BUREAU OF RECLAMATION

Finding of No Significant Impact and Environmental Assessment for the Uncompahgre Valley Water Users Association's East Side Laterals Piping Project Phase 10

Basinwide Salinity Control Program
Upper Colorado Basin: Interior Region 7
Western Colorado Area Office

U.S. Department of the Interior July 2024

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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.

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Prepared for the Bureau of Reclamation by
Rare Earth Science, LLC

July 2024

Cover Photo: The EQ Lateral of the UVWUA System in Peach Valley, Delta County, Colorado. (Rare Earth Science, LLC).

FINDING OF NO SIGNIFICANT IMPACT

United States Department of the Interior
Bureau of Reclamation
Upper Colorado Basin: Interior Region 7
Western Colorado Area Office
Grand Junction, Colorado

Uncompahgre Valley Water Users Association's
East Side Laterals Piping Project Phase 10

Introduction

In compliance with the National Environmental Policy Act of 1969, as amended (NEPA), the Council on Environmental Quality's (CEQ) NEPA regulations at 40 CFR Parts 1500 – 1508 (2022), the Bureau of Reclamation (Reclamation) has completed an environmental assessment (EA) for the Proposed Action of authorizing the use of federal funds to implement the Uncompahgre Valley Water Users Association's (UVWUA) East Side Laterals Piping Project Phase 10 in Delta and Montrose Counties, Colorado. Under the authority of the Colorado River Basin Salinity Control Act, Reclamation will fund the 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 authorize federal funding to implement the East Side Laterals Piping Project Phase 10.

Decision and Finding of No Significant Impact

Reclamation's decision is to implement the Proposed Action Alternative. Based upon a review of the EA, Reclamation has determined that implementing the Proposed Action will not significantly affect the quality of the human environment. Therefore, an environmental impact statement is not required for this Proposed Action. This finding is based on consideration of the degree of effects of the Proposed Action on the potentially affected environment, as analyzed in the EA.

Context

The Project is located in the Uncompahgre River watershed, east and southeast of the City of Delta, in southcentral Delta County, and south of the City of Montrose, in northeast Montrose County, Colorado. The affected localities are the GKB, GKA, EQ, FG, FGG, FD, FGL, FGK, FGI, FGJ and CEC laterals of the UVWUA system. Affected interests include Reclamation, Bureau of Land Management (BLM), UVWUA, and adjacent landowners. The EA evaluates the effects on the potentially affected environment, which includes physical, ecological, and socioeconomic factors.

Degree of the Effects
In determining the degree of effects of the Proposed Action, Reclamation has considered the following criteria as described in 40 CFR 1501.3(b)(2). These criteria were incorporated into the resource issues and analyses described in the EA.

1. **Short and Long Term Effects.** The Proposed Action would have minor impacts on resources as described in the EA Section 3.2. Environmental commitments were incorporated into the design of the Proposed Action to further reduce impacts. The predicted short-term and long-term effects of the Proposed Action are fully analyzed in Section 3.2 and are incorporated by reference here.

2. **Beneficial and Adverse Effects.** The Proposed Action would have a minor impact on resources as described and analyzed in the EA. Environmental commitments were incorporated into the design of the Proposed Action to further reduce impacts. The beneficial and adverse effects of the Proposed Action are fully analyzed in Section 3.2 of the EA, and incorporated by reference here.

3. **Effects on Public Health and Safety.** The Proposed Action will have minimal impacts on public health or safety. A full analysis can be found in Section 3.2.4 of the EA, and is incorporated by reference.

4. **Effects that would violate Federal, State, Tribal, and local law protecting the environment.** The Proposed Action does not violate any federal, state, local, or tribal law, regulation, or policy imposed for the protection of the environment. In addition, the Proposed Action is consistent with applicable land management plans, policies, and programs. Federal, State, and local agencies and stakeholders were provided an opportunity to comment on the environmental analysis.

Environmental Commitments
The environmental commitments located in CHAPTER 4 of the Final EA will be implemented to further reduce effects of the Proposed Action. CHAPTER 4 also states the authority for any mitigation adopted and any applicable monitoring or enforcement provisions. CHAPTER 4 of the Final EA is incorporated by reference.

Approved by:

Ed Warner
2024.09.09
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Ed Warner
Area Manager, Western Colorado Area Office

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CHAPTER 1 - INTRODUCTION

This Environmental Assessment (EA) has been prepared to explain and evaluate the potential environmental effects of the Uncompahgre Valley Water Users Association's (UVWUA's) proposed East Side Laterals Piping Project Phase 10 ("Project"-). The Federal action evaluated in this EA is whether the Bureau of Reclamation (Reclamation) would provide funding assistance to UVWUA (the "Applicant") for the Project. This document has been prepared in compliance with the National Environmental Policy Act (NEPA) and the Council on Environmental Quality's (CEQ's) NEPA regulations at 40 Code of Federal Regulations (CFR) Parts 1500 – 1508 (2022). After a public review period for the Draft EA, Reclamation determined that a Finding of No Significant Impact (FONSI) for the Proposed Action is warranted.

1.1 – Project Location and Legal Description

The Project would take place in the Uncompahgre River watershed, east and southeast of the City of Delta, in southcentral Delta County, and south of the City of Montrose, in northeast Montrose County, Colorado. The physical areas involved in the Project and their physical locations are listed in Table 1 and depicted on Figure 1, below.

Table 1. Areas Involved in the Project

Project Area	Specific Project Element	General Physical Location
East Project Area (Peach Valley)	GKB, GKA, and EQ Laterals to be piped, an access route to the EQ lateral, and a Staging Area	T15S R95W (6th Principal Meridian [6th PM]): Sections 13 & 14, in Delta County; T15S R95W (6th PM): Sections 18, 19, 30, 31, and 32 in Delta County; T51N R9W (New Mexico Principal Meridian [NMPM]): Sections 7, 18, and 19, in Delta County, and T51N R10W (NMPM): Sections 24 and 25, in Delta and Montrose Counties
West Project Area (Ash Mesa)	FG, FGG, FD, FGL, FGK, FGI, FGJ Laterals to be piped	T51N R11W (NMPM): Sections 13, 24 & 25 and T51N R10W (NMPM): Sections 18, 19, & 30, all in Delta & Montrose Counties
UVWUA Facilities (2)	Materials staging in outdoor fenced areas	Olathe Facility is off 12th Street in T50N R10W (NMPM): Sections 15 and 22 in Montrose County. The Montrose Facility is at 601 Park Ave. in City of Montrose, in Montrose County.

Project Area	Specific Project Element	General Physical Location
South Project Area (Chipeta Road Area)	CEC Lateral to be piped	T49N R9W (NMPM): Section 33; and T48N R9W (NMPM) Section 5, all in Montrose County
Habitat Replacement Site	Habitat Replacement Site	T15S R95W (6th PM): Section 32, in Delta County

The West and South project areas lie entirely on private land, and the East Project Area lies on a combination on private land and public land administered by the U.S. Department of the Interior, Bureau of Land Management (BLM). The UVWUA facility sites are on Reclamation-administered land, and the Habitat Replacement Site is on private land.

The BLM land involved with the Project lies within the Gunnison Gorge National Conservation Area (NCA) Planning Area managed by the BLM Uncompahgre Field Office (UFO)/Gunnison Gorge NCA Office (BLM 2004). The BLM land involved with the Project lies within the NCA Planning area, but outside the NCA itself, and has no special management designations.

1.2 - Need for and Purpose of the Proposed Action

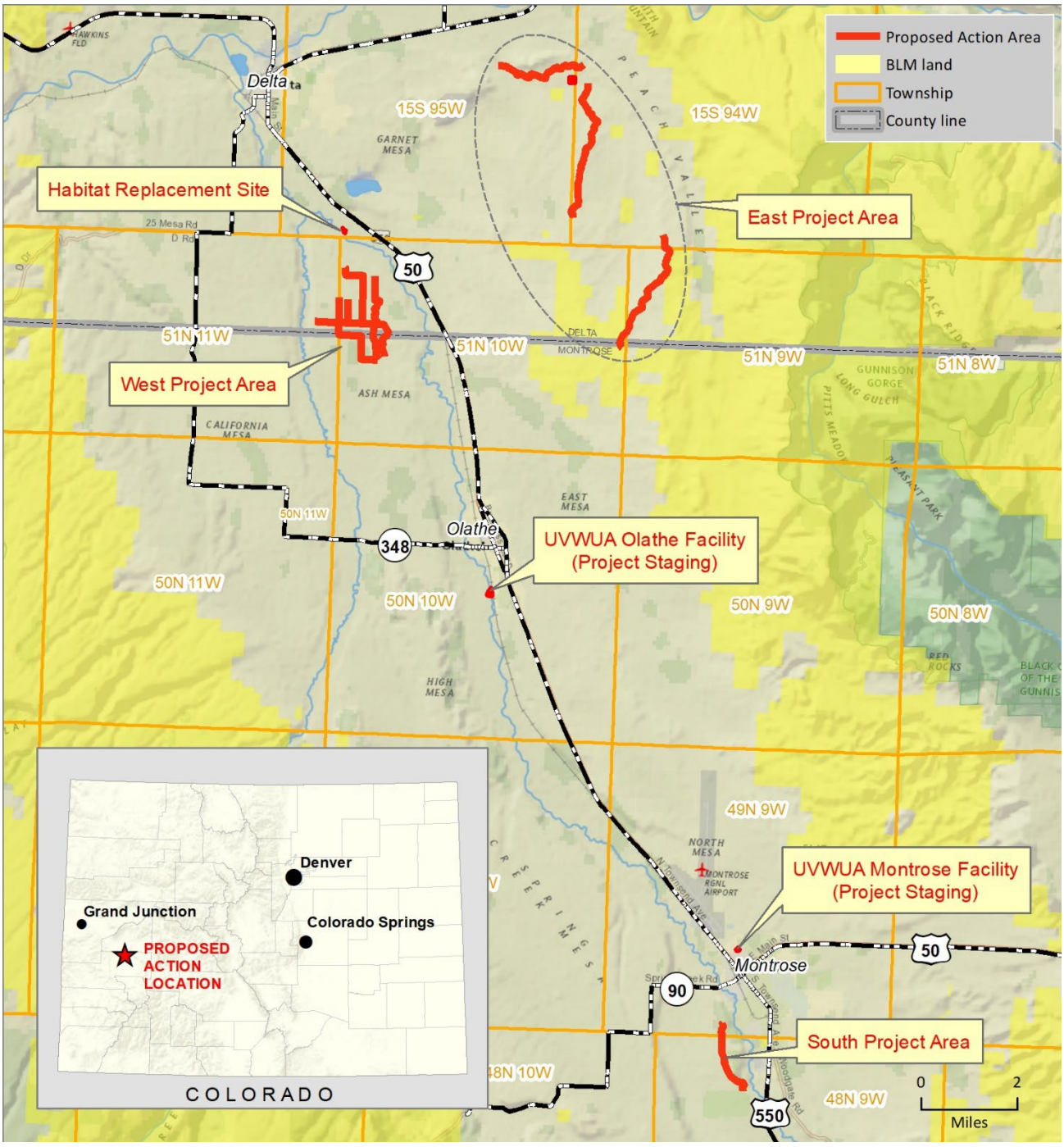
The need and purpose for the Proposed Action is to reduce salinity concentrations in the Colorado River basin in order to comply with the Colorado River Basin Salinity Control Act (Reclamation's federal nexus). The BLM would have a connected action of amending an existing right-of-way (ROW) on BLM land in order to comply with the Federal Land Policy and Management Act of 1976 (BLM's federal nexus).

The Project would eliminate seepage loss from approximately 18.3 miles of the open unlined ditch laterals associated with the Uncompahgre Project, reducing salinity loading by 3,501 tons per year in the Lower Gunnison Basin and the Colorado River Basin. An additional beneficial effect of the Proposed Action would be the reduction of selenium in the Colorado River basin (SMPW 2011), although the amount of selenium reduction has not been quantified.

1.3 – Decision to be Made

Reclamation and BLM are cooperating agencies for authorization of the Proposed Action. Reclamation will decide whether to provide funding to UVWUA to implement the Proposed Action, and BLM will grant an amendment to the ROW on BLM land to Reclamation to allow for implementation of the Proposed Action.

Figure 1. Map of project location.



1.4 – Background

1.4.1 – Salinity Control Program

The threat of salinity loading in the Colorado River basin is a major concern in both the United States and Mexico (Reclamation 2019). Salinity affects water quality, which in turn affects downstream users, by threatening the productivity of crops, degrading wildlife habitat, and corroding residential and municipal plumbing. Irrigated agriculture contributes approximately 37 percent of the salinity in the system (Reclamation 2019). Irrigation increases salinity in the system both by depleting in-stream flows, and by mobilizing salts found in underlying geologic formations into the system, especially during flood irrigation practices.

In June 1974, Congress enacted the Colorado River Basin Salinity Control Act, Public Law 93-320, which directed the Secretary of the Interior to proceed with a program to enhance and protect the quality of water available in the Colorado River for use in the United States and Republic of Mexico. Public Law 104-20 of July 28, 1995, authorizes the Secretary of the Interior, acting through the Bureau of Reclamation, to implement a Basinwide Salinity Control Program. The Secretary may carry out the purposes of this legislation directly, or make grants, enter into contracts, memoranda of agreement, commitments for grants, cooperative agreements, or advances of funds to non-federal entities under such terms and conditions as the Secretary may require.

The Basinwide Salinity Control Program funds salinity control projects with a one-time grant that is limited to an applicant's competitive bid. Salinity control projects are awarded based on applications received on Funding Opportunity Announcements (FOAs) issued by Reclamation. As part of the FOAs, applicants are evaluated individually according to the following criteria: cost effectiveness, the ability to enable on-farm salinity control features, risk assessment, detailed project plan, costs & capability to implement the project, future operation & maintenance and management capabilities for the project, past performance, and Department of the Interior goals. Applications are ranked by an Application Review Committee made up of multiple disciplines, and high ranking projects are recommended to the Salinity Control Program Manager for consideration. The Salinity Control Program Manager then provides recommendations to the Grants Officer for award. Once constructed, the facilities are operated, maintained, and replaced by the applicant at their own expense.

The cost effectiveness value of a proposed project is quantified as the estimated total annual salt load (in tons) reduced in the Colorado River basin divided by the project cost amortized over 50 years. Estimated salinity reduction is calculated based on measured total dissolved solids loads in basin streams, GIS-based model calculations to determine subbasin loads, and ditch mapping data that include average flows, ditch lengths, and average annual days of use. Richards et al. (2014), Schaffrath (2012), and Linard (2013) provide more detailed information on salt loading estimate methodology.

Earthen irrigation ditch water seepage and the resultant deep percolation through saline soils is one way that salts are mobilized and transported into regional streams and rivers. Piping such ditches removes a source of deep percolation and salt mobilization to regional streams and rivers from the system. The Project would eliminate water seepage from approximately 6.6 miles of earthen ditches, reducing salinity loading by 3,501 tons per year in the Lower Gunnison Basin and the Colorado River Basin.

While the Project is not a selenium reduction project, it is anticipated that an unquantified reduction in selenium loading in the Colorado River basin would also be associated with the Project. The U.S. Geological Survey (USGS) monitors dissolved selenium loads in rivers and tributaries immediately downstream of the Project Area. There has been a 47.7 percent decrease in selenium levels in the Gunnison River near Whitewater between 1986 and 2020 (Henneberg 2021). The Gunnison Basin Selenium Management Program (SMP), a private/public partnership of concerned parties working together to identify and implement solutions to reduce selenium concentrations in the Gunnison and Colorado rivers, attributes a portion of the reduction in selenium throughout the area to the reduction of deep percolation from seeping irrigation ditches due to the implementation of salinity control projects (Reclamation 2022).

1.4.2 – UVWUA and the Uncompahgre Project

UVWUA, the Applicant, is a 501(c12) not-for-profit entity contracted with Reclamation to operate and maintain the Uncompahgre Project. The Uncompahgre Project is a federally-owned irrigation water project administered by Reclamation, consisting of reservoirs, diversion dams, the Gunnison Tunnel, 128 miles of main irrigation canals, 438 miles of irrigation ditch laterals, and 216 miles of drains. The Uncompahgre Project serves about 3,500 water users. The irrigated crops associated with the Uncompahgre Project include hay crops, grass pasture, corn and other grains, hemp, fruits, and vegetables. Reclamation is authorized by the Colorado River Basin Salinity Control Act's Colorado River Basinwide Salinity Control Program to fund the Project under the 2019-2020 Funding Opportunity Announcement (FOA) BOR-UC-20-F001.

1.5 – Relationship to Other Projects

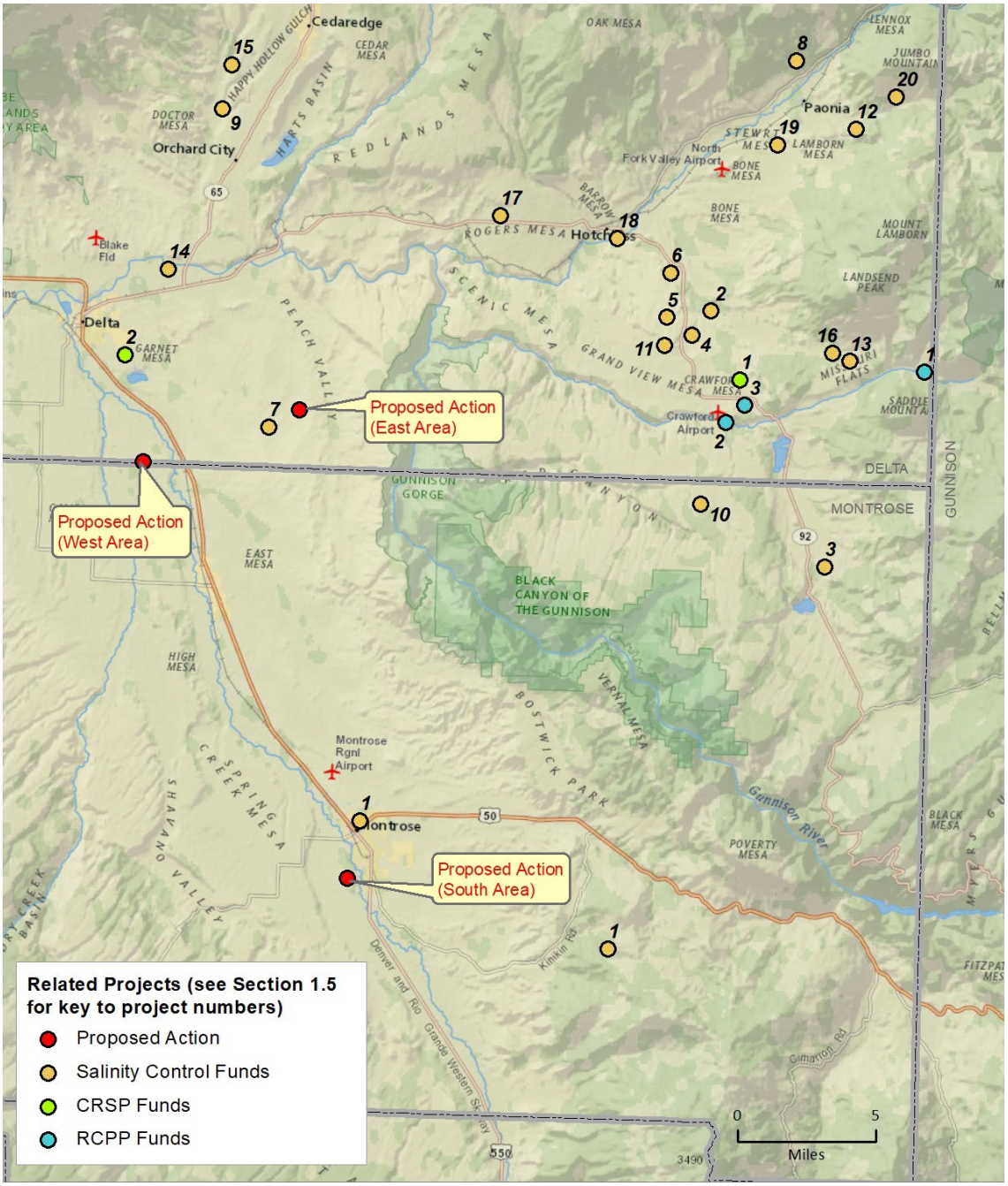
1.5.1 – Salinity Control Program

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 is the process of or has recently utilized Salinity Control Program funds for the following salinity control projects in the vicinity of the proposed Project Area (Figure 2):

1. Bostwick Park Siphon Lateral and Waterdog & Shinn Park Laterals Piping Projects
2. C Ditch/Needle Rock Piping Project
3. Cattleman's Ditches Piping Project Phases I and II
4. Crawford Clipper Center Lateral Piping Project
5. Crawford Clipper Jerdon, West, Hamilton Piping Project
6. Crawford Clipper Spurlin Mesa (Clipper 4) & Zanni Lateral
7. Eastside Laterals Piping Projects, Phases 1 through 9, including GE, DK Laterals and Phase 9 Mod
8. Fire Mountain Canal Piping Project
9. Forked Tongue/Holman Ditch Piping Project
10. Gould Canal Improvement Projects A & B
11. Grandview Canal Upper, Middle and Lower Piping Projects
12. Minnesota Canal Piping Project Phase I and II, and Minnesota L75 Piping Project
13. Needle Rock/Lone Rock Piping Project

14. North Delta Canal Piping Project – Phase I and Phase I Extension
15. Orchard Ranch Ditch Piping Project
16. Pilot Rock Ditch Piping Project
17. Rogers Mesa Slack and Patterson Lateral Piping Project
18. Short Ditch Extension Piping Project
19. Stewart Ditch – Upper, Middle & Lower Piping Projects

Figure 2. Regional salinity control projects & other related projects.



1.5.2 – CRSP Basin Funds

Reclamation's Western Colorado Area Office recently utilized Colorado River Storage Project (CRSP) Basin Funds to implement the following projects (see Figure 2 for general locations):

1. Aspen Canal Piping Project
2. GK Lateral Piping Project

1.5.3 – RCPP Funds

The U.S. Dept. of Agriculture Natural Resources Conservation Service (NRCS) issued a Regional Conservation Partnership Program (RCPP) grant administered by the Colorado River Water Conservation District under the Lower Gunnison Watershed Plan. RCPP irrigation infrastructure improvement projects planned in the vicinity of the Project include (Figure 2):

1. Needle Rock Diversion Project
2. Grandview Canal Piping Project
3. Crawford Clipper Ditch Upper West Lateral Master Plan Projects (various)

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 Project 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
- U.S. Army Corps of Engineers, Northwestern Colorado Branch, Grand Junction, CO
- Southern Ute Tribe, Ute Mountain Ute Tribe, and Ute Indian Tribe (Uintah and Ouray Reservation)
- U.S. Fish & Wildlife Service, Ecological Services, Grand Junction, CO
- Colorado Parks & Wildlife, Grand Junction, CO

Concerns raised during public comment periods on recent similar projects and related informal consultations with Colorado Parks and Wildlife, Gunnison, Colorado, also helped identify potential concerns for the Project.

Resources analyzed in this EA are discussed in Chapter 3. The following resources were identified as *not present or not affected*, and are not analyzed further in this EA:

Table 2. Resources Eliminated from Further Analysis

Resource	Rationale for Elimination from Further Analysis
Indian Trust Assets and Native American Religious Concerns	No Indian trust assets have been identified within the Project Area. No Native American sacred sites were identified within the Project Area. Neither the No Action Alternative, nor the Proposed Action Alternative, would affect Indian trust assets or Native American sacred sites. To confirm this finding, Reclamation provided the Ute Mountain Ute Tribe, the Ute Indian Tribe (Uintah and Ouray Reservation), and the Southern Ute Indian Tribe with a description of the Project and a written request for comments regarding any potential effects on Indian trust assets or Native American sacred sites as a result of the Proposed Action Alternative. No comments were received.
Environmental Justice & Socioeconomic Issues	The Project Area does not occur on Indian reservation lands or within disproportionately adversely affected minority or low-income populations. The Proposed Action Alternative would not involve population relocation, health hazards, hazardous waste, property takings, or substantial economic impacts. Therefore, neither the No Action Alternative nor the Proposed Action Alternative, would have an environmental justice effect.
Wild & Scenic Rivers, Land with Wilderness Characteristics, or Wilderness Study Areas	No Wild and Scenic Rivers, land with wilderness characteristics, or Wilderness Study Areas exist in the Project Area. Therefore, neither the No Action Alternative nor the Proposed Action Alternative would have an effect on these resources.

CHAPTER 2 – PROPOSED ACTION AND ALTERNATIVES

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

2.1 – No Action Alternative

Under the No Action Alternative, Reclamation would not approve funding for the Project. The UVWUA ditches proposed for piping would continue to flow in open, earthen ditches, and the

resultant salt loading to the Lower Gunnison Basin and the Colorado River Basin would continue. The BLM would not amend an existing ROW on BLM land.

2.2 – Proposed Action

Under the Proposed Action, Reclamation would authorize funding to the Applicant to implement the UVWUA East Side Laterals Piping Project Phase 10, and BLM would grant an amendment to an existing ROW to Reclamation to allow for implementation of the Project on BLM land.

The Project incorporates recommendations for irrigation system modernization and efficiency improvements from the *Uncompahgre Project East Side System Optimization Study* (2014) and the *Westside Optimization Analysis* (2017) prepared by Reclamation. Table 3, below, summarizes the project by component and land status (distances and acreages are approximate).

Table 3. Summary of Project Components for the Project

Component	Total Area Involved	On BLM Land	On USBR Land	On Private Land	Comment
Ditches involved with the Project	18.3 mi (132.9 acres)	1 mi (7.3 acres)	--	17.3 mi (125.6 acres)	The width of the construction footprint would vary from approximately 25 to 60 feet depending on site characteristics (acreage is based on 60 feet)
Pipe to be installed in the existing ditch prism	16.8 mi (122.1 acres)	1 mi (7.3 acres)	--	15.8 mi (114.8 acres)	Involved BLM land is for the EQ Lateral only (East Project Area)
Pipe to be installed in a realignment path (outside the existing ditch prism)	1.2 mi (8.8 acres)	--	--	1.2 mi (8.8 acres)	Various route realignments for efficiency
Existing ditch to be abandoned & decommissioned	1.5 mi (10.9 acres)	--	--	1.5 mi (10.9 acres)	Segments of ditch/prism abandoned because of realignments
Staging areas (3 total)	17.3 acres total	--	17.3 acres total	--	Project materials would be stored at UVWUA Olathe and Montrose facility yards and on previously disturbed or farmed ground on Reclamation land

Component	Total Area Involved	On BLM Land	On USBR Land	On Private Land	Comment
Access route to south end of EQ Lateral	2.3 mi	2.3 mi	--	--	Accessways are directly from county roads to ditch alignments, except for the EQ Lateral, which would be accessed using an existing ditch prism on BLM land
Borrow areas (none designated)	--	--	--	--	Borrow material would be obtained from the ditch prisms or from a commercial source
Habitat Replacement Site	2 acres	--	--	2 acres	To be improved in accordance with a Habitat Replacement Plan, to replace riparian/wetland habitat values lost as a result of piping the ditches

The activities funded by the Proposed Action would include converting approximately 18.3 miles of open irrigation ditches to buried, pressurized pipeline. Approximately 16.8 miles of buried pipeline would be installed in the existing ditch prisms, about 1.2 miles of buried pipeline would be installed in re-alignments outside the existing ditch prisms, and 1.5 miles of ditch/prism would be abandoned. The pressurized pipe would be polyvinylchloride (PVC) irrigation pipe, high-density polyethylene (HDPE) (or similar), and rated for 125 pounds per square inch (psi). The pipe diameter would vary from 6 to 36 inches. A variety of control structures (valves, air vents, meters, etc.) and outlets (farm turnouts) would be installed on the pipelines. No new water storage, pump stations, compressor stations, or new irrigated farm areas would be associated with the Project. There are three main geographic areas involved with the Project: the East, West, and South Project Areas (see Figure 1, above, for their general locations).

In the East Project Area, the GKA and GKB lateral pipelines (Figure 3) would connect on their upstream ends to previously piped parts of the system, and would terminate at other open ditches, where drain valves would be used to empty the lower segments of the pipes at the end of the irrigation season. The EQ Lateral pipeline (Figure 4) would be fed by an existing open ditch and terminate at an open ditch. In the West Project Area (Figure 5), the FGG, FD, FG lateral pipelines would be fed by existing open ditches, and the FGI, FGJ, FGK, and FGL lateral pipelines would connect to the FGG, FD, and FG pipelines constructed as part of the Project. In the South Project Area, the CEC Lateral pipeline (Figure 6) would be fed by an existing open ditch, and would connect on its downstream end with a previously-piped CEC Lateral segment. Those piped laterals connecting to open ditch segments would have inlets consisting of 6-inch concrete walls, a steel punch plate screen, and an appropriately sized canal slide gate.

Figure 3. East Project Area Plan – Peach Valley (GKA & GKB Laterals Area)

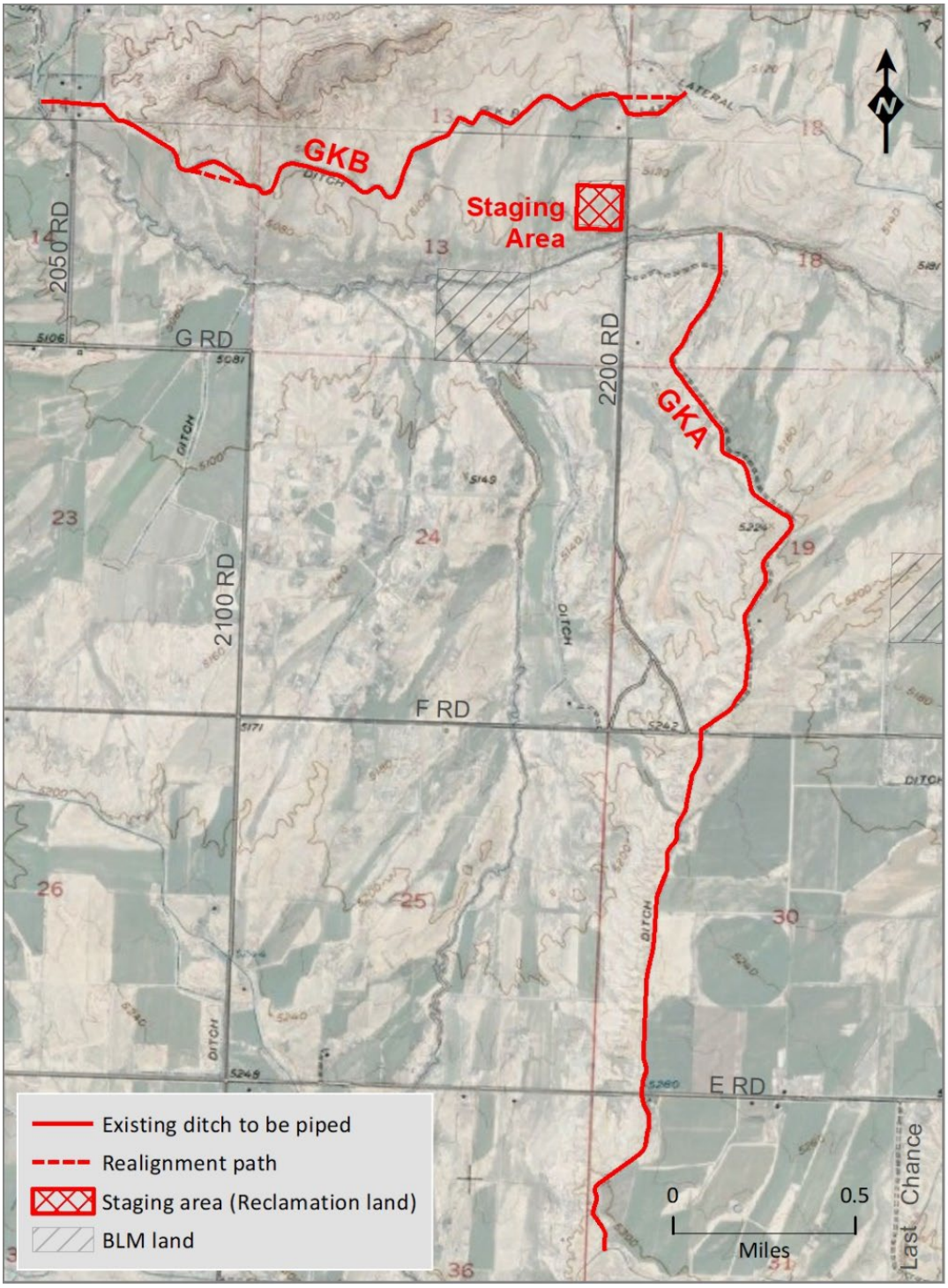


Figure 4. East Project Area Plan – Peach Valley (EQ Lateral Area)

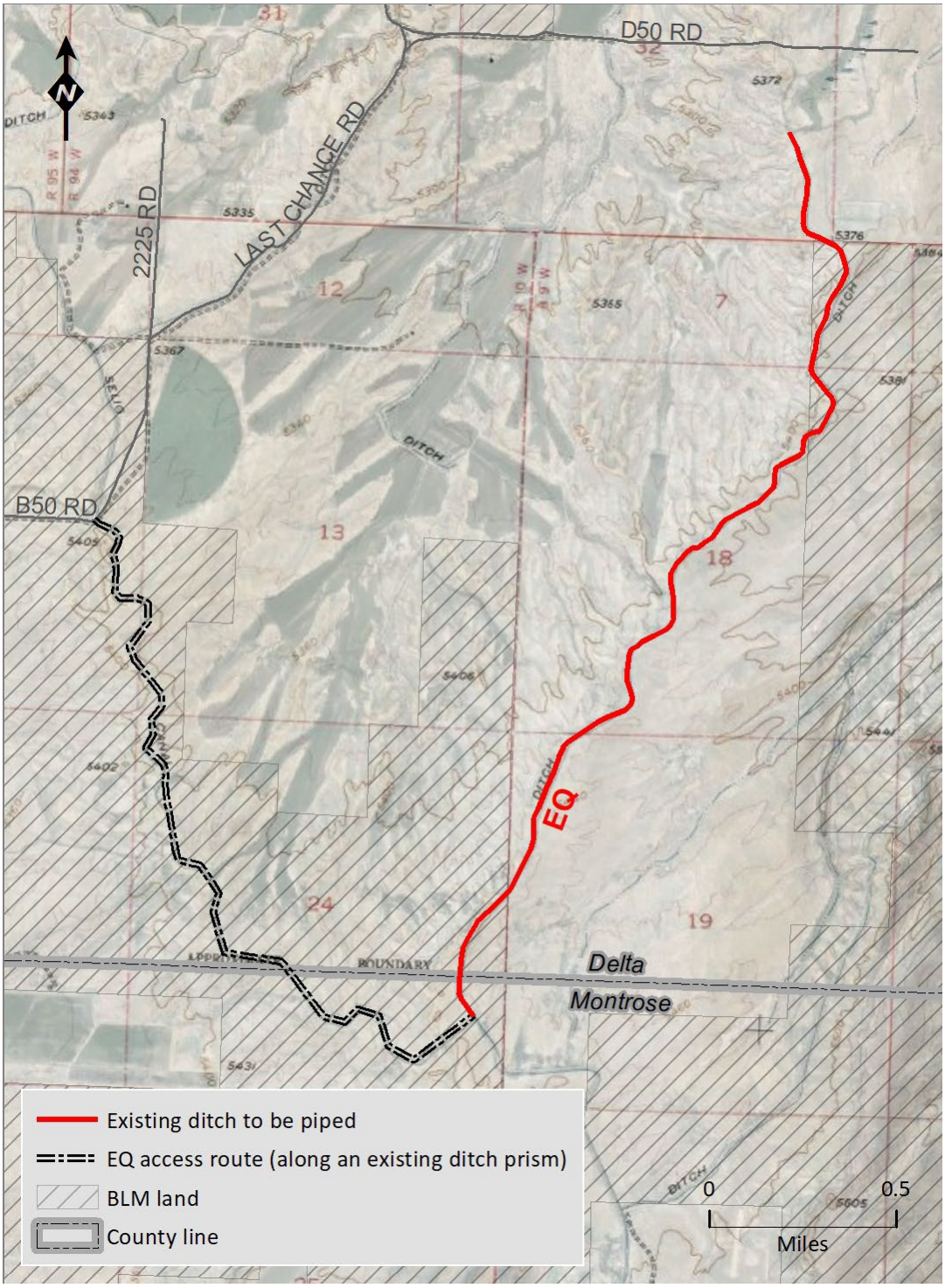


Figure 5. West Project Area Plan – Ash Mesa

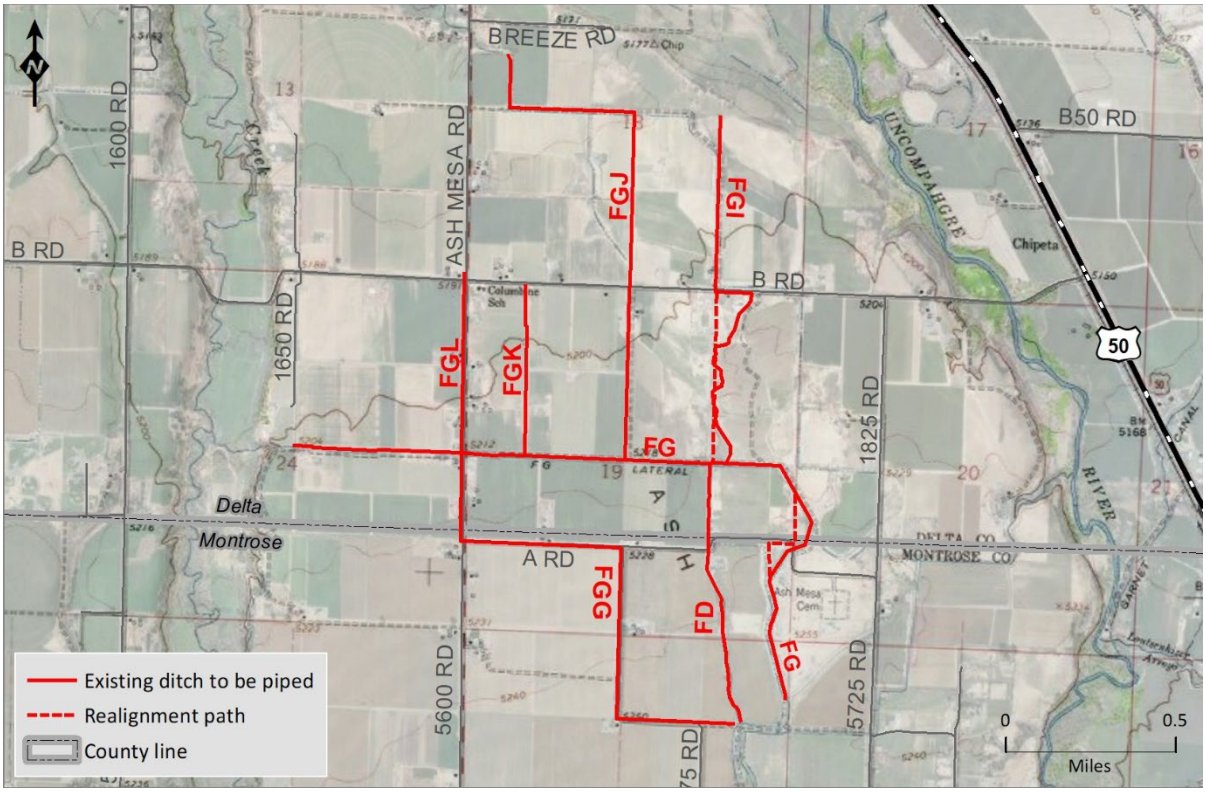
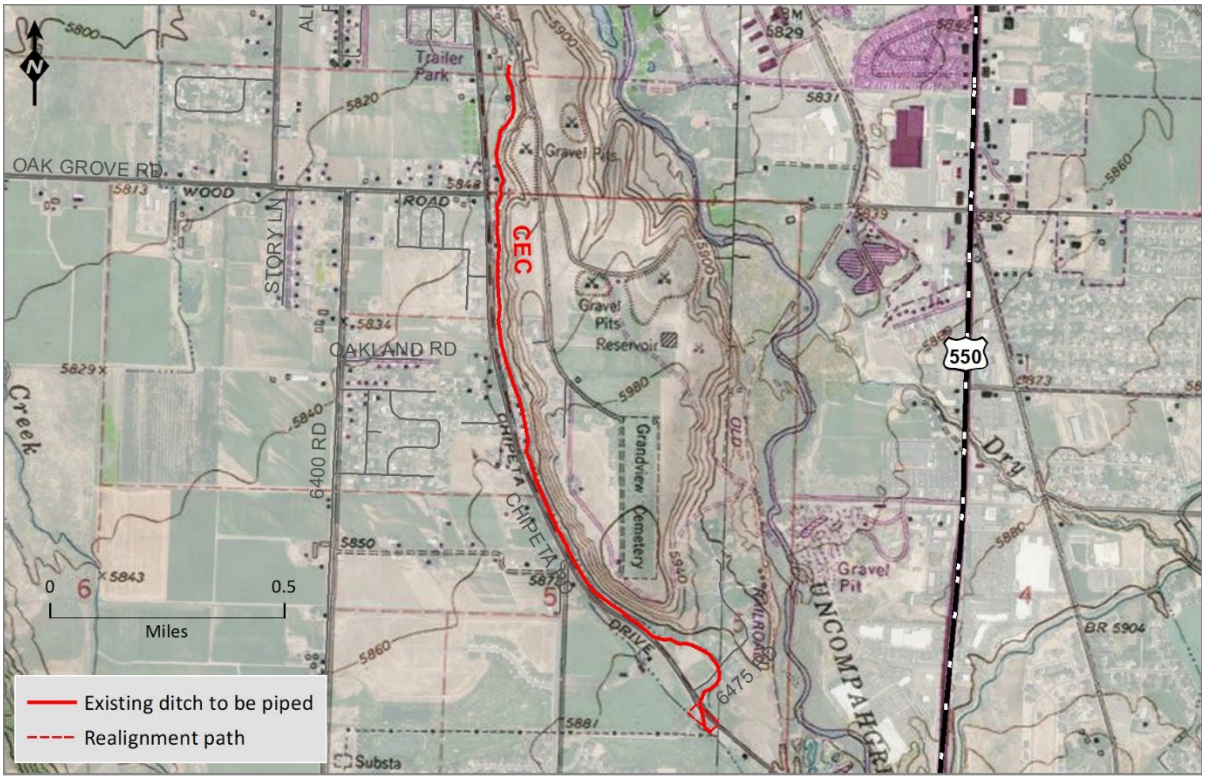


Figure 6. South Project Area Plan – Chipeta Road Area



The following subsections explain the construction methods and describe other aspects (staging, schedule, post-construction activities, habitat replacement) of the Project. For all aspects of the Project, Best Management Practices (BMPs) would minimize impacts of the project on the human and ecological environments. BMPs and other protective measures are incorporated as part of the Project, are described and analyzed as part of the Project in CHAPTER 3 (Affected Environment & Environmental Consequences), and are summarized in CHAPTER 4 (Environmental Commitments).

2.2.1 – Pipeline Installation

Installation of pipelines would follow either of the two general processes outlined in this subsection, depending on site location and conditions.

For a typical installation in areas adjoined by agricultural production or suburban development (the West and South Project Areas and the some of the GKA and GKB laterals in the East Project Area), pipeline installation in the existing ditch prisms would first involve using trackhoes and bulldozers to grub ditch bank vegetation. Woody vegetation on the side-slopes of ditch prisms, especially in natural areas, would be left intact as much as possible. Following grubbing, trackhoes and bulldozers would be used to reserve existing topsoil, and fill the existing ditch. An excavator would then trench to the appropriate depth in the prism, adjacent to the previous location of the ditch, and prepare the pipe bed. Following installation of the pipe, an excavator would backfill the pipe trench and a dozer would grade the pipe alignment to match the surrounding land contours and restore drainage patterns.

The second type of installation would be used in natural areas, specifically in the East Project Area (Peach Valley), where the EQ and parts of the GKA and GKB laterals pass through sparsely vegetated semi-desert badlands. These areas and methods would be clearly marked on construction drawings. In these areas, ditch bank vegetation would be grubbed with heavy equipment, while maintaining as much woody vegetation on the outer slopes of the ditch prism as possible. Topsoil would be retained, and then used to fill the existing ditch or backfill the buried pipe. An additional important difference in the natural area installation would be in the preparation of the ditch prism and treatment of the existing ditches, especially the deeply down-cut segments of the EQ Lateral. Ditch segments passing through natural badlands type habitat are preferred to be unfilled or only partially filled, so that they continue to represent a significant barrier to off-road vehicle travel across the delicate surrounding soils and vegetation communities. Similarly, spoil piles remaining alongside the ditch prisms from historic ditch cleaning would remain undisturbed (where not required as fill material), or similar berms would be strategically recreated, to continue to serve as off-road vehicle travel barriers. Periodic drainage openings would be cut in low points in such open decommissioned ditch segments, so that precipitation can drain from these segments to intersecting natural drainage patterns or swales.

Regardless of the type of installation, following pipeline construction, disturbed areas in the pipeline alignment would be recontoured and either topsoiled and reseeded with a seed mix appropriate for the surrounding vegetation community or finished with sterile subsurface soil and unseeded, depending on the wishes of the underlying landowner. The Applicant's and BLM's experience with past projects is that redistributed topsoil has not successfully germinated commercial seed mixes following construction, but rather has germinated its own existing seed banks of ruderal weeds adapted to ground disturbance. Finishing the ground surface with subsurface soil would help eliminate the weed seed bank in the construction area. It is expected that surrounding native

vegetation would colonize the construction corridor over a period of several years as the new topsoil becomes weathered. Where applicable, the seed mix for the reseeded areas would be a native drought-tolerant seed mix approved by Reclamation, BLM, and the underlying landowner and appropriate for the surrounding habitat. Disturbed agricultural areas would be contoured to the surrounding grade and reseeded with compatible hay or pasture seed mixes.

Photograph 1. Example of the pipeline installation process for an irrigation lateral in the Uncompahgre Valley, completed in 2020 (David Bridges, UVWUA).

A one-lane dirt maintenance road or ATV trail would remain on the pipe alignments following construction. Appropriately-sized culverts would be placed at drainage crossings. Alternatively, low water crossings and/or rolling dips would be installed where appropriate, instead of culverts.

Grubbed shrubs, trees and stumps would be cut, chipped, or burned onsite or at one of the staging areas, or hauled to a local landfill. No burning would occur on BLM land.

Pipe and supplies would be transported to the construction site on flatbed trucks (or similar) and unloaded with front end loaders with pallet forks. A trackhoe would position the pipe in the trench, and segments of pipe would be fused or joined together in place or alongside the prepared pipe trench. The pipe would be bedded and buried with fill material from within the ditch prism or, if

necessary, with bedding or fill obtained from a commercial sand and gravel pit. The burial depth would be below frost line. For installation of pipeline segments in the realignment areas, the process would be similar, but without the step of first preparing the existing ditch to prepare for trenching.

There is the possibility of encountering large boulders or bedrock in pipe trenches that cannot be moved with excavating equipment. In this case, conventional blasting would be used to break rock into pieces manageable with heavy equipment. Blasting would be performed by a state-licensed blasting contractor. Blasting would entail drilling a hole or holes in the (below grade) rock, placing a charge and detonator in each drill hole, and detonating the charge. The blasting activity would take place below grade entirely within the pipeline trench.

There are up to 15 points where the buried pipe alignments could cross public roads. These crossings would be either trenched or directionally drilled across or under the roads, or sleeved in existing culvert crossings. Road surfaces would be restored to their preexisting condition, per Delta or Montrose County Road and Bridge specifications, following construction. Two different routes for the Chipeta Road crossing at the south end of the CEC Lateral are being contemplated by UVWUA—one just north of the Cobble Drive intersection, and one just south of the Cobble Drive intersection. Several crossings of private ranch roads or driveways are also involved with the Project. These crossings would be trenched, and the road surfaces returned to their previous condition following pipe installation.

2.2.2 – Abandoned Ditch Segments Decommissioning

For those 1.5 miles of ditch segments that would be abandoned because of realignment paths (where the pipe alignment departs from the existing ditch prism [see Figure 3, Figure 5, and Figure 6]), an excavator would be used to fill the abandoned ditch with material from the existing ditch prism, then a trackhoe would contour the filled ditch alignment to match the surrounding land, including natural drainage patterns that cross the alignment. These areas would be finished as either natural (with sterile soil top-dressing and no reseeding in badland environments) or conventionally (with retained topsoil and reseeding in agricultural, suburban, or tall semi-desert shrubland environments), using methods described in Section 2.2.1. Seed mixes are described in Section 2.2.6. No maintenance access road or trail would remain in these areas.

2.2.3 – Access

All access ways for construction of the Project, except for access to the EQ Lateral, would be on the existing ditch prisms, in the proposed new pipe corridors, or directly adjacent to these areas from public roads. The EQ Lateral would be accessed using an existing road on a UVWUA ditch prism off Last Chance Road in Peach Valley (see Figure 4). This access route is on BLM land. No modification would occur to this access route as part of the Project.

Reclamation holds all land interests for existing ditch alignments involved in the Project, in a mixture of fee-title dedicated easements or historic prescriptive easements. On public (BLM) lands the ditches are in historic easements or rights-of-way that would be converted from open ditch use to pipeline use. All private landowners in the footprint of the Project where activities would take place outside the historic prescriptive easement have formally agreed to allow the activities of the Project to be conducted on their lands.

The anticipated average width of the construction area for the Project would be 35 feet, but could be as wide as 60 feet under certain conditions. The width of the construction footprint would

depend on site conditions (slope, nearby infrastructure, nearby sensitive resources) and the ability to operate equipment safely. The authorized construction area widths would not be constrained by the existing ditch centerline, but rather would be adjustable to site conditions in order to complete the work safely and with the smallest possible disturbance footprint. Construction footprints would be limited to only those necessary to safely implement the Project. The authorized construction width would not be mechanically cleared to its maximum outer limits as a part of site preparation.

2.2.4 – Staging

Three staging areas have been identified for the Project, including the existing equipment yards of the Applicant's Olathe and Montrose facilities (general locations are depicted on Figure 1), and on irrigated pasture or previously disturbed ground on a Reclamation-owned parcel in the East Project Area (Peach Valley) (Figure 3). The staging areas would be used to store pipe and other project supplies and equipment. Pipe arriving and leaving the staging area would be transported on flatbed trucks (or similar). Front end loaders with pallet forks (or similar) would be used to handle pipe in the staging areas.

To conserve fuel and for the sake of work efficiency, working equipment would remain at active construction locations overnight, on weekends, and during times of brief work gaps due to weather conditions. Equipment would be removed from BLM land if construction work is idled for more than two consecutive weeks.

2.2.5 – Borrow Activities

It is anticipated that the necessary bedding fill would be generated from within the construction footprint. To generate fill material onsite, a screening or portable crusher may be used in the construction footprint to prepare the fill material. If additional fill is required, fill would be obtained from a commercial provider. Borrow material would be loaded to end-dump trucks using an excavator and hauled to the construction site via approved access ways.

2.2.6 – Weed Control & Post-Construction Revegetation

To prevent the spread of weeds during construction, all equipment and vehicles would be cleaned prior to arriving on work sites. Woody noxious weeds within the Project Area would be mechanically removed during construction preparation. Topsoil handling for natural areas (described in Section 2.2.1 would also help prevent the spread of weeds in the construction footprint. UVWUA would control noxious weeds in disturbed areas following construction in accordance with county standards. UVWUA would coordinate with BLM on the use of herbicides on BLM land, and would provide Pesticide Use Proposals (PUPs) prior to treatments, as required.

Following construction, disturbed ground would be reclaimed in accordance with the wishes of the underlying landowner (described in Section 2.2.1). In areas to be reseeded, seed mixes would be appropriate for the surroundings. Where irrigated lands are revegetated, the seed mix would be a weed-free hay mix (or similar) acceptable to the landowner. Where the disturbed ground is adjacent to tall semi-desert shrublands, the weed-free seed mix would include drought-tolerant and locally ubiquitous native grass such as western wheatgrass (see Appendix A). Reseeding success would be monitored subject to agreements between UVWUA and individual landowners.

2.2.7 – Schedule

Construction in existing ditch alignments would occur during the irrigation off-season, to avoid interrupting irrigation activities of the shareholders. Irrigation off-season varies annually depending on weather patterns, but is typically late September or October through mid-April. Construction in the realignments and decommissioning of abandoned ditch alignments would not need to avoid irrigation season and could occur during any time of the year. Reseeding and weed treatments would occur during seasons when those activities have the best opportunity for success.

Construction would occur incrementally or in a sequenced fashion across the Project areas over a period of approximately three years, mostly during the irrigation off-season. When construction is underway, it would occur during daylight hours (typically 7 am to 5 pm), Monday through Saturday. Weather conditions could cause gaps in activity.

Timing restrictions would apply to certain project activities and locations, to protect nesting migratory birds and raptors, and other special status species, as explained in Wildlife (Section 3.2.10) and Threatened & Endangered Species (Section 3.2.12). The timing restrictions, along with other protective measures, are specified in the Environmental Commitments of this EA (CHAPTER 4). Specific areas with construction timing restrictions, and the nature of those restrictions, would be prominently marked on construction drawings.

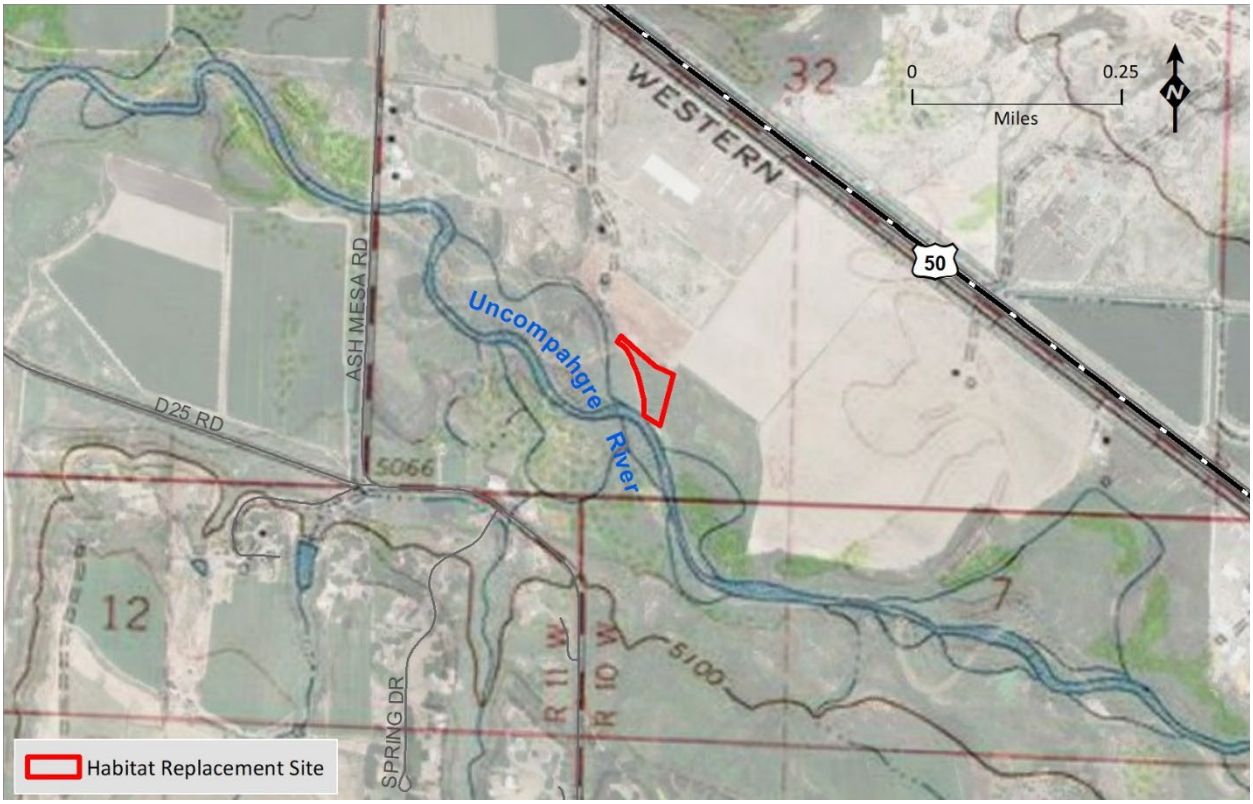
2.2.8 – Habitat Replacement

In accordance with the Colorado River Basin Salinity Control Act, habitat replacement would be implemented to maintain the value of the riparian and wetland habitat which would be lost as a result from the piping component of the Project. As part of the Project, UVWUA developed a Habitat Replacement Plan (WNRCS 2024) for a site at the general location shown on Figure 7, below.

The habitat replacement project would occur on approximately 2 acres ("Habitat Replacement Site") on a private parcel on the Uncompahgre River and encumbered by a conservation easement held by the Valley Land Conservancy (dba Colorado West Land Trust). The Site is currently dominated by dense stands of invasive Russian olive and salt cedar. The habitat value of this site would be improved and enhanced in accordance with the Habitat Replacement Plan, which has the goals of increasing native vegetation structure and diversity and reducing noxious weed cover.

Native shrubs and trees would be planted by hand or with the assistance of a small tractor. Non-native trees and herbaceous weeds would be removed mechanically and/or treated with aquatic-safe herbicides. Vegetation slash would be chipped and mulched onsite. New tree and shrub plantings would be irrigated as necessary and protected from livestock and wildlife damage using temporary fencing or webbing and wire cages. Soils disturbed from Russian olive and salt cedar grubbing would be reseeded with native grass and forb species by hand-broadcasting or seed-drilling. An access road across private property from U.S. Route 50 would need repair and maintenance with gravel. An irrigation ditch serving the area would need repair and maintenance and modification of a control structure. This work would require the occasional use of heavy equipment and import of gravel from a commercial source.

Figure 7. Habitat Replacement Site



The timing of the work at the Habitat Replacement Site would correspond with construction of the piping project and with the most effective and appropriate times for seedings, plantings, weed control, irrigation, and other site maintenance, subject to protective timing restrictions specified in the Environmental Commitments (CHAPTER 4). UVWUA would be responsible for ongoing maintenance of the Habitat Replacement Site for 50 years after its establishment.

2.2.9 – Permits & Authorizations

Agreements & Authorizations
If the Proposed Action is approved, the following interagency agreements or permits would be required prior to project implementation:

- BLM ROW amendment for that portion of the EQ Lateral occurring on BLM land (conversion of use from open ditch to pipeline).
- Completed Endangered Species Act Section 7 Consultation between Reclamation and U.S. Fish & Wildlife Service (FWS).
- Memorandum of Agreement executed between Reclamation and the Colorado SHPO.
- Clean Water Act (CWA) Section 404 Regional General Permit 5 for Ditch Related Activities in the State of Colorado: 30-Day Advance of Construction Submittal Package (to include "(1) the respective agency's documentation for compliance with the Endangered Species Act and National Historic Preservation Act and/or the lead Federal Agency NEPA document containing the same, (2) a project description, (3) project plans, and (4) a location map.").

Construction Permits & Plans

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

- Stormwater Management Plan, to be submitted to Colorado Department of Public Health & Environment (CDPHE) by the construction contractor prior to construction disturbance.
- CWA Section 402 Storm Water Discharge Permit compliant with the National Pollutant Discharge Elimination System (NPDES), to be obtained from CDPHE by the construction contractor prior to construction disturbance (regardless of whether dewatering would take place during construction).
- Certification under CDPHE Water Quality Division Construction Dewatering Discharges Permit COG070000 (if any dewatering is to take place during construction).
- Spill Response Plan, to be prepared in advance of construction by the contractor for areas of work where spilled contaminants could flow into water bodies.
- Utility clearances, to be obtained by the construction contractor prior to construction activities from local utilities in the area.
- Any construction, access, or use permits which may be required by the Delta County Planning Department, County Engineering and County Road & Bridge District #1 or the Montrose County Planning Department or Office of Public Works, Road & Bridge Department.

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

Natural Resource Protection Laws

- Clean Air Act of 1963 (42 U.S.C. § 7401)
- 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)
- Federal Land Policy and Management Act of 1976 (FPMA) as amended (43 U.S.C. 1701-1785)
- The Act of October 27, 1986, amended Title V of FLPMA aka the Colorado Ditch Bill (43 U.S.C. 1761; 90 Stat. 2776)
- Farmland Protection Policy Act (P.L. 97-98, Sec. 1539-1549; 7 U.S.C. 4201, et seq.)

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)

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 would be affected by the Proposed Action Alternative and the No Action Alternative. For each resource, the affected area and/or interests are identified and the existing conditions described under the No Action and Proposed Action Alternatives. This section concludes with a summary of impacts.

3.2 – Affected Environment & Environmental Consequences

3.2.1 – Water Rights & Use

The Uncompahgre Project supplies irrigation water to approximately 3,500 users irrigating approximately 84,000 acres in Delta and Montrose counties. The irrigated area associated with that part of the system associated with the Project is approximately 3,815 acres. The total water rights for the Uncompahgre Project are the Gunnison Tunnel Water Right of 1913 for 1,300 cfs from the Gunnison River; an 1882 Uncompahgre River Water Right for 1,225.64 cfs; and a Taylor Park Reservoir Storage Water Right of 106,230 acre-feet. Furrow irrigation is used for the majority of orchards, row crops, and pasture lands. Sprinkler irrigation is used on a limited number of fields, and some drip/micro-irrigation is used on some orchards and row crops. Principal crops produced in the area include corn, alfalfa, beans, onions, potatoes, apples, pears, cherries, apricots, pasture forage, grass hay, wheat, barley, and oats. The average annual water delivery in the laterals involved with the Project is approximately 16,621 acre-feet, delivered on a volume basis in 24-hour blocks, ordered by the water users by flow rate and duration. Water masters and ditch riders make the necessary system adjustments to meet the water orders.

There may be domestic wells in the area permitted by the State of Colorado to draw on natural sources of groundwater. Pursuant to Colorado Revised Statute (C.R.S.) § 37-86-103, "…a ditch right-of-way includes the right to construct, operate, clean, maintain, repair, and replace the ditch and appurtenant structures, to improve the efficiency of the ditch, including by lining or piping the ditch…"

The irrigation water supply for the Habitat Replacement Site is a 0.25 cfs interest in the Boles & Manney Ditch.

There is an ongoing trend to pipe earthen irrigation ditches in the region (see Figure 2). Currently, there are regional efforts underway in the Lower Gunnison and Colorado River watersheds to reduce water lost to seepage and evaporation, like that which is lost from open, unlined irrigation canals. These efforts are primarily focused on improving the efficiency of irrigation systems.

No Action Alternative: The No Action Alternative would have no effect on water rights and uses within the Gunnison River Basin. The water delivery system would continue to function as it has in the past.

Proposed Action: Under the Proposed Action Alternative, UVWUA would have the ability to better manage irrigation water with efficiencies gained from eliminating ditch seepage. An estimated seepage loss of approximately 2,030 acre-feet per year would be eliminated following the piping project, making more water available to downstream water users within the Uncompahgre Project. The new turnout structures would include adequate controls and measuring devices which would further improve water management in the system.

UVWUA purchased a 0.25 cfs interest in the Boles & Manney Ditch in January 2024 (WNRCS 2024) in order to provide irrigation water to the Habitat Replacement Site.

There would be no adverse significant effects to water rights involved with the Project as a result of the Proposed Action.

The Project contributes to the growing amount of piped irrigation conveyances in the region, which are cumulatively reducing water seepage and improving irrigation water delivery efficiency on a larger scale. The Project would not include new water storage or the irrigation of new farm lands. No adverse cumulative effects on irrigation water rights or winter stock water delivery in the Gunnison or Colorado River Basins would occur due to implementation of the Project.

Ditch companies have the right to improve the efficiency of their ditches pursuant to CRS § 37-86-103. Consequently, domestic water well owners cannot rely on canal seepage water to recharge domestic water wells. The Project would not alter natural sources of groundwater. Therefore, there would be no significant adverse effect on permits which authorize wells to draw on natural sources of groundwater.

There would be no significant adverse impacts to water rights as use as a result of the Project.

3.2.2 – Water Quality

Irrigation practices in the region and in the Project area are contributing to elevated downstream salinity levels and create an adverse effect on the water quality of the Gunnison River and in the greater Colorado River Basin. In addition, selenium occurs in the region's soils in soluble forms such as selenate, which is leached into waterways by runoff and irrigation practices, and is toxic to living organisms when present beyond trace amounts. There is a regional effort to reduce salinity in the lower Gunnison and Colorado River watersheds, resulting in improved water quality at a basinwide scale (see Section 1.4). There are also ongoing regional efforts to reduce selenium loading in the lower Gunnison and Colorado river basins (SMPW 2011, Reclamation 2020).

Most irrigation ditches are considered Waters of the U.S., and are under the jurisdiction of the Clean Water Act (CWA). In 2021, the Corps issued Regional General Permit 5 (RGP-5) for Ditch Related Activities in the State of Colorado.

No Action Alternative: Under the No Action Alternative, the estimated 3,501 tons of salt annually contributed to the Colorado River Basin from the ditch laterals involved with the Project would continue. Current selenium loading levels would continue.

Proposed Action: In the long term, the Project would eliminate seepage from the involved ditch systems, reducing salt loading to the Colorado River Basin at an estimated rate of 3,501 tons per year. The Project would reduce selenium loading into the Gunnison River basin, although the amount of selenium loading reduction that would result from the Project has not been quantified. Improved water quality would benefit downstream aquatic species by reducing salt and selenium loading in the Gunnison River, an important Colorado River Basin tributary. Maintenance or improvement of water quality in the Gunnison River is of high importance to users and to wildlife. The beneficial effects of improved water quality resulting from the Project would contribute to the regional efforts underway to reduce salinity and selenium in the lower Gunnison and Colorado River watersheds.

The Project would affect waters under the jurisdiction of CWA Section 404 (the ditches themselves) and disturb irrigation-induced wetland and riparian vegetation associated with the ditches. As a "ditch related activity in the State of Colorado" that is "conducted under a binding agreement with the USBR" (Reclamation), the Project would be authorized under RGP-5, by submitting documentation required by RGP-5 to the Army Corps at least 30 days in advance of construction. The required documentation for the new Project, as a salinity control project per a binding agreement with Reclamation is as follows: "(1) the respective agency's documentation for compliance with the Endangered Species Act and National Historic Preservation Act and/or the lead Federal Agency NEPA document containing the same, (2) a project description, (3) project plans, and (4) a location map." RGP 5 includes terms and conditions with which project proponents must comply to ensure their proposed projects will have minimal individual or cumulative adverse effects on the aquatic environment. The USACE has the authority to determine if an activity complies with the terms and conditions of an RGP. By authorizing use of RGP 5 for the Project, the USACE has determined that the Project would have minimal individual or cumulative adverse effects on the aquatic environment. Therefore, there would be no significant impact to waters under the jurisdiction of CWA Section 404.

BMPs would be implemented during construction to minimize erosion and protect water quality. Project construction would take place in the ditch prism when water is not present. The construction contractor would be required to operate under a Stormwater Management Plan, a Stormwater Discharge Permit, a Spill Response Plan, and a Dewatering Permit (if dewatering is conducted) (see Section 2.2.9 and CHAPTER 4).

There would be no significant adverse impacts to water quality as a result of the Project.

3.2.3 – Air Quality

The Clean Air Act specifies limits for criteria air pollutants. If the levels of a criteria pollutant in an area are higher than National Ambient Air Quality Standards (NAAQS), the airshed is designated as a nonattainment area. Areas that meet the NAAQS for criteria pollutants are designated as

attainment areas. Delta and Montrose counties are in attainment for all criteria pollutants (EPA 2022). Minor impacts to air quality from routine maintenance of the ditch system involved with the Project include dust and exhaust from occasional travel in light vehicles along the Project corridor, and occasional ditch cleaning and maintenance activities involving heavy equipment.

No Action Alternative: There would be no effect on air quality in the Project Area from the No Action Alternative. The ditches would continue to operate in their current condition and dust and exhaust would occasionally be generated by vehicles and equipment conducting routine maintenance and operation.

Proposed Action: Exhaust and dust from construction activities would have a minor, short-term effect on the air quality in the immediate Project Area. There would be no long-term significant impacts to air quality from the Project, as Delta and Montrose Counties would remain in attainment for all criteria pollutants. BMPs would be implemented to further minimize dust in the Project Area. Following construction, impacts to air quality from routine maintenance and operation activities along the pipeline corridor would be insignificant, as they would be similar or less in magnitude to those currently occurring for the existing ditch. The potential exists for other ditch piping projects in the region currently in NEPA review to be constructed concurrently with the Project. Even if other projects occur concurrently with the Project, the cumulative impact on air quality in the area would be temporary and would not rise to the level of significant, as the area would remain in attainment for any criteria pollutants in Delta or Montrose Counties.

There would be no significant impacts to air quality as a result of the Project.

3.2.4 – Public Access, Transportation, Utilities & Safety

UVWUA currently operates on private and BLM land in historic prescribed rights-of-way (collectively, the "right-of-way") in the Project area.

Private roads and county roads generally provide access and mobility for residents traveling in and out of the Project Area. The main public transportation routes that intersect the Project are listed in Table 4, below.

Table 4. Public Roads Intersected by the Project

Project Area	Project Component	Public Road Crossings
East Project Area (Peach Valley)	GKA Lateral	3 (E Road, F Road, Arroyo Drive)
	GKB Lateral	2 (2200 Road, 2050 Road)
West Project Area (Ash Mesa)	FGL Lateral	3 (B Road, Ash Mesa [5600] Road, 5675 Road)
	FGJ Lateral	1 (B Road)
	FGI Lateral	1 (B Road)
	FD Lateral	1 (A Road)

Project Area	Project Component	Public Road Crossings
South Project Area (Chipeta Road Area)	CEC Lateral	3 or 4 (Chipeta Road, 6475 Road, 6745 Road, and potentially Cobble Drive)
UVWUA facilities	Olathe Facility Montrose Facility	12th Steet 6th Street, 7th Street, N Park Ave., N. Mesa Ave.
Habitat Replacement Site	Habitat Replacement Site	U.S. Route 50

Various overhead or buried utilities are present near some Project Areas of the Project. The utility entities include the City of Delta Public Works & Utilities (domestic water), City of Montrose Utilities Division of Public Works (domestic water & sewer), Delta Montrose Electric Association (electricity and fiber optic internet), TDS Telecom, and Black Hills Energy (natural gas).

There are safety risks associated with sources of open, moving water. The Montrose County Sheriff and the Montrose Fire Protection District cover the Montrose County part of the Project Area for emergency response. The Delta County Sheriff and the Delta County Fire Protection District No. 1 cover the Delta County part of the Project Area for emergency response.

No Action Alternative: There would be no effect to public safety, transportation, or public access from the No Action Alternative.

Proposed Action: All construction activities related to the Project would take place entirely in the approved and prescriptive project rights-of-way. There would be no need for construction of new access roads outside of the construction areas. There are no known bridges with weight restrictions that would be used by construction vehicles.

Some short-term disruption of traffic at the involved public roads would occur when equipment and materials are hauled into the Project location, and when pipe crossings are constructed across public roads. Appropriate traffic signage would be used to notify drivers of active construction ingress/egress. UVWUA would coordinate with the county and sheriff departments when traffic or access would be delayed or substantially re-routed. Due to the temporary nature of the traffic disruptions and the traffic management provided by coordination with the counties and sheriff departments, the impacts on traffic would not rise to the level of significant.

Any required construction, access, or use permits would be obtained from the Delta County Planning Department, County Engineering and County Road & Bridge District #1.

All utilities would be located and marked and, if necessary, relocated or raised, prior to any construction activities in the Project area. If relocation or raising of utilities is necessary during construction, brief interruptions of utility services would occur. Due to the temporary nature of the interruptions, the impacts on utilities would not rise to the level of significant.

Under the Project, the safety risks associated with sources of open, moving water would no longer occur within the Project Area. The Montrose County Sheriff, the Delta County Sheriff, the Montrose Fire Protection District, and the Delta County Fire Protection District No. 1 would continue to cover the Project Area for emergency response, and would not be hindered in their response. Active construction areas would be adequately marked and barricaded to prevent public access. Trenches left open overnight would be limited to the extent practicable. In the case that a trench is left open overnight, it would be covered to adequately prevent entrapment of people, livestock, and wildlife. Therefore, there would be no significant effect on public safety.

No significant impacts to access, transportation, utilities, and public safety would occur as a result of the Project.

3.2.5 – Noise

A moderate baseline level of noise occurs in the Project area, associated with farming and ranching activities and the Applicant's operation and routine maintenance of the ditch system. Operation and maintenance involve the use of light-duty trucks and, occasionally, heavy equipment. Farming and ranching activities involving the use of farming equipment, light vehicles, all-terrain vehicles, and occasionally heavy equipment are ongoing in the immediate area and surroundings of the Project.

No Action Alternative: There would be no noise effects from the No Action Alternative.

Proposed Action: Project construction activities would generate a temporary source of noise audible to residents near the Project. Sources of noise would include heavy equipment moving earth or crushing rock, trucks hauling pipe and other materials, and heavy equipment grubbing vegetation. As explained in Section 2.2.1, blasting may also be required to help prepare the pipe trench if bedrock is encountered. Blasting would occur inside the trench and below grade. The noise associated with such blasting would resemble a muffled "pop" from a firearm. These disturbances would occur during daylight hours (typically 7 am to 5 pm), Monday through Saturday, on a sequenced basis along the ditch section involved with the Project. Activities at the Habitat Replacement Site would occasionally result in a temporary source of noise generated by heavy equipment, such as when trees are mechanically removed. Such noise would occur on a periodic, as-needed basis during daylight hours, for several days at a time and restricted to the months of September through March. Once the removal of noxious weed trees is completed during the initiation of Site work, some repeated grubbing may be necessary during coming years to maintain the Site. Noise associated with construction of the Project would be short-term and would not raise the noise level of the area above the moderate noise baseline; therefore, the short-term increase in noise would not be significant. The proposed action would not contribute to long-term or regional increases in noise levels, and therefore no long-term cumulative noise impacts would occur.

No significant impacts to noise would occur as a result of the Project.

3.2.6 – Visual Resources

The Project is in an area of pastoral beauty, with a pleasing array of colors and textures across the relatively open landscape—a mosaic of irrigated agricultural fields, rural and suburban residential areas, natural shrublands and badlands, and wooded riparian corridors—against a backdrop of near and distant foothills and mountains. A baseline level of visual disturbance occurs in the Project Area, associated with residential and farmstead developments, local ranching and farming activities, local construction projects, and the Applicant's operation and routine maintenance of the ditch system.

Regular operating activities can involve vehicles, machinery, earth moving, field and ditch burning, and can generate dust and smoke. The ditches that traverse the area are linear features, often bermed and with an attendant access road and soil spoil piles remaining alongside or on the bermed area (ditch prism). The ditches support occasional mature cottonwood trees which are visible on the relatively open and flat landscape.

Public lands involved in the Project are lands administered by BLM in the East Project Area intersected by the EQ Lateral (Figure 4). These BLM lands are managed under the Gunnison Gorge NCA Resource Management Plan (RMP) (BLM 2004), are physically outside the NCA boundary, and are designated part of the "BLM West Common Lands." The RMP characterizes the West Common Lands as Visual Resource Management (VRM) Class III (BLM 2004). The physical setting is "predominantly middle country with small sections of rural next to private lands, largely unmodified and natural-appearing; resource modifications evident but harmonious with surroundings" (BLM 2004). A total of approximately 1 mile of the EQ Lateral crosses the BLM West Common Lands in the southeast part of the East Project Area. Visual Resource Management (VRM) classes are described in BLM Manual 8410-1. Class III areas allow for visible changes that attract attention but are not dominant on the landscape.

No Action Alternative: There would be no visual impacts from the No Action Alternative.

Proposed Action: Temporary impacts related to visual disturbance during and after construction would result from the Project. Machinery would be operating on the landscape and highly visible from public roads in certain locations on a spatially incremental basis mostly during fall and winter months. Following construction in the pipeline and abandoned ditch reaches, the disturbance footprint would be a linear area of bare ground, rather than an open earthen ditch. Within a few growing seasons, revegetation would help the disturbed ground blend with the surroundings. The visual change would be minor, since the objective is to maintain the ground condition and native vegetation that currently attends these ditches as much as possible. The Habitat Replacement Site is not visible from public lands and not highly visible from public roads.

Minor visual impacts would occur on public lands administered by BLM in the East Project Area. Overall, the long-term level of change to the visual characteristics of the landscape in and around the Project Area during and following construction would be low (minor) to moderate, and not out of character with the surrounding landforms, or with the rural and agricultural character of the vicinity. The visual change would be compatible with Class III area management guidance, in that the buried pipe alignments, following construction, would not lead to visible changes significantly different or more dominant than what is already present on the landscape. The Project would not contribute to cumulative impacts to visual resources, as the post-project landscape would maintain the existing character of the surrounding landforms and the rural and agricultural character of the vicinity.

No significant impacts to visual resources would occur as a result of the Project.

3.2.7 – Public Recreation

Public lands involved in the Project are lands administered by BLM in the East Project Area intersected by the EQ Lateral (Figure 4). These BLM lands are managed under the Gunnison Gorge NCA Resource Management Plan (RMP)(BLM 2004), are physically outside the NCA boundary, and are designated part of the "BLM West Common Lands." The BLM West Common Lands are 16,000 acres of "limited off-highway vehicle (OHV)" areas that allow mechanized (motorized and

non-motorized) travel on designated routes, and camping (on the east side of Peach Valley Road). Uses include scenic driving, four-wheel driving, motorcycle and mountain bike trail riding, horseback riding, and hunting. The BLM lands intersected by the EQ Lateral contain no BLM designated routes and lie west of Peach Valley Road.

No Action Alternative: There would be no impacts to public recreation from the No Action Alternative.

Proposed Action: The Project would take place on BLM lands without designated travel routes or camping. Public recreation activities would be temporarily interrupted and the quality of the experience temporarily decreased by construction noise, construction traffic, and the visual presence of equipment and machinery working and idled on the construction site or staging areas. These disruptions would be minor as they would not prohibit recreational activities in the Project Area, and they would end following the completion of construction. The Project would not result in cumulative impacts to recreational lands, as any disruptions to the recreational experience would cease after project completion, and access to recreational lands would be unchanged.

No significant impacts to public recreation would occur as a result of the Project.

3.2.8 – Grazing

The BLM lands involved within the Project Area fall within the 3,140-acre Selig Canal BLM Grazing Allotment. This allotment is in the East Project Area and supports winter and early spring sheep grazing. The grazing allotment includes salt desert and stony salt desert ecological types with their characteristic sparse vegetative growth and fragile soils. In the area of the Project, the grazing forage consists mostly of cool season grasses and salt-tolerant shrubs. The grazing allotment contains occurrences of invasive annual grasses (cheatgrass, annual wheatgrass), invasive annual forbs (mustards), and noxious weeds such as Russian knapweed and whitetop.

No Action Alternative: There would be no impacts to livestock grazing from the No Action Alternative.

Proposed Action: Under the Project, a total of approximately 7.3 acres of grazing rangelands within the BLM grazing allotment in the East Project Area would experience a temporary impact. The temporary impacts from construction on the grazing allotment and grazing livestock would be negligible, as the quality of the grazing range in the East Project Area is relatively poor and represents less than one percent of the grazing allotment acreage. Surface disturbances would be reclaimed as explained in Sections 2.2.1 and 2.2.6. There are no BLM grazing allotments in or adjacent to the West Project Area, South Project Area, or the Habitat Replacement Site. No public lands currently capable of being grazed in the Project Area would be rendered permanently incapable of being grazed as a result of the Project. Due to the short-term nature of the Project, there would be no impacts which add to the incremental effects of future actions on grazing; therefore, there would be no cumulative effects to grazing associated with the Project.

Piping of the ditches through the public land grazing allotment would remove a source of stock water in the allotment area; however, there are other sources of stock water available throughout the grazing allotment, and therefore this impact does not rise to the level of significant.

The allotment permittee would be notified of activities under the Project. During construction, pipeline trenches left open overnight would be kept to a minimum and covered to reduce potential for entrainment of livestock. Covers would be secured in place and strong enough to prevent livestock or wildlife from falling through. Where trench covers would not be practical, animal escape ramps would be utilized.

No significant impacts to grazing would occur as a result of the Project.

3.2.9 – Vegetation Resources

The ditches involved with the Project in the East Project Area (Peach Valley) are surrounded primarily by low semi-desert shrublands dominated by shadscale (*Atriplex confertifolia*) and mat saltbush (*A. corrugata*). Some adjacent areas, especially along the GKB Lateral consist of tall semi-desert shrublands dominated by greasewood (*Sarcobatus vermiculatus*), interspersed with areas of ruderal disturbed ground, irrigated hayfields or pastures. Terrain north of the GKB Lateral contains some stony steep or semi-steep ground in low semi-desert shrublands. The West Project Area occurs in irrigated farmlands, ruderal disturbed ground, roadsides areas, and residential areas, with small pockets of low and tall semi-desert shrublands. The South Project Area intersects irrigated farmlands, disturbed ground, roadsides, residential areas, with small pockets of low and tall semi-desert shrublands. The Habitat Replacement Site is located in riparian woodlands along the Uncompahgre River, and dominated by Russian olive (*Elaeagnus angustifolia*), salt cedar (*Tamarisk* spp.), and herbaceous ruderal weeds. The proposed staging areas are on farmed or disturbed ground on Reclamation Property.

The ditch banks involved with the Project support intermittent narrow corridors of irrigation-induced riparian and wetland vegetation, including stands of coyote willow (*Salix exigua*), cattails (*Typha* sp.), sedges (*Carex* and *Eliocharis* spp.), and rushes (*Juncus* spp.), and occasional cottonwoods (*Populus* spp.), and scattered non-native trees including Russian olive (*Elaeagnus angustifolia*), salt cedar (*Tamarix* sp.), and Siberian elm (*Ulmus pumila*).

There is a regional effort to reduce salinity in the lower Gunnison and Colorado River watersheds, resulting in an ongoing area-wide conversion of artificially-created riparian and wetland habitat to uplands. Consistent with the Colorado River Basin Salinity Control Act, habitat replacement projects compensate for the loss of riparian and wetland habitat values.

Vegetation along the ditches involved with the Project is disturbed by routine maintenance, which includes periodic mechanical clearing with heavy equipment and occasional burning or application of herbicides.

No Action Alternative: There would be no effect on existing vegetative resources from the No Action Alternative.

Proposed Action: Construction of the pipeline would result in a minor impact to upland native vegetation located within the construction corridor. The impact would be evident in the project area for a period of several years. The impacted upland native vegetation is abundant in the surrounding areas. Following pipeline construction, disturbed areas in the pipeline alignment would be recontoured and either topsoiled and reseeded with a seed mix appropriate for the surrounding vegetation community or finished with sterile subsurface soil and unseeded, depending on the wishes of the underlying landowner. Where applicable, the seed mix for the reseeded areas would be

native drought-tolerant seed mix approved by Reclamation, BLM, and the underlying landowner and appropriate for the surrounding habitat. The seed mix is included in Appendix A. Disturbed agricultural areas would be contoured to the surrounding grade and reseeded with compatible hay or pasture seed mixes. Agricultural areas would return to a condition similar to or better than their pre-construction condition within a year of construction. The unseeded areas would require several years to recolonize the sterile soil that would be placed on the final graded surface. Natural colonization of native plants is preferable to reseeding on reserved topsoil in these areas. Redistributed topsoil has a low probability of success in germinating commercial seed mixes following construction, especially in drought conditions, and instead has germinated its own existing seed banks of ruderal weeds adapted to ground disturbance. Finishing the ground surface with subsurface soil would help eliminate the weed seed bank in the construction area. Surrounding native vegetation would colonize the construction corridor over a period of several years as the new topsoil becomes weathered. Because the upland native vegetation is abundant in the surrounding areas and would colonize the construction corridor, the minor impact to upland native vegetation would not rise to the level of significant and impacts would not contribute to a cumulative impact on the resources.

Construction activities would directly disturb the staging areas, irrigation agricultural areas, and roadsides. These areas experience routine disturbance, and their post-project conditions would not significantly differ from their pre-project conditions. Dust from operating equipment and vehicles would also temporarily affect nearby vegetation; however, increased dust would be minor and temporary (see Section 3.2.3), and therefore the impact to nearby vegetation would be minor and temporary. Across the entire project, vegetation removal and construction footprints would be confined to the smallest portion of the ditch prism or construction ROW necessary for safe completion of work. Construction of the Project, including the Habitat Replacement Site, would follow BMPs to further minimize temporary impacts.

The Project would result in the permanent loss of approximately 10.63 acres of riparian and wetland vegetation associated with the open ditches and seepage from the ditches (WNRCS 2021). However, as stipulated by the Salinity Control Act, a habitat replacement project is included as a component of the Project to ensure there would be no net loss of fish and wildlife values (in this case, riparian and wetland vegetation) associated with implementation of the Project. Because there would be no loss of riparian and wetland values associated with implementation of the Project, the effects of the loss of riparian and wetland vegetation would be insignificant. The Project would contribute to the larger-scale loss of artificially sustained riparian and wetland areas collectively resulting from piping projects around the region. However, because there would be no loss of riparian and wetland values associated with implementation of the Project, the Project would not contribute to cumulative effects on riparian and wetland vegetation values within the region.

A habitat evaluation was performed to quantify the fish and wildlife values that would be lost due to implementation of the Project (WNRCS 2021). The evaluation followed the methodology outlined in Reclamation's April 2018 *Basinwide Salinity Control Program: Procedures for Habitat* Replacement. The value of the habitat loss which would occur due to the Project is 18.7 habitat units (WNRCS 2021). UVWUA has 13.4 excess habitat units from their East Side Laterals Piping Project Phase 9 Habitat Replacement Site, and plans to use those units as credit to partially maintain the habitat value losses of the Project. The Habitat Replacement Site to be developed for the Project would generate the additional 5.4 habitat units required to fully maintain the habitat value which would be lost as a result of the Project (WNRCS 2024). The Habitat Replacement Site is located north of the Project's West Project Area (Figure 1 and Figure 7) in the Uncompahgre River riparian corridor.

No significant impacts to vegetation resources would occur as a result of the Project.

3.2.10 – Weeds

Weeds present within the Project Area include the non-native trees Russian olive and salt cedar, as well as the herbaceous noxious weeds Russian knapweed (*Acroptilon repens*), whitetop (*Cardaria draba*), and Canada thistle (*Cirsium arvense*) (WNRCS 2021). Russian thistle (*Salsola kali*), kochia (*Kochia scoparia*), and halogeton (*Halogeton glomeratus*) are also common non-native herbaceous plants in the area. The Applicant manages noxious weeds on the ditch prisms by spot-spraying or mowing seasonally, or by mechanical removal with heavy equipment, as resources permit. BLM also manages weeds on BLM lands in the Project Area. Vehicles, people and their dogs, livestock, and wildlife traveling on the ditch prism can contribute to the spread of weeds. Flowing water in irrigation ditches is also a vector for the continued spread of weeds. Disbursed recreation and livestock grazing contributes to the propagation of weeds in grazed areas.

Weeds along the ditches involved with the Project are addressed by routine vegetation maintenance, which includes periodic mechanical clearing with heavy equipment and occasional burning or application of herbicides.

No Action Alternative: There would be no effect on existing weeds from the No Action Alternative.

Proposed Action: The Project would remove segments of open water, a key element of invasive seed transport. Finishing the ground surface with subsurface soil would help eliminate the weed seed bank in the construction area. Certain segment of the ditch would no longer require regular maintenance, lowering the potential for the continued spread and establishment of weeds. Downgradient herbaceous and woody noxious weeds which rely on ditch seepage would no longer be supported. Despite these beneficial effects to noxious weed presence, noxious weeds would continue to be present throughout the Project Area. Because noxious weeds are currently present in the Project Area, their ongoing presence within the Project Area would not constitute a significant impact.

To further curtail the spread of noxious weeds, environmental commitments (CHAPTER 4) such as cleaning vehicles and equipment prior to bringing them onsite and conducting ongoing weed management following construction would help minimize the risk of weed infestations. After construction and reclamation of the Project Area, noxious weed presence would be monitored subject to agreements between the Applicant and BLM and individual landowners, and regulated by Delta and Montrose Counties in accordance with county standards (Delta County 2020, Montrose County 2011).

The Habitat Replacement Site weed infestations would be treated as part of the Habitat Replacement Plan (WNRCS 2024), with goals for maintaining total weed cover below 10 percent.

In the long-term, piping the ditch laterals involved with the Project, along with other salinity control projects in the region, would cumulatively remove an important vector of weed seed transport in the vicinity – open water. Seeps from the earthen ditches that currently support herbaceous and woody noxious weeds would be dried and the cumulative ability of the environment to support these weeds would be diminished.

No significant impacts to weeds would occur as a result of the Project.

3.2.11 - Wildlife Resources

A variety of small mammals, reptiles, and amphibians inhabit the upland and riparian habitat associated with the Project Area. Those that would be likely to use the ditch corridor or adjacent areas include small ground-dwelling mammals, such as badger, white-tailed prairie dog (a BLM Sensitive Species), cottontail rabbit, white-tailed jackrabbit, woodrat, several species of lizards, mice, voles, and shrews. Striped skunk, raccoon, red fox, coyote, bobcat, beaver, western terrestrial garter snake, smooth green snake (a BLM Sensitive Species), Woodhouse's toad, northern leopard frog (a BLM Sensitive Species), several species of bats (some of which are BLM Sensitive Species), and tiger salamander could also be using the area. The riparian vegetation supported by the open ditches, in association with nearby irrigated land, and native shrublands and badlands, provide nesting, breeding, foraging, cover, and movement corridors for an array of wildlife.

The Project Area falls within overall range of mule deer, mountain lion, and black bear. Mule deer are relatively common across the Uncompahgre Valley, which has a year-round resident population of deer and year-round concentration areas along the Uncompahgre River corridor and across Ash and Spring Creek mesas (CPW 2022). These mesas and the sweeping foothills and canyons of the Uncompahgre Plateau to the west also provide mule deer severe winter range for herds concentrating father west during typical winters. Table 5 provides a breakdown of mule deer range types in the vicinity of the Project.

Table 5. Mule Deer Range by Project Area

Range Type	East Project Area	West Project Area	South Project Area	Habitat Replacement Site	UVWUA Facilities
Resident population area	X	X	X	X	X
Limited use area	X				
Concentration area		X			
Winter range		X	X	X	X
Severe winter range		X			
Winter concentration area		X			

The primary nesting season for migratory songbirds in the Project Area is April 1 through July 15. The core nesting season for raptors in the area is also April 1 through July 15; however, individuals—especially red-tailed hawk and great-horned owl—may begin courtship and nest construction as early as February 15 (CPW 2020). Burrowing owls may be present and nesting in prairie dog burrows during the period of March 15 through October 31 (CPW 2020). Golden eagles nest between December 15 and July 15, and bald eagles nest between October 15 and July 31 (CPW 2020). A nesting raptor survey conducted for the Project Area during May of 2024 identified one red-tailed hawk nest within 1/3 mile of the construction areas. The entire Project lies within CPW-

mapped bald eagle winter range, the West and South Project Areas are in bald eagle winter forage range, and the Habitat Replacement Site is in a bald eagle winter concentration area (CPW 2022).

Wildlife in the Project Area experiences a baseline level of disturbance from suburban residential activities, domestic dogs, people and vehicles traveling on public and private roads, and ranching and farming activities. The East Project Area has the largest amount of natural wildlife habitat and seclusion of all the project areas. Agriculture, private game bird hunting, and limited grazing are the primary land uses in the East Project Area. Farming activities and farmed ground are prevalent in the West Project Area. The South Project Area parallels a fairly busy public road in a mix of suburban and agricultural settings. The Habitat Replacement Area is in the forested riparian corridor of the Uncompahgre River, which is closely flanked by open agricultural fields and properties with light industrial use.

There is a regional effort to reduce salinity in the lower Gunnison and Colorado River watersheds, resulting in an ongoing area-wide conversion of artificially-created riparian and wetland habitat to uplands. Wildlife distribution across the landscape, especially wildlife that depend on riparian and wetland habitat, is changing in response to these habitat changes. Consistent with the Colorado River Basin Salinity Control Act, projects to replace riparian and wetland habitat losses are completed in conjunction with the piping projects.

No Action Alternative: There would be no effect on wildlife resources from the No Action Alternative. Salt and selenium loading from the area would continue to affect aquatic dependent species.

Proposed Action: Construction impacts to small animals, especially burrowing amphibians, reptiles, and small mammals, would include direct mortality and displacement during construction activities. However, these species and habitats are relatively common throughout the area. The species would continue to propagate and population-level significant impacts would not occur.

Bird, bat, reptile, and amphibian species dependent on wetland and riparian habitats for some or all of their life cycles would experience a long-term (greater than five years) loss of habitat due to the Project. These species are relatively common in wetland and riparian habitat throughout the area. The species would continue to propagate in the area and population-level significant impacts would not occur. The habitat value associated with the lost wetland and riparian habitat would be fully maintained with the implementation of the Habitat Replacement Site (see Section 2.2.8). Because the value of these species' habitat would be fully maintained, there would not be a significant impact to bird, bat, reptile, and amphibian species resulting from the loss of the ditch induced wetland and riparian habitat.

Construction would create incremental activity and ground disturbance throughout the Project Area, resulting in temporary impacts to mule deer and elk within the Project Area. Due to the temporal and spatially incremental nature of the Project, the extent and availability of big game range and habitat in the area, and the lack of big game critical winter range throughout the majority of the Project Area, the temporary impacts to big game due to project construction activities would be negligible to minor. In general, the Project would create incremental disturbance throughout the Project areas, allowing big game near the construction activity to find refuge nearby and limit the amount of energy they expend. Disturbances to mule deer in their critical winter range (i.e., severe winter range) in the West Project Area during harsh winters would affect mule deer due to the lack

of food availability and expenditure of energy to move away from disturbances. However, given the existing level of human disturbance and development (winter livestock feeding, agricultural activities, residential activities) in the West Project Area, big game in this area would be somewhat habituated to the Project disturbances, and therefore the impacts would be negligible to minor. Furthermore, severe winter conditions (e.g., snow cover, extreme cold temperatures, excessively muddy conditions) would preclude construction activities during times when game is most vulnerable, and therefore there would be no effect to big game during those times.

There would be no effect to nesting songbirds as pre-construction vegetation grubbing would occur outside the primary nesting season (potential nesting habitat including shrubs and trees along the ditch would be grubbed and removed outside the period of April 1 through July 15).

There would be no effect to the raptor (red-tailed hawk) nest identified within the recommended buffer distances for Colorado nesting raptors (CPW 2020), as it would be avoided with a sensitive area buffer and a construction timing restrictions per CPW recommendations (CPW 2020). Construction activities would not occur within 1/3 mile of the active red-tailed hawk nest from February 15 through July 15, with the following exception: pipeline construction within 1/3 mile of a nest could begin prior to February 15, so long as the construction activities were initiated prior to February 15, and operated on a daily basis until completion. Red-tailed hawks that initiate nesting during ongoing construction activities are tolerant to such activities, and therefore there would be no effect to any red-tailed hawks that initiate nesting within the buffer area during ongoing construction. These timing restrictions and sensitive areas would be noted on Project construction drawings (see CHAPTER 4). If a new active raptor nest is discovered within 1/3 mile of the Project during construction, or a new bald eagle or golden eagle nest is discovered within ½ mile of the Project during construction, construction would cease until Reclamation could complete evaluations and consultations with FWS and CPW.

To further reduce the potential for effects to wildlife, pipeline trenches left open overnight during construction would be kept to a minimum and covered to reduce potential for entrainment of deer, elk, and other wildlife. Covers would be secured in place and strong enough to prevent wildlife from falling through. Where trench covers would not be practical, wildlife escape ramps would be utilized.

The Project would contribute to a regional trend resulting in the larger-scale spatial relocation of artificially-created riparian and wetland values from earthen irrigation conveyances to habitat replacement sites. These activities are resulting in the redistribution of riparian and wetland-dependent wildlife across the landscape. Given the minor and temporary nature of the effects listed above, and given that the riparian and wetland values are being relocated rather than lost, the Project would not generate effects which would contribute to a significant cumulative effect on wildlife resources.

No significant impacts to wildlife resources would occur as a result of the Project.

3.2.12 – Threatened & Endangered Species

The species listed as threatened or endangered under the Endangered Species Act of 1973, as amended, with the potential to be affected by the Project are clay-loving wild buckwheat (*Eriogonum pelinophilum*), western yellow-billed cuckoo (*Coccyzus americanus*), and four Colorado River basin fish species: bonytail chub (*Gila elegans*), Colorado pikeminnow (*Ptychocheilus lucius*), the humpback chub (*Gila cypha*), and the razorback sucker (*Xyrauchen texanus*).

Since the public review period of this EA, one species has been downlisted from endangered to threatened (humpback chub), one new species has become a candidate for listing (monarch butterfly [(*Danaus Plexippus*]), one new species has been listed as threatened (silverspot [*Speyeria nokomis nokomis*]), and one new endangered species is now recognized as potentially having range in the Project area (gray wolf [*Canis lupus*]). There are no Endangered Species Act consultation requirements for Candidate species.

A biological survey described in the Biological Assessment for the Project (Reclamation 2022) documented several occurrences of clay-loving wild buckwheat in the East Project Area in the vicinity of the EQ and GKA Laterals. Clay-loving wild buckwheat is a small, low-growing, densely-branched shrub in the buckwheat family, with dark green linear leaves and small white to cream-colored flowers that bloom from late May through early September. Generally, the plants are found in a sharply defined soil microhabitat (whitish calcareous clay soils derived from Mancos Shale, often mapped as Billings Series soils) on mid to lower slopes of badland (adobe clay) hills at elevations of 5,220 to 6,400 feet. Clay-loving buckwheat occurs with other xerophytic low shrubs such as shadscale, mat saltbush, and black sagebrush. There is no designated critical habitat for this species in the Project Area.

The Habitat Replacement Site contains a marginally adequate nesting and foraging area for the western yellow-billed cuckoo, a migratory songbird which requires large patches of continuous forested riparian habitat with significant vegetative structural diversity for nesting success. Yellow-billed cuckoos could be using the Habitat Replacement Site from late May through early September. Their nesting season is June 1 through August 30. Foraging or migrating individuals could occur incidentally in the other project areas during this time. There is no designated critical habitat for this species in the Project Area.

None of the four listed Colorado River fishes occurs in the Project Area and the Project Area does not occur within or adjacent to designated critical habitat. However, because water depletions in the Gunnison Basin diminish backwater spawning areas for the Colorado River listed fishes in downstream designated critical habitat, impacts to the endangered fishes result from continuing irrigation practices in the Gunnison Basin. The Upper Colorado River Endangered Fish Recovery Program ("Recovery Program") is a partnership of public and private organizations (including Reclamation) working since 1988 to recover the four listed species while allowing continued water uses and future water development. Recovery strategies include conducting research, improving river habitat, providing adequate stream flows, managing non-native fish, and raising endangered fish in hatcheries for stocking. In 2009, Reclamation completed a consultation with FWS under Section 7 of the Endangered Species Act for changes in operation (aka "reoperation") of the Aspinall Unit (the three dams on the Gunnison River in the upper part of the Black Canyon of the Gunnison), in coordination with other federal water project dams in the Gunnison watershed. These changes addressed the needs of the downstream endangered fishes by creating a flow regime that more closely represents the natural conditions. The consultation considered all other federal and non-federal existing water depletions in the Gunnison River Basin (an estimated annual average of 602,700 acre-feet per year), along with projected new future depletions of up to 37,900 acre-feet per year. Following the consultation, FWS issued the 2009 Gunnison River Basin Programmatic Biological Opinion (PBO)(FWS 2009). The PBO found that although the reoperation of the Aspinall Unit and the continued operation of other federal and non-federal operations in the Gunnison Basin may adversely affect the endangered fishes and their critical habitat, the ongoing Recovery Program remains the reasonable and prudent alternative to avoid jeopardy to the

endangered Colorado River fishes and avoid adverse modification of designated critical habitat. On an annual basis, the FWS determines whether the Recovery Program continues to make "sufficient progress to be the reasonable and prudent alternative to avoid the likelihood of jeopardy to the endangered fishes, and to avoid destruction or adverse modification of their critical habitat" for "existing depletions" (FWS 2023a) of federal project waters. FWS notified Reclamation on June 25, 2024 that federal projects involving existing depletions perfected prior to 1988 and covered under the PBO are not required to further consult with FWS under Section 7 of the ESA regarding the listed fishes (FWS 2024). The Project involves both federal project water and an existing non-federal depletion perfected prior to 1988.

The Gunnison Basin Selenium Management Program is a private/public partnership of concerned parties working together to identify and implement solutions to reduce selenium concentrations in the Gunnison and Colorado rivers. The goal of the Gunnison Basin Selenium Management Program is to reduce adverse effects of selenium on the four endangered fish species in the Gunnison and Colorado rivers.

The Project Area is mapped within the overall range of the silverspot (a butterfly) proposed for listing as threatened under the U.S. Endangered Species Act in May 2022. According to the FWS species profile (FWS 2023b), the known Colorado populations of silverspot do not occur in or near the Project area. Reclamation coordinated with FWS to confirm that the Project area does not encompass suitable habitat for silverspot (Ireland 2024), and that a survey for silverspot was not required.

The gray wolf is a wide-ranging habitat generalist and keystone predator that requires landscape-scale areas of minimal human disturbance and a sufficient prey base of large ungulates. Historically, wolves occurred across the state, but were extirpated (exterminated) from Colorado in the 1940s, mainly to protect domestic livestock. Documented reports of lone wolves sporadically dispersing into northern Colorado began in 2004, following the re-establishment of populations in Idaho, Montana, and Wyoming. In 2020, CPW confirmed an active pack of 6 wolves in extreme northwestern (Moffat County) Colorado. In 2021, the first reproductively active pack was documented in Jackson County in north-central Colorado. In 2023, FWS designated the Colorado wolf population as "experimental" under the U.S. Endangered Species Act following the establishment of a state statue requiring CPW to reintroduce wolves to western Colorado by 2024. CPW made its initial release of gray wolves on the western slope on December 18, 2023. The primary threats to wolves are vehicle collisions, illegal poaching, or accidental take (such as by poisoning targeted to other livestock predators such as coyote). The Project Area is not in gray wolf designated critical habitat.

While western Colorado has not been home to large numbers of monarch butterflies relative to other areas in its range, the species occurs in the Project Area during the warm season where milkweed plants are available in riparian areas, wetlands, irrigated pastures, and roadsides. Showy milkweed is sparsely scattered along certain ditches involved with the Project. Ongoing ditch maintenance activities would potentially continue to affect milkweed habitat, the larval host plant of the candidate monarch butterfly.

No Action Alternative: There would be no effect on clay-loving wild buckwheat, western yellow-billed cuckoo, the four Colorado River listed fishes or their designated downstream critical habitat, monarch butterfly, silverspot, or gray wolf from the No Action Alternative. Historic depletions and

salt and selenium loading from the Project Area would continue to affect the four Colorado River Basin listed fishes and their critical habitat downstream. Ditch maintenance activities would potentially continue to affect milkweed habitat, the larval host plant of the candidate monarch butterfly.

Proposed Action: In compliance with Section 7 of the Endangered Species Act, Reclamation completed a formal consultation with FWS regarding potential adverse impacts to clay-loving wild buckwheat (buckwheat). The FWS Biological Opinion resulting from this consultation is in Appendix B. Although direct harm to buckwheat occurrences within the right-of-way for the Project would be avoided by the construction footprint, the potential for indirect effects following construction exist. These indirect effects include impacts from unauthorized/unmonitored off-road travel if recreational users travel cross-country or proliferate trails from the pipeline alignment. Such travel could crush plants, create dust that smothers plants, and create trails, soil damage, and erosion that impact the soil moisture regime around the plants. The Applicant would take measures avoid direct impacts to the plants during construction, including the use of barricades placed in consultation with a Reclamation and BLM biologist. Following pipeline installation, decommissioned ditches in the vicinity of the buckwheat occurrences, as well as existing historic soil spoil piles and new soil berms, would be strategically located to discourage off-road travel from the pipeline alignment. The FWS determined that the Project, including conservation and mitigation measures explained in the FWS Biological Opinion (Appendix B), would not jeopardize the continued existence of the buckwheat, such that effects would not be expected, directly or indirectly, to reduce appreciably the likelihood of both the survival and the recovery of buckwheat in the wild by reducing the reproduction, numbers, or distributions of the species, and therefore the impacts to the buckwheat do not rise to the level of significant (see Appendix B). The FWS also indicated that future projects with the potential to impact the buckwheat are not reasonably certain to occur at this time, and therefore there would be no cumulative effects to the buckwheat as a result of implementing the Project (see Appendix B).

In order to avoid direct impacts to western yellow-billed cuckoo at the Habitat Replacement Site, work to remove non-native trees and shrubs, and use of machinery to conduct new vegetation plantings would avoid yellow-billed cuckoo breeding season. One of the intentions of the habitat work at the Habitat Replacement Site is to improve nesting and foraging conditions for cuckoo. At the pipeline construction sites elsewhere in the Project Area, timing of construction would not correspond with the cuckoo breeding season, nor would it be taking place in breeding suitable habitat. Because the Project would avoid the yellow-billed cuckoo and would ultimately improve potential yellow-billed cuckoo habitat, the Project would not have an adverse impact on the yellow-billed cuckoo or its critical habitat, and would not contribute to cumulative adverse impacts on the yellow-billed cuckoo.

Based on previously issued biological opinions that all depletions within the Upper Colorado River Basin may adversely affect the listed fish species and their critical habitat, it is determined that the Project may adversely affect the bonytail chub, Colorado pikeminnow, humpback chub, and razorback sucker and their critical habitat. The irrigation water involved in the piping aspect of the Project is Uncompahgre Project water, an existing federal depletion covered under the Gunnison Basin Programmatic Biological Opinion (PBO) (FWS 2009). The irrigation water involved in the habitat replacement aspect of the Project is an existing non-federal depletion from the Boles & Manney Ditch, adjudicated in the 1950s. Interest in the Boles & Manney Ditch was acquired by the Applicant in 2024, after the formal Section 7 ESA Consultation for the Project with FWS was

completed. Reclamation and FWS reinitiated the Section 7 Consultation for the Project in 2024 in order to address this historic depletion. However, during the Section 7 re-initiation period, FWS determined that further consultations for historic depletions perfected prior to 1988 and covered under the PBO are no longer required (FWS 2024). Instead, the Reclamation will report the Project description and the historic depletion amount to FWS prior to initiation of the Project. The Recovery Program ensures impacts to endangered fishes or adverse modification of their designated critical habitat resulting from projects covered under the PBO would not result in jeopardy to the species. Because the Project is covered under the PBO, it would not result in jeopardy to the species, there would be no significant impact to the endangered fishes or their designated critical habitat.

The reduction in selenium loading to the Colorado River and Gunnison River basins as a result of the Project would contribute to the cumulative beneficial effects of the Gunnison Basin Selenium Management Program in improving water quality within designated critical habitat for the Colorado pikeminnow, razorback sucker, humpback chub, and bonytail throughout the Colorado River and lower Gunnison River basins.

Direct effects to individual monarch butterflies in larval or chrysalis stages on milkweed plants could occur during construction. Because the Project Area is not within a core migration area or core population area for the monarch butterfly and would therefore not affect those areas, direct effects would not rise to the level of significant. Implementation of the Habitat Replacement Project would potentially create or enhance host plant (milkweed) habitat affected by the Project, maintaining its habitat in the area. Therefore, the Project would not adversely affect the monarch butterfly's habitat or population in western Colorado.

There would be no effect to silverspot from the Project, because the Project does not overlap with the documented population occurrences of silverspot, and the Project area does not encompass suitable habitat for silverspot.

Given the current understanding that wolves are not present or documented in the Project Area, the Project would have no effect on the gray wolf. If wolves dispersed into or near the Project Area during construction of the Project, the Project activities would not measurably affect wolves, because the Project does not include a predator management program, and wolves could disperse away from the Project Area. Since the Project is not in gray wolf designated critical habitat, there would be no effect to gray wolf critical habitat.

No significant impacts to threatened and endangered species and their critical habitat would occur as a result of the Project.

3.2.13 – Cultural Resources

Cultural resources are defined as physical or other expressions of human activity or occupation. Such resources include culturally significant landscapes, prehistoric and historic archaeological sites, isolated artifacts or features, traditional cultural properties, Native American and other sacred places, and artifacts and documents of cultural and historical significance.

Alpine Archaeological Consultants conducted Class III cultural resource inventories of the Project Area (Alpine 2021). All ditch reaches involved with the Project were inventoried, as well as the habitat replacement site and staging areas. The inventories resulted in the documentation of several

sites within the Project Area are eligible for listing in the National Register of Historic Places (NRHP).

There is an ongoing trend of piping earthen irrigation ditches in the region (see Figure 2), many of which are eligible for listing in the NRHP. This conversion is typically viewed as an adverse effect on the eligible cultural resource.

No Action Alternative: The No Action Alternative would have no effect on cultural resources.

Proposed Action: As a result of the Class III cultural resources inventory of the Project Area, and in consultation with the Colorado State Historic Preservation Officer (Colorado SHPO), Reclamation has determined that the Project would have an adverse effect on several ditch elements involved with the Project, which are resources eligible for listing in the NRHP. A Memorandum of Agreement (MOA) and an MOA Amendment has been executed between Reclamation, BLM, USFS, and the Colorado SHPO, with the Applicant participating as an invited party, regarding the management of cultural resources related to the Project. The MOA outlines stipulations designed to conserve the value of the eligible cultural resources, and is included in Appendix C. Conserving the value of the eligible cultural resources would ensure that piping the canal would not result in the loss of knowledge of early irrigation systems, their design, or reduce the ability to gain knowledge of early irrigation systems into the future. Because the value of the cultural resources related to the Project would be conserved, there would be no significant impacts to cultural resources as a result of implementing the Project.

The Project would contribute to an area-wide adverse effect on NRHP eligible cultural resources which is occurring as a result of irrigation piping projects. However, the value of the eligible cultural resources in the area which have been or may be affected due to federally funded irrigation piping projects have been and would continue to be maintained due to the project stipulations developed with the Colorado SHPO, and therefore the adverse cumulative effect of the piping projects on cultural resources would not rise to the level of significant.

No significant impacts to cultural resources would occur as a result of the Project.

3.2.14 – Agricultural Resources & Soils

The soils units mapped by the U.S. Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) in the Project Area are generally sandy or stony loams that are a source of salinity in irrigation water in the region. There is an ongoing trend to pipe earthen irrigation ditches in such soils in the region (see Figure 2). The major soil units mapped by NRCS in the Project Area are described as follows:

- Persayo-Fruita complex, 0 to 12 percent slopes, and Persayo loam 4 to 25 percent slopes, are the most prevalent soil units in the East Project Area. These soils are present throughout the native semi-desert shrublands traversed by the ditches involved with the Project and intersect some irrigated crop areas. The Persayo-Fruita compex is a moderately deep well-drained complex of silty clay loam with bedrock weathered shale at depths of 13 to 74 inches. Persayo loam is well-drained moderately deep loam and silty clay loam with shale bedrock at 16 to 59 inches.

- Mesa clay loam, 0 to 2 percent slopes, and Montrose silty clay loam, 0 to 2 percent slopes, are the most prevalent soil units in the West Project Area, where they are mostly in agricultural crop use. They are relatively deep, well-drained clay loams and silty clay loams underlain by gravelly clay and cobbly sandy loams, occurring across broad terraces.
- Persayo-Badland complex, 25 to 75 percent slopes, and Mesa gravelly loam, 0 to 2 percent slopes, are the most prevalent soils in the South Project Area. The Persayo-Badland complex is a moderately deep well-drained loam over silty clay loam with 16 to 59 inches to weathered shale bedrock, and is present where the ditch prism contours along the toe of a hillside. The Mesa gravelly loam is a deep, well-drained soil in the south part of the South Project Area where the ditch prism is surrounded by irrigated cropland and also makes crossings of Chipeta and 6475 Roads.
- Waterdog, occasionally flooded-Riverwash complex, 0 to 2 percent slopes, is the main soil unit mapped at the Habitat Replacement Site. This poorly drained soil is found throughout the valley in floodplain steps, and consists of a thin layer of loam over sandy loams and very coarse sands. It supports riparian vegetation. This soil unit is also mapped at the UVWUA Olathe facility, a developed facility where project materials would be staged.
- Urban land is the soil classification at the location of the UVWUA Montrose facility, a developed facility where project materials would be staged.

The Mesa clay loam, Montrose silty clay loam, and the Mesa gravelly loam soils in the Project Area are agriculturally significant since they are classified by NRCS as "prime farmland if irrigated" under the Farmland Protection Policy Act (NRCS 2007).

The soils involved with the pipeline component of the Project are derived from Mancos Shale, which is susceptible to erosion by water and wind.

No Action Alternative: The No Action Alternative would have no effect on soils characterized by NRCS as agriculturally significant. Farmlands in the Project Area would continue to produce as in the past. Salinity loading from irrigation water contact with saline soils in the ditches related to the Project would continue as it has in the past.

Proposed Action: Under the Proposed Action Alternative, installation of the buried pipelines would temporarily disturb soils in or near the previously-disturbed ditch prisms. Staging activities would take place on existing irrigated pastures or existing disturbed areas. Project activities would cause temporary disturbance to soils that are either not in irrigated agricultural production, or soils directly adjacent to irrigated agricultural lands, or irrigated lands. The Mesa clay loam, Montrose silty clay loam, and Mesa gravelly loam soils in the irrigated agricultural lands in the Project Area are designated as agriculturally significant by NRCS (see description above). Some agriculturally significant soils would be temporarily directly disturbed by the Project, but would be put back into production the following irrigation season. No farmlands would be permanently altered or removed from production as a result of the Project, and no interruption to agricultural production would occur. Therefore, there would be no significant impact to soils, farmlands, or agricultural production as a result of implementing the Project.

The ditches involved with the Project also convey irrigation water to agriculturally significant soils downstream of the Project Area; however, no change to or effect on the configuration of irrigated

lands would occur because of the Project. No part of the irrigation season would be lost during implementation of the Project.

The Project would have a beneficial effect on the Applicant's ability to manage irrigation water with efficiencies gained from piping the systems.

Soil erosion from irrigation water conveyances would be substantially reduced where ditch reaches are proposed for replacement with buried pipe. Therefore, no adverse effects on soil erosion would occur due to implementation of the Project. The Project contributes to the growing amount of piped irrigation conveyances in the region, which are collectively having a beneficial cumulative effect on the reduction of soil erosion on a larger scale.

No significant impacts to Soils and Farmlands of Agricultural Significant would occur as a result of the Project.

3.3 – Summary

Table 6 provides a summary of environmental impacts for the resources evaluated in this EA. Resource impacts are outlined for both the No Action and the Proposed Action Alternatives. As described throughout Chapter 3, environmental impacts of the Action Alternative were not determined to be significant.

Table 6. Summary of Impacts for the No Action Alternative and Proposed Action Alternative.

Resource	**Impacts: No Action Alternative**	**Impacts: Proposed Action Alternative**
Water Rights and Use	No Effect	UVWUA would have the ability to better manage irrigation water with efficiencies gained from eliminating ditch seepage. An estimated seepage loss of approximately 2,030 acre-feet per year would be eliminated following the piping project, making more water available to downstream water users within the Uncompahgre Project. The Project contributes to the growing amount of piped irrigation conveyances in the region, which are cumulatively reducing water seepage and improving irrigation water delivery efficiency on a larger scale.

Resource	Impacts: No Action Alternative	Impacts: Proposed Action Alternative
Water Quality	Salt and selenium loading from the Project Area would continue to affect water quality in the Colorado River Basin	The Project would eliminate seepage from the involved ditch systems, reducing salt loading to the Colorado River Basin at an estimated rate of 3,501 tons per year. The Project would reduce selenium loading into the Gunnison River basin, although the amount of selenium loading reduction that would result from the Project has not been quantified. Improved water quality would benefit downstream aquatic species by reducing salt and selenium loading in the Gunnison. The beneficial effects of improved water quality resulting from the Project would contribute to the regional efforts underway to reduce salinity and selenium in the lower Gunnison and Colorado River watersheds.
Air Quality	No Effect	Exhaust and dust from construction activities would have a minor, short-term effect on the air quality in the immediate Project Area. Following construction, impacts to air quality from routine maintenance and operation activities along the pipeline corridor would be similar or less in magnitude to those currently occurring for the existing ditch. If other construction projects occur concurrently with the Project, the cumulative impact on air quality in the area would be temporary and would not rise to the level of significant, as the area would remain in attainment for any criteria pollutants in Delta or Montrose Counties.
Access, Transportation, Utilities & Safety	No Effect	Some short-term disruption of traffic at the involved public roads would occur when equipment and materials are hauled into a Project location, and when pipe crossings are constructed across public roads. If relocation or raising of utilities is necessary during construction, a brief interruption of utility services would occur. No cumulative effects.
Noise	No Effect	Project construction activities would generate a temporary source of noise audible to residents near the Project. No cumulative effects.
Visual Resources	No Effect	Machinery would be operating on the landscape and highly visible from public roads in certain locations on a spatially incremental basis mostly during fall and early winter months. Following construction in the pipeline alignment, the disturbance footprint would be a linear area of bare ground, rather than an open earthen ditch. Within a few growing seasons, revegetation would help the disturbed ground blend with the surroundings. No cumulative effects.

Resource	Impacts: No Action Alternative	Impacts: Proposed Action Alternative
Public Recreation	No Effect	Public recreation activities would be temporarily interrupted and the quality of experience temporarily decreased by construction noise, construction traffic, and the visual presence of equipment and machinery working and idled on the construction site or in staging areas. No cumulative effects.
Grazing	No Effect	A total of approximately 7.3 acres of grazing rangelands within the BLM grazing allotment in the East Project Area would experience a temporary impact. Piping of the ditches through the public land grazing allotment would remove a source of stock water in the allotment area. No cumulative effects.
Vegetative Resources	No Effect	Construction of the pipeline would result in a minor impact to upland native vegetation located within the construction corridor. The impact would be evident in the project area for a period of several years. The Project would result in the permanent loss of approximately 10.63 acres of riparian and wetland vegetation associated with the unlined ditches. The value of the habitat loss which would occur due to the Project is 18.7 habitat units (WNRCS 2021). The Habitat Replacement Site to be developed for the Project would generate at least 5.3 habitat units, which would fully maintain the value of the fish and wildlife values to be lost as a result of the Project when combined with the 13.4 excess habitat credits developed by the Applicant. No cumulative effects to vegetation resources.
Weeds	No Effect	The Project would remove segments of open water, a key element of invasive seed transport. Finishing the ground surface with subsurface soil would help eliminate the weed seed bank in the construction area. Certain segments of the ditch would no longer require regular maintenance, lowering the potential for the continued spread and establishment of weeds. Downgradient herbaceous and woody noxious weeds which rely on ditch seepage would no longer be supported. Noxious weeds would continue to be present throughout the Project Area. Piping the ditch laterals involved with the Project, along with other salinity control projects in the region, would cumulatively remove an important vector of weed seed transport in the vicinity—open water. Seeps from the earthen ditches that currently support herbaceous and woody noxious weeds would be dried and the cumulative ability of the environment to support these weeds would be diminished.

Resource	Impacts: No Action Alternative	Impacts: Proposed Action Alternative
Wildlife Resources	No effect on terrestrial and avian wildlife; salt and selenium loading from the Project Area would continue to affect aquatic dependent species	Construction impacts to small animals, especially burrowing amphibians, reptiles, and small mammals, would include direct mortality and displacement during construction activities. Bird, bat, reptile, and amphibian species dependent on wetland and riparian habitats for some or all of their life cycles would experience a long-term (greater than five years) loss of habitat due to the Project. However, the habitat value associated with the lost wetland and riparian habitat would be fully maintained with the implementation of the Habitat Replacement Site. Construction would create incremental activity and ground disturbance throughout the Project area, resulting in minor temporary impacts to mule deer and elk within the Project area. The Project would create incremental disturbance throughout the Project areas, allowing big game near the construction activity to find refuge nearby and limit the amount of energy they expend. Disturbances to mule deer in their critical winter range (i.e., severe winter range) in the West Project Area during harsh winters would affect mule deer due to the lack of food availability and expenditure of energy to move away from disturbances. The Project would contribute to a regional trend resulting in the relocation of artificially-created riparian and wetland values from earthen irrigation conveyances to habitat replacement sites.

Resource	Impacts: No Action Alternative	Impacts: Proposed Action Alternative
Threatened & Endangered Species	No effect on listed plants and birds; historic depletions and salt and selenium loading from the Project Area would continue to affect the four Colorado River basin endangered fishes and their critical habitat downstream.	Indirect effects to the buckwheat include impacts from unauthorized/unmonitored off-road travel if recreational users travel cross-country or proliferate trails from the pipeline alignment. The Project would not adversely affect the western yellow-billed cuckoo. The Habitat Replacement Site contains potential nesting and foraging habitat for cuckoo, and one of the intentions of the habitat work there is to improve conditions for cuckoo. The Project may adversely affect the bonytail chub, Colorado pikeminnow, humpback chub, and razorback sucker and their critical habitat because of water depletions from the Upper Colorado River basin. The irrigation water involved in the piping aspect of Project is Uncompahgre Project water, and is covered under the 2009 Gunnison Basin PBO. The irrigation water involved with the habitat replacement project is a non-federal depletion perfected prior to 1988 and does not require consultation per FWS correspondence (FWS 2024). The Upper Colorado Endangered Fish Recovery Program ensures impacts to endangered fishes or adverse modification of their designated critical habitat resulting from projects covered under the PBO would not result in jeopardy to the species. The reduction in selenium loading to the Colorado River and Gunnison River basins as a result of the Project would contribute to the cumulative beneficial effects of the Gunnison Basin Selenium Management Program in improving water quality within designated critical habitat for the Colorado pikeminnow, razorback sucker, humpback chub, and bonytail throughout the Colorado River and lower Gunnison River basins.
Cultural Resources	No Effect	The Project would have an adverse effect on several ditch elements involved with the Project, which are resources eligible for listing in the NRHP. An MOA executed between Reclamation, BLM, and SHPO outlines stipulations designed to conserve the value of the eligible cultural resources. The Project would contribute to an area-wide adverse effect on NRHP eligible cultural resources which is occurring as a result of irrigation piping projects. However, the value of the eligible cultural resources in the area which have been or may be affected due to federally funded irrigation piping projects have been and would continue to be maintained due to the project stipulations developed with the Colorado SHPO, and therefore the adverse cumulative effect of the piping projects on cultural resources would not rise to the level of significant.

Resource	Impacts: No Action Alternative	Impacts: Proposed Action Alternative
Agricultural Resources and Soils	No Effect	Installation of the buried pipelines would temporarily disturb soils in or near the previously-disturbed ditch prisms. Staging activities would take place on existing irrigated pastures or existing disturbed areas. Project activities would cause temporary disturbance to soils that are either not in irrigated agricultural production, or soils directly adjacent to irrigated agricultural lands, or irrigated lands. Some agriculturally significant soils would be temporarily directly disturbed by the Project, but would be put back into production the following irrigation season. The Project would have a beneficial effect on the Applicant's ability to manage irrigation water with efficiencies gained from piping the systems. Soil erosion from irrigation water conveyances would be substantially reduced where ditch reaches are proposed for replacement with buried pipe. The Project contributes to the growing amount of piped irrigation conveyances in the region, which are collectively having a beneficial cumulative effect on the reduction of soil erosion on a larger scale.

CHAPTER 4 – ENVIRONMENTAL COMMITMENTS

This section summarizes the design features, BMPs, conservation measures, and other requirements (collectively, "Environmental Commitments") developed to lessen the potential adverse insignificant effects of the Project. The actions in the following environmental commitment list will be implemented as an integral part of the Project and shall be included in any contractor bid specifications.

The BLM ROW permit stipulations are the authority for several of the environmental commitments. In cases where an environmental commitment and a BLM ROW stipulation differ on BLM land, the environmental commitment shall take precedence. The BLM ROW stipulations are included in this EA as Appendix D.

Note that in the event there is a change in the Project description, or any construction activities are proposed outside of the inventoried Project Area or the planned timeframes outlined in this EA, additional environmental review by Reclamation would be required to determine if the existing surveys and information are adequate to evaluate the changed project scope. Additional NEPA documentation may be required.

Table 7. Environmental Commitments

Type	Environmental Commitment	Affected Resource	Authority
Construction Contractor Plan or Certification Requirement	A Spill Response Plan shall be prepared in advance of construction by the contractor for areas of work where spilled contaminants could flow into water bodies.	Water Quality	Clean Water Act of 1972 as amended
Construction Contractor Plan or Certification Requirement	A Stormwater Management Plan shall be prepared and submitted to CDPHE by the construction contractor prior to construction disturbance.	Water Quality	Clean Water Act of 1972 as amended
Construction Contractor Plan or Certification Requirement	A CWA Section 402 Storm Water Discharge Permit compliant with the National Pollutant Discharge Elimination System (NPDES) shall be obtained from CDPHE by the construction contractor prior to construction disturbance (regardless of whether dewatering would take place during construction).	Water Quality	Clean Water Act of 1972 as amended
Construction Contractor Plan or Certification Requirement	Certification under CDPHE Water Quality Division Construction Dewatering Discharges Permit COG070000 shall be obtained by the construction contractor prior to any dewatering activities related to construction.	Water Quality	Clean Water Act of 1972 as amended
Construction Contractor Plan or Certification Requirement	Any construction, access, or use permits required by the Delta County Planning Department, County Engineering and County Road & Bridge District #1, or the Montrose County Planning & Development Department, shall be obtained in advance of road crossings.	Access, Transportation & Safety	County Ordinances and Regulations

Type	Environmental Commitment	Affected Resource	Authority
General NEPA Compliance	To satisfy the requirements of RGP-5, submit the following package to the Army Corps at least 30 days in advance of construction: (1) documentation for compliance with the Endangered Species Act and National Historic Preservation Act and/or the lead Federal Agency NEPA document containing the same, (2) a project description, (3) project plans, and (4) a location map."	Wetlands	RGP-5, Section 404, Clean Water Act of 1972 as amended
General BMP	Construction limits shall be clearly flagged or marked onsite to avoid unnecessary plant loss or ground disturbance. No grading or blading shall occur inside the project ROW other than that necessary within the actual construction footprint.	Vegetation, Weeds, Habitat, Wildlife	Delta & Montrose County Weed Management Plans (Delta County 2020; Montrose County 2011); BLM ROW Permit Stipulation
General BMP	All equipment shall be cleaned before it is brought to the construction area, to minimize transport of new weed species to the construction area.	Vegetation, Weeds, Habitat, Wildlife	Delta & Montrose County Weed Management Plans (Delta County 2020; Montrose County 2011); BLM ROW Permit Stipulation
General BMP	Prior to construction, vegetative material shall be removed by mowing or chopping, and either reserved for mulch onsite, or hauled to the County landfill or to a staging area to be burned, chipped, and/or mulched. Stumps shall be grubbed and hauled to the County landfill or a proposed staging area to be burned. No burning shall occur on BLM land.	Soil, Vegetation, Weeds, Habitat	Delta & Montrose County Weed Management Plans (Delta County 2020; Montrose County 2011); BLM ROW Permit Stipulation

Type	Environmental Commitment	Affected Resource	Authority
General BMP	Vegetation removal shall be confined to the smallest portion of the Project Area necessary for completion of the work.	Soil, Vegetation, Weeds, Habitat	Delta & Montrose County Weed Management Plans (Delta County 2020; Montrose County 2011); BLM ROW Permit Stipulation
General NEPA Requirement	Tree grubbing and vegetation removal in all project areas shall avoid the primary nesting season of migratory birds (April 1 – July 15). This timing restriction shall be noted on Project construction drawings.	Wildlife	Migratory Bird Treaty Act of 1918
Conservation Measure	Tree grubbing and vegetation removal in the Habitat Replacement Site shall avoid the nesting season of western yellow-billed cuckoos (June 1 – August 30). This timing restriction shall be noted on Project construction drawings and the Habitat Replacement Plan (WNRCS 2024).	Threatened & Endangered Species	Endangered Species Act of 1973 as amended
General BMP and Design Feature	Following construction, disturbed areas in the pipeline alignment shall be recontoured and either topsoiled and reseeded with a seed mix appropriate for the surrounding vegetation community or finished with sterile subsurface soil and unseeded, depending on the wished of the underlying landowner. Reseeding success shall be monitored subject to agreements between the Applicant and BLM and individual landowners.	Soil, Vegetation, Weeds, Habitat	Delta & Montrose County Weed Management Plans (Delta County 2020; Montrose County 2011); BLM ROW Permit Stipulation
General BMP	Straw wattles, silt curtains, cofferdams, dikes, straw bales, or other suitable erosion control measures shall be used to prevent erosion from entering water bodies during construction.	Water Quality	Clean Water Act of 1972 as amended

Type	Environmental Commitment	Affected Resource	Authority
General BMP	Any concrete pours shall occur in forms and/or behind cofferdams to prevent discharge into waterways. Any wastewater from concrete-batching, vehicle wash down, and aggregate processing shall be contained and treated or removed for off-site disposal.	Water Quality	Clean Water Act of 1972 as amended
General BMP	The construction contractor shall transport, handle, and store any fuels, lubricants, or other hazardous substances involved with the Project in an appropriate manner that prevents them from contaminating soil and water resources.	Water Quality, Soil	Clean Water Act of 1972 as amended
General BMP	Equipment shall be inspected daily and immediately repaired as necessary to ensure equipment is free of petrochemical leaks.	Water Quality, Soil	Clean Water Act of 1972 as amended
General BMP	Ground disturbances and construction areas shall be limited to only those areas necessary to safely implement the Project.	Soil, Vegetation, Weeds, Habitat, Wildlife	Archaeological Resources Protection Act of 1979; Paleontological Resources Preservation Act of 2009
General BMP	Pipeline trenches left open overnight shall be kept to a minimum and covered to reduce potential for hazards to the public and to wildlife. Covers shall be secured in place and strong enough to prevent people, livestock, or wildlife from falling through. Where trench covers would not be practical, wildlife escape ramps shall be used.	Wildlife, Public Safety	C.R.S. 33-1-101 to 125 Parks and Wildlife Article 1: Wildlife

Type	Environmental Commitment	Affected Resource	Authority
General NEPA Compliance	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 shall be consulted, and work shall not be resumed until consultation has been completed, as outlined in the Unanticipated Discovery Plan in the MOA (Appendix C). Stipulations in the MOA shall be incorporated into the final EA by reference. Additional surveys shall be required for cultural resources if construction plans, or proposed disturbance areas are changed.	Cultural Resources	National Historic Preservation Act of 1966 Archaeological Resources Protection Act of 1979 Paleontological Resources Preservation Act of 2009
General NEPA Compliance	In the event that previously undocumented threatened or endangered species are encountered during construction, UVWUA shall stop construction activities until Reclamation has consulted with FWS to ensure that adequate measures are in place to avoid or reduce impacts to the species.	Threatened & Endangered Species	Endangered Species Act of 1973 as amended
General NEPA Compliance	Conservation and mitigation measures for clay-loving wild buckwheat specified in the FWS Biological Opinion (Appendix B) are incorporated by reference into these Environmental Commitments. The conservation and mitigation measures shall be provided as construction notes on the project constructions drawings. Sensitive areas shall be clearly depicted on construction drawings.	Threatened & Endangered Species	Endangered Species Act of 1973 as amended
General NEPA Compliance	For the historic depletion involved with the Habitat Replacement Site, Reclamation shall submit the Project Description and estimated depletion amount to FWS prior to Project initiation.	Threatened & Endangered Species	Endangered Species Act of 1973 as amended

Type	Environmental Commitment	Affected Resource	Authority
General NEPA Compliance	Construction activities shall take place only in accordance with the schedule restrictions outlined in this EA.	Wildlife	Migratory Bird Treaty Act of 1918; Bald and Golden Eagle Protection Act of 1940
General NEPA Compliance	To avoid disturbance to nesting raptors, construction activities within species-specific CPW-recommended (CPW 2020) buffer distances are time-restricted as follows: Red-tailed hawk: no construction activity within 1/3 mile of a nest February 15 through July 15, with the following exception: pipeline construction within 1/3 mile of a nest could begin prior to February 15, so long as the construction activities were initiated prior to February 15, and operated on a daily basis until completion (it is assumed that red-tailed hawks that initiate nesting during ongoing construction activities are tolerant to such activities). These timing restrictions and sensitive areas shall be noted on Project construction drawings.	Wildlife	Migratory Bird Treaty Act of 1918
General NEPA Compliance	If a previously unknown active raptor nest is discovered within 1/3 mile or a previously unknown bald eagle or golden eagle nest is discovered within 1/2 mile of the Project Area during construction, construction shall cease until Reclamation can complete consultations with FWS and CPW.	Wildlife	Migratory Bird Treaty Act of 1918 Bald and Golden Eagle Protection Act of 1940

Type	Environmental Commitment	Affected Resource	Authority
General NEPA Compliance	The raptor nest survey shall be repeated in Spring 2024 for construction work anticipated to continue past October 15, 2023, and on a three-year cycle thereafter. The survey must only be repeated for the remaining construction areas, within the required buffer distances explained in CPW 2020.	Wildlife	Migratory Bird Treaty Act of 1918
General BMP	Following construction, except where other finishing techniques indicated on the construction drawings, all disturbed areas shall be smoothed with tracked equipment (without back dragging blade, leaving the surface roughened), shaped, and contoured to as near to their pre-project conditions as practicable.	Soil, Vegetation, Weeds, Habitat	Clean Water Act of 1972 as amended
Design Feature	All drainage patterns that intersect the ditch shall be shaped to their natural flow patterns following ditch piping.	Soil, Vegetation, Habitat	Clean Water Act of 1972 as amended
General BMP	All equipment shall be cleaned before it is transported to another job site, to avoid introducing weed species from the construction area to another job site.	Vegetation, Weeds, Habitat	Delta & Montrose County Weed Management Plans (Delta County 2020; Montrose County 2011)
General BMP	Re-seeding, where required in areas surrounded by native tall semi-desert shrub vegetation, shall occur following construction at appropriate times and with appropriate methods, using a drought tolerant, weed-free seed list approved by Reclamation (see Appendix A). UVWUA shall coordinate with private landowners to reseed any disturbances to irrigated areas.	Soil, Vegetation, Weeds, Habitat	Delta & Montrose County Weed Management Plans (Delta County 2020; Montrose County 2011)

Type	Environmental Commitment	Affected Resource	Authority
General BMP	Weed control shall be implemented by UVWUA or its contractor in accordance with the most current Delta County and Montrose County weed control standards. Noxious weed presence shall be monitored subject to agreements between the Applicant and BLM and individual landowners and regulated by Delta and Montrose Counties in accordance with county standards. UVWUA shall coordinate with BLM on the use of herbicides on BLM land, and shall provide Pesticide Use Proposals (PUPs) prior to treatments, as required.	Soil, Vegetation, Weeds, Habitat	Delta & Montrose County Weed Management Plans (Delta County 2020; Montrose County 2011); BLM ROW stipulation

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

Notice of the public review period and availability of the Draft EA was distributed to private landowners adjacent to the Project, and the organizations and agencies listed in Appendix E. The Draft EA was made available for public comment for a 30-day period beginning May 20, 2022. Reclamation did not receive any comments.

The Final EA is available on Reclamation's website. Publicly-available electronic versions of the EA meet the technical standards of Section 508 of the Rehabilitation Act of 1973, so that the documents can be accessed by people with disabilities using accessibility software tools.

CHAPTER 6 – PREPARERS

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

Table 8. List of Preparers

Name	Agency	Title	Areas of Responsibility
Lesley McWhirter	Reclamation (retired)	Environmental and Planning Group Chief	Threatened and endangered species
Jenny Ward	Reclamation	Environmental Protection Specialist	EA review, cultural resources
Dawn Reeder	Rare Earth Science (Consultant to UVWUA)	Principal Biologist	General authorship, mapping

CHAPTER 7 – REFERENCES

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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
CFR	Code of Federal Regulations
cfs	cubic feet per second
CPW	Colorado Parks and Wildlife
C.R.S.	Colorado Revised Statute
CRSP	Colorado River Storage Project
CWA	Clean Water Act
EA	Environmental Assessment
EIS	Environmental Impact Statement
E.O.	Executive Order
EPA	Environmental Protection Agency
ESA	U.S. Endangered Species Act

Abbreviation or Acronym	Definition
FOA	Funding Opportunity Announcement
FONSI	Finding of No Significant Impact
FWS	U.S. Fish & Wildlife Service
HDPE	High-density polyethylene
Interior	U.S. Department of the Interior
mi	mile
MOA	Memorandum of Agreement
NAAQS	National Ambient Air Quality Standards
NCA	National Conservation Area
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NMPM	New Mexico Principal Meridian
NPDES	National Pollutant Discharge Elimination System
NRCS	U.S. Department of Agriculture Natural Resources Conservation Service
NRHP	National Register of Historic Places
PBO	Programmatic Biological Opinion
PM	Principal meridian
psi	Pounds per square inch
PUP	Pesticide Use Proposal
PVC	Polyvinylchloride
RCPP	Regional Conservation Partnership Program
Reclamation	U.S. Bureau of Reclamation (also USBR)
RMP	Resource Management Plan (see BLM 2020 reference)

Abbreviation or Acronym	Definition
ROW	Right-of-way
SHPO	State Historic Preservation Officer
SMPW	Selenium Management Program Workgroup
USACE	U.S. Army Corps of Engineers
USBR	U.S. Bureau of Reclamation
U.S.C.	United States Code
USDA	U.S. Department of Agriculture
UVWUA	Uncompahgre Valley Water Users Association
VRM	Visual Resource Management
WNRCS	Wildlife and Natural Resource Concepts & Solutions, LLC

APPENDIX A – SEED LIST

The following certified weed-free seed mix is approved by Reclamation and required for tall semi-desert natural areas. The recommended seeding rate is 40 seeds per square foot, and the pounds of live seed (PLS) per acre are calculated on published data for seeds per pound of the recommended species.

Code	Common Name	Suggested Cultivar	Genus	Species	Mix Proportion	PLS/acre
PASM	Western wheatgrass	X-ARRIBA	*Pascopyrum*	*smithii*	25%	3.5
ELTR	Slender wheatgrass	White River	*Elymus*	*trachycaulus*	25%	3
POSE	Sandburg bluegrass	UP	*Poa*	*secunda*	40%	0.75
POFE	Muttongrass	UP/Ruin Canyon	*Poa*	*fendleriana*	10%	0.2
				TOTAL		**7.45**

APPENDIX B – ESA COMPLIANCE DOCUMENTATION

United States Department of the Interior

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

IN REPLY REFER TO:
FWS/R6/ES

ECOSphere 2022-0034032

July 15, 2022

Memorandum

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

for RP

KURT BRODERDO
Digitally signed by KURT BRODERDORP
Date: 2022.07.15 11:49:24 -06'00'

From: Western Colorado Field Supervisor, Western Colorado Ecological Services Office, U.S. Fish and Wildlife Service, Grand Junction, Colorado

Subject: Endangered Species Act Consultation on the Uncompahgre Valley Water Users Association's Eastside Laterals Piping Project Phase 10; Salinity Control Program (R20AC00019)

This responds to your request for Endangered Species Act (ESA) Section 7 consultation on the proposed Uncompahgre Valley Water Users Association's (UVWUA) East Side Laterals Piping Project Phase 10 irrigation project in Delta and Montrose Counties, Colorado. We received your consultation request and Biological Assessment on April 6, 2022. You have determined that this irrigation ditch improvement project that will replace existing open, earthen irrigation ditches with buried pipe to reduce salinity and eliminate drain seepage may affect, but is not likely to adversely affect the federally threatened Western Yellow-Billed Cuckoo (*Coccyzus americanus*) (YBCU). The proposed action does not occur within YBCU critical habitat. Given the project description and the conservation measures defined in the BA regarding YBCU, The U.S. Fish and Wildlife Service (Service) concurs with your determination. Effects of the Eastside Laterals Piping Project Phase 10 to YBCU or its critical habitat will not be addressed further.

Continued irrigation water depletion from the Gunnison River will result in water depletions to the Upper Colorado River Basin. We have determined that water depletions adversely affect the Colorado River threatened and endangered fish, including the bonytail chub (*Gila elegans*), Colorado pikeminnow (*Ptychocheilus lucius)*, humpback chub (*Gila cypha*), and razorback sucker (*Xyrauchen texanus*), and their critical habitats. In accordance with the Service's Final Gunnison River Basin Programmatic Biological Opinion (TAILS 65413-2009-F-0044), specified conservation measures therein have been implemented, and water depletion amounts are being tracked and reported annually. This project will not result in any additional depletions that have not been addressed in that

biological opinion, and you have determined that the project is not expected to result in any other consequences to the Colorado River endangered fish or their critical habitat. Therefore, these species will not be addressed further.

You have determined that this project may affect, and is likely to adversely affect the federally endangered Clay-Loving Wild Buckwheat (*Eriogonum pelinophilum)* (CLWB). The Service agrees with your determination. As the proposed action does not occur within CLWB critical habitat, any effects to critical habitat will not be considered further. Below, we provide our biological opinion on the project.

BIOLOGICAL OPINION

Background and Proposed Action

The proposed project is located east and southeast of the City of Delta, and south of the City of Montrose, in Delta and Montrose Counties, Colorado, respectively. The proposed action will occur on private, Bureau of Land Management (BLM)-administered land, and Bureau of Reclamation (BOR)-administered land.

Uncompahgre Valley Water Users Association is requesting approval from BOR and BLM to replace ~18.3 miles of existing earthen irrigation canals of the Uncompahgre Project's irrigation system with buried pipe. The purpose of the project is to reduce salinity concentrations in irrigation water and the greater Colorado River basin from the earthen irrigation ditches, and eliminate water loss from seepage, getting more water to downstream users. The proposed action aids compliance with the Colorado River Basin Salinity Control Act, administered by BOR, and will amend an existing right-of-way on BLM land in order to comply with the Federal Land Policy and Management Act of 1976, administered by BLM.

The project will convert ~18.3 miles of open irrigation ditches to buried, pressurized pipeline. 16.8 miles of this pipeline will be installed in existing ditch prisms, 1.5 miles of ditch/prism will be abandoned, and 1.2 miles of buried pipeline will be installed in re-alignments outside of existing ditch. One mile of this buried pipeline will be on BLM land in the East Project Area only. The average width of the construction area for these buried pipelines will be 35 feet, with up to a 60 foot construction footprints. These installations will involve using trackhoes and bulldozers to grub vegetation in ditch prisms, followed by excavation of the ditch to the appropriate depth, installation of pipe, backfilling of the pipe trench, and grading of the pipe alignment. In areas adjoined by agricultural lands or suburban development, reserved topsoil will be replaced, and reseeded with drought-tolerant, weed-free seed. In natural areas, where the ditch prisms pass through sparsely vegetated semi-desert badlands, subsurface soil will be distributed across the top without reseeding to avoid ruderal weeds establishing. Maps of the project and a description of methods used for installing the pipeline can be found in the biological assessment prepared by BOR for this project.

Consequences of the action may include crushing, introduction of invasive weeds, and fugitive dust and may occur both within and beyond the physical footprint of disturbance. Based on previous communications with the BOR, it was determined that effects from previously disturbed areas would be approximately 20 meters from the project footprint, which could be up to 18 meters away from ditch centerline in a previously disturbed area. Therefore, we consider the action area of this project to be the area within 38 meters of ditch centerline for previously disturbed areas, 300 meters of the centerline of pipe alignments outside existing ditch prisms, and 50 meters from ditch centerline on BLM land.

Conservation and Mitigation Measures

The following conservation measures and Best Management Practices will be incorporated into the project to minimize potential effects to CLWB during construction:

- A qualified contract biologist, Reclamation staff, and/or BLM staff will conduct a pre-construction site inspection with construction personnel at CLWB occurrences within 38 meters of the ditch centerline to determine placement of construction barricades and erosion control placement
- Project staff and contractors working on the site will be made aware of and will be able to identify CLWB, and will stop work if CLWB is known or suspected to be directly damaged and will notify the project manager, who will coordinate with Reclamation staff for next steps
- Construction crew will ensure barricades and/or erosion control measures to protect CLWB are in place and secure on a daily basis before beginning work
- To avoid dust impacts, construction activities will occur outside the blooming period for CLWB (late May-early September); if construction is unavoidable during these times, dust control measures will be implemented in the construction footprint
- Weed-free straw wattles, straw bales, or other suitable erosion control measures shall be used to minimize soil erosion; their locations shall be determined during pre-construction site inspections
- Where CLWB occurrences are within 5 meters of the existing ditch prism, where sheet flow of precipitation is possible, the existing surface hydrology in the area between the prism and the CLWB occurrence will be preserved
- Construction footprints in adobe soils adjacent to native low semi-desert shrublands shall be finished with subsurface soil reserved from the site in order to prevent ruderal weed establishment.
- Ditch segments passing through badlands-type habitat will be unfilled or only partially filled to present significant barriers to off-road travel through surrounding vegetation communities
- Post-construction site inspections will be conducted by a qualified contract biologist, Reclamation staff, and/or BLM staff to assess the condition of CLWB occurrences within 38 meters of the project centerline to document any damage to CLWB plants by construction, and that construction finishing techniques were appropriately implemented. Staff will also conduct a site visit during the following flowering season to document health and continued existence of CLWB plants, and note whether new off-road travel routes have proliferated into habitat post-construction weed control shall be implemented by UVWUA to county standards, prioritizing the protection of BLM special status plants
- BOR will submit two annual reports to the Service to document implementation of conservation measures, one immediately following construction and one during the next flowering season after completion of construction.
- If previously undocumented federally listed species are encountered during construction, UVWUA will stop construction activities until Reclamation has consulted with the Service to ensure adequate measures are in place to avoid impacts to species.

Status of the Species

Species Description and Status
Clay-Loving Wild Buckwheat is a low-growing, rounded, densely branched sub-shrub in the buckwheat family, generally growing 5 to 10 cm high and 8 to 20 cm across. The plant is a long-lived (>20 year) perennial, which typically flowers from late May to early September, with fruiting occurring from June to September. The species has a mixed breeding system, with some pollination occurring between flowers on the same plant and some from different plants, with a variety of pollinators.

The species was listed as endangered in 1984 due to limited range and high risk of habitat loss. (49 FR 28562-28565). Critical habitat was established at the time of listing, designating approximately 120 acres of habitat 3 miles East of Austin, Colorado in Delta County. The Service conducted a 5-year review of the species in 2009, in which the species remained categorized as endangered. A species status assessment (SSA) is currently in draft form, and contains the most recent review of the species status (USFWS 2022, in draft).

The SSA looks at current condition, with the species broken into 3 analytical units (Delta, Selig, and Fairview; AUs). Clay-Loving Wild Buckwheat has seen a decreasing trend in all populations over recent years. The Fairview and Selig AUs have moderate resiliency, based on habitat, climate, and demographic factors. The Delta AU has low resiliency. The SSA goes into future conditions, in which there are pessimistic, optimistic, and continuation scenarios. These future conditions consider the above resiliency characteristics, with effects to climate from climate change projected 30 years into the future. The pessimistic scenario predicts all AUs will have low resiliency, and considers a hot and dry future; the continuation scenario predicts that the Fairview AU will have moderate resiliency, and that Selig and Delta AUs will have low resiliency, and considers a moderately hot and moderately dry future; the optimistic scenario predicts that the Fairview AU will have high resiliency, the Selig AU will have moderate resiliency, and the Delta AU will have low resiliency, and considers a warmer and moderately wetter future (USFWS 2022, in draft).

Distribution
Clay-Loving Wild Buckwheat is endemic to Delta and Montrose Counties in western Colorado. The species' entire range is connected, with three analytical units (Delta, Selig, and Fairview) subdivided based on genetic diversity. The Delta analytical unit is located East of Delta, Colorado; the Selig analytical unit is located North of Montrose; and the Fairview analytical unit is located Southeast of Montrose. Within these three analytical units, there are approximately 15 element occurrences classified by Colorado Natural Heritage Program (CNHP). Overall, there are ~296,000 individuals of CLWB, with ~261,000 individuals in the Fairview analytical unit (USFWS 2022, in draft).

Habitat

Clay-Loving Wild Buckwheat grows in alkaline clay barrens of the Mancos Shale Formation, often on white strata from the Smoky Hill Member. CLWB habitat generally occurs along the toe slope of the Mancos Shale hills between steep barren slopes above and broad flatlands below. These areas receive very little precipitation, and CLWB is often found in microhabitats within swales or drainages where moisture may be present for longer following precipitation events. Other dominant co-occurring plant species are *Atriplex corrugata* (mat saltbrush) and *Artemisia nova* (black sagebrush). Other associated species are *Atriplex confertifolia* (shadscale), *Atriplex gardneri* (Gardner's saltbush), *Picrothamnus desertorum* (bud sagebrush), *Xylorhiza venusta* (charming woody aster), and another local endemic *Penstemon retrorsus* (Adobe Hills beardtongue). Habitat quality is considered high in the Fairview AU, moderate in the Selig AU, and low in the Delta AU (USFWS 2022, in draft).

Threats

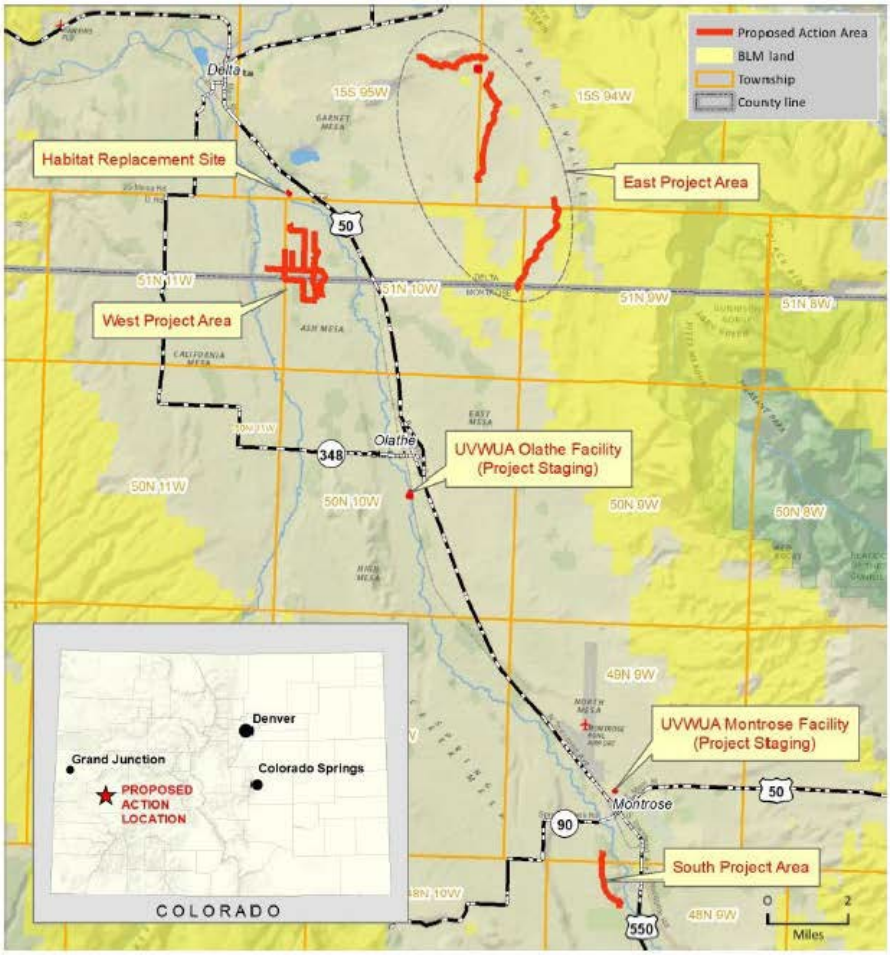
Primary threats to CLWB identified in the draft Species Status Assessment include destruction, modification, fragmentation, or curtailment of habitat and range. Factors contributing to habitat destruction and modification include (1) incompatible livestock grazing; (2) invasive species; (3) off-highway vehicle (OHV) use; (4) commercial and residential development; (5) irrigation operations; (6) development and maintenance of utility corridors; and (7) climate change (USFWS 2022, in draft).The effects of past and present threats on the status of the species within the action area is described in the environmental baseline section.

Environmental Baseline

The environmental baseline includes the past and present impacts of all Federal, State, or private actions and other human activities in the action area, the anticipated impacts of all proposed Federal projects in the action area that have already undergone formal or early section 7 consultation, and the impact of State or private actions which are contemporaneous with the consultation in process. (50 CFR 402.02).

There are six primary physical locations in which the proposed action will occur (figure 1): the East Project Area, a low semi-desert shrubland site in Peach Valley area east of Delta, ; the West Project Area, a primarily agricultural area on Ash Mesa southeast of Delta; the South Project Area, a primarily agricultural area near Chipeta Road south of Montrose; the UVWUA Olathe Facility, a staging area of existing development southeast of Delta; the UVWUA Montrose Facility, a staging area of existing development north of Montrose; and the Habitat Replacement Site, which is located in riparian woodlands along the Uncompahgre River, mostly composed of exotic invasives, southeast of Delta. The West and South Project Areas are on private land, while the East Project Area lies on both private land and Bureau of Land Management (BLM)-administered public land. UVWUA Facilities are on Bureau of Reclamation (BOR)-administered land, and the Habitat Replacement Site is on private land.

Figure 1. Location of the Proposed Action and its Specific Project Areas.



The East Project Area, where CLWB occurs, is primarily within the Delta AU, with some overlap into the Selig AU. The Delta AU has approximately 4,582 individual plants, and the Selig AU has approximately 30,700 individual plants. The Delta AU currently has low resiliency, and the Selig AU has moderate resiliency. The Delta AU has lower soil moisture and higher soil temperature as compared to the Selig AU, and low habitat quality as compared to Selig AU (USFWS 2022, in draft).

Past and current land uses inside the action area of this project include irrigation operations, road development, and agriculture. Surface disturbance from these activities may have affected CLWB directly through physical damage and mortality from clearing land and through dust deposition, and indirectly through the spread of introduced weeds and habitat degradation. Most of the surrounding landcover in the East Project Area, where CLWB occurs, is low semi-desert shrubland with areas of ruderal disturbed ground, irrigated hayfields, and pastures. The project footprint within the east project area in which CLWB occurs (the GKA lateral and the EQ lateral) will be placed as much as possible within the existing disturbed ground footprint, and will not extend more than 18 meters to either side of the existing ditch centerline.

Effects of the Action

Effects of the action refers to the direct and indirect effects of an action on the species or critical habitat, together with the effects of other activities that are interrelated or interdependent with that action, that will be added to the environmental baseline. (50 CFR 402.02).

Within the East Project Area, there are 17 mapped occurrence polygons that are within 38 meters of the ditch centerline, which have been identified as the most vulnerable to physical damage, construction dust, and post-construction effects such as weed infestations, constituting ~1,455 plants that are most vulnerable.

Effects from project activities are possible if construction personnel and equipment are not restricted to the edge of the footprints, as some of these occurrences are very close to the expected maximum construction footprint of 18 meters (60 feet). Four of these occurrences are within 5 meters, and can be expected to be highly vulnerable to crushing if construction personnel and equipment are not restricted. However, harm is avoidable by confining construction activities to the existing ditch prism, the use of appropriate construction barricades and erosion control measures, and the education of construction staff as to identification of the plant and its occurrences, all of which are covered in the conservation measures provided by the BA.

Other consequences include fugitive dust, the spread of invasive non-native plant species into suitable habitat, subtle changes to soil moisture regimes near the construction footprint, the potential for proliferation of unauthorized all-terrain vehicle trails into previously disturbed habitat following the finished construction alignment, and herbicidal drift during weed control following the project.

Fugitive dust on leaves and other vegetative plant parts has been shown to negatively affect plant physiology (Farmer 1993; Rasoul Sharif et al. 1997; Padgett et al. 2007). Potential impacts to plants from the accumulation of dust include clogged plant pores, reduced light reception, and alteration of nutrient uptake mechanisms (Boerboom 2006; Ferguson et al. 2007). Clogged pores can interfere with growth rates and water transpiration (Salisbury and Ross 1992). Additionally, dust has the ability to increase the surface temperature of the leaves of desert plants due to increases in absorbance of infrared radiation leading to decreased growth rates and plant vigor (Rasoul Sharif et al. 1997). Dust can also affect snowmelt patterns and soil moisture availability, alter soil pH and nutrient availability, and result in plant community composition changes (Angold 1997; Gieselman 2010). The CLWB that occur within 20 meters of disturbance are most likely to experience the greatest amount of impact from dust. However, by conducting the construction outside the flowering period and implementing dust abatement measures when construction cannot occur outside the flowering period, impacts from dust will be minimized.

Invasive non-native plants invade and alter all types of plant communities, often resulting in non-native plant monocultures that support little wildlife or native plant communities. Many experts believe that, following habitat destruction, invasive non-native plants are the next greatest threat to biodiversity (Randall 1996). Non-native invasive plants alter ecosystem attributes including geomorphology, fire regime, hydrology, microclimate, nutrient cycling, and productivity (Dukes and Mooney 2004). Invasive non-native plants also can detrimentally affect native plants through competitive exclusion, altered pollinator behavior, niche displacement, hybridization, and changes in insect predation (D'Antonio and Vitousek 1992; Mooney and Cleland 2001). Ground disturbance combined with vehicle traffic and construction equipment provides excellent habitat and vectors for invasive species, particularly when these species are already present within the soil seed bank (Schmidt 1989; Gelbard and Belnap 2003; Larson 2003). Because the project area is adjacent to multiple ruderal and agricultural areas, the potential for weed invasion is high due to nearby sources for weed seed. Measures to be implemented project-wide which involve finishing construction footprints that are present in Adobe soils with “seed sterile” subsurface soil recovered from beneath the root zone and foregoing seeding should help reduce the effects of invasive non-native plants.

Changes to soil moisture regimes may affect CLWB. Clay-Loving Wild Buckwheat grows in a very dry area, with Montrose and Delta Counties averaging less than 3 inches of precipitation annually in 2017 and 2018 (BLM 2019). Because of this, CLWB are found in areas where moisture lingers. If filling in ditches changes the microtopography of a site, there is potential to lose soil moisture in specific areas, or to see sheet flow precipitation, which may cause erosion and damage individual plants. Erosion control measures will be implemented generally, and where CLWB occurrences are within 5 meters of the project footprint where sheet flow might be an issue, the existing surface hydrology in the area between the footprint and the CLWB occurrence will be preserved. These efforts should minimize the effects to soil moisture regimes for those nearby occurrences.

Unauthorized OHV trails have the potential to impact CLWB occurrences through trampling, fugitive dust impacts, and introduction of invasive non-native plants. Currently, the irrigation ditches and spoils piles nearby present a considerable barrier to establishment of unauthorized OHV trails. By filling these ditches in, there is potential to impact CLWB occurrences. Ditch segments passing through CLWB habitat and other badlands-type habitat will be unfilled or partially filled in order to continue to present barriers to off-road travel, as specified in the BA, which will minimize the potential for unauthorized OHV trails.

Herbicides used for weed control could affect CLWB, particularly on days when strong winds are blowing. The BLM is aware of instances when herbicides have impacted native species due to inadvertent drift caused by improper applications and adverse weather conditions (BLM 2007). Conservation measures focusing on the protection of BLM special status species, of which CLWB is a part of, during weed control will help to minimize the effects of herbicidal drift.

The proposed action has potential to affect CLWB via crushing, construction dust, and post-construction effects like weed infestations. Buffer distances and applied conservation measures will reduce the likelihood of measurable impacts to the species. As such, the proposed action is not expected to appreciably reduce the likelihood of recovery for CLWB.

Cumulative Effects

Cumulative effects are those effects of future State or private activities, not involving Federal activities, that are reasonably certain to occur within the action area of the Federal action subjectto consultation. (50 CFR 402.02). Future Federal actions that are unrelated to the proposed action are not considered in this section, because they require separate consultation pursuant to Section 7 of the ESA. While future irrigation piping projects are possible, and conversion of natural habitat held privately to other uses is a growing trend in Delta and Montrose counties, these projects are not reasonably certain to occur at this time.

Conclusion

After reviewing the current status of CLWB, effects of the proposed action, environmental baseline for the action area, cumulative effects, and proposed conservation measures, it is our biological opinion that the East Side Laterals Piping Project Phase 10 project, as proposed, is not likely to jeopardize the continued existence of the species, such that effects would not be expected, directly or indirectly, to reduce appreciably the likelihood of both the survival and the recovery of CLWB in the wild by reducing the reproduction, numbers, or distributions of the species. We have reached this conclusion because:

- No direct impacts to CLWB individuals are anticipated. Although some CLWB occurrences are within 5 meters of the expected maximum project footprint, measures to use construction barricades and education regarding the identification of the species and its locations for construction staff will help to avoid impacts to CLWB individuals.
- BOR and BLM have committed to a series of conservation measures, such as construction periods falling outside of flowering seasons for CLWB, leaving ditches unfilled as a barrier to off-road travel, designed to minimize impacts from project disturbance to CLWB.

Section 9 of the ESA describes prohibited acts with respect to listed species. Prohibited acts described as "Take" [section 9(a)(1)(A)] do not apply to listed plant species. Consequently, this biological opinion does not include an incidental take statement, reasonable and prudent measures, or terms and conditions. However, limited protection of listed plants does apply to the extent that the ESA prohibits the removal or reduction to possession of federally listed plants under Federal jurisdiction. Furthermore, it is unlawful for any person to remove, cut, dig up, damage, or destroy a listed plant species in knowing violation of any law or regulation of any state or in the course of any violation of a state criminal trespass law [section 9(a)(2)(B)].

Reinitiation Notice

This concludes formal consultation under section 7 of the ESA for the Eastside Laterals Phase 10 Piping project. Reinitiation of formal consultation is required and shall be requested by the Federal agency or by the Service, where discretionary Federal involvement or control over the action has been retained or is authorized by law and: (a) If the amount or extent of taking specified in the incidental take statement is exceeded; (b) If new information reveals effects of the action that may affect listed species or critical habitat in a manner or to an extent not previously considered; (c) If the identified action is subsequently modified in a manner that causes an effect to the listed species or critical habitat that was not considered in the biological opinion; or (d) If a new species is listed or critical habitat designated that may be affected by the identified action. (50 CFR 402.16).

If you have any comments or questions, please contact Jake Gottschalk of my staff at (970)-628-7194.

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APPENDIX C – CULTURAL RESOURCE COMPLIANCE DOCUMENTATION

MEMORANDUM OF AGREEMENT
AMONG
THE BUREAU OF RECLAMATION WESTERN COLORADO AREA OFFICE,
THE BUREAU OF LAND MANAGEMENT UNCOMPAHGRE FIELD OFFICE,
THE UNCOMPAHGRE VALLEY WATER USERS ASSOCIATION,
AND THE COLORADO STATE HISTORIC PRESERVATION OFFICER
REGARDING THE
EASTSIDE LATERALS PHASE X PIPING PROJECT,
COLORADO RIVER BASIN SALINITY CONTROL PROGRAM,
LOCATED IN DELTA AND MONTROSE COUNTIES, COLORADO

WHEREAS, the Bureau of Reclamation (Reclamation) and the Uncompahgre Valley Water Users Association (UVWUA) plan to pipe 19 miles of canals and laterals associated with the Uncompahgre Project (Project); and

WHEREAS, Reclamation plans to fund UVWUA to pipe the canals and laterals, as authorized by the Basinwide Program under the Colorado River Basin Salinity Control Program, and the Bureau of Land Management (BLM) plans to approve the portions of the Project located on lands managed by the BLM, thereby making the Project a federal 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, in accordance with 36 CFR Part 800.2(a)(2), Reclamation is the lead agency for Section 106 responsibilities; and

WHEREAS, Reclamation has defined the undertaking's Area of Potential Effects (APE) as contained within a 200-foot wide corridor centered on approximately 19 miles of canals and laterals, a 130-foot wide corridor centered on 2.3 miles of existing access roads, a habitat replacement area, and four staging areas totaling 581.8 acres on private lands and 69.8 acres on lands managed by the Bureau of Land Management (BLM), as depicted in Attachment A; and

WHEREAS, Reclamation as lead Federal agency has determined, in consultation with the Colorado State Historic Preservation Officer (SHPO), that the Selig Canal (5DT117/5MN1854), FG Lateral (5DT2267/5MN12320), FGL Lateral (5DT2268), FGG Lateral (5DT2269/5MN12321), FGM Lateral (5DT2454), FGK Lateral (5DT2455), FGJ Lateral (5DT2456), GKA Lateral (5DT2457), GKB Lateral (5DT2458), FGI Lateral (5DT2459), EQ Lateral (5DT2461/5MN12329), FD Lateral (5DT2462/5MN12330), CEC Lateral (5MN12326), and FGH Lateral (5MN12327) are eligible for inclusion on the National Register of Historic Places (NRHP) under Criterion A and that the Project will result in adverse effects to the historic properties; and

WHEREAS, the BLM has participated in the consultation for the undertaking, and has chosen to participate in this Memorandum of Agreement (Agreement) as a Signatory; and

WHEREAS, the UVWUA, as the sponsor of the Project, has been invited to participate in this Agreement as an invited signatory, and has chosen to participate in the consultation; and

WHEREAS, Reclamation consulted with the Southern Ute Indian Tribe, the Ute Indian Tribe of the Uintah and Ouray Reservation, and the Ute Mountain Ute Tribe via a July 9, 2021 letter inviting the tribes to participate in consultation on the proposed undertaking as concurring parties. The Southern Ute Indian Tribe, the Ute Mountain Ute Tribe, and the Ute Indian Tribe of the Uintah and Ouray Reservation have not responded as of the signing of this Agreement; and

WHEREAS, Reclamation consulted with the Delta County Commissioners, the Montrose County Commissioners, the Delta County Historic Landmarks Board, the Montrose County Historic Landmarks Advisory Board, and the Hotchkiss Crawford Historical Museum via a July 9, 2021 letter to invite the local governments and other potentially interested entities to participate in consultation on the proposed undertaking as concurring parties. The Montrose County Historic Landmarks Advisory Board responded that they have no concerns about the project. The Delta County Commissioners, the Montrose County Commissioners, the Delta County Historic Landmarks Board, and the Hotchkiss Crawford Historical Museum have not responded as of the signing of this Agreement; and

WHEREAS, in accordance with 36 CFR § 800.6(a)(1), Reclamation has notified the Advisory Council on Historic Preservation (ACHP) of its adverse effect determination providing the specified documentation, and the ACHP has chosen not to participate in the consultation pursuant to 36 CFR § 800.6(a)(1)(iii); and

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

A. The UVWUA will develop an interactive website (Storymap) on a platform such as ArcGIS Storymap that presents a visual narrative about the history of the UVWUA system, its canals and the role of irrigation in the development of the Uncompahgre Valley. The Storymap will broadly describe early irrigation projects in the Uncompahgre Valley and focus largely on the Selig Canal Segment (5DT117.1/5MN1854.7), FG Lateral Segment (5DT2267.2/5MN12320.1), FG Lateral Segment (5DT12320.2), FGL Lateral Segment (5DT2268.2), FGG Lateral (5DT2269/5MN12321), FGM Lateral Segment (5DT2454.1), FGK Lateral Segment (5DT2455.1), FGJ Lateral (5DT2456), GKA Lateral (5DT2457), GKB Lateral (5DT2458), FGI Lateral (5DT2459), EQ Lateral Segment (5DT2461.1/5MN12329.1), FD Lateral Segment (5DT2462/5MN12330), CEC Lateral Segment (5MN12326.1), and FGH Lateral Segment (5MN12327.1).

a. The Storymap will include photographs and interactive maps that allow the viewer to explore common features along the canals, learn about each canals' history, the significance of the canal, the contributions of the canal to the development of the local communities and economies, and view historical maps. Each canal included in the Phase X project will be presented on the platform, and include a brief history and description of each canal, along with representative photographs, historic records, historic maps, videos, and/or scaled drawings to provide the user with sufficient information to understand the importance of the canals/laterals and how they served and continue to serve the people of the Uncompahgre Valley.

b. Prior to any modification of the Selig Canal (5DT117.1/5MN1854.7), FG Lateral Segment (5DT2267.2/5MN12320.1), FG Lateral Segment (5DT12320.2), FGL Lateral Segment (5DT2268.2), FGG Lateral (5DT2269/5MN12321), FGM Lateral Segment (5DT2454.1), FGK Lateral Segment (5DT2455.1), FGJ Lateral (5DT2456), GKA Lateral (5DT2457), GKB Lateral (5DT2458), FGI Lateral (5DT2459), EQ Lateral Segment (5DT2461.1/5MN12329.1), FD Lateral Segment (5DT2462/5MN12330), CEC Lateral Segment (5MN12326.1), and FGH Lateral Segment (5MN12327.1), Reclamation shall ensure that necessary information for the development of the Storymap is collected, including but not limited to additional research and scanning of images and documents held at UVWUA's office.

c. Reclamation will submit a draft outline and text of the Storymap to all signatories to this Agreement within two (2) years of the execution of this agreement. The signatories shall review and provide comments, if they have any, within thirty (30) calendar days of receipt of the draft. Reclamation shall consider signatory comments and revise the draft accordingly. Once a draft is agreed to by the signatories, Reclamation will finalize the Storymap for public use.

d. A link to the Storymap will be uploaded to the history webpage on UVWUA's website as well as Reclamation's cultural resources webpage (webpage). The link will remain on both webpages for a period of no less than 5 years.

II. GENERAL REQUIREMENTS AND STANDARDS

A. Reclamation will provide a link to the Storymap to all signatory parties within three (3) years of the execution of this Agreement. A letter containing a link to the Storymap will also be sent to the Delta County Commissioners, the Montrose County Commissioners, the Delta County Historic Landmarks Board, the Montrose County Historic Landmarks Advisory Board, the Hotchkiss Crawford Historical Museum, Colorado Mesa University Hutchins Water Center, Delta Public Library, Montrose Public Library, Colorado Archaeological Society, and the Colorado Council of Professional Archaeologists.

B. The activities prescribed by the stipulations of this Agreement shall be carried out by or under the direct supervision of a person or persons meeting, at minimum, the *Secretary of*

the Interior's Historic Preservation Professional Qualification Standards (48 FR 44716, September 29, 1983, and 62 FR 33708, June 20, 1997) (PQS) in the appropriate discipline. This does not preclude the use of properly supervised persons who do not meet the PQS.

III. DURATION

This Agreement shall expire if its terms are not carried out within three (3) 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 and amend it in accordance with Stipulation VII below.

IV. POST-REVIEW DISCOVERIES

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

V. MONITORING AND REPORTING

No later than December 31st of each year following the execution of this Agreement until its stipulations are carried out, it expires, or is terminated, UVWUA on behalf of Reclamation shall provide all parties to this Agreement 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 UVWUA's efforts to carry out the terms of this Agreement.

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

VI. DISPUTE RESOLUTION

Should any signatory or concurring party to this Agreement object at any time to any actions proposed or the manner in which the terms of this Agreement 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 takes into account 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 takes into account any timely comments regarding the dispute from the signatories and concurring parties to the Agreement, and provide them and the ACHP with a copy of such written response.

C. Reclamation's ability to carry out all other actions subject to the terms of this Agreement that are not the subject of the dispute remain unchanged.

VII. AMENDMENTS

This Agreement 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 of the signatories is filed with the ACHP.

VIII. TERMINATION

If any signatory to this Agreement 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 VII, above. If within thirty (30) days (or another time period agreed to by all signatories) an amendment cannot be reached, any signatory may terminate this Agreement upon written notification to the other signatories.

Once the Agreement is terminated, and prior to work continuing on the undertaking, Reclamation must either (a) execute an Agreement 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 Agreement by UVWUA, BLM, Reclamation, and SHPO and implementation of its terms evidence that Reclamation has taken into account the effects of this undertaking on historic properties and afforded the ACHP an opportunity to comment.

LIST OF ATTACHMENTS

Attachment A: Area of Potential Effects and Site Locations
Attachment B: Unanticipated Discovery Plan

SIGNATORIES:

Colorado State Historic Preservation Office
Bureau of Reclamation, Western Colorado Area Office
Bureau of Land Management, Uncompahgre Field Office

INVITED SIGNATORIES: The Uncompahgre Valley Water Users Association

SIGNATORY PAGE
MEMORANDUM OF AGREEMENT
AMONG
THE BUREAU OF RECLAMATION WESTERN COLORADO AREA OFFICE,
THE BUREAU OF LAND MANAGEMENT UNCOMPAHGRE FIELD OFFICE,
THE UNCOMPAHGRE VALLEY WATER USERS ASSOCIATION,
AND THE COLORADO STATE HISTORIC PRESERVATION OFFICER
REGARDING THE
EASTSIDE LATERALS PHASE X PIPING PROJECT,
COLORADO RIVER BASIN SALINITY CONTROL PROGRAM,
LOCATED IN DELTA AND MONTROSE COUNTIES, COLORADO

Colorado State Historic Preservation Office

By: Dr. Holly Kathryn Norton Digitally signed by Dr. Holly Kathryn Norton Date: 2021.10.14 10:05:55 -06'00'

Holly Kathryn Norton, PhD, Deputy State Historic Preservation Officer

SIGNATORY PAGE

MEMORANDUM OF AGREEMENT
AMONG
THE BUREAU OF RECLAMATION WESTERN COLORADO AREA OFFICE,
THE BUREAU OF LAND MANAGEMENT UNCOMPAHGRE FIELD OFFICE,
THE UNCOMPAHGRE VALLEY WATER USERS ASSOCIATION,
AND THE COLORADO STATE HISTORIC PRESERVATION OFFICER
REGARDING THE
EASTSIDE LATERALS PHASE X PIPING PROJECT,
COLORADO RIVER BASIN SALINITY CONTROL PROGRAM,
LOCATED IN DELTA AND MONTROSE COUNTIES, COLORADO

Bureau of Reclamation, Western Colorado Area Office

By: 

Ed Warner, Area Manager

SIGNATORY PAGE

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COLORADO RIVER BASIN SALINITY CONTROL PROGRAM,
LOCATED IN DELTA AND MONTROSE COUNTIES, COLORADO

Bureau of Land Management, Uncompahgre Field Office

By: SUZANNE COPPING Digitally signed by SUZANNE COPPING Date: 2021.09.22 17:03:37 -06'00'

Suzanne Copping, Field Office Manager

SIGNATORY PAGE

MEMORANDUM OF AGREEMENT
AMONG
THE BUREAU OF RECLAMATION WESTERN COLORADO AREA OFFICE,
THE BUREAU OF LAND MANAGEMENT UNCOMPAHGRE FIELD OFFICE,
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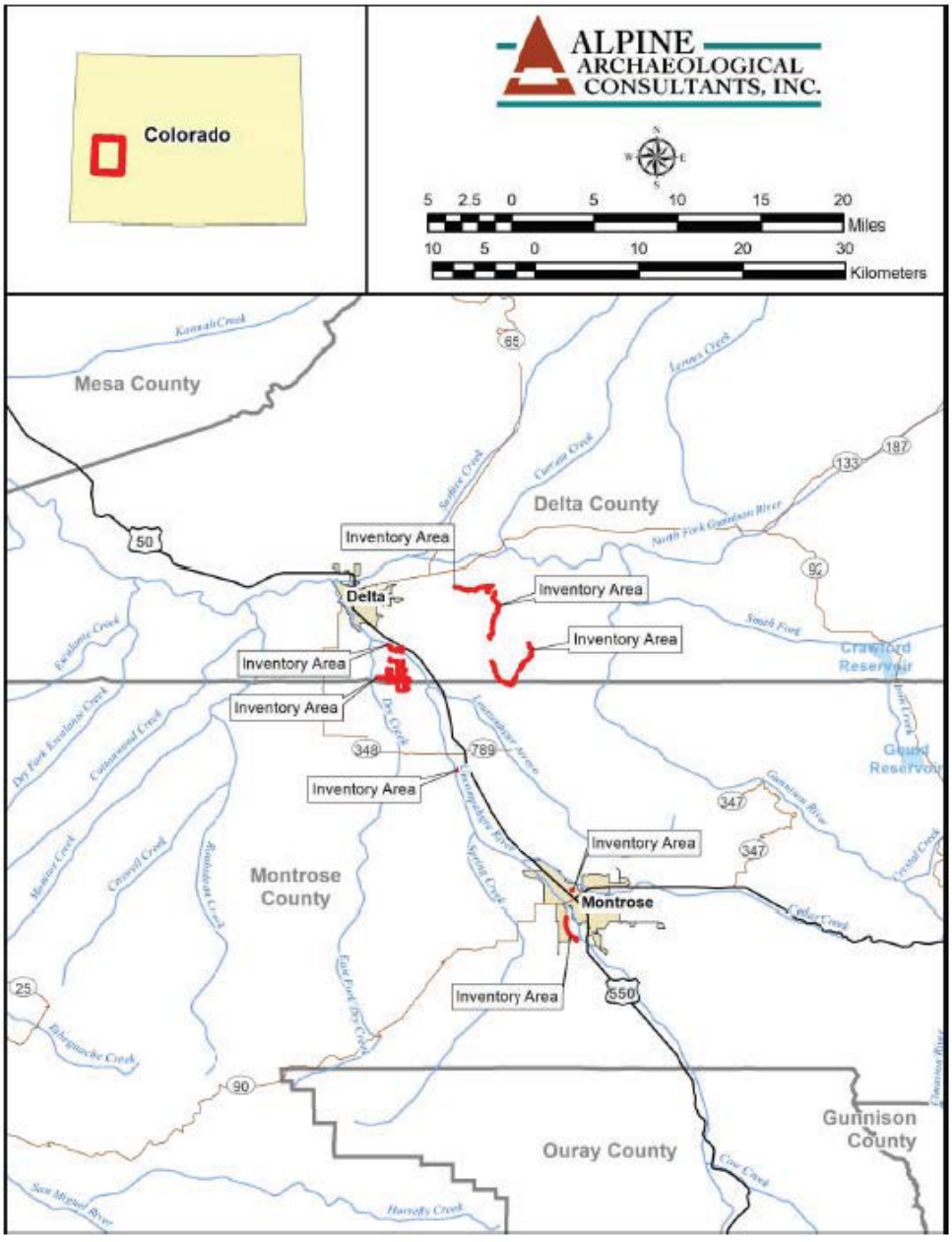
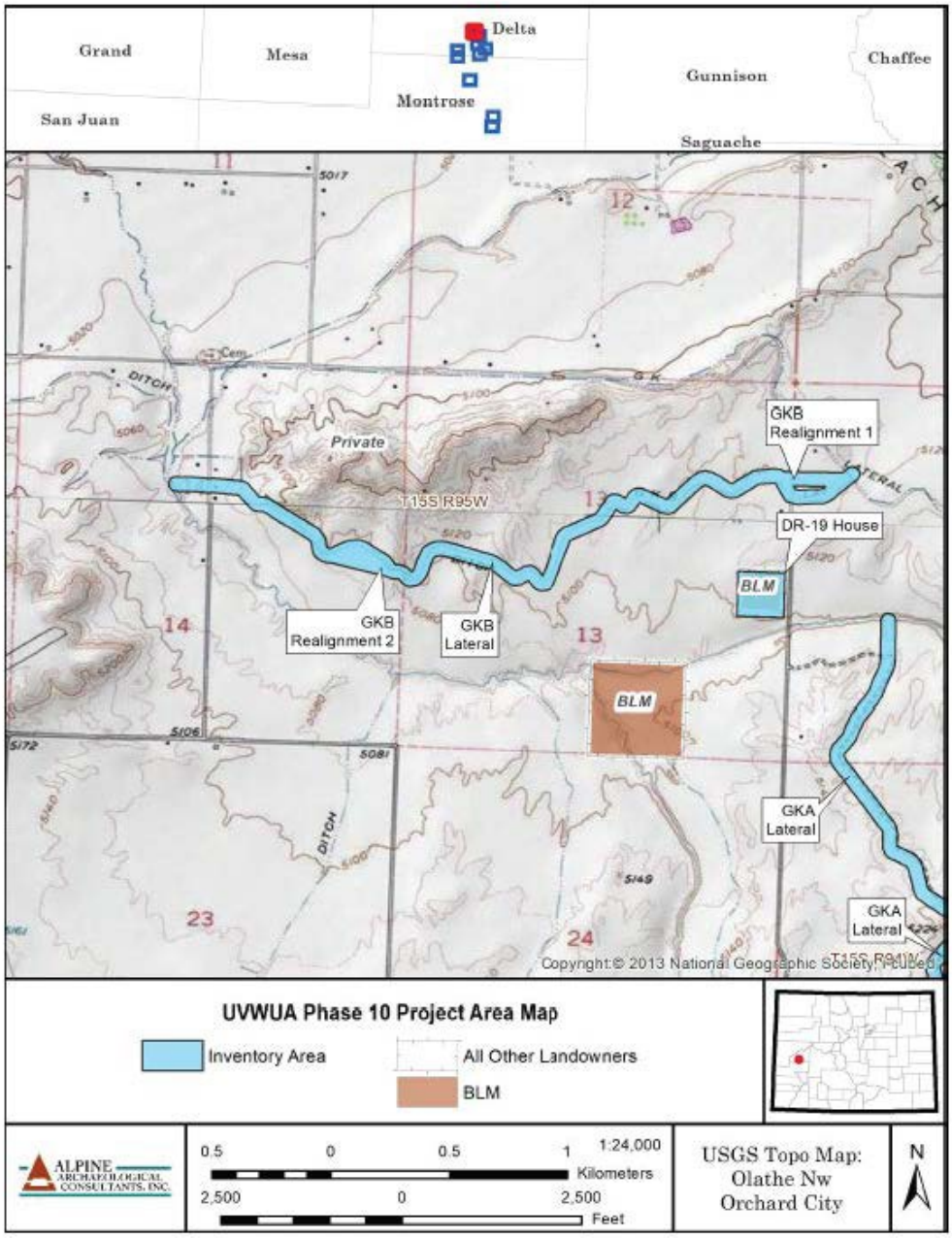
EASTSIDE LATERALS PHASE X PIPING PROJECT,
COLORADO RIVER BASIN SALINITY CONTROL PROGRAM,
LOCATED IN DELTA AND MONTROSE COUNTIES, COLORADO

The Uncompahgre Valley Water Users Association

By: Steven A. Anderson Date: 9/7/2021
Steve Anderson, Manager

ATTACHMENT A – AREA OF POTENTIAL EFFECTS

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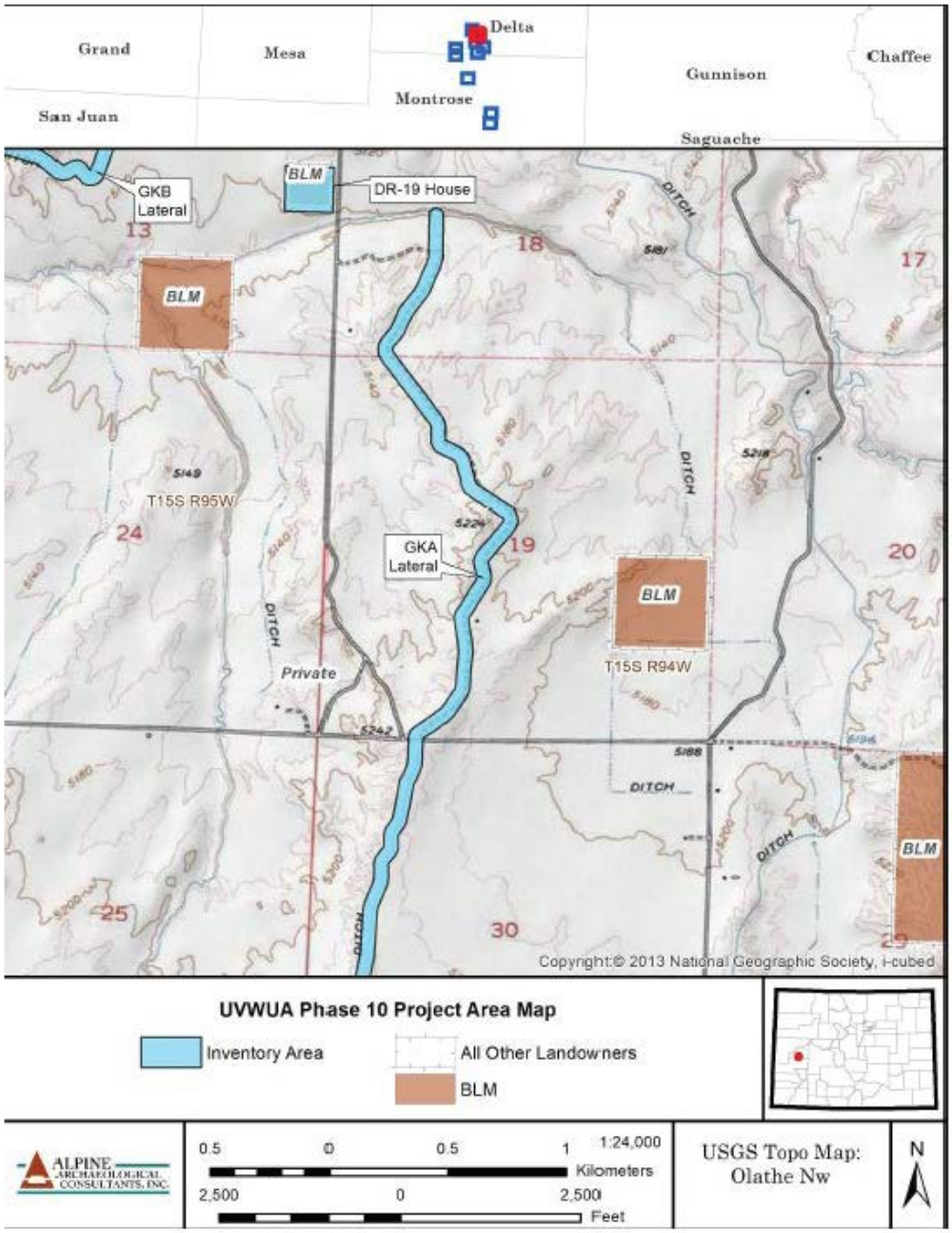
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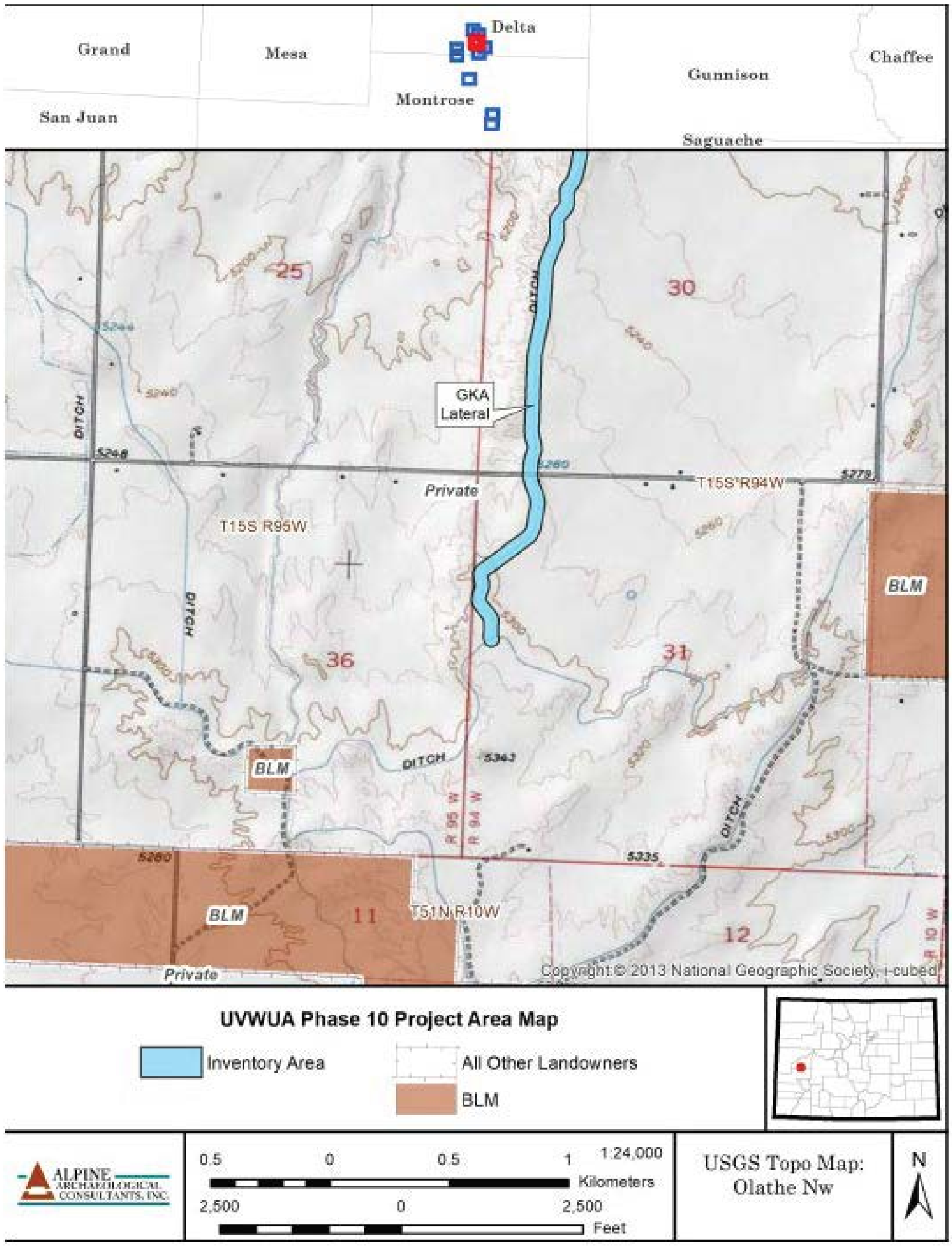
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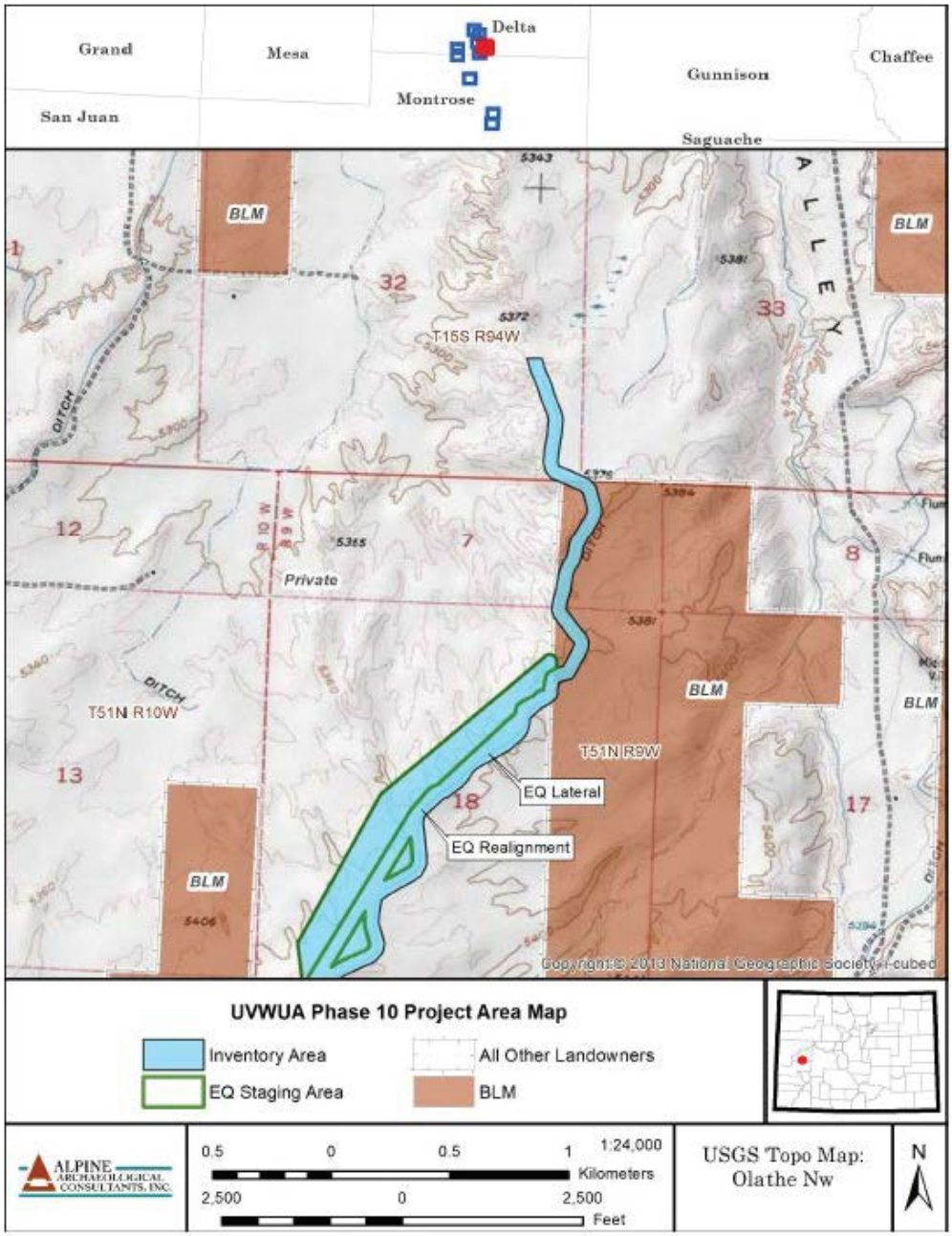
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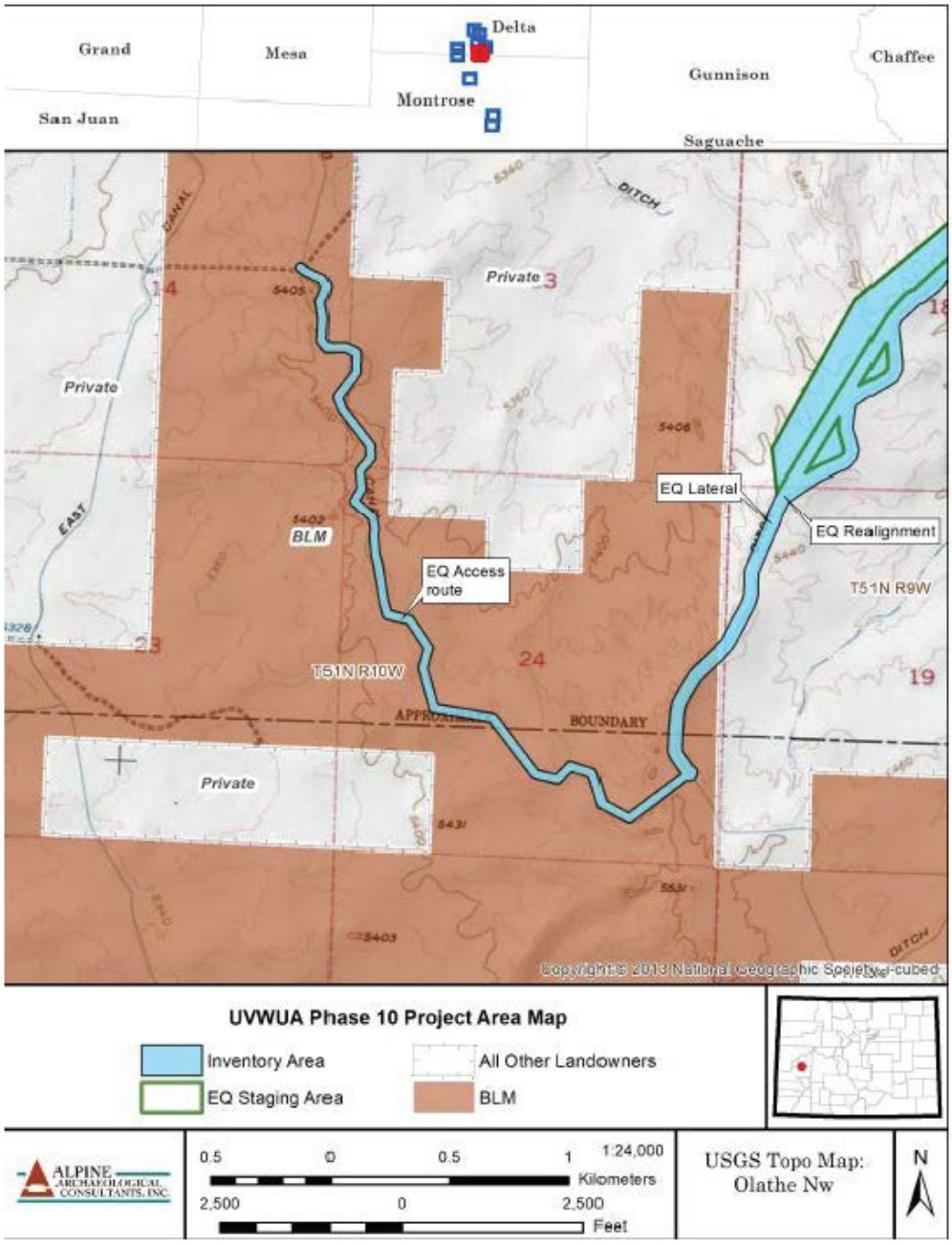
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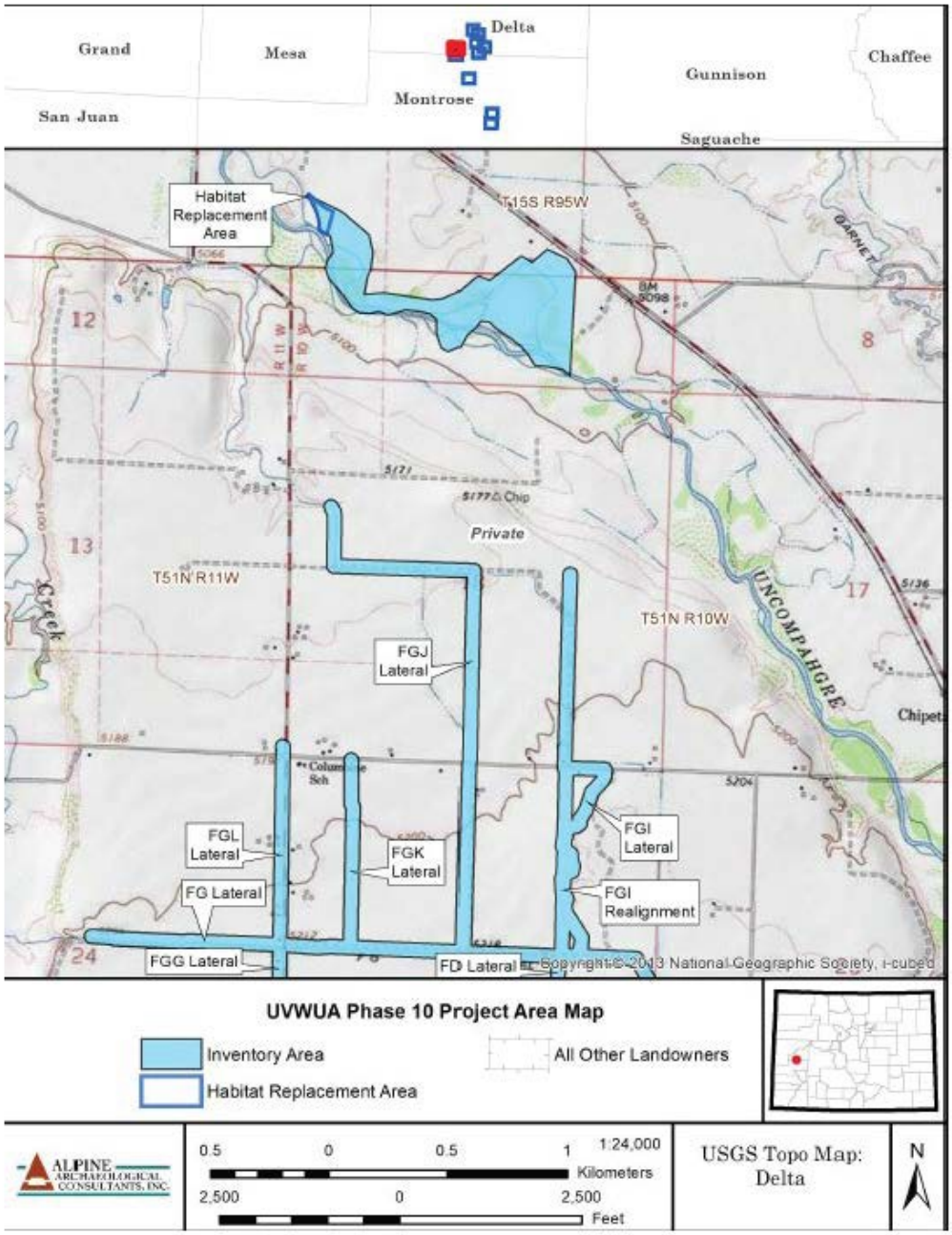
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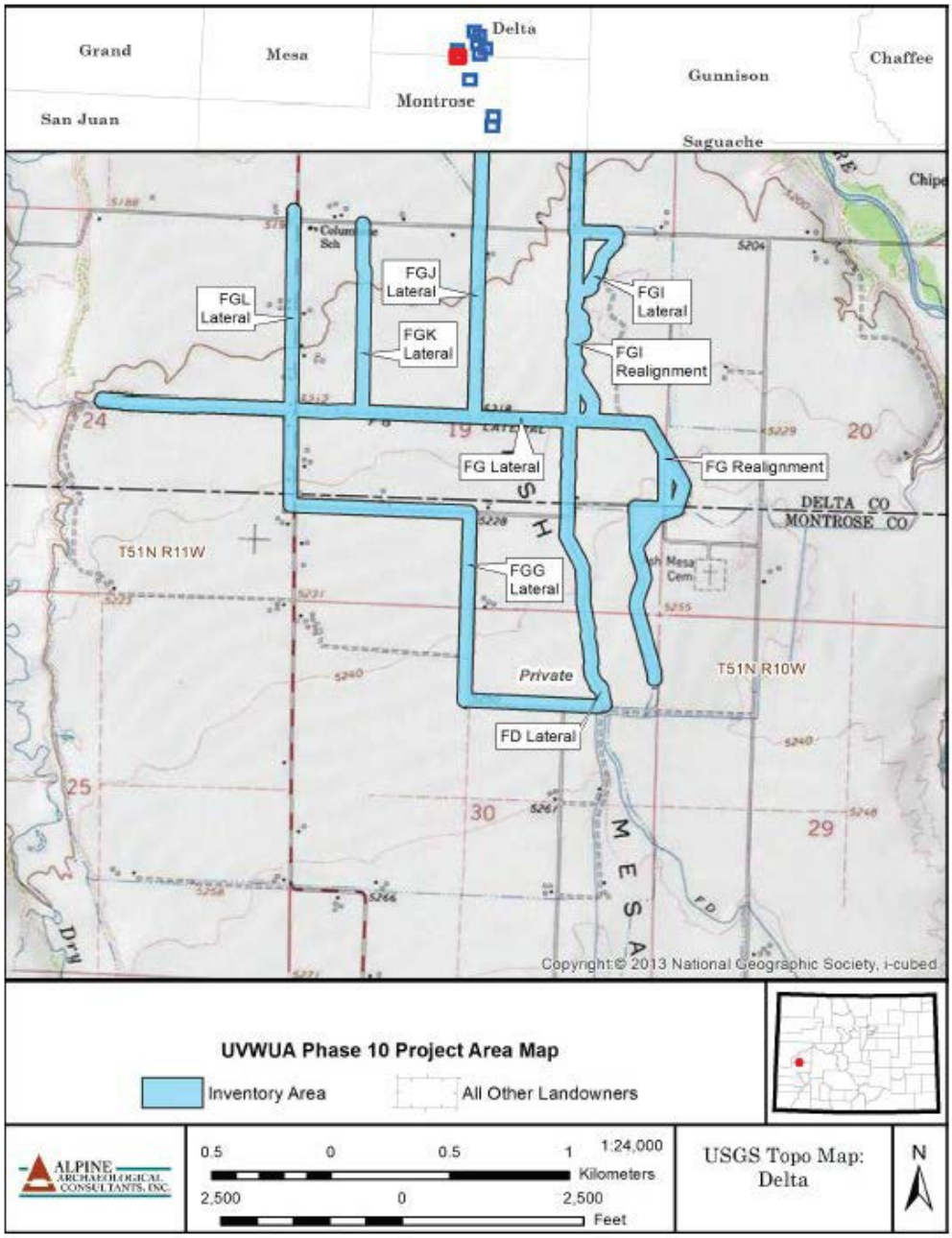
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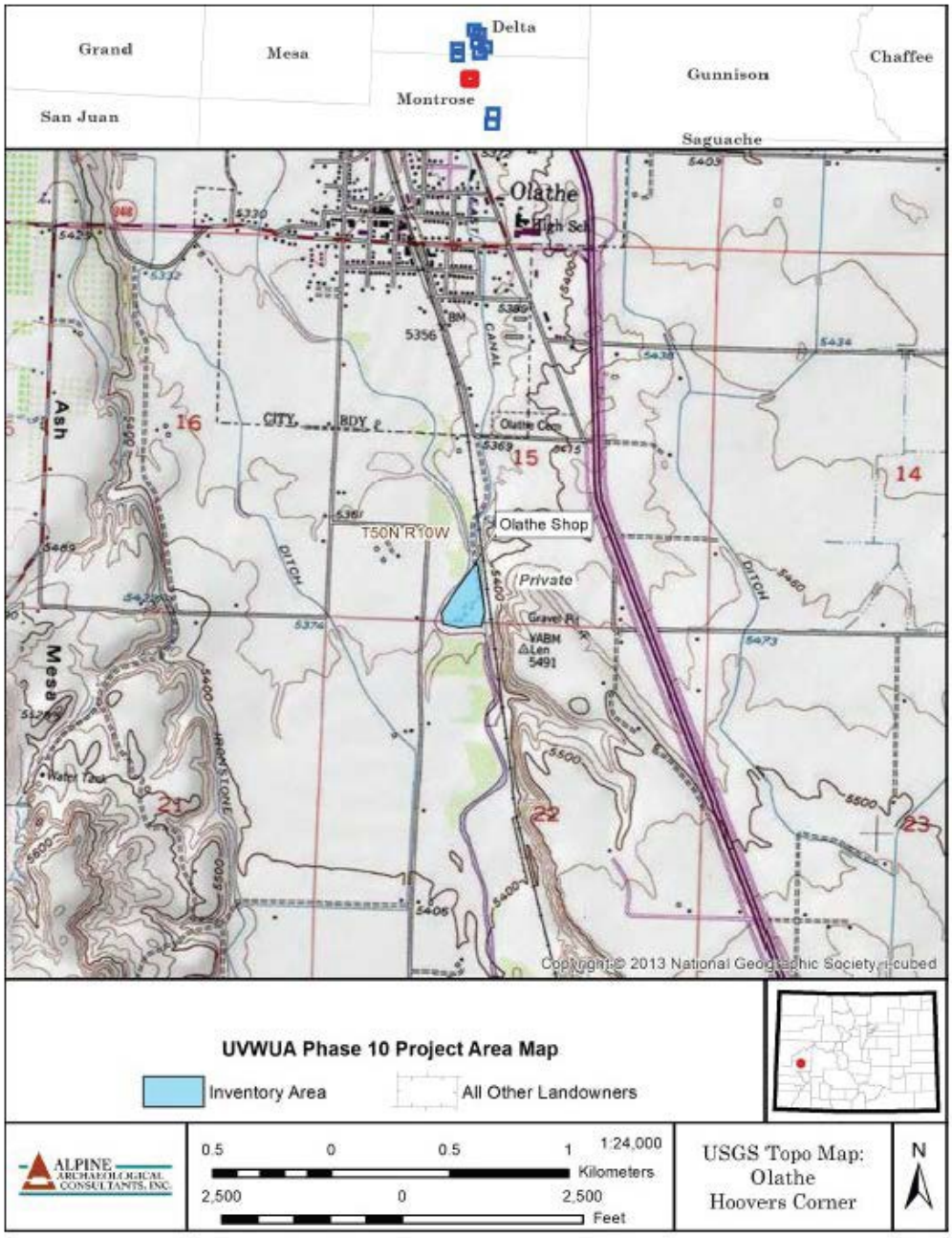
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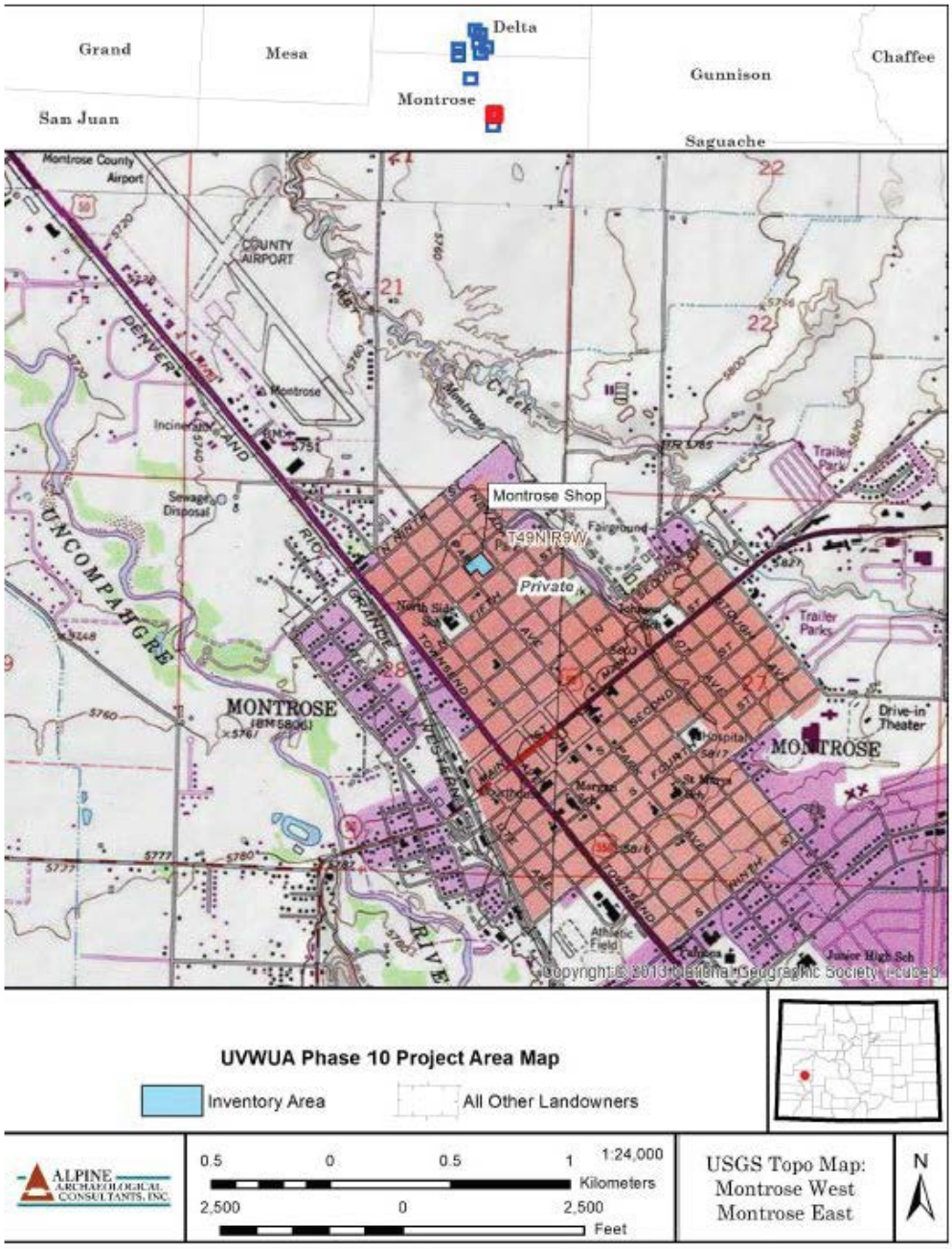
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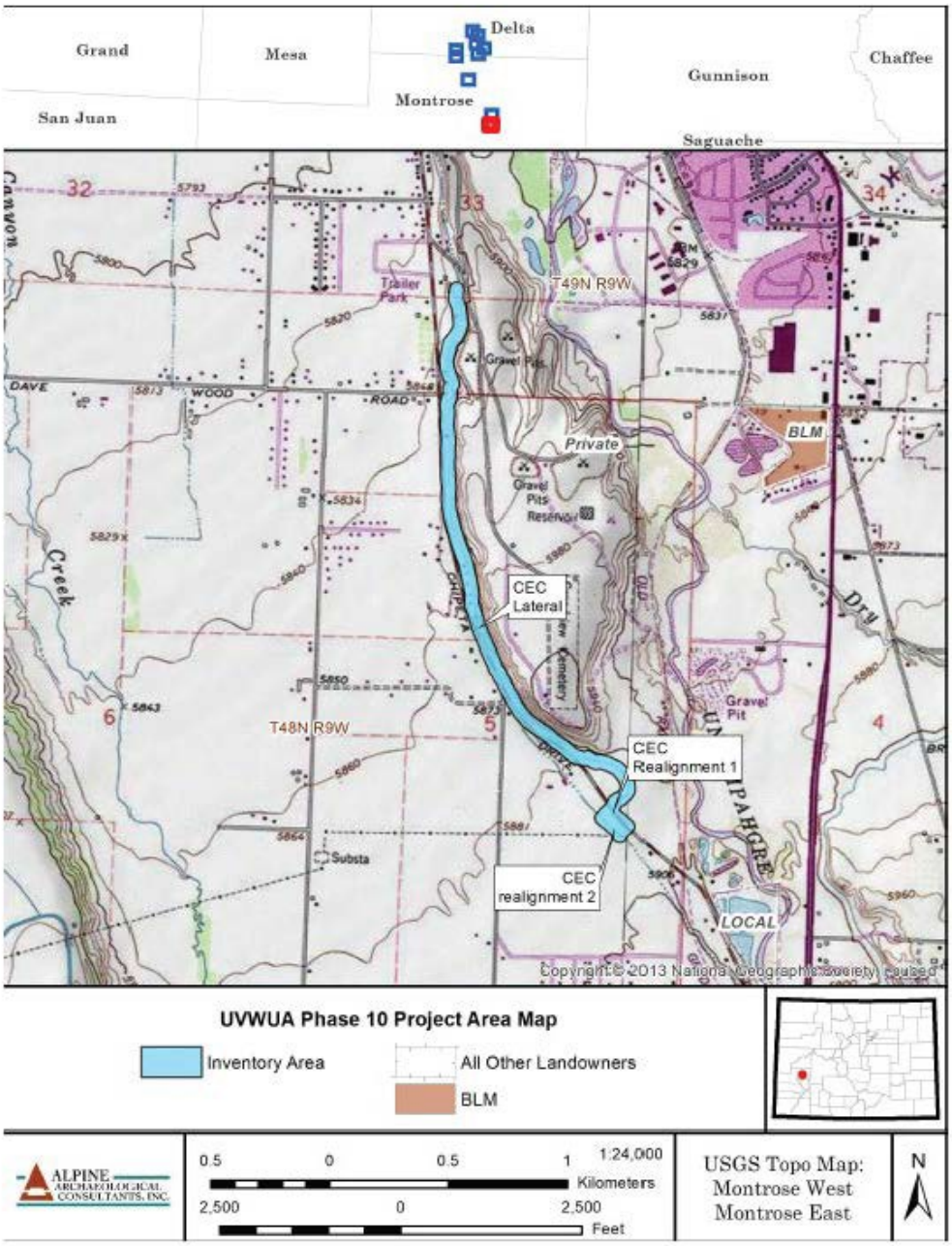
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ATTACHMENT B – UNANTICIPATED DISCOVERY PLAN

PLAN AND PROCEDURES FOR THE UNANTICIPATED DISCOVERY OF CULTURAL RESOURCES

THE UNCOMPAHGRE VALLEY WATER USERS ASSOCIATION
EASTSIDE LATERALS PHASE 10 PIPING PROJECT,
SALINITY CONTROL PROGRAM,
DELTA AND MONTROSE COUNTIES, COLORADO

1. INTRODUCTION

The Uncompahgre Valley Water Users Association (UVWUA) plans to pipe 19 miles of canals and laterals associated with the Uncompahgre Project. The purpose of this project is to reduce the salt load in the Colorado River Basin. The following Unanticipated Discovery Plan 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,
- Stone 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 UVWUA 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 immediately stop. The discovery location should be secured at all times.

STEP 2: NOTIFY BUREAU OF RECLAMATION. Contact the Reclamation Cultural Resources Manager (CR Manager) at the Bureau of Reclamation immediately upon becoming aware of the discovery:

Project Manager:	CR Manager:
Steve Anderson	Kristin Bowen
970-249-3813	970-385-6540
sanderson@uvwua.com	kbowen@usbr.gov

The CR Manager will make all other calls and notifications.

If human remains are encountered, treat them with dignity and respect at all times. 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. Do not call 911 or speak with the media. The CR Manager will contact the county coroner and sheriff. Do not take, or allow anyone to take, any photographs of human remains at any time.

4. FURTHER CONTACTS AND CONSULTATION

A. Project Manager's Responsibilities:

- Protect Find: The UVWUA 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.

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

B. CR Manager's Responsibilities

- Notify SHPO: The CR Manager will notify the Colorado State Historic Preservation Office (SHPO) within 48 hours of the discovery.

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

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

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

    - If a qualified archaeologist determines that the discovery is not archaeological, work may proceed with no further delay.

    - If a qualified archaeologist determines the discovery to be archaeological, the CR Manager will continue with notification.

    - If the discovery may represent human skeletal remains or associated funerary objects, the CR Manager will immediately notify the county coroner and the sheriff or police chief. If the county coroner and local law enforcement determine that the skeletal remains are human remains, the procedure described in Section 5 will be followed.

- Notify BLM Archaeologist: If the discovery is determined to be located on BLM managed land, the CR Manager will contact the BLM archaeologist within 48 hours of the discovery.

    BLM Archaeologist:
    Collin Price
    970-240-5303
    cprice@blm.gov

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

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, and the requirements under the Native American Graves Protection and Repatriation Act (NAGPRA) apply (43 CFR Part 10). For all discoveries, the kinds of objects considered and referred to as NAGPRA items as defined in 43 CFR 10.2 (d) include: human remains, funerary objects, sacred objects, and objects of cultural patrimony. The requirements under State Law Colorado Revised Statute (CRS) 24-80 part 13 also apply. The Unmarked Human Graves Colorado Statute (CRS 24-80-1301-1305) applies if the human remains are on private lands.

In the event possible human skeletal remains are discovered, work in that portion of the project shall stop immediately. The remains shall be covered and/or protected in place in such a way that minimizes further exposure of and damage to the remains, and Reclamation shall immediately notify the Delta and Montrose County Coroners and the Delta and Montrose County Sheriffs. If the remains are found to have no forensic value and are located on private land, the coroner shall notify the state archaeologist, in accordance with CRS 24-80-1302. A plan of action shall be developed by the state archaeologist in consultation with the appropriate Indian tribes, the Colorado Commission of Indian Affairs and the landowner following the Process for Consultation, Transfer, and Reburial of Culturally Unidentifiable Native American Human Remains and Associated Funerary Objects Originating from Inadvertent Discoveries on Colorado State and Private Lands. If the remains are discovered on BLM-managed land, BLM will follow the regulations outlined in 43 CFR Part 10.4 and develop and implement a NAGPRA Plan of Action in consultation with the appropriate Indian tribes. If the remains are not Native American, and are otherwise unclaimed, the appropriate local authority shall be consulted to determine final disposition of the remains.

Avoidance and preservation in place are the preferred option for treating human remains.

UVWUA and the CR Manager will comply with the procedures outlined, and will coordinate with the following contacts:

CR Manager
Kristin Bowen
(970) 385-6540

BLM Archaeologist
Collin Price
(970) 240-5303

Delta County Coroner
(970) 874-5918

Delta County Sheriff
(970) 874-2000

Montrose County Coroner
(970) 249-7755

Montrose County Sheriff
(970) 252-4023

Colorado Deputy State Historic Preservation Officer and State Archaeologist
Holly Norton
(303) 866-2736

A. 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 CR Manager will ensure the proper documentation and assessment of any discovered cultural resources in consultation with Reclamation, BLM, SHPO, affiliated 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 and Stipulation II B. above.

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 BLM, SHPO, and affiliated tribes, the CR Manager 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 UVWUA, Reclamation, BLM, and SHPO determine that compliance with state and federal laws is complete.

AMENDMENT TO
MEMORANDUM OF AGREEMENT
AMONG
THE BUREAU OF RECLAMATION WESTERN COLORADO AREA OFFICE,
THE BUREAU OF LAND MANAGEMENT UNCOMPAHGRE FIELD OFFICE,
THE UNCOMPAHGRE VALLEY WATER USERS ASSOCIATION,
AND THE COLORADO STATE HISTORIC PRESERVATION OFFICER
REGARDING THE
EASTSIDE LATERALS PHASE X PIPING PROJECT,
COLORADO RIVER BASIN SALINITY CONTROL PROGRAM,
LOCATED IN DELTA AND MONTROSE COUNTIES, COLORADO

WHEREAS, the Agreement was executed on October 14, 2021; and

WHEREAS, an additional access route and four culvert replacements are required to complete the Eastside Laterals Phase X Piping Project, increasing the project's area of potential effect by 4.42 privately-owned acres; and

WHEREAS, the Bureau of Reclamation Western Colorado Area Office (Reclamation) as the lead Federal agency for the undertaking has determined, in consultation with the Colorado State Historic Preservation Officer (SHPO), that the changes to the previously consulted upon scope of work will not pose additional adverse effects to historic properties; and

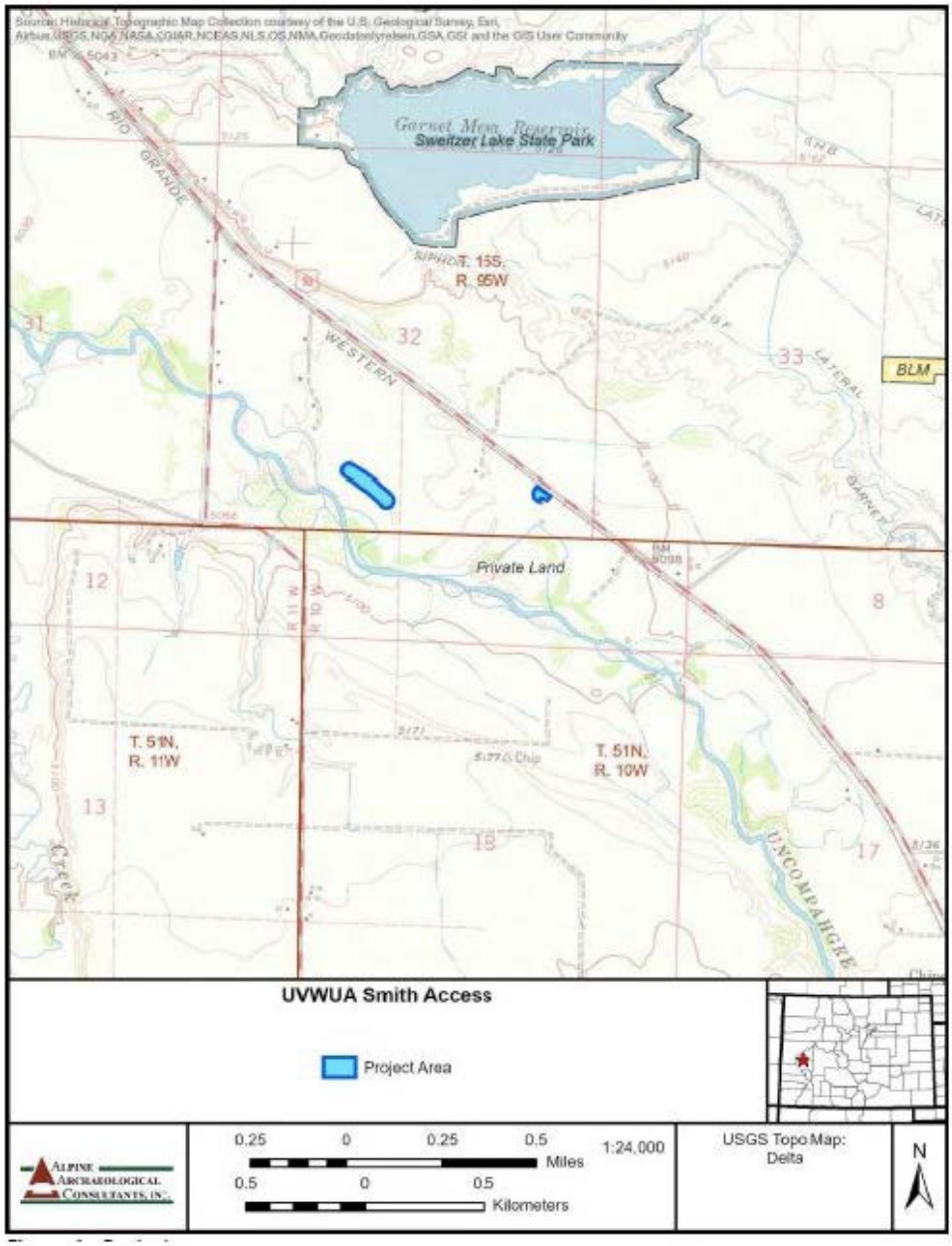
WHEREAS, Reclamation will send a copy of this executed amendment to the Advisory Council on Historic Preservation (ACHP); and

NOW, THEREFORE, in accordance with Stipulation VII of the Agreement, Reclamation, the Bureau of Land Management Uncompahgre Field Office, The Uncompahgre Water Users Association, and the SHPO agree to amend the Agreement as follows:

1. Amend the fourth preamble clause to read as follows:

WHEREAS, Reclamation has defined the undertaking's Area of Potential Effects (APE) as contained within a 200-foot wide corridor centered on approximately 19 miles of canals and laterals, a 130-foot wide corridor centered on 2.7 miles of existing access roads, a habitat replacement area, and four staging areas totaling 586.22 acres on private lands and 69.8 acres on lands managed by the Bureau of Land Management (BLM), as depicted in Attachment A; and

2. Amend Agreement Attachment A to include the following map outlining the additional 2024 APE area:


Garnet Mesa Reservoir
Sweitzer Lake State Park
T. 15S.
R. 95W
RIO GRANDE
WESTERN
LATERAL
BLM
Private Land
T. 51N.
R. 11W
T. 51N.
R. 10W
UNCOMPAHGRE
Creek
UVWUA Smith Access
Project Area
0.25 0 0.25 0.5 Miles
0.5 0 0.5 Kilometers
1:24,000
USGS Topo Map:
Delta
N
ALPINE ARCHAEOLOGICAL CONSULTANTS, INC.

2

SIGNATORY PAGE

AMENDMENT TO
MEMORANDUM OF AGREEMENT
AMONG
THE BUREAU OF RECLAMATION WESTERN COLORADO AREA OFFICE,
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THE UNCOMPAHGRE VALLEY WATER USERS ASSOCIATION,
AND THE COLORADO STATE HISTORIC PRESERVATION OFFICER
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EASTSIDE LATERALS PHASE X PIPING PROJECT,
COLORADO RIVER BASIN SALINITY CONTROL PROGRAM,
LOCATED IN DELTA AND MONTROSE COUNTIES, COLORADO

Colorado State Historic Preservation Office

By: Patrick A. Eidman Digitally signed by Patrick A. Eidman Date: 2024.04.17 13:38:43 -06'00' Date: _____

Dawn DiPrince, State Historic Preservation Officer

SIGNATORY PAGE

AMENDMENT TO
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LOCATED IN DELTA AND MONTROSE COUNTIES, COLORADO

Bureau of Reclamation, Western Colorado Area Office

By:_____ Ed Warner 2024.05.10 07:03:04 -06'00' Date:_____

Ed Warner, Area Manager

SIGNATORY PAGE

AMENDMENT TO
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EASTSIDE LATERALS PHASE X PIPING PROJECT,
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LOCATED IN DELTA AND MONTROSE COUNTIES, COLORADO

Bureau of Land Management, Uncompahgre Field Office

By: ANDREW LACA Digitally signed by ANDREW LACA Date: 2024.04.22 12:43:25 -06'00' Date: _____
Andrew Laca, Acting Field Office Manager

SIGNATORY PAGE

AMENDMENT TO
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THE BUREAU OF RECLAMATION WESTERN COLORADO AREA OFFICE,
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EASTSIDE LATERALS PHASE X PIPING PROJECT,
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LOCATED IN DELTA AND MONTROSE COUNTIES, COLORADO

The Uncompahgre Water Users Association

By: Steve Pope Date: 4/25/24
Steve Pope, Manager

APPENDIX D – BLM ROW PERMIT STIPULATIONS

The holder is subject to the existing right-of-way, COC-67472, and any amendments thereof, including all following stipulations.

A. Construction Plans

A1 The holder shall construct, operate, and maintain the facilities, improvements, and structures within this right-of-way in strict conformity with the Environmental Assessment and Finding of No Significant Impact – Uncompahgre Valley Water Users Association East Side Laterals Piping Project Phase 10 (EA). Any relocation, additional construction, or use that is not in accord with the EA shall not be initiated without the prior written approval of the authorized officer. If there are any conflicts between the EA and the stipulations, the EA would prevail. A copy of the complete right-of-way grant, including all stipulations and approved plan(s) of development, shall be made available on the right-of-way area during construction, operation, and termination. Noncompliance with the above will be grounds for an immediate temporary suspension of activities if it constitutes a threat to public health and safety or the environment.

A3 The holder shall contact the authorized officer at least 14 days prior to the anticipated start of construction and/or any surface disturbing activities. The authorized officer may require and schedule a preconstruction conference with the holder prior to the holder's commencing construction and/or surface disturbing activities on the right-of-way. The holder and/or his representative shall attend this conference. The holder's contractor, or agents involved with construction and/or any surface disturbing activities associated with the right-of-way, shall also attend this conference to review the stipulations of the grant including the plans(s) of development.

A4 The holder shall designate a representative(s) who shall have the authority to act upon and to implement instructions from the authorized officer. The holder's representative shall be available for communication with the authorized officer within a reasonable time when construction or other surface disturbing activities are underway.

A5 The authorized officer may suspend or terminate in whole, or in part, any notice to proceed which has been issued when, in his judgment, unforeseen conditions arise which result in the approved terms and conditions being inadequate to protect the public health and safety or to protect the environment.

A16 No signs or advertising devices shall be placed on the premises or on adjacent public lands, except those posted by or at the direction of the authorized officer.

B. Cultural/Pesticides/Weeds/Survey Monuments

B1 Any cultural and/or paleontological resource (historic or prehistoric site or object) discovered by the holder, or any person working on his behalf, on public or Federal land shall be immediately reported to the authorized officer. Holder shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the authorized officer. An evaluation of the discovery will be made by the authorized officer to determine appropriate actions to prevent the loss of significant cultural or scientific values. The

holder will be responsible for the cost of evaluation and any decision as to proper mitigation measures will be made by the authorized officer after consulting with the holder.

B2 Use of pesticides shall comply with the applicable Federal and state laws. Pesticides shall be used only in accordance with their registered uses and within limitations imposed by the Secretary of the Interior. Prior to the use of pesticides, the holder shall obtain from the authorized officer written approval of a plan showing the type and quantity of material to be used, pest(s) to be controlled, method of application, location of storage and disposal of containers, and any other information deemed necessary by the authorized officer. Emergency use of pesticides shall be approved in writing by the authorized officer prior to such use.

a. As of the date of this grant, the following is deemed necessary by the authorized officer if using herbicides:

i. If herbicides are to be used, a Pesticide Use Proposal (PUP) will be applied for from the BLM 30 days prior to treating any noxious weeds (they are good for 3 years).

ii. If herbicides were approved and used, a Pesticide Application Record (PAR) will be turned into the BLM 24 hours post-application.

B3 The holder shall be responsible for weed control on disturbed areas within the limits of the right-of-way. The holder is responsible for consultation with the authorized officer and/or local authorities for acceptable weed control methods (within limits imposed in the grant stipulations).

a. As of the date of this grant, the authorized officer's acceptable weed control methods include:

i. All vehicles and heavy equipment will be free of dirt and debris before engaging in maintenance or new construction on BLM lands.

ii. A noxious/invasive species inventory will be completed of the area prior to new construction or maintenance or significant disturbance.

iii. Noxious weeds will be treated annually for a minimum of three years following construction and then for the life of the right-of-way as necessary.

B4 The holder shall protect all survey monuments found within the right-of-way. Survey monuments include, but are not limited to, General Land Office and Bureau of Land Management Cadastral Survey Corners, reference corners, witness points, U.S. Coastal and Geodetic benchmarks and triangulation stations, military control monuments, and recognizable civil (both public and private) survey monuments. In the event of obliteration or disturbance of any of the above, the holder shall immediately report the incident, in writing, to the authorized officer and the respective installing authority if known. Where General Land Office or Bureau of Land Management right-of-way monuments or references are obliterated during operations, the holder shall secure the services of a registered land surveyor or a Bureau cadastral surveyor to restore the disturbed monuments and references using surveying procedures found in the Manual of Surveying Instructions for the Survey of the Public Lands in the United States, latest edition. The holder shall record such survey in the appropriate county and send a copy to the authorized officer. If the Bureau cadastral surveyors or other Federal surveyors are used to restore the disturbed survey monument, the holder shall be responsible for the survey cost.

C. Civil Rights/Corp of Engineers 404 Permits

C1 The holder of this right-of-way grant or the holder's successor in interest shall comply with Title VI of the Civil Rights Act of 1964 (42 U.S.C. 2000d et seq.) and the regulations of the Secretary of Interior issued pursuant thereto.

C2 The holder shall comply with the construction practices and mitigating measures established by 33 CFR 323.4, which sets forth the parameters of the "nationwide permit" required by Section 404 of the Clean Water Act. If the proposed action exceeds the parameters of the nationwide permit, the holder shall obtain an individual permit from the appropriate office of the Army Corps of Engineers and provide the authorized officer with a copy of same. Failure to comply with this requirement shall be cause for suspension or termination of this right-of-way grant.

D. Cattleguards/Fences

D4 When construction activity in connection with the right-of-way breaks or destroys a natural barrier used for livestock control, the gap, thus opened, shall be fenced to prevent the drift of livestock. The subject natural barrier shall be identified by the authorized officer and fenced by the holder as per instruction of the authorized officer.

E. Drainage Structures

E6 The holder shall construct low-water crossings in a manner that will prevent any blockage or restriction of the existing channel. Material removed shall be stockpiled for use in rehabilitation of the crossings.

E7 The holder shall design and construct adequate water-control structures in each drainage crossing to prevent excessive erosion along the pipeline and protect the pipeline from the natural erosion process within the drainage.

E8 All roads and parking areas shall be constructed to provide drainage and minimize erosion. Culverts shall be installed if necessary, to maintain drainage.

F. Construction

F1 No construction or routine maintenance activities shall be performed during periods when the soil is too wet to adequately support construction equipment. If such equipment creates ruts in

excess of 3 inches deep, the soil shall be deemed too wet to adequately support construction equipment.

F3 The holder shall conduct all activities associated with the construction, operation, and termination of the right-of-way within the authorized limits of the right-of-way.

F4 Construction holes left open overnight shall be covered. Covers shall be secured in place and shall be strong enough to prevent livestock or wildlife from falling through and into a hole.

F5 All design, material, and construction, operation, maintenance, and termination practices shall be in accordance with safe and proven engineering practices.

I. Construction Access

I1 Specific sites as identified by the authorized officer (e.g., archaeological sites, areas with threatened and endangered species, or fragile watersheds) where construction equipment and vehicles shall not be allowed, shall be clearly marked onsite by the holder before any

construction or surface disturbing activities begin. The holder shall be responsible for assuring that construction personnel are well trained to recognize these markers and understand the equipment movement restrictions involved.

I2 The holder shall provide for the safety of the public entering the right-of-way. This includes, but is not limited to, barricades for open trenches, flagmen/women with communication systems for single-lane roads without intervisible turnouts and attended gates for blasting operations.

I3 The holder shall permit free and unrestricted public access to and upon the right-of-way for all lawful purposes except for those specific areas designated as restricted by the authorized officer to protect the public, wildlife, livestock, or facilities constructed within the right-of-way.

I4 Construction-related traffic shall be restricted to routes approved by the authorized officer. New access roads or cross-country vehicle travel will not be permitted unless prior written approval is given by the authorized officer. Authorized roads used by the holder shall be rehabilitated or maintained when construction activities are complete as approved by the authorized officer.

I7 If "cross country" access is necessary, clearing vegetation or grading a roadbed will be avoided whenever practicable. All construction and vehicular traffic shall be confined to the right-of- way or designated access routes, roads, or trails unless otherwise authorized in writing by the authorized officer. All temporary roads used for construction shall be rehabilitated after construction is completed. Only one road or access route will be permitted to each site requiring access.

N. Fire

N3 During conditions of extreme fire danger, operations shall be limited or suspended in specific areas, or additional measures may be required by the authorized officer.

Q. Right-of-Way Maintenance

Q2 Holder shall maintain the right-of-way in a safe, usable condition, as directed by the authorized officer. (A regular maintenance program shall include, but is not limited to, blading, ditching, culvert installation, and surfacing).

Q3 Except rights-of-way expressly authorizing a road after construction of the facility is completed, the holder shall not use the right-of-way as a road for purposes other than routine maintenance as determined necessary by the authorized officer in consultation with the holder.

R. Hazardous Waste/Liability/Waste Disposal

R1 Construction sites shall be maintained in a sanitary condition at all times; waste materials at those sites shall be disposed of promptly at an appropriate waste disposal site. "Waste" means all discarded matter including, but not limited to, human waste, trash, garbage, refuse, oil drums, petroleum products, ashes, and equipment.

R2 A litter policing program shall be implemented by the holder, and approved of in writing by the authorized officer, which covers all roads and sites associated with the right-of-way.

R3 The holder(s) shall comply with all applicable Federal laws and regulations existing or hereafter enacted or promulgated. In any event, the holder(s) shall comply with the Toxic Substances Control Act of 1976, as amended (15 U.S.C. 2601, et seq.) with regard to any toxic substances that are used, generated by or stored on the right-of-way or on facilities authorized under this right-of-way grant. (See 40 CFR, Part 702-799 and especially, provisions on polychlorinated biphenyls, 40 CFR 761.1-761.193.) Additionally, any release of toxic substances (leaks, spills, etc.) in excess of the reportable quantity established by 40 CFR, Part 117 shall be reported as required by the Comprehensive Environmental Response, Compensation and Liability Act of 1980, Section 102b. A copy of any report required or requested by any Federal agency or State government as a result of a reportable release or spill of any toxic substances shall be furnished to the authorized officer concurrent with the filing of the reports to the involved Federal agency or State government.

R4 The holder of Right-of-Way No. COC-67472 agrees to indemnify the United States against any liability arising from the release of any hazardous substance or hazardous waste (as these terms are defined in the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, 42 U.S.C 9601, et.seq. or the Resource Conservation and Recovery Act of 1976, 42 U.S.C. 6901, et. seq.) on the right-of-way (unless the release or threatened release is wholly unrelated to the right-of-way holder's activity on the right-of-way). This agreement applies without regard to whether a release is caused by the holder, its agent, or unrelated third parties.

X. Air Quality

X2 The holder shall meet Federal, State, and local emission standards for air quality.

Fire Prevention and Control Stipulations

1. The Holder shall indemnify the United States for any and all injury, loss or damage to life or property, including fire suppression costs, the United States may suffer as a result of losses, claims, demands or judgments caused by Holder's use or occupancy of public lands under this grant or permit.

2. The Authorized Officer may suspend or terminate in whole, or in part, any notice to proceed which has been issued when, in his or her judgment, conditions arise which result in the approved terms and conditions being inadequate to protect the public health and safety or to protect the environment.

3. Holder shall maintain the ROW in a safe, usable condition.

5. When performing construction and maintenance (including emergency repairs) activities during the "closed" fire season (May 10 – October 20), as set by Colorado State Law, or during any other closed fire season prescribed by the BLM Colorado State Director, the Holder, including any persons such as contractors, etc. working on their behalf, shall equip at least one on-site vehicle with firefighting equipment, including, but not limited to, fire suppression hand tools (i.e. shovels, rakes, Pulaski's, etc.), a 16-20 pound fire extinguisher, and a sufficient supply of water for initial attack, with a mechanism to effectively spray the water (i.e. backpack pumps, water sprayer, etc.).

7. During conditions of extreme fire danger or when the State of Colorado and/or the BLM Colorado State Director issues a fire restriction order, operations shall be limited or suspended in specific areas, or additional mitigation measures may be required by the BLM Authorized Officer.

8. In accordance with 43 CFR 2805.12(d) (or subsequent revisions), the Holder shall do everything reasonable to prevent fires on or in the immediate vicinity of the ROW. The Holder will immediately report fires to the BLM local fire dispatch at **970-249-1010** and take all necessary fire suppression actions, when safe to do so, with their personnel and equipment on any fires they cause to ignite.

9. Holder shall maintain the condition of the origin area of the fire from further damage to enable the Fire Investigator to properly assess the origin area and cause of the fire. The Holder shall report to the Fire Investigator or BLM Incident Commander and shall not enter into the origin area on fires unless given permission to do so.

10. The Holder will cooperate with the BLM in its efforts to investigate, suppress and respond to all future fires. The duty to "cooperate" includes, but is not limited to, the following duties regardless of whether BLM is on the scene:

    i. The duty to provide the BLM local fire dispatch **970-249-1010** with reasonable and timely notice concerning all fires involving the Holder's facilities, or discovered during routine operations.

    ii. The duty to share factual information with the BLM concerning fires, including but not limited to the names of Holder's employees and/or contractors with knowledge of the incident; and to allow employees and/or contractors to be interviewed by BLM's investigators regarding factual information relating to a fire.

    iii. It is the duty of the Holder to preserve the point of ignition, fire scene and reasonably account to the BLM for Holders actions taken at the scene of a fire.

    iv. The duty to minimize disturbance of potential evidence located at the scene; to not engage in any evidence collection or destructive testing without BLM and or its counsel's express written consent; to properly handle and preserve any evidence collected and to make all documents and evidence, including expert reports, available to the BLM in a rapid and timely manner upon request of BLM and/or its counsel.

    v. The duty to not hamper the BLM investigation of origin and cause of the fire; and to reasonably assist BLM's investigation at the scene.

vi. The duty to provide information upon request of BLM and/or its counsel concerning the construction, monitoring, inspection, maintenance and/or repairs of any of Holder's facilities located at or adjacent to a fire.

vii. The duty to provide information upon request of BLM and/or its counsel concerning the monitoring, inspection, and or alteration by Holder of any condition on public land, including but not limited to, public land adjacent to any of the Holder's facilities.

viii. The duty, during BLM fire suppression efforts: to defer to and follow the instructions of the BLM's Incident Commander regarding activities within the boundaries of the fire and checking in and out of the fire; and to recognize BLM's primary authority over the incident scene.

APPENDIX E – DISTRIBUTION LIST

All landowners adjacent to the Project
Black Hills Natural Energy
Citizens for a Healthy Community
City of Delta
City of Montrose
Colorado Office of Archaeology and Historic Preservation
Colorado Parks and Wildlife
Colorado River Water Conservation District
Colorado Water Conservation Board
Delta Montrose Electric Association
Delta County Road & Bridge Department
Delta County Planning Department
Delta County Independent
Montrose County Planning Department
Montrose County Road and Bridge Department
TDS Telecom
Trout Unlimited
U.S. Army Corps of Engineers
U.S. Bureau of Land Management, Uncompahgre Field Office
U.S. Department of Agriculture Natural Resources Conservation Service
U.S. Fish and Wildlife Service
Western Slope Conservation Center