measures are carried out:

I. MITIGATION

Prior to any modification of the Aspen Canal (5DT.1584), Reclamation will ensure that the property shall be recorded in accordance with the guidance for Level II Documentation found in "Historic Resource Documentation, Standards for Level I, II, and III Documentation" (Office of Archaeology and Historic Preservation Publication 1595, March 2013). The documentation will be of archival quality, and will include a detailed narrative history, mapping of the property and photographic documentation of the portions of the historic property to be included in the project. Photographs will be black and white archival quality (4" x 6") prints. Features will be plotted on the maps with GPS waypoints and will be extensively described and indexed in the report. Representative design drawings will not be necessary for this property, as it is not significant for its design characteristics.

Stipulation I documentation shall be satisfied prior to construction and/or any earth disturbances within the APE.

II. GENERAL REQUIREMENTS AND STANDARDS

Reclamation will submit a copy of the Level II Documentation to the SHPO within one (1) year of the execution of this MOA. The SHPO shall review and provide comments within thirty (30) calendar days of receipt. Once accepted by SHPO, SHPO shall receive a minimum of one archivally stable copy of the final recordation for its files and provide documentation of acceptance. The activities prescribed by the stipulations of this MOA shall be carried out by or under the direct supervision of a person or persons meeting, at minimum, the Secretary of the Interior Professional Qualifications Standards (48 FR44738-39) (PQS) in the appropriate discipline. This does not preclude the use of properly supervised persons who do not meet the PQS.

III. PUBLIC BENEFIT STRATEGY

A Rehabilitation Act Section 508 compliant copy of the Level II Documentation will be placed on the Reclamation Western Colorado Area Office's cultural resource webpage to be made available to the public. An interpretive poster will be created for exhibit in the Delta County Museum in Delta, Colorado. Colorado SHPO will review the draft of the poster, submitted and reviewed electronically, prior to its release to the museum. The museum will also be provided the Level II documentation as a supplement to the poster.

These efforts will provide a broader public benefit with stakeholder input.

IV. DURATION

This MOA will be null and void if its terms are not carried out within two (2) years from the date of its execution. Prior to such time, Reclamation may consult with the other signatories to reconsider the terms of the agreement. Unless terminated pursuant to Stipulation VII, below, this MOA will be in effect through Reclamation's implementation of the stipulations of this MOA and will terminate and have no further force or effect when Reclamation, in consultation with the SHPO, determines that the terms of the MOA have been fulfilled in a satisfactory manner.

V. POST-REVIEW DISCOVERIES

If potential historic properties are discovered or unanticipated effects on historic properties found, Reclamation shall implement the discovery plan included as Attachment B of this MOA.

VI. MONITORING AND REPORTING

No later than June 30th of each year following the execution of this MOA until its stipulations are carried out, it expires, or is terminated, Reclamation shall provide all parties to this MOA a summary report detailing work carried out pursuant to its terms. Such report shall include any scheduling changes proposed, any problems encountered, and any disputes and objections received in Reclamations efforts to carry out the terms of this MOA.

The signatories may monitor activities pursuant to this MOA, and the Council will review such activities if so requested by a party to this MOA. Reclamation will cooperate with the signatories in carrying out their review and monitoring responsibilities.

VII. DISPUTE RESOLUTION

Should any signatory or concurring party to this MOA object at any time to any actions proposed or the manner in which the terms of this MOA are implemented, Reclamation shall consult with such party to resolve the objection. If Reclamation determines that such objection cannot be resolved, Reclamation will:

a. Forward all documentation relevant to this dispute, including Reclamation's proposed resolution, to the ACHP. The ACHP shall provide Reclamation with its advice on the resolution of the objection within thirty (30) days of receiving adequate documentation. Prior to reaching a final decision on the dispute, Reclamation shall prepare a written response that considers any timely advice or comments regarding the dispute from the ACHP, signatories and concurring parties, and provide them with a copy of this written response. Reclamation will then proceed according to its final decision.

b. If the ACHP does not provide its advice regarding the dispute within the thirty (30) day time period, Reclamation may make a final decision on the dispute and proceed accordingly. Prior to reaching such a final decision, Reclamation shall prepare a written response that considers any timely comments regarding the dispute from the signatories and concurring parties to the MOA and provide them and the ACHP with a copy of such written response.

c. Reclamation's responsibility to carry out all other actions subject tothe terms of this MOA that are not the subject of the dispute remain unchanged.

VIII. AMENDMENTS

This MOA may be amended when such an amendment is agreed to in writing by all signatories. The amendment will be effective on the date a copy signed by all signatories is filed with the ACHP.

VIII. TERMINATION

If any signatory to this MOA determines that its terms will not or cannot be carried out, that party shall immediately consult with the other signatories to attempt to develop an amendment per Stipulation VIII, above. If within thirty (30) days (or another time period agreed to by all signatories) an amendment cannot be reached, any signatory may terminate the MOA upon written notification to the other signatories.

Once the MOA is terminated, and prior to work continuing on the undertaking, Reclamation must either (a) execute an MOA pursuant to 36 CFR § 800.6 or (b) request, take into account, and respond to the comments of the ACHP under 36 CFR § 800.7. Reclamation shall notify the signatories as to the course of action it will pursue.

Execution of this MOA by Reclamation and SHPO and implementation of its terms evidence that Reclamation has considered the effects of this undertaking on historic properties and afforded the ACHP an opportunity to comment.

SIGNATORIES:

Colorado State Historic Preservation Office

By: _____ Date: 1/28/19

Steve Turner, State Historic Preservation Officer, State of Colorado

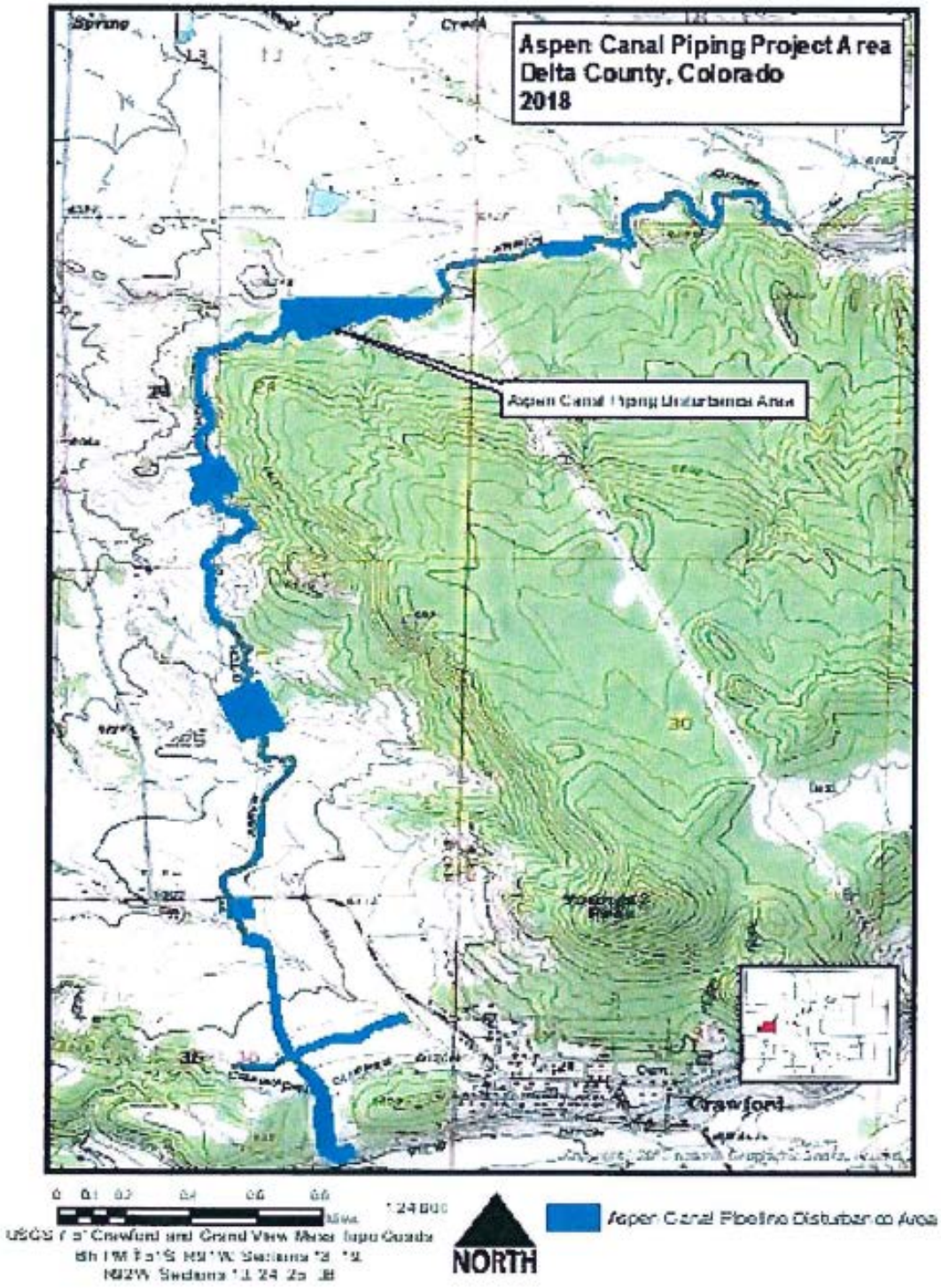
SIGNATORIES:

Bureau of Reclamation, Western Colorado Area Office

By: LOUIS WARNER Digitally signed by LOUIS WARNER Date: 2019.01.28 12:30:27 -07'00' Date: _____

Ed Warner, Area Manager

ATTACHMENT A - AREA OF POTENTIAL EFFECT



Attachment A--Map of Aspen Canal Piping Class III Cultural Resource Inventory Project Location, USGS 7.5' Crawford and Grand View Mesa Topo Quads, Township 15S, Range 91W, Sections 18 and 19; and Range 92W, Sections 13, 24, 25 and 36, Delta County, Colorado.

ATTACHMENT B - UNANTICIPATED DISCOVERY PLAN

PLAN AND PROCEDURES FOR THE UNANTICIPATED DISCOVERY
OF CULTURAL RESOURCES
FOR THE
ASPEN CANAL PIPING PROJECT,
DELTA COUNTY, COLORADO

1. INTRODUCTION

The Bureau of Reclamation (Reclamation) plans to pipe approximately 5.8 miles of the Aspen Canal (5DT.1584) and replace habitat on the Adams Ranch property. The purpose of the canal lining project is to rehabilitate and maintain the Aspen Canal so it may continue to be utilized for the authorized use of irrigation under the Smith Fork Project. The purpose of the habitat replacement project is to restore functions of riparian and wetland areas that will be lost after the canal is piped. The following Unanticipated Discovery Plan (UDP) outlines procedures to follow, in accordance with state and federal laws, if archaeological materials are discovered.

2. RECOGNIZING CULTURAL RESOURCES

A cultural resource discovery could be prehistoric or historic. Examples include, but are not limited to:

- An accumulation of shell, burned rocks, or other food related materials,
- An area of charcoal or very dark stained soil with artifacts,
- Lithic tools or waste flakes (i.e. an arrowhead, or stone chips),
- Clusters of tin cans or bottles, logging or agricultural equipment that appears to be older than 50 years,
- Abandoned mining structures and features (i.e. mine shafts or adits, head frames, processing mills, or tailings and waste rock piles),
- Buried railroad tracks, decking, or other industrial materials.

When in doubt, assume the material is a cultural resource.

3. ON-SITE RESPONSIBILITIES

STEP 1: STOP WORK. If any Reclamation employee, contractor or subcontractor believes that he or she has uncovered a cultural resource at any point in the project, all work adjacent to the discovery must stop. The discovery location should be secured at all times.

STEP 2: NOTIFY MONITOR. If there is an archaeological monitor for the project,

notify that person. If there is a monitoring plan in place, the monitor will follow its provisions. If there is not an archaeological monitor, notify the Project Manager and Reclamation's Archaeologist immediately.

STEP 3: NOTIFY BUREAU OF RECLAMATION. Contact the Project Manager at the Bureau of Reclamation:

Project Manager:	Reclamation Archaeologist:
970-248-0613	970-385-6571
Josh Dunham	JoAnne Young

If human remains are encountered, treat them with dignity and respect at all times. Do not take, or allow anyone to take, any photographs of human remains at any time. Cover the remains with a tarp or other materials (not soil or rocks) for temporary protection in place and to shield them from being photographed.

4. FURTHER CONTACTS AND CONSULTATION

A. Project Manager's Responsibilities:

- Protect Find: The Project Manager is responsible for taking appropriate steps to protect the discovery site. All work will stop in an area adequate to provide for the total security, protection, and integrity of the resource. Vehicles, equipment, and unauthorized personnel will not be permitted to traverse the discovery site. Work in the immediate area will not resume until treatment of the discovery has been completed following provisions for treating archaeological/cultural material as set forth in this document.

- Direct Construction Elsewhere On-site: The Project Manager may direct construction away from cultural resources to work in other areas prior to contacting the concerned parties.

- Contact Reclamation Archaeologist: If the Archaeologist at the Bureau of Reclamation has not yet been contacted, the Project Manager will do so.

- Identify Find: The Project Manager will ensure that a qualified professional archaeologist examines the find to determine if it is archaeological.

    - If it is determined not archaeological, work may proceed with no further delay.

    - If it is determined to be archaeological, the Project Archaeologist will continue with notification.

- If the find may be human remains or funerary objects, the Project Manager will ensure that a qualified physical anthropologist examines the find. If it is determined to be human remains, the procedure described in Section 5 will be followed.

B. Reclamation Archaeologist:

- Notify SHPO: The Reclamation Archaeologist will notify the SHPO within 48 hours of the discovery.

  Dr. Holly Norton
  Deputy State Historic
  Preservation Officer
  History Colorado
  1200 Broadway
  Denver CO, 80203
  (303)866-2736

C. Further Activities:

- Archaeological discoveries will be documented as described in Section 6.
- Construction in the discovery area may resume as described in Section 7.

5. SPECIAL PROCEDURES FOR THE DISCOVERY OF HUMAN SKELETAL MATERIAL

A. Any human skeletal remains, regardless of antiquity or ethnic origin, will at all times be treated with dignity and respect.

The project is located on both federal and private lands. On federal lands, the requirements under NAGPRA Federal Law 101-601; 25 U.S.C. 3002(d) apply. On private lands, the requirements under State Law Colorado Revised Statute (CRS) 24-80 part 13 apply. The Unmarked Human Graves Colorado Statute (CRS 24-80-1301-1305) applies if the human remains are Native American and/or determined to be of archaeological interest.

In the event possible human skeletal remains are discovered, Reclamation will comply with the procedures outlined in CRS 24-80-1301-1305, and will coordinate with the following contacts:

- ✓ Delta County Sheriff (970) 874-2000
- ✓ Delta County Coroner (970) 874-5918
- ✓ Reclamation WCAO Cultural Resource Manager, Kristin Bowen (970) 403-2832
- ✓ Deputy State Historic Preservation Officer, Dr. Holly Norton (303) 866-2736

B. Further Activities:

When consultation and documentation activities are complete, construction in the discovery area may resume as described in Section 7.

Until disposition is determined, if at all possible, discovered NAGPRA items will be left in situ. GVWUA will establish adequate measures to safeguard the site. If the remains are under imminent or anticipated threat of disturbance, and therefore the Reclamation Archaeologist decides it is necessary to remove the NAGPRA items from the site, they will be held at a secure facility approved by the Reclamation Archaeologist until a decision on final disposition is made. All items will be placed in containers made of natural materials (e.g. linen, cotton, new cardboard boxes) and each box will be placed on a shelf with nothing stacked upon it. NAGPRA items will only be recorded at a descriptive non-invasive level, and no destructive analysis of any kind will be conducted on the remains.

C. Further Activities:

When consultation and documentation activities are complete, construction in the discovery area may resume as described in Section 7.

6. DOCUMENTATION OF ARCHAEOLOGICAL MATERIALS

Archaeological deposits discovered during construction will be assumed eligible for inclusion in the National Register of Historic Places under Criterion D until a formal Determination of Eligibility is made.

The Reclamation Archaeologist will ensure the proper documentation and assessment of any discovered cultural resources in cooperation with the SHPO, affected tribes, and a contracted consultant (if any). All prehistoric and historic cultural material discovered during project construction will be recorded by a professional archaeologist in accordance with all state and federal laws.

7. PROCEEDING WITH CONSTRUCTION

Project construction outside the discovery location may continue while documentation and assessment of the cultural resources proceed. A professional archaeologist must determine the boundaries of the discovery location. In consultation with SHPO and affected tribes, the Reclamation Archaeologist will determine the appropriate level of documentation and treatment of the resource.

Construction may continue at the discovery location only after the process outlined in this plan is followed and the Bureau of Reclamation determines that compliance with state and federal laws is complete.

OFFICE *of* ARCHAEOLOGY *and* HISTORIC PRESERVATION

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

Re: NHPA Section 106 Consultation for the Proposed SCADA Upgrade at Crawford Dam, Smith Fork Project, Colorado (HC #75537)

Dear Mr. Warner:

Thank you for your correspondence dated February 5, 2019 and received on February 11, 2019 by our office regarding the consultation of the above-mentioned project under Section 106 of the National Historic Preservation Act (Section 106).

After review of the provided information, we do not object to the proposed Area of Potential Effects (APE) for the proposed project. We concur that 5DT.2158 (Crawford Dam) is *eligible* for the National Register of Historic Places (NRHP).

Our office has reviewed the scope of work and assessment of adverse effects, we concur with the recommended finding of *no adverse effect* [36 CFR 800.5(d)(1)] under Section 106 for 5DT.2158.

Should the consulted-upon scope of the work change please contact our office for continued consultation under 36 CFR 800. If we may be of further assistance, please contact Jason O'Brien, Section 106 Compliance Manager, at (303) 866-2673 or Jason.obrien@state.co.us.

Sincerely,

for Steve Turner, AIA
State Historic Preservation Officer