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RECLAMATION

Draft Environmental Assessment for the Uncompahgre Multibenefit Project

WaterSMART Program
Upper Colorado Basin: Interior Region 7
Western Colorado Area Office



Mission Statements

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

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

Draft Environmental Assessment for the Uncompahgre Multibenefit Project

**WaterSMART Program
Upper Colorado Basin: Interior Region 7
Western Colorado Area Office**

Prepared for Reclamation by Fred Phillips Consulting, LLC.

August 2024

Cover Photo: Uncompahgre River within Uncompahgre Multibenefit Project Area (Taken November 9, 2022 by Allen Hayden, Natural Channel Design Engineering).

Contents

- Figures5
- Tables6
- Appendices6
- 1 Introduction7
 - 1.1 Project Location and Legal Description.....7
 - 1.2 Project Overview.....9
 - 1.3 Need for and Purpose of the Proposed Action..... 10
 - 1.4 Decision to be Made..... 10
 - 1.5 Background..... 10
 - 1.5.1 WaterSMART Environmental Water Resources Projects 10
 - 1.5.2 The Applicant..... 10
 - 1.6 Relationship to Other Projects/Programs 11
 - 1.6.1 Colorado Water Conservation Board 11
 - 1.6.2 Gunnison Basin Roundtable Water Supply Reserve Fund..... 11
 - 1.6.3 Colorado River District..... 11
 - 1.6.4 Other Projects/Programs Not Related to the Project 11
 - 1.7 Scoping 11
 - 1.8 Alternatives Considered But Not Carried Forward 11
- 2 Proposed Action and Alternatives 12
 - 2.1 No Action Alternative 12
 - 2.2 Proposed Action Alternative..... 12
 - 2.2.1 Project Overview 12
 - 2.2.2 Earthwork 14
 - 2.2.3 Headgate and Ditch Improvements..... 14
 - 2.2.4 Stream & Floodplain Structures 17
 - 2.2.5 Native Riparian Revegetation 20
 - 2.2.6 Upper Floodplain/Private Land Enhancement 22
 - 2.2.7 Access & Staging..... 23
 - 2.2.8 Weed Control & Maintenance 23

2.2.9 Schedule 24

2.2.10 Permits and Authorizations..... 25

3 Affected Environment & Environmental Consequences 26

3.1 Introduction..... 26

3.1.1 Environmental Resources Considered but Excluded from Analysis..... 27

3.2 Affected Environment & Environmental Consequences..... 28

3.2.1 Water Rights & Use..... 28

3.2.2 Water Quality 29

3.2.3 Air Quality 30

3.2.4 Access, Transportation, Utilities, and Public Safety 31

3.2.5 Agricultural Resources 33

3.2.6 Cultural Resources..... 34

3.2.7 Recreational Resources 34

3.2.8 Vegetation..... 35

3.2.9 Wildlife Resources 37

3.2.10 Threatened and Endangered Species..... 43

3.2.11 Noise..... 46

3.2.12 Visual Resources 47

3.3 Cumulative Effects 48

3.4 Summary of Impacts..... 48

4 Environmental Commitment Plan..... 50

5 Consultation & Coordination..... 54

5.1 Introduction..... 54

5.2 Public Involvement..... 55

6 Preparers 55

7 References 56

8 Abbreviations and Acronyms..... 58

Figures

Figure 1: Location of Project8

Figure 2: Land Management Types in Project Area9

Figure 3: Conceptual restoration design for the Uncompahgre Multibenefit Project..... 13

Figure 4: Overgrowth along Ward Ditch that would be removed to provide access for maintenance..... 15

Figure 5: Log debris near headgate that would be removed. 15

Figure 6: Project at Ward headgate, flow is from bottom to top of figure..... 16

Figure 5: Cross vane weir detail..... 18

Figure 6: J-hook and Rock Vane Detail 18

Figure 7: Boulder cluster detail 19

Figure 8: Rootwad and Channel breach/return swale details 20

Figure 9: Staging Areas during completion of Project 23

Figure 11: Dead Narrowleaf Cottonwoods adjacent to the Uncompahgre in the Project Area..... 36

Figure 12: Mule Deer High Priority Habitat..... 39

Figure 13: Elk High Priority Habitat 40

Figure 14: Bighorn Sheep High Priority Habitat..... 41

Tables

Table 1: Species List for Revegetation Activities in Project Area 21

Table 2: Pollinator and Grass Seeding List for Revegetation Activities in Project Area 22

Table 3: Cut Stump Herbicide Solution Mix 24

Table 4: Foliar Spray Herbicide Solution Mix 24

Table 5: Resources or Potential Issues Eliminated from Further Analysis..... 27

Table 6: Summary of Impacts..... 48

Table 7: Environmental Commitment Plan..... 51

Table 8: List of Preparers 55

Appendices

- A. Army Corps of Engineers Nationwide Permit Verification (SPA-2023-00473)
- B. Cultural Resources Compliance
- C. Distribution List
- D. ESA Compliance Documentation

1 Introduction

This Environmental Assessment (EA) has been prepared in compliance with the National Environmental Policy Act (NEPA) to assess the potential effects of American Rivers’s (Applicant) proposed Uncompahgre Multibenefit Project (Project). The Federal action evaluated in this EA is whether the U.S. Department of the Interior Bureau of Reclamation (Reclamation) would provide funding assistance to the Applicant for the Project. The Applicant has secured funding from other entities to implement the Project, including the Colorado Water Conservation Board, the Colorado River Water Conservation District, and the Gunnison Basin Roundtable.

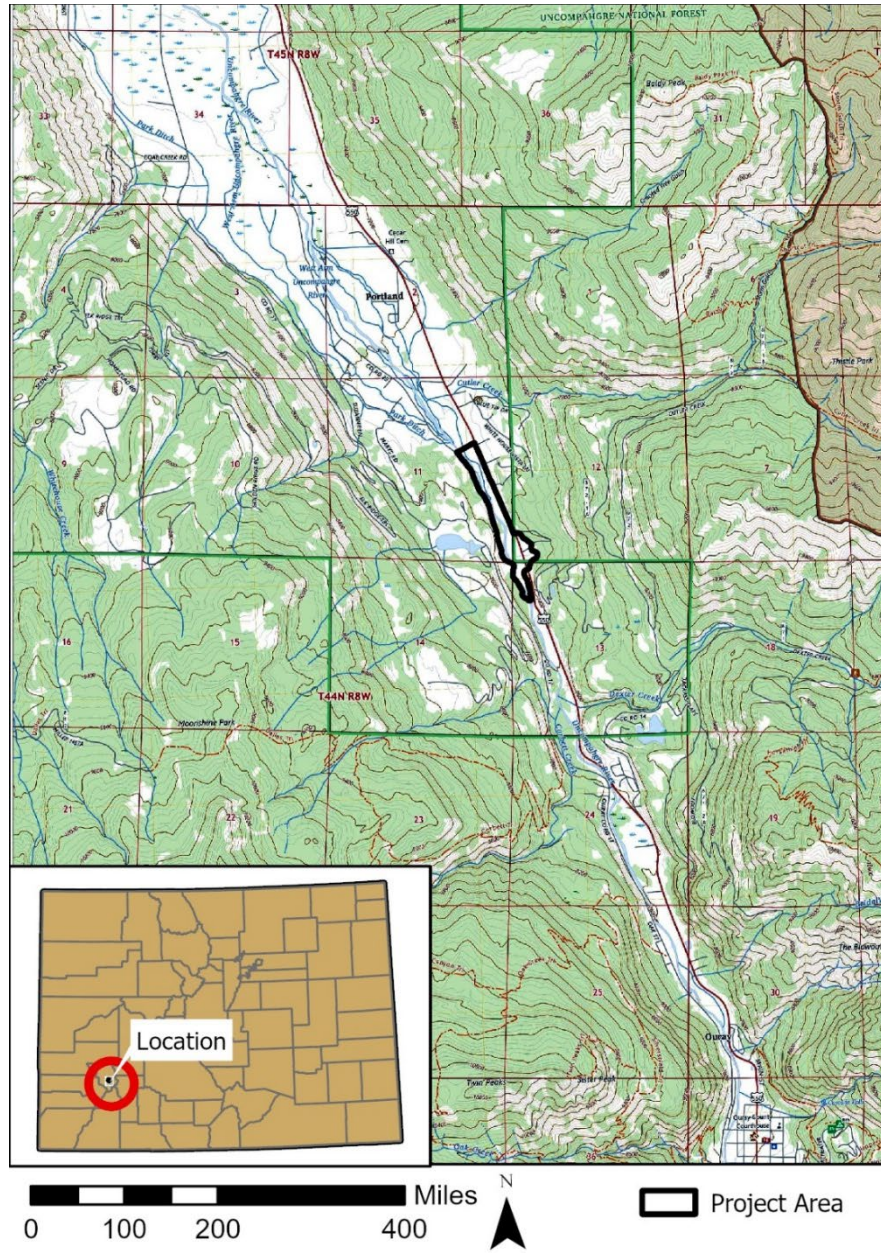
As the primary funder for the Project, Reclamation is the lead federal agency. The U.S. Department of the Interior Bureau of Land Management (BLM) is a cooperating agency for the Project because parts of the Project are proposed on BLM lands, and Reclamation coordinated with BLM during the preparation of this EA.

As the lead agency, Reclamation has prepared this EA 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).

1.1 Project Location and Legal Description

The Project would take place in Ouray County, Colorado at Township 44 North; Range 8 West; and Sections 11, 12, 13, and 14. The Project can be reached by driving south from Ridgway, Colorado along Highway 550 for approximately 7 miles (See Figure 1).

There are three classifications of land affected by the Project: federal, county, and private (Figure 2). The federal land is public land administered by the BLM. The BLM land involved with the Project lies within an area managed by the BLM Uncompahgre Field Office (UFO). The Ouray County land is located at the north end of the Project.



Uncompahgre Multibenefit Project

Ouray County, CO

Sections 11-14, T44N, R8W New Mexico Prime Meridian

USGS Ouray, CO 7.5 Quadrangle

Prepared by: Fred Phillips Consulting, 7-24-24

Figure 1: Location of Project

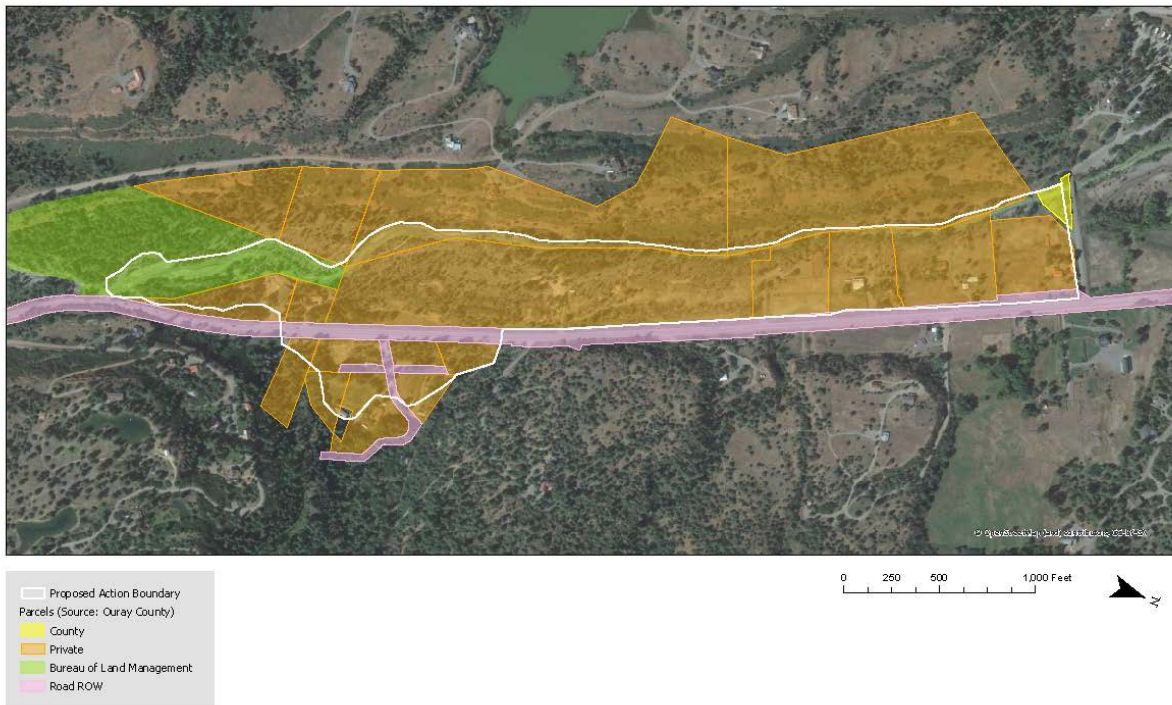


Figure 2: Land Management Types in Project Area

1.2 Project Overview

The total length of the project runs approximately 1 mile along the Uncompahgre River and encompasses Bureau of Land Management, Ouray County and private property. The Ward Headgate supplies water rights dating back to 1897, 1905 and 1947 from the Uncompahgre River onto the private land of six landowners who make up the Ward Water Group and the Rewalt -Plummer Ditch. The Ward Water Group was formed in 2021 for the purpose of operating and maintaining the Ward Headgate and Ditch in collaboration with the Rewalt-Plummer Ditch users. The Ward Ditch is approximately 1 mile long and passes through 7 private properties, although only four are users of the Ward Ditch.

The Ward Headgate is located on Bureau of Land Management (BLM) property. The historic right of way for the Ward Ditch has been acknowledged through a decision by the BLM. The right of way is recognized to be 0.081 acres along the ditch, as well as 0.441 acres of an access road that has been utilized for historic maintenance activities. The work that would be completed under the Proposed Action is considered maintenance by the BLM, and thus does not require any additional right-of-ways or a federal action by the BLM.

The contributing drainage area of the Uncompahgre watershed at the project area is 90.4 square miles (57,856 acres) of conifer forest, high alpine, meadow, riparian, and some development. The river flows were calculated to be 835 CFS at bankfull, 1014 CFS at 2 year flows, and 1622 CFS at 10 year flows. Historical

landowners along the Uncompahgre River had built berms adjacent to the river to lessen flood impacts on farmed land, disconnecting the river from its floodplain and creating geomorphic effects.

At the location of the Ward headgate, the diversion consists of an earthen/rock/debris push-up dam extending across the main channel of the Uncompahgre River. The large rock, broken concrete and other debris within the river serves as temporary grade control to elevate the water surface and allow for interception and diversion of the water right to an irrigation inlet headwall. Another rock/rubble/earthen berm extends upstream from a concrete headwall and irrigation gate into the river as a small peninsula that allows a portion of the incoming river to flow into an offshoot channel toward the headwall. That channel leads to an earthen ditch for irrigation uses. This diversion configuration is frequently damaged by high flow events and often requires maintenance and/or reconstruction.

1.3 Need for and Purpose of the Proposed Action

The purpose of the Proposed Action is to contribute to the WaterSMART Environmental Water Resources Projects objective of providing “benefits to ecological values or watershed health... as part of a collaborative process to... increase the reliability of water resources” (Environmental Water Resources Projects Fact Sheet, 2022). The need for the Proposed Action is to maintain and make sustainable the existing water rights of the Ward Ditch which currently requires seasonal maintenance at the headgate and is at risk of losing sufficient connection with the river due to river channel instability. The Uncompahgre River also has a need for improved riparian and floodplain habitat, as the landscape has degraded due to disconnection from the floodplain and exotic species.

1.4 Decision to be Made

Reclamation will decide whether to provide funding to the Applicant to implement the Project.

1.5 Background

1.5.1 WaterSMART Environmental Water Resources Projects

Reclamation WaterSMART Program for Environmental Water Resources Projects focuses on supporting projects that increase water reliability with a cooperative approach and that create benefits to ecological values or watershed health. Funding and authority come from Section 40907 of the Bipartisan Infrastructure Law. Priorities supported by WaterSMART Environmental Water Resources Projects come from Executive Order 13985: *Advancing Racial Equity and Support for Underserved Communities Through the Federal Government* and Executive Order 14009: *Tackling the Climate Crisis at Home and Abroad*.

1.5.2 The Applicant

American Rivers, the Applicant, is cooperating with the Ward Water Group to implement the Project. American Rivers serves as the Category A applicant for the WaterSMART Environmental Water Resources Project grant, with the Ward Water Group as the Category B applicant. American Rivers is a river conservation nonprofit focused on protecting and restoring rivers and conserving clean water.

1.6 Relationship to Other Projects/Programs

1.6.1 Colorado Water Conservation Board

The Colorado Water Conservation Board Watershed Restoration Program awarded funds in the amount of \$239,500. These funds will support reconnection to the floodplain and improved habitat.

The initial concept design for the project was also supported by the Colorado Water Conservation Board. A Water Plan Grant in the amount of \$71,446 enabled the initial planning and design.

1.6.2 Gunnison Basin Roundtable Water Supply Reserve Fund

American Rivers applied and secured \$50,000 in funding from the Gunnison Basin's account in the Colorado Water Conservation Board's Water Supply Reserve Fund. These funds support the improvements to the Ward Headgate and Ditch.

1.6.3 Colorado River District

The Colorado River District is contributing \$100,000 to the project to support improvements to the Ward Headgate and Ditch. The initial concept design for the project was also supported by the Colorado River Water Conservation District through their Accelerator Grant for \$25,000.

1.6.4 Other Projects/Programs Not Related to the Project

There are no other known projects proposed within or adjacent to the project area.

1.7 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:

- Bureau of Reclamation, 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

1.8 Alternatives Considered But Not Carried Forward

Other alternatives were considered during the conceptual design process for the Project, such as the exclusion or inclusion of additional private parcels and other methods for addressing challenges at the Ward Ditch headgate. The landowner associated with the Rewalt-Plummer ditch was added to the project final design because of their involvement in project development and ditch operations. Another landowner

voluntarily opted out of the project. Alternatives other than the Project described in the Proposed Action Alternative below were not proposed to Reclamation because they were determined to be technically challenging, lacked longevity, or were otherwise economically prohibitive, compared to the Project.

2 Proposed Action and Alternatives

2.1 No Action Alternative

Under the No Action Alternative, Reclamation would not approve funding for the Project. The Ward Ditch diversion and Uncompahgre River corridor would remain in their current state, and the diversion would continue to be maintained multiple times throughout the irrigation season in an effort to maintain functionality. The ditch would continue to be less efficient than optimal for irrigating ditch members' lands. The private property of Ward Ditch users within the upper floodplain would not be improved with WaterSMART funding. Riparian revegetation would not occur on federal or private lands, the river structures would not be constructed in the river corridor, and floodplain connectivity improvements would not be made.

2.2 Proposed Action Alternative

The Proposed Action, the Bureau of Reclamation would provide funding to the Applicant to implement the Project.

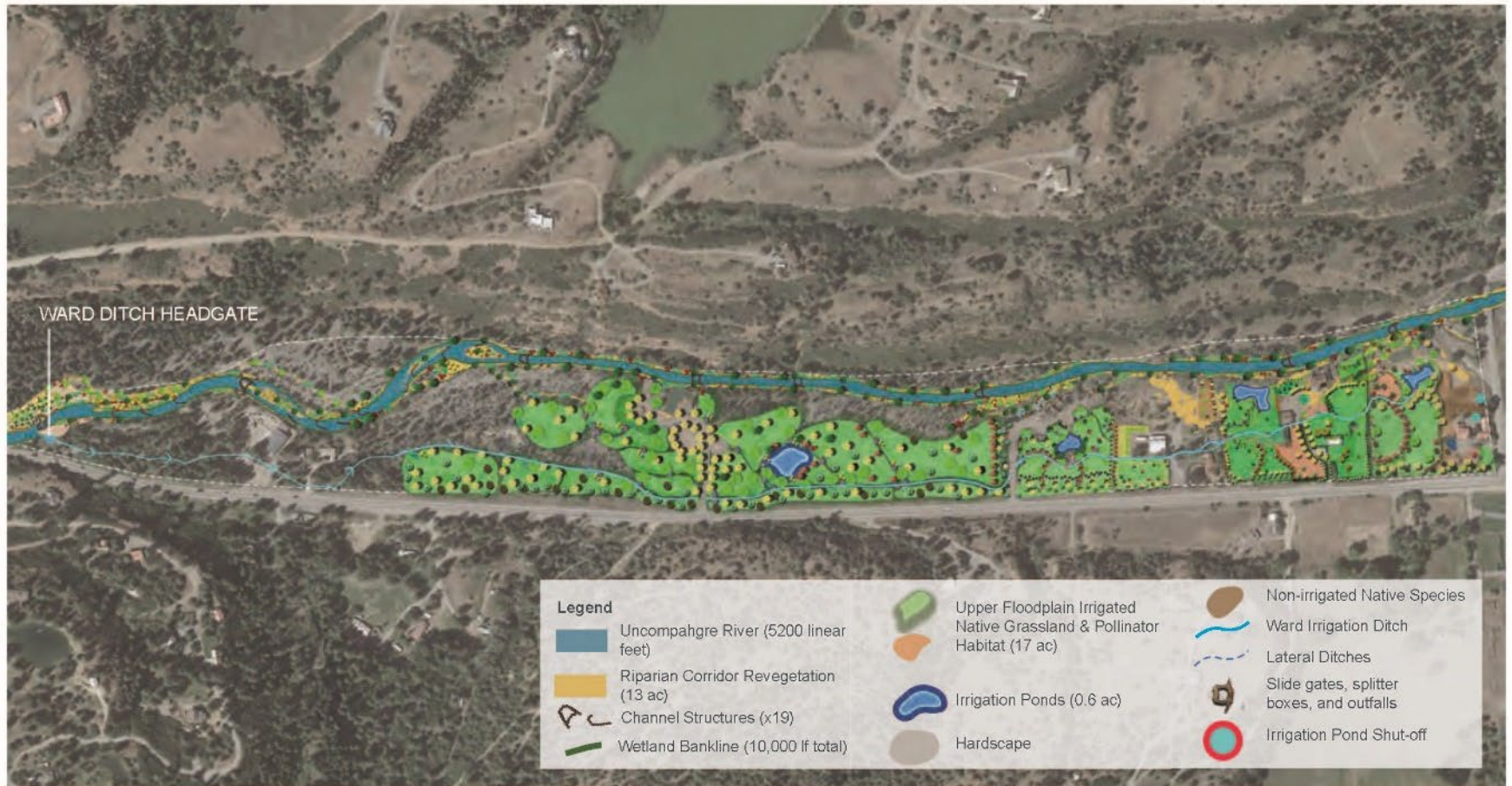
2.2.1 Project Overview

The Ward Headgate improvements would consist of constructing a regraded turn-out channel and embankment, two cross vane weir structures, three rock sills, a reconstructed headwall with irrigation gate bypass, bank toe rock, and riprap. These improvements would provide an erosion resistant irrigation turnout for Ward Ditch inflow, provide grade control within the river bottom at the elevation of the existing river thalweg at the top of the diversion structure, and provide for passage of recreational boaters (kayak, canoe, etc.) during low flow conditions.

Irrigation provided by the Ward Headgate would be made more efficient through improvements to the Ward Ditch and laterals, grading of irrigated lands, and the implementation of additional irrigation features such as splitter boxes and ditch gates.

Improvements in the Uncompahgre River would consist of six cross vane weirs, seven j-hook vanes, four rock vanes, two rootwads, and 32 boulder clusters. Earthwork would include creating a total of 800 linear feet of bankfull channels and stabilization, 340 linear feet of bankfull benches, 26 linear feet of berm breaches, and 114 linear feet of channel return swales.

The Project design is shown in Figure 3.



PROJECT DESIGN

UNCOMPAGHRE MULTIBENEFIT PROJECT / 2023 11

Figure 3: Conceptual restoration design for the Uncompahgre Multibenefit Project

2.2.2 Earthwork

A low ground pressure excavator, or similar, would be used for earthwork activities. The footprint of earthwork would be cleared mechanically by excavators, backhoes, or similar and by hand-held power tools such as chainsaws, weed whackers, and power brush cutters. Any undesirable, invasive plants found in the footprint of earthwork cut/fill and structures in the project area would be pulled, dug out, or mulched over to prevent regrowth and reduce competition with native plants to be planted.

Cleared plant material would be left on site and placed outside the river corridor in designated areas. Any cottonwood, willow, or other native trees and shrubs on site would be preserved when at all possible.

Improvements would be made to the access road used for maintenance of the Ward headgate, including grading of the road and construction of a culvert where water tends to flow across the road and cause erosion issues.

Earthwork in the river channel would include bank-sloping, the creation of bankful benches, construction of return swales for floodplain reconnection, and prep work for the implementation of river structures which is detailed below in Section 2.2.4.

Earthwork on the upper floodplain would include realignment of the Ward Ditch, digging of ditch laterals, digging of irrigation ponds, and grading of terraced irrigated fields.

2.2.3 Headgate and Ditch Improvements

At the headgate and throughout ditch, dead or obstructive vegetation would be removed from the area required to access the ditch for maintenance purposes. Logs on the riverbank adjacent to the headgate would be removed, as well as other debris that creates hazards or erosion risk.



Date & Time: Tue, Jun 04, 2024 at 07:57:18 MDT
Position: +038.068918° / -107.695580° (±20.8ft)
Altitude: 7355ft (±7.8ft)
Datum: WGS-84
Azimuth/Bearing: 344° N16W 6116mils True (±12°)
Elevation Angle: -05.0°
Horizon Angle: +02.1°
Zoom: 1.0X
ditch overgrowth

Figure 4: Overgrowth along Ward Ditch that would be removed to provide access for maintenance.



Date & Time: Tue, Jun 04, 2024 at 07:59:38 MDT
Position: +038.068513° / -107.695627° (±19.0ft)
Altitude: 7347ft (±8.8ft)
Datum: WGS-84
Azimuth/Bearing: 301° N59W 5351mils True (±12°)
Elevation Angle: -15.9°
Horizon Angle: -00.1°
Zoom: 1.0X
debris pile at headgate

Figure 5: Log debris near headgate that would be removed.

The irrigation diversion would be constructed to create more permanent grade control stabilization and a less erodible diversion dam. The current rubble dam, which keeps the riverbed at an elevation that allows

the diversion channel to intercept water, erodes during high flow events. Large rock weir structures (detailed in Section 2.2.4 and Figure 5) would be constructed to replace the rubble dam while still holding the thalweg elevation and resist erosion during the frequent, large flow events that are common along the Uncompahgre River. Additionally, reconstructing the diversion berm to include a culvert bypass for when the irrigation gate is closed would reduce sediment deposition within the diversion channel. The diversion turnout with culvert bypass would be reconstructed from concrete. The turnout will tie into the existing headwall and add a similar sized wall to include a cleanout culvert and headgate. The cleanout culvert is adjacent to the existing headgate and allows for the turnout to be “flushed” of sediment.

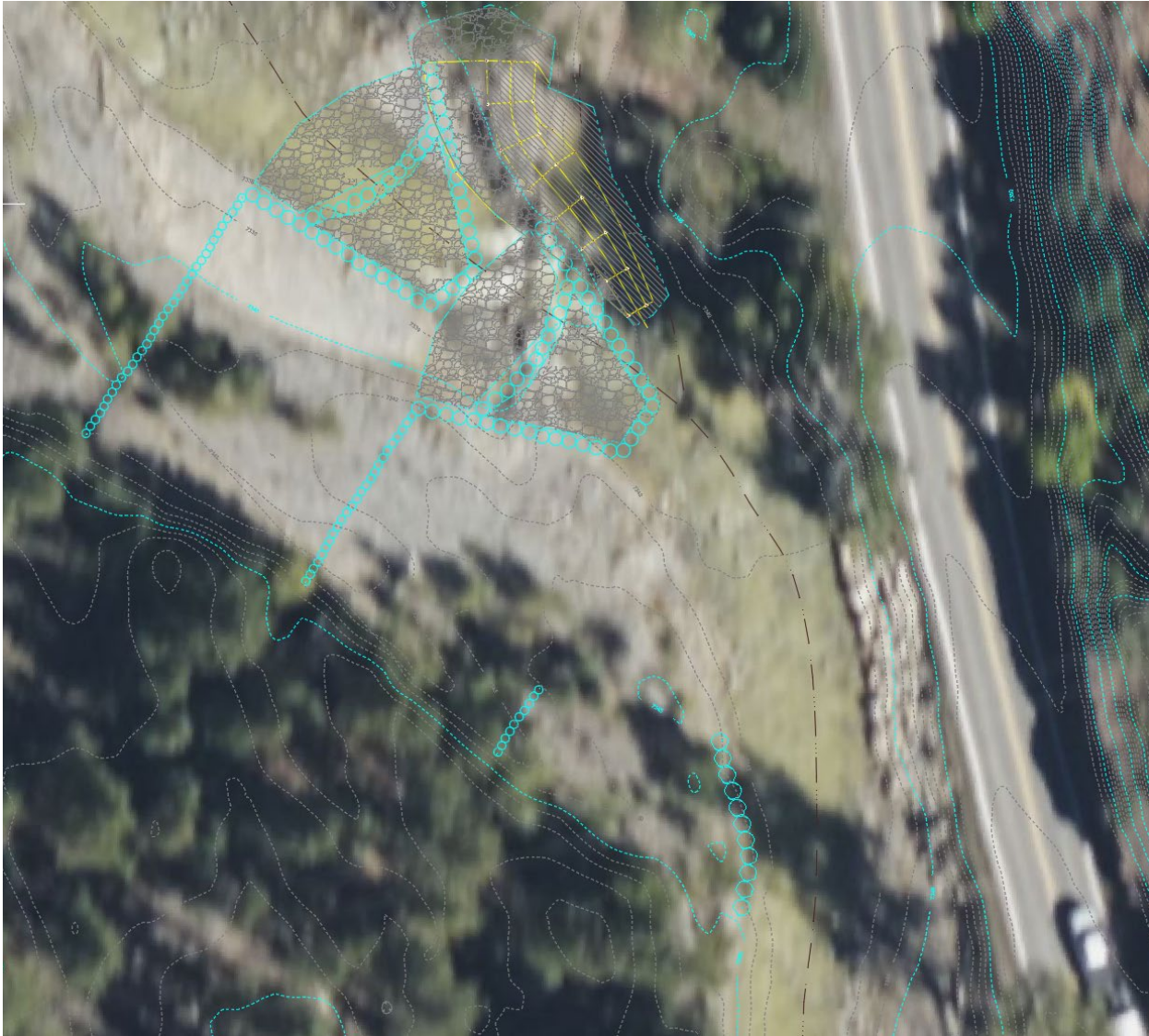


Figure 6: Project at Ward headgate, flow is from bottom to top of figure

The Ward Ditch and associated laterals would be improved through the addition of HDPE for culverts, toggle gates at laterals, and Zuni bowls to provide erosion control. A minimum amount of concrete would be used to construct toggle gates, which would consist of no more than one bag of concrete per gate.

2.2.4 Stream & Floodplain Structures

After earthwork is complete, the Project would include the construction of stream and floodplain structures using feature and footer rock ranging from 12" to 48", as well as D50=9" substrate rip rap. Natural materials found on site would also be utilized in the creation of river structures.

Cross vane weirs would provide bank protection and grade control. These would consist of a row of rocks arranged in a U-shape with the bottom of the U on the upstream side at the channel bottom elevation with the arms extending downstream and up to bankfull elevation (Figure 5). A single row of rock beginning approximately halfway down the weir arms and set perpendicular to the flow would form a step that is lower than the weir throat. All rocks used in the weir would have footer rock on the downstream side to protect against undermining. The cross-vane weir arms would serve to redirect flows and slow velocities along the outside of the bend, minimize bank erosion while centering flow in the channel, and protect the channel bed from upstream headcut migration. The cross vane weirs would reduce stress on the banks during large flow events while centering and concentrating flows during low flow times. Tieback rocks would extend in a single buried row from the ends of each weir arm into the bank at the bankfull elevation to prevent the river from flanking the structure. J-hooks and cross vanes would also provide bank protection and grade control. They would be constructed in a similar manner to cross vane weirs (Figure 6).

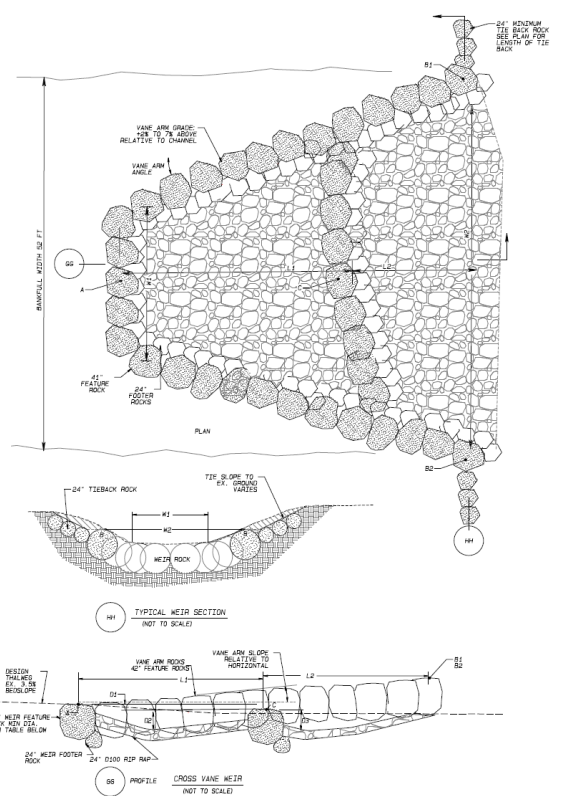


Figure 7: Cross vane weir detail

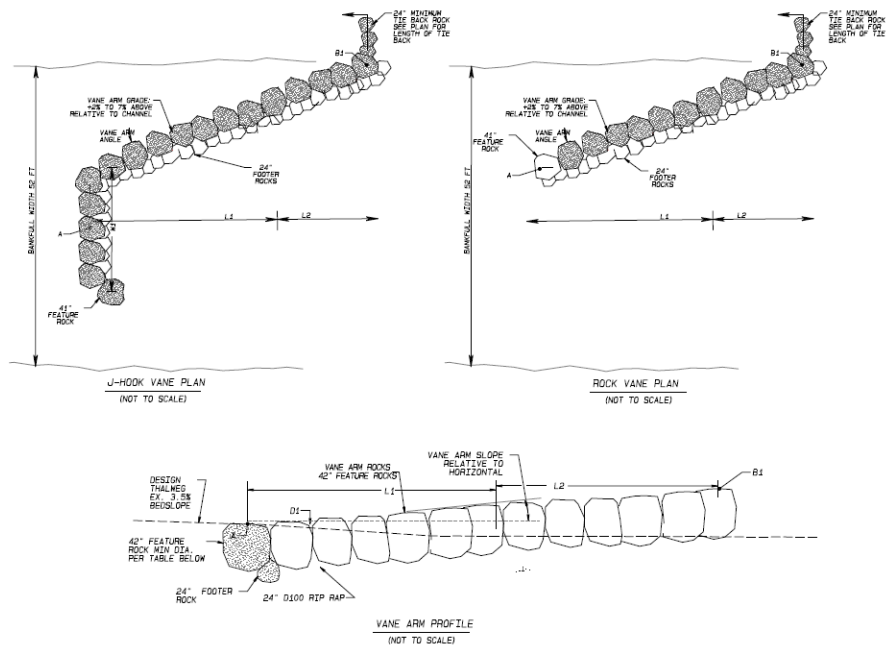


Figure 8: J-hook and Rock Vane Detail

The rock sills would be designed to have enough embedment depth to arrest upstream advancing headcuts if they were to occur on areas adjacent to the primary channel protection. The rock sills would consist of a single row of buried feature rocks with their tops at grade and placed perpendicular to the direction of flow. A row of buried footer rocks on the downstream side of the feature rocks would be placed to prevent undermining. Boulder clusters and root wads would be constructed per the details in Figures 7 and 8.

110 BOULDER CLUSTERS

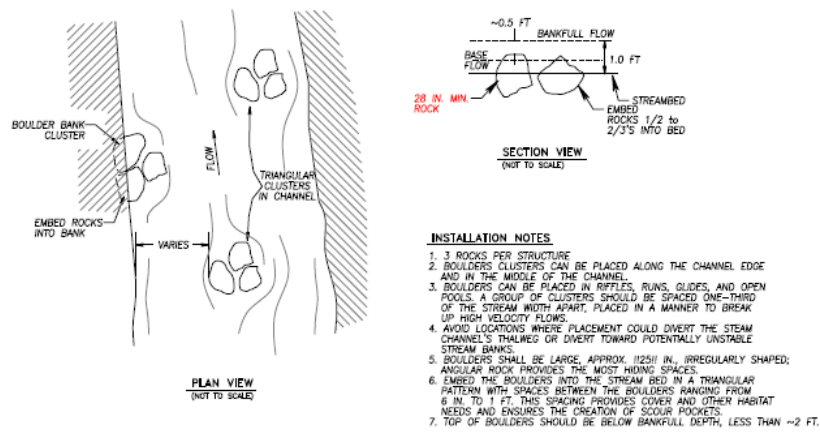


Figure 9: Boulder cluster detail

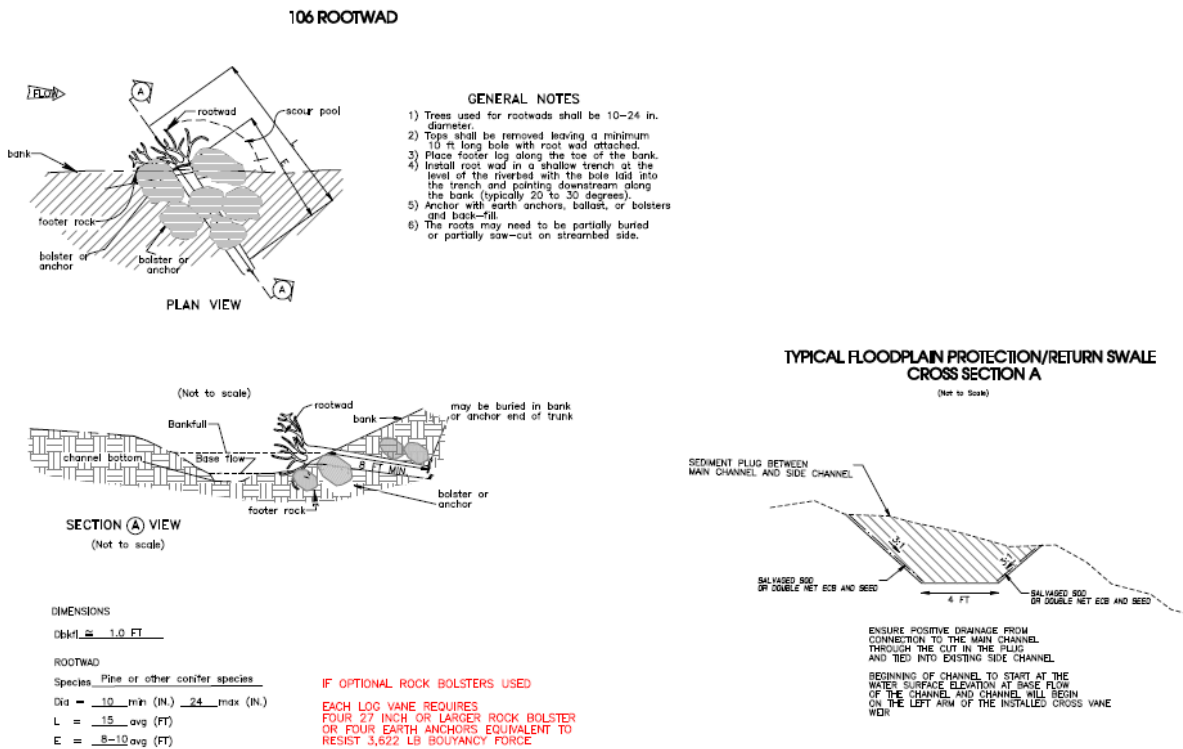


Figure 10: Rootwad and Channel breach/return swale details

2.2.5 Native Riparian Revegetation

The Project includes revegetation of native species in all areas proposed to be disturbed by earthwork and along the riparian corridor (see species in Tables 1 and 2). The river corridor would have approximately 13 acres of wetland and riparian habitat on the banks between summer mean flows (49 cubic ft/second) and 2-year flood flows (1014 cubic feet/second). All plantings would be native vegetation and would be implemented through a combination of broadcast seeding, riparian pole plantings, plug plantings, and rooted propagules.

Seed bed preparation would be completed on all disturbed areas, which would be seeded at the appropriate rate for the species soon after disturbance. Riparian planting areas would be hand raked or mechanically raked to provide a tilled soil surface. Seeding would occur prior to planting plugs or live plant materials.

Wetland plugs would be installed by creating a hole with a spade or dibble, placing the plants in the hole and firmly packing the soil around them. Plugs would also be planted in engineered bankfull benches.

Pole plantings and deep pot plantings would require the use of a mechanical soil auger mounted on a tractor, mechanized two-man auger, hand tools, or manual backhoes. When pole plantings are complete, remaining gaps would be backfilled with a water and on-site soil slurry to create good soil-to-stem contact.

Table 1: Species List for Revegetation Activities in Project Area

<i>Common Name</i>	<i>Botanical Name</i>	<i>Planting Area(s)</i>
Alkali Bulrush	<i>Bolboschoenus maritimus</i>	Wetland (Riverbank)
Beaked Sedge	<i>Carex utriculata</i>	Wetland (Riverbank)
Clustered Field Sedge	<i>Carex praegracilis</i>	Wetland (Riverbank)
Emory Sedge	<i>Carex emoryi</i>	Wetland (Riverbank)
Hardstem Bulrush	<i>Schoenoplectus acutus</i>	Wetland (Riverbank)
Inland Saltgrass	<i>Distichlis spicata</i>	Wetland (Riverbank)
Marsh Milkweed	<i>Asclepias incarnata</i>	Wetland (Riverbank)
Owl Fruited sedge	<i>Carex stipata</i>	Wetland (Riverbank)
Small Fruitbulrush	<i>Scirpus microcarpus</i>	Wetland (Riverbank)
Softstem Bulrush	<i>Schoenoplectus tabernaemontani</i>	Wetland (Riverbank)
Spikerush	<i>Eleocharis palustris</i>	Wetland (Riverbank)
Three Square	<i>Schoenoplectus americanus</i>	Wetland (Riverbank)
Wooly Sedge	<i>Carex pellita</i>	Wetland (Riverbank)
Choke-Cherry	<i>Prunus virginiana</i>	Riparian/Upper Floodplain
Golden Currant	<i>Ribes aureum</i>	Riparian/Upper Floodplain
Red Twigged Dogwood	<i>Cornus sericea</i>	Riparian
Serviceberry	<i>Amelanchier utabensis</i>	Riparian/Upper Floodplain
Showy Milkweed	<i>Asclepias speciosa</i>	Riparian
Shrubby Cinquefoil	<i>Dasiphora fruticosa</i>	Riparian
Three Leafed Sumac	<i>Rhus trilobata</i>	Riparian/Upper Floodplain
Woods Rose	<i>Rosa woodsii</i>	Riparian/Upper Floodplain
Aspen*	<i>Populus tremuloides</i>	Riparian
Bebb Willow	<i>Salix bebbiana</i>	Riparian
Colorado Blue Spruce	<i>Picea pungens</i>	Riparian/Upper Floodplain
Coyote Willow*	<i>Salix exigua</i>	Riparian
Drummond Willow	<i>Salix drummondiana</i>	Riparian
Geyer's Willow	<i>Salix geyeriana</i>	Riparian
Mountain Ash	<i>Sorbus scopulina</i>	Riparian
Mountain Willow	<i>Salix monticola</i>	Riparian
Narrow Leaf Cottonwood	<i>Populus angustifolia</i>	Riparian
Planeleaf Willow	<i>Salix planifolia</i>	Riparian
River Birch	<i>Betula occidentalis</i>	Riparian
Rocky Mountain Maple	<i>Acer glabrum</i>	Riparian
Strapleaf Willow	<i>Salix ligulifolia</i>	Riparian
Thinleaf Alder	<i>Alnus tenuifolia</i>	Riparian
Gambel Oak	<i>Quercus gambelii</i>	Upper Floodplain
Rabbitbrush	<i>Ericameria nauseosa</i>	Upper Floodplain
Shrubby Cinquefoil	<i>Dasiphora fruticosa</i>	Upper Floodplain
Western Sage	<i>Artemisia tridentata</i>	Upper Floodplain
Western Snowberry	<i>Symphoricarpos occidentalis</i>	Upper Floodplain
Box Elder	<i>Acer negundo</i>	Upper Floodplain
Douglas Fir	<i>Pseudotsuga menziesii</i>	Upper Floodplain
Ponderosa Pine	<i>Pinus ponderosa</i>	Upper Floodplain

Table 2: Pollinator and Grass Seeding List for Revegetation Activities in Project Area

Common Name	Botanical Name	Planting Type
Arnica	<i>Arnica cordifolia</i>	Pollinators/Wildflowers
Blue Flax	<i>Linum lewisii</i>	Pollinators/Wildflowers
Colorado Columbine	<i>Aquilegia coerulea</i>	Pollinators/Wildflowers
Fleabane (Aster)	<i>Erigeron divergens</i>	Pollinators/Wildflowers
Indian Blanket	<i>Gaillardia pulchella</i>	Pollinators/Wildflowers
Lupine	<i>Lupinus argenteus</i>	Pollinators/Wildflowers
Prairie Coneflower	<i>Ratibida columnifera</i>	Pollinators/Wildflowers
Primrose	<i>Oenothera spp.</i>	Pollinators/Wildflowers
Purple Penstemon	<i>Penstemon angulstifolius</i>	Pollinators/Wildflowers
Rabbitbrush	<i>Ericameria nauseosa</i>	Pollinators/Wildflowers
Rocky Mtn Bee Plant	<i>Cleome serrulata</i>	Pollinators/Wildflowers
Rocky Mtn Penstemon	<i>Penstemon strictus</i>	Pollinators/Wildflowers
Showy Milkweed	<i>Asclepias speciosa</i>	Pollinators/Wildflowers
Small Sunflower	<i>Helianthus spp.</i>	Pollinators/Wildflowers
Sulphur Buckwheat	<i>Eriogonum umbellatum</i>	Pollinators/Wildflowers
Western Red Columbine	<i>Aquilegia formosa</i>	Pollinators/Wildflowers
Western Scarlet Gilia	<i>Ipomopsis aggregata</i>	Pollinators/Wildflowers
Yarrow	<i>Achillea millefolium</i>	Pollinators/Wildflowers
Blue Gramma	<i>Bouteloua gracilis</i>	Native Grasses
Bottlebrush Squirrel Tail	<i>Elymus elymoides</i>	Native Grasses
Green Needle	<i>Nassella viridula</i>	Native Grasses
Idaho Fescue*	<i>Festuca idahoensis</i>	Native Grasses
Needle & Thread	<i>Hesperostipa comata</i>	Native Grasses
Sand Dropseed	<i>Sporobolus cryptandrus</i>	Native Grasses
Sideoats Grama	<i>Bouteloua curtipendula</i>	Native Grasses
Small Bluestem	<i>Schizachyrium scoparium</i>	Native Grasses
Western Wheat	<i>Pascopyrum smithii</i>	Native Grasses

2.2.6 Upper Floodplain/Private Land Enhancement

Upper floodplain habitat would be restored through the use of irrigation water in the Ward Ditch on private property. This would be made possible by the improvements to the headgate, irrigation ditch, and earthwork improvements and the willingness of landowners to grade and terrace their irrigated lands and use their water rights for this beneficial use. Irrigation laterals would be dug extending from the Ward Ditch and fields would be graded and terraced to allow for efficient flood irrigation. Irrigation infrastructure upgrades, along with invasive plant removal, native plant revegetation, and other beneficial uses for irrigated areas such as pastures, vegetable/crop farming and pollinator gardens, would result in the restoration or enhancement of up to 31.6 acres of habitat and agricultural land. Native species, including narrowleaf cottonwoods, alder, box elder, mountain rose, wildflowers, and grasses, would be planted using the same methods described in Section 2.2.5. Final acreages of enhanced land will depend on the amount of land that can be graded with funding under the Proposed Action.

2.2.7 Access & Staging

The Ward Water Ditch involved with the Project is located in a historic right-of-way on BLM managed lands. The Project is considered maintenance by the BLM and does not require any additional right-of-ways to be implemented. All participating private landowners in the footprint of the Project, where activities would take place outside the historic prescriptive easement, have agreed to allow the activities of the Project to be conducted on their lands.

Six staging areas have been identified, totaling 1.37 acres. These areas are on previously disturbed, open ground. No vegetation clearing would be performed to prepare staging areas for use. The staging areas would be used to store project supplies and equipment.

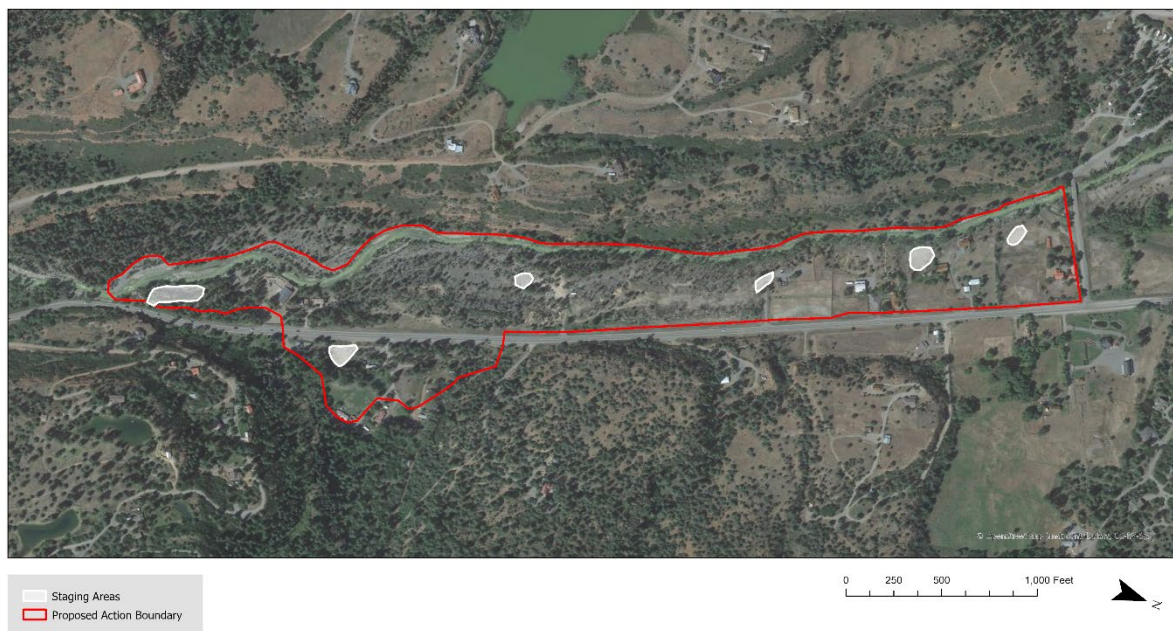


Figure 11: Staging Areas during completion of Project

Existing roads would be utilized for access to the site. The existing access road for the Ward Headgate would be improved through grading and culvert placement. Vegetation and debris on either side of the Ward Ditch would be cleared only to the extent necessary for maintenance access by a tractor.

2.2.8 Weed Control & Maintenance

Weeds within the project area would be controlled via manual techniques or weed treatments. Manual techniques would involve the use of hand tools and hand-operated power tools to cut, remove, or prune herbaceous or woody species. Treatments would include cutting undesirable plants above ground, pulling, grubbing, and digging out root systems to prevent sprouting and regrowth, and removing competing plants around desired species.

Russian olive stumps and root mass would be removed by hand or mechanically cleared. If the entire root system cannot be removed with reasonable effort, all remaining roots and stumps would be treated per the “Cut Stump” method.

The “Cut Stump” method is most effective on tree species that sparsely populate an area or in areas where heavy machinery is not permitted. All Russian olive on site that are not fully removed (stump and root mass) would be treated with this method. The tree or shrub would be cut down as close to the ground as possible, and herbicide (Table 3) would be immediately sprayed on the exposed inner bark (cambium) of the stump. The herbicide would be applied to the entire inner bark within minutes (no more than 15 minutes) after the trunk is cut. Cut materials will be placed in piles no greater than 15’ diameter by 6’ high in open areas where clearing is occurring. Piles will be mulched. Treated stumps can still re-sprout, so monitoring would occur at regular intervals (2 to 6 months) for at least a year. Re-sprouts would be treated by physical removal of all root mass, additional cut-stump, or foliar applications.

Table 3: Cut Stump Herbicide Solution Mix

Chemical	Solution Percentage	Fluid Ounces per Bucket or Hand Sprayer (1 gallon)
Triclopyr	100%	128 oz
Blue Dye Concentrate	<1%	<1 oz

Foliar spraying, which is the direct application of herbicide (Table 4) to leaves and vegetative plant parts, would be used for herbaceous invasive species in the Project Area, such as cheat grass (*Bromus tectorum*), various mustard species (*Brassica sp*), bindweed (*Convolvulus arvensis*), pigweed (*Amaranthus palmeri*) and exotic brome grasses (*Bromus sp*). Foliar treatment would occur prior to revegetation activities. All monotypic stands, individuals, and re-sprouting herbaceous exotic species be treated with this method. These methods will also be used to control re- sprouting of Russian olive seedlings.

Table 4: Foliar Spray Herbicide Solution Mix

Chemical	Solution Percentage	Fluid Ounces per Bucket or Hand Sprayer (1 gallon)
Imazapyr	3%	11 oz
Glyphosate	3%	11 oz
Surfactant	<1%	~3 oz
Adjuvant	<1%	~2 oz
Blue Dye Concentrate	<1%	~1oz

2.2.9 Schedule

Time of Year	Project Activities	Reasoning
March 15 – April 30	Headgate and River Structures work	Weather permitting, some additional work in the river channel can be completed as flows would be low.

Time of Year	Project Activities	Reasoning
May 1 – September 1	Upper Floodplain work, ditch improvements, and revegetation	Work in actively manipulated areas of the upper floodplain is planned as work in this area during this time would not be likely to adversely affect Yellow-billed cuckoo (details in Section 3.2.10).
September 1 – December 15	Headgate and River Structures earthwork and construction	River flows are low and this is the optimal time to do in stream work.

2.2.10 Permits and Authorizations

The following interagency agreements or permits would be required prior to Project implementation:

- BLM Ditch Right-of-Way acknowledgement for the Ward Ditch, spanning 110 feet long by 32 feet wide of the ditch right-of-way, and spanning 640 feet long by 30 feet wide for the access road.
-
- Authorization by the U.S. Army Corps of Engineers (USACE) to perform project activities in jurisdictional areas under Nationwide Permit 27 – Aquatic Habitat Restoration, Enhancement, and Establishment Activities. Within 60 days of completion of the authorized work, as-built drawings and a description of the work conducted would be submitted to the Northwest Colorado Branch of the Army Corps of Engineers.
- A notice from the USACE acknowledging that project activities at the headgate fall under the agricultural exemption for Section 404 authorizations.
- Approval of the Flood Plain Permit Application by Ouray County Land Use, acknowledging that revisions to the floodway per the engineering design do not indicate an increase in flood elevations or cause adverse impacts within the Project area. Post construction information for a no-rise certificate would be completed by the project engineers and submitted to the County.

The following agreements or permits 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.
- 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 Ouray County Road & Bridge Department.

Compliance with the following federal laws and Executive Orders (E.O.)¹ 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 (FPLMA) 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)
- 2012 Colorado Roadless Rule (16 U.S.C. 472, 529, 551, 1608, 1613; 23 U.S.C. 201, 205.)
- 1866, July 26 – 14 Stat. 251, Act Granting Right of Way to Ditch and Canal Owners Over Public Land
- 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)]

3 Affected Environment & Environmental Consequences

3.1 Introduction

This section describes the current conditions for each environmental resource that may be affected by the Proposed Action and the No Action Alternative. Information regarding each resource was obtained from research including desktop reviews, publicly available GIS data, and agency coordination.

¹ This list is not intended to be all inclusive.

3.1.1 Environmental Resources Considered but Excluded from Analysis

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

Table 5: Resources or Potential Issues Eliminated from Further Analysis

Resource or Potential Issue	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 is providing the Ute Mountain Ute Tribe, the Ute Indian Tribe (Uintah and Ouray Reservation), and the Southern Ute Indian Tribe with a consultation letter containing 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. The results of this consultation will be included in the Final EA.
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 Project 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.
Climate Change	The Project would not contribute to climate change. Climate change is a term that refers to long-term shifts in climate patterns—specifically, human-induced shifts driven by the burning of fossil fuels, a process which produces greenhouse gases. The minor short-term increase in greenhouse gas emissions during construction would not result in impacts that differ from the No Action Alternative, as heavy equipment is periodically utilized to maintain the diversion.

3.2 Affected Environment & Environmental Consequences

3.2.1 Water Rights & Use

3.2.1.1 Affected Environment:

The Ward Headgate diverts water to an irrigation ditch that diverges into two ditches at a splitter box approximately 100 feet from the point of diversion from the Uncompahgre River. The Ward Ditch supplies 2.3 CFS of water to 4 users, as decreed by a 1905 adjudicated right (0.33 CFS) and a 1942 adjudicated right (2 CFS). The Rewalt Plummer Ditch supplies 1.6 CFS of water under a 1942 adjudicated right.

Use of the Ward Ditch and Rewalt-Plummer water rights is dependent on the functioning of the headgate diversion. Currently, fine sediment accumulates in the diversion channel, upstream of the headgate during high flows when the gate is closed and requires frequent maintenance. The turnout channel appears to be stable and passes the necessary flow into the irrigation ditch, while the diversion structure is intact.

In recent years, the ditch will not flow at any river flows below 250 cfs without major continued maintenance. This flow rate occurs for most of the growing season. In 2024, in the first month and a half of irrigation, major maintenance with heavy equipment has been needed twice at the headgate to keep the ditch flowing.

The riverbanks immediately adjacent to the diversion structure are in relatively good condition with no signs of significant erosion on either bank. However, the current configuration causes downstream widening, forming a transverse bar which directs flows to the outside edges of the channel downstream of the diversion. This is caused when the diversion over-widens the channel, decreasing shear stress and increasing aggregation. While this condition does not appear to be causing bank erosion at the diversion site, it has caused lateral migration in downstream meander. The widened channel is prone to lateral migration and there is considerable bank erosion downstream as well as the potential for the stream to migrate around the hardened push up at the irrigation turn out.

A sharp drop in the river thalweg immediately below the diversion creates a risk that if it were to headcut upstream, the irrigation diversion will be cut off from the main river flow. Frequent reconstruction of the in-river push-up dam can result in changes to river thalweg geometry, changes to the intercepted flow to the irrigation ditch and trigger channel bank erosion along the Uncompahgre River. At the north end of the project area, two additional headgates divert water from the Uncompahgre River for downstream water users.

3.2.1.2 Environmental Consequences:

3.2.1.2.1 No Action Alternative

The No Action Alternative would not result in a change in water rights and uses in the project area. Frequent rebuilding of the irrigation diversion would continue to be required, resulting in continued issues of reliability for irrigation diversion users. Ongoing frequent reconstruction of the in-river push-up dam

would continue to result in changes to the river thalweg geometry and would continue to jeopardize the ability of the Ward headgate to deliver water rights.

3.2.1.2.2 Proposed Action

Under the Proposed Action, the river channel at the point of diversion would be stabilized to prevent further erosion and channel migration, which would have the beneficial effect of preserving the ability of the Ward headgate to deliver water rights. Improvements to the Ward Ditch make the ability of users to divert water and utilize their water rights more certain and sustainable into the future by stabilizing the headgate and river channel at the point of diversion. The elevation of the diversion would be maintained, and therefore there no water would be diverted which would not have been possible to divert utilizing the current diversion structure. The configuration and location of the ditch and irrigated lands it serves limits expansion of use. Because the proposed headgate work would not expand the capacity of the Ward Ditch to divert more than their historic right, there would be no changes or impacts to downstream water users. Water users would utilize a portion of their diverted water to support the proposed native riparian and grassland/pasture areas on the private properties. Water users have historically utilized these rights for irrigation on their lands, and therefore there would be no change in use associated with utilizing a portion of the diverted water to irrigate the proposed native plantings.

There would be no significant adverse impacts to water rights and use as a result of the Proposed Action, because improvements to the Ward headgate and ditch would be beneficial to the members of the ditch company, and current use of water for irrigation would be maintained. The improved efficiency of water would support planted pastures, vegetable/crop farming, pollinator gardens, and native revegetation. .

There are no planned Project activities near the two headgates that occur at the north end of the Project Area.

3.2.2 Water Quality

3.2.2.1 Affected Environment

Frequent reconstruction of the push-up dam releases sediment and triggers channel bank erosion along the Uncompahgre River within the project area, resulting in an increase in sediment in the water column downstream of the project area.

There are existing risks to water quality in the case of a wildfire within the watershed, which would result in post-wildfire ash and sediment deposition from burned areas. Post-wildfire impacts have the potential to impact the Uncompahgre River as well as Ridgway Reservoir several miles downstream. Wildfires in Colorado are anticipated to become more frequent and severe, creating additional risks to water quality from post-wildfire impacts (Nature Conservancy n.d.).

3.2.2.2 Environmental Consequences

3.2.2.2.1 No Action Alternative

Under the no action alternative, water quality in the Uncompahgre River would remain unchanged.

3.2.2.2.2 Proposed Action

Under the Proposed Action Alternative, temporary minor impacts to water quality would occur during the construction of the headgate and channel improvements due to movement of material adjacent to and in the channel and mobilization of sediment. Construction would occur during low flows to ensure that as much of the project area is outside of the water column as possible, thereby limiting the amount of sediment that is mobilized downstream. Impacts to water quality from disturbance of the river channel would be temporary as it would last only during the period of construction. This impact would not rise to the level of significant because it would be on par with the release of sediment that currently occurs during reconstruction of the push-up dam and during high flows that destabilize sediment in the channel.

In the long term, the proposed action would result in a beneficial effect to the water quality in the Uncompahgre River downstream of the Ward Ditch diversion through the construction of structures that would reduce erosion and sediment movement, and through riparian restoration. In the case of a wildfire upstream of the project area, reduced sediment movement would mitigate the effects of post-wildfire ash and sediment that could potentially impact downstream resources such as Ridgway Reservoir. The proposed river structures (cross vane weirs, j-hooks, and boulder clusters) would reduce bank and channel erosion, improve channel stability, and encourage aggradation of sediment and pollutants. This aggradation or sedimentation would reduce suspended solids in the water that may transfer and spread pollutants to downstream water sources. Riparian restoration of native species along the banks of the river would reduce runoff and erosion.

The Proposed Action would affect waters under the jurisdiction of the Clean Water Act Section 404 in the Uncompahgre River. A Nationwide Permit 27 has been authorized by the USACE for the purposes of aquatic restoration activities in the river corridor (Appendix A).

There would be no significant adverse impacts to water quality as a result of the Proposed Action, because the increase in sedimentation during construction would be short term and on par with the existing insignificant release of sediment related to the ongoing reconstruction of the push-up dam, and because the long term result of the Project would improve water quality in the Uncompahgre River by reducing erosion and sediment discharges downstream.

3.2.3 Air Quality

3.2.3.1 Affected Environment:

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. Ouray County is in attainment for all criteria pollutants (EPA 2024). Minor impacts to air quality from routine maintenance

of the ditch system involved with the Proposed Action include dust and exhaust from occasional travel in light vehicles along the Proposed Action corridor, and occasional ditch cleaning and maintenance activities involving heavy equipment.

Under the Clean Air Act, national wilderness areas larger than 5,000 acres are considered Class 1 areas and are given special air quality and visibility protection. The nearest Class I air-sheds are approximately 30 miles away (Wenimuche and La Garita Wilderness Areas). Communities in the area include Ridgway (6 miles north) and Ouray (4 miles south). Highway 550 runs along the eastern boundary of the Project Area. Private residences are located along Highway 550 within and adjacent to the project area.

Air quality concerns in this region are primarily from the impacts of motor vehicles, controlled and uncontrolled burns, wildfire, and windblow dust.

3.2.3.2 Environmental Consequences

3.2.3.2.1 No Action Alternative

Under the No Action Alternative, there would be no change to air quality in the project area. Dust and exhaust would continue to occasionally be generated by vehicles and equipment during routine operation and maintenance activities for the ditch.

3.2.3.2.2 Proposed Action

Dust and exhaust from heavy equipment during construction activities would have a minor, short-term effect on the air quality in the Action Area. These impacts would not rise to the level of significant because it would be on par with the existing releases of dust and exhaust from heavy equipment during ditch maintenance, and those releases have not resulted in the area being in nonattainment for criterial air pollutants. After construction, there would be a decrease in maintenance requirements for the ditch diversion, resulting in a long-term decrease of dust and exhaust in the project area. BMPs would be implemented to minimize dust and further reduce the non-significant impacts of the Project. BMPs would include measures such as wetting the construction site surfaces and access roads, minimizing vehicle travel over unpaved surfaces, limiting activity during periods of extreme winds and stabilizing stockpiles, as appropriate.

No significant impacts to air quality would result from implementation of the Proposed Action as all short-term impacts would be on-par with existing conditions and there would be a long-term beneficial impact to air quality.

3.2.4 Access, Transportation, Utilities, and Public Safety

3.2.4.1 Affected Environment

Highway 550 runs adjacent to the Proposed Action and forms the eastern boundary of the project area. Highway 550 in the project area is the major road connecting the towns of Ridgway and Ouray, and it sees moderate daily traffic due to local residents and tourists.

In the project area, there is an existing road used to access the Ward Ditch headgate. This access road goes through private and BLM land. In the BLM Right of Way Acknowledgement, it is recognized as a necessary operation and maintenance road of 640 feet in length and 30 feet wide. Other existing access in the project area occurs on private land and consists of four locations of driveway access from Highway 550 onto the private land.

Various overhead or buried utilities are present near some Project Areas of the Proposed Action, including buried fiber optic cable, overhead electrical utilities, water lines, and gas lines. The utility entities include the San Miguel Power Association, Tri-County Water, Clearnetworx, and Black Hills Energy. A water line passes across/above the river at the north end of the project.

There are safety risks associated with the Ward Ditch diversion. The Uncompahgre River around the headgate is characterized by a push up dam consisting of concrete debris that could be dangerous for individuals or boaters in the river.

3.2.4.2 Environmental Consequences

3.2.4.2.1 No Action Alternative

There would be no change to access, transportation, utilities and public safety under the No Action Alternative. There would continue to be safety risks associated with the push up dam.

3.2.4.2.2 Proposed Action

All construction activities related to the Proposed Action would take place entirely in the approved/authorized and prescriptive project rights-of-way and approved access routes. There are no known bridges with weight restrictions that would be used by construction vehicles. Highway 550 would be utilized to bring materials and equipment to the project area. Some short-term, minor disruption of traffic would occur due to the presence of large vehicles utilizing Highway 550 to mobilize construction equipment to and from the project area at the beginning and end of the construction phase, or when new materials are brought onto the site. Because the equipment would be staged on site and traffic on Highway 550 related to the project would be limited, the amount of traffic on Highway 550 would continue to be at the moderate level. The Applicant and/or the Applicant's contractor would coordinate with the county and sheriff departments to notify them of project mobilization. . Due to the temporary nature of the traffic disruptions and the lack of change in level of traffic on Highway 550 due to the Project, the impacts on traffic would not rise to the level of significant.

There would be no need for construction of new access roads outside of the construction areas, although the existing headgate access road within the project area would be improved by grading and culvert construction, as described in Section 2.2.7. This would provide better access for operation and maintenance of the Ward Ditch headgate.

All utilities would be located and marked prior to construction. Construction activities would avoid all utility areas, and therefore there would be no effect on utility services.

The Project would result in the beneficial effect by reducing safety risks associated with the Ward Ditch diversion. The debris associated with the push up dam would be removed, creating a safer recreational environment for individuals and boaters. This is further addressed in Section 3.2.7 Recreational Resources, as it is specifically an impact to recreational boating use of the Uncompahgre River.

No significant adverse impacts to access, transportation, utilities, and public safety would occur as a result of the Project, as traffic disruptions would be minor, short-term, and coordinated with appropriate entities, access within the project area would be improved, utilities would be avoided, and the impact on public safety would be beneficial.

3.2.5 Agricultural Resources

3.2.5.1 Affected Environment

The Ward Ditch supplies water rights which are used for irrigation by water users. Some water users utilize the irrigation for agricultural objectives such as providing pasture for horses or growing food crops at a small scale. The majority of arable land within the project area has not been utilized for agricultural purposes in many decades, in part because of challenges in the functionality and efficiency of the Ward Ditch.

The soils units mapped by the U.S. Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) in the Proposed Action area are majority (87.3%) Vastine fine sandy loam, which is considered “farmland of statewide importance” (NRCS 2023). Farmland classifications, including farmland of statewide importance, identify “the location and extent of the soils that are best suited to food, feed, fiber, forage, and oilseed crops,” according to the NRCS.

3.2.5.2 Environmental Consequences

3.2.5.2.1 No Action Alternative

Under the No Action Alternative, agricultural resources would remain as is within the project area. Any future expansion of irrigated lands by property owners would be limited without improvements to the irrigation infrastructure. There would be no impact to farmlands of statewide importance.

3.2.5.2.2 Proposed Action

Under the Proposed Action, irrigated land would be made more efficient, improving the ability to reliably support habitat and agriculture. Better irrigation efficiency would be due to field terracing, infrastructure improvements, and the overall improved ability to spread and flood irrigate water from the Ward Ditch. Water that has historically been used for flood irrigation would support newly planted vegetation. No farmlands would be permanently removed from production as a result of the Proposed Action, and utilization of farmlands of statewide significance would be made more efficient.

No interruption to agricultural production would occur as river, headgate, and ditch construction work would take place during low flows when the irrigation ditch is not operational.

No significant adverse impacts would occur to agricultural resources or farmlands of statewide importance because no farmlands would be removed from production, and there would be no interruption to agricultural production associated with the Project.

3.2.6 Cultural Resources

3.2.6.1 Affected Environment

Cultural resources are often defined as physical or other expressions of human activity or occupation, and can 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 performed an archaeological survey of the Proposed Action Area on June 11th and 12th, 2024. The geographic area of analysis for this inventory was the determined Area of Potential Effect (APE) which was defined as all ground disturbance areas involved with the Project, plus a 100-foot buffer. The inventory did not result in the identification of any cultural resources determined to be eligible for listing the National Register of Historic Places (NRHP).

3.2.6.2 Environmental Consequences

3.2.6.2.1 No Action Alternative

Under the No Action Alternative, the Action Area would not be disturbed, and no cultural resources would be affected.

3.2.6.2.2 Proposed Action

Under the Proposed Action Alternative, the Ward Ditch and associated laterals would be improved. Construction activities would be limited to the APE, where there are no cultural resources considered eligible for listing under the NRHP. If previously unidentified cultural resources are encountered during construction activities, construction in the immediate area would cease, Reclamation would be notified, and consultation would be conducted. Construction would not resume until the site has been adequately documented and cleared by Reclamation. As no impacts to cultural resources would occur, there would be no significant impacts to cultural resources as a result of implementing the Proposed Action. Reclamation is in the process of consulting with the State Historic Preservation Officer (SHPO), and the results of that consultation will be included in the Final EA as Appendix B

3.2.7 Recreational Resources

3.2.7.1 Affected Environment

Most of the land in the project area is private and does not provide recreational amenities or recreation access. However, the Uncompahgre River is occasionally utilized by boaters in the reach between Ouray and Ridgway. The current push-up dam at the headgate consists of rock, gravel, and concrete debris. American Whitewater describes the riverbed between Ouray and Ridgway as “taking on a shallow and sharp nature”

that requires boaters “to scout for wood beforehand and watch out for sharp, jagged metal as it is also known to be part of the run” (American Whitewater 2021).

3.2.7.2 Environmental Consequences

3.2.7.2.1 No Action Alternative

Under the no action alternative, recreation would remain unaffected in the project area. Any boating hazards that occur in the Uncompahgre River would remain.

3.2.7.2.2 Proposed Action

Under the Proposed Action Alternative, recreational resources would be improved by creating a safer river for boating. The cross-vane weirs near the headgate would replace concrete debris that is currently used in the push-up dam, having the beneficial effect of creating a much safer environment for boating on the river, particularly during low flows. Any hazardous debris within the project area identified during construction would be removed from the river to increase safety for boaters.

There would be no significant adverse effect to recreation as a result of the Project, as all impacts would be beneficial.

3.2.8 Vegetation

3.2.8.1 Affected Environment

Vegetation classes within the project area include ponderosa pine forest, montane riparian forest, and agricultural vegetation (pasture and crops) ([Colorado State Forest Service n.d.](#)). The project area exists at the transition between ponderosa pine and oak shrublands, with more ponderosa pine forest occurring in the southern half of the project area.

Vegetation within the riparian zone along the Uncompahgre River primarily consists of narrowleaf cottonwood (*Populus angustifolia*), western serviceberry (*Amelanchier alnifolia*), red twig dogwood (*Cornus sericea*), and Russian olive (*Elaeagnus angustifolia*). A few small stands of sandbar willow (*Salix exigua*) are present but are not common. Other native species common in the project area include ponderosa pine (*Pinus ponderosa*) and gambel oak (*Quercus gambelii*). Russian olive is a non-native species which is present throughout the project area. A majority of the grasses and herbaceous species include Kentucky bluegrass (*Poa pratensis*), cheat grass (*Bromus tectorum*), dog bane (*Apocynum cannabinum*), various mustard species (*Brassica sp.*), bindweed (*Convolvulus arvensis*), and exotic brome grasses (*Bromus sp.*).

Along the banks of the Uncompahgre River, much of the riparian habitat is degraded. Constantly shifting bars and eroding banks have created poor conditions for the establishment of vegetation, and riparian species such as willow are sparse. Approximately 30-40% of the narrowleaf cottonwoods along and near the river corridor in the project area have begun to die or have already died because of disconnection from the floodplain.



Figure 12: Dead Narrowleaf Cottonwoods adjacent to the Uncompahgre in the Project Area.

3.2.8.2 *Environmental Consequences*

3.2.8.2.1 No Action Alternative

Under the No Action Alternative, there would be change in conditions for existing vegetation or habitat. The riparian corridor would continue to degrade, and Russian olive would continue to proliferate, possibly outcompeting native species and becoming dominant in the future. The upper floodplain would remain as is, and remaining cottonwoods would eventually die out due to disconnection from the floodplain.

3.2.8.2.2 Proposed Action

The Proposed Action would result in the planting and seeding of native species throughout 13 acres of riparian corridor along the Uncompahgre River and would provide water for the native riparian vegetation and upper floodplain species. This would have the beneficial effect of increasing biodiversity and ecological uplift, resulting in quality wildlife habitat in the 13-acre area. Exotic species such as Russian olive would be removed from the project area, which would have the beneficial effect of preventing out-competition of native species and supporting a biodiverse riparian area. The Project would result in improved floodplain connectivity by constructing return swales that would allow higher flows to spread into historic floodplain

channels. This would have the beneficial effect of increasing the availability of water for the existing narrowleaf cottonwoods and would create better conditions for potential new growth. Additionally, river structures (cross-vane weirs, cross-vanes, j-hooks) would support a more stable channel and reduce sheer bank stress so riparian vegetation can better establish on the banks.

Any areas of grading or disturbance would be replanted and/or reseeded after construction. Revegetation would be monitored by the Ward Water Group via photo-monitoring and qualitative observations for five (5) years.

There would be no significant adverse effect to vegetation as a result of the Project, as all impacts would be beneficial.

3.2.9 Wildlife Resources

3.2.9.1 Affected Environment

A variety of large and small mammals, reptiles, and amphibians inhabit the general project area. Mule deer, black bear, mountain lion, coyote, bobcat, white-tailed jackrabbit, and raccoon have been observed in the Proposed Action Area and the surrounding area. Many species of songbirds and raptors inhabit the area, as well as wild turkey.

The highest probability of presence for birds of concern identified in the IPaC report (FWS) occurs from May to October. Breeding season occurs for the highest number of species from May to August.

A baseline avian survey was conducted on June 26, 2024. A total of 22 bird species were observed and included broad-tailed hummingbird, northern flicker, western flycatcher, Steller's jay, black-billed magpie, American crow, mountain chickadee, violet-green swallow, ruby-crowned kinglet, house wren, European starling, American robin, house sparrow, pine siskin, dary-eyed junco, spotted towhee, red-winged blackbird, brown-headed cowbird, Virginia's warbler, MacGillivray's warbler, yellow warbler, and yellow-rumped warbler.

There are no raptor nests within the project area. The nearest raptor nest mapped by CPW is 3.77 miles away from the project area.

The project area intersects Colorado Parks and Wildlife's (CPW) high priority habitat data (CPW 2023). The mule deer severe winter range, mule deer winter concentration area, elk severe winter range, and elk winter concentration area occur in the project area. The severe winter range is the area "where 90% of the individuals are located when the annual snowpack is at its maximum and/or temperatures are at a minimum in the two worst winters out of ten." The winter concentration area is "where densities are at least 200% greater than the surrounding winter range density during the same period used to define winter range in the average five winters out of ten" (CPW 2016, 8-17). CPW recommends limiting disturbance in these high priority areas during the December 1 – April 30 time period.

The Bighorn Sheep winter range also occurs in this area. The winter range is “that part of the overall range where 90 percent of the individuals are located during the average five winters out of ten from the first heavy snowfall to spring green-up, or during a site-specific period of winter” (CPW 2016, 4). CPW recommends limiting disturbance in Bighorn Sheep winter range during the November 1 – April 30 time period.

Wildlife in the project area experiences a baseline level of disturbance from highway traffic, residential and agricultural activities, domestic pets, people, and vehicles.

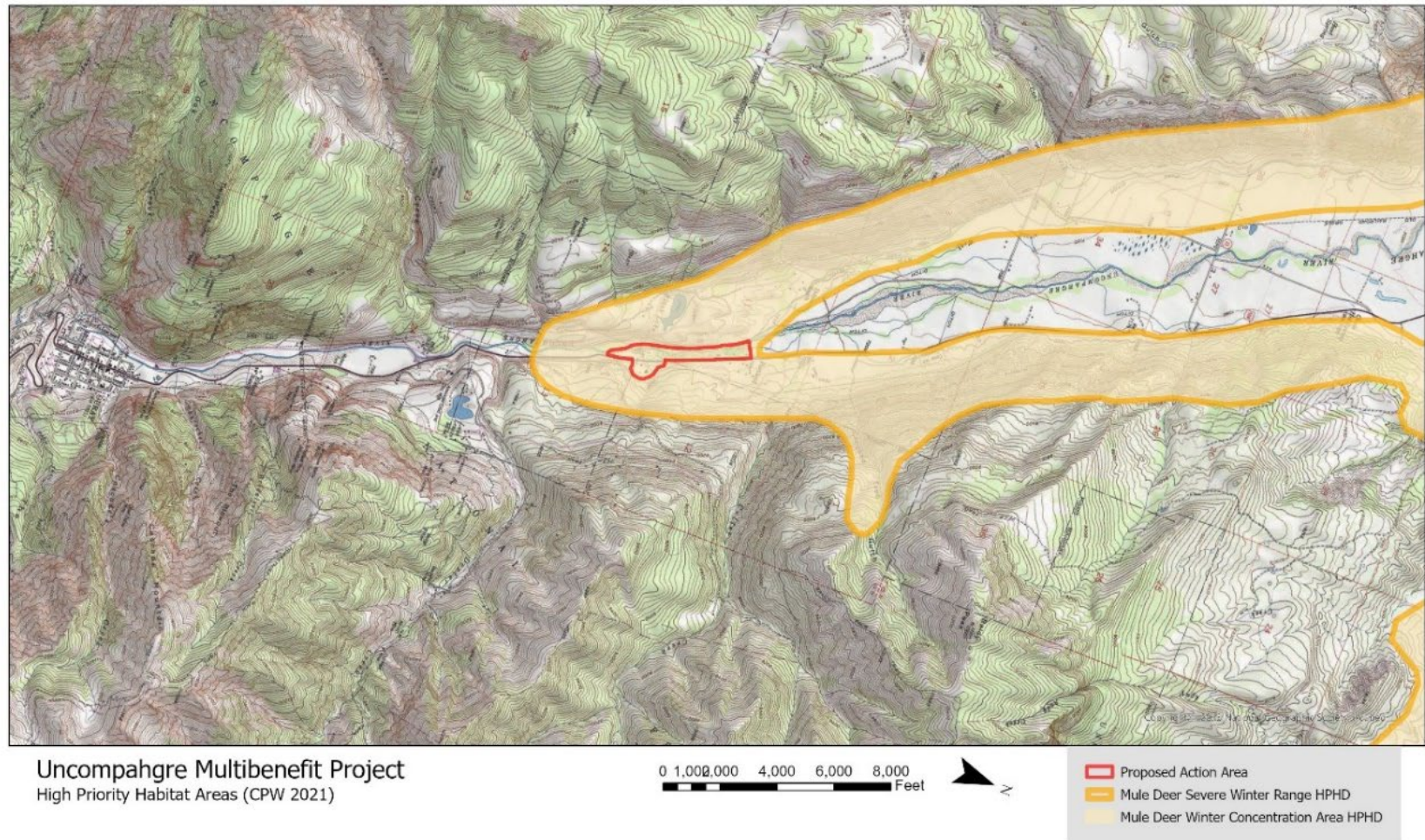


Figure 13: Mule Deer High Priority Habitat

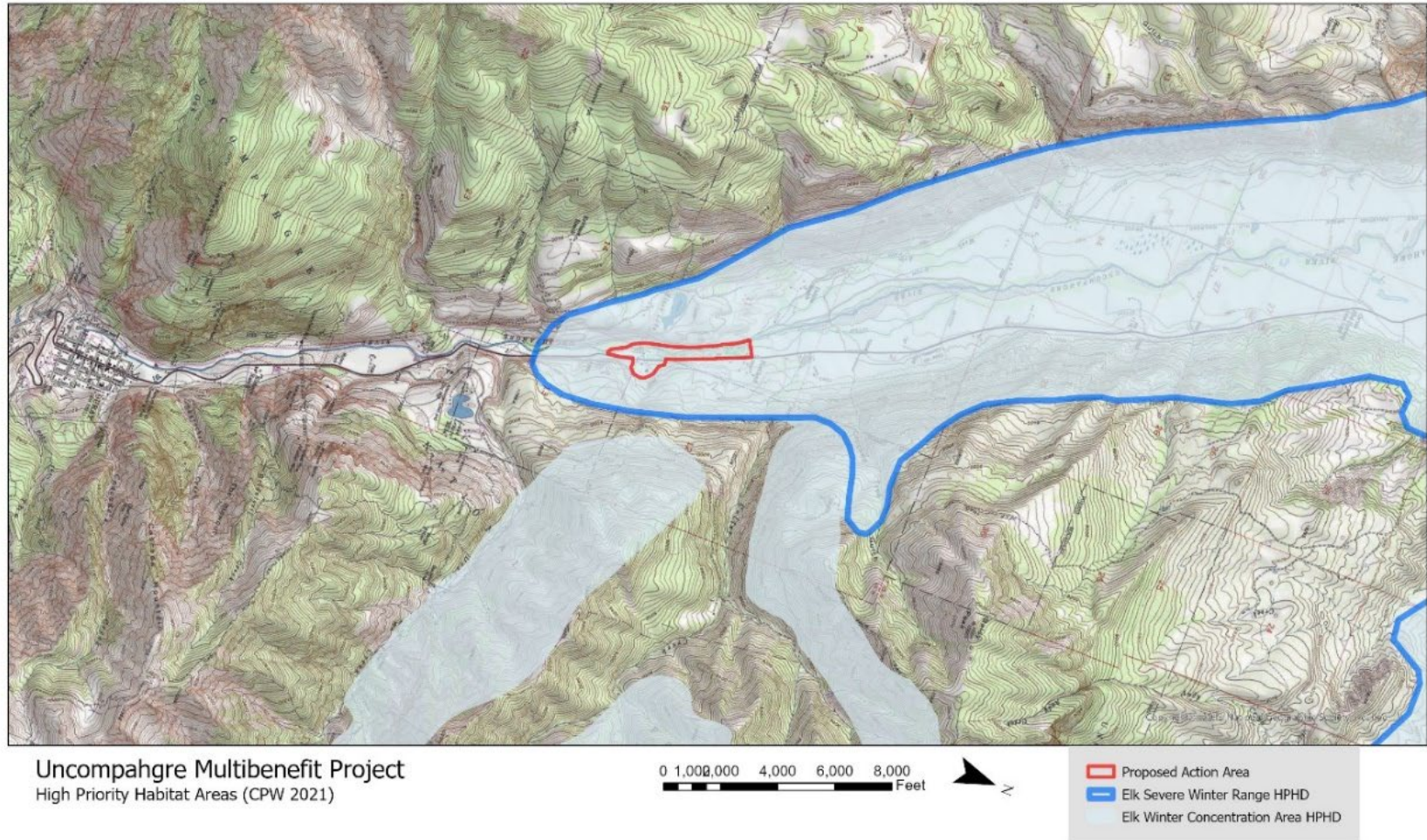


Figure 14: Elk High Priority Habitat

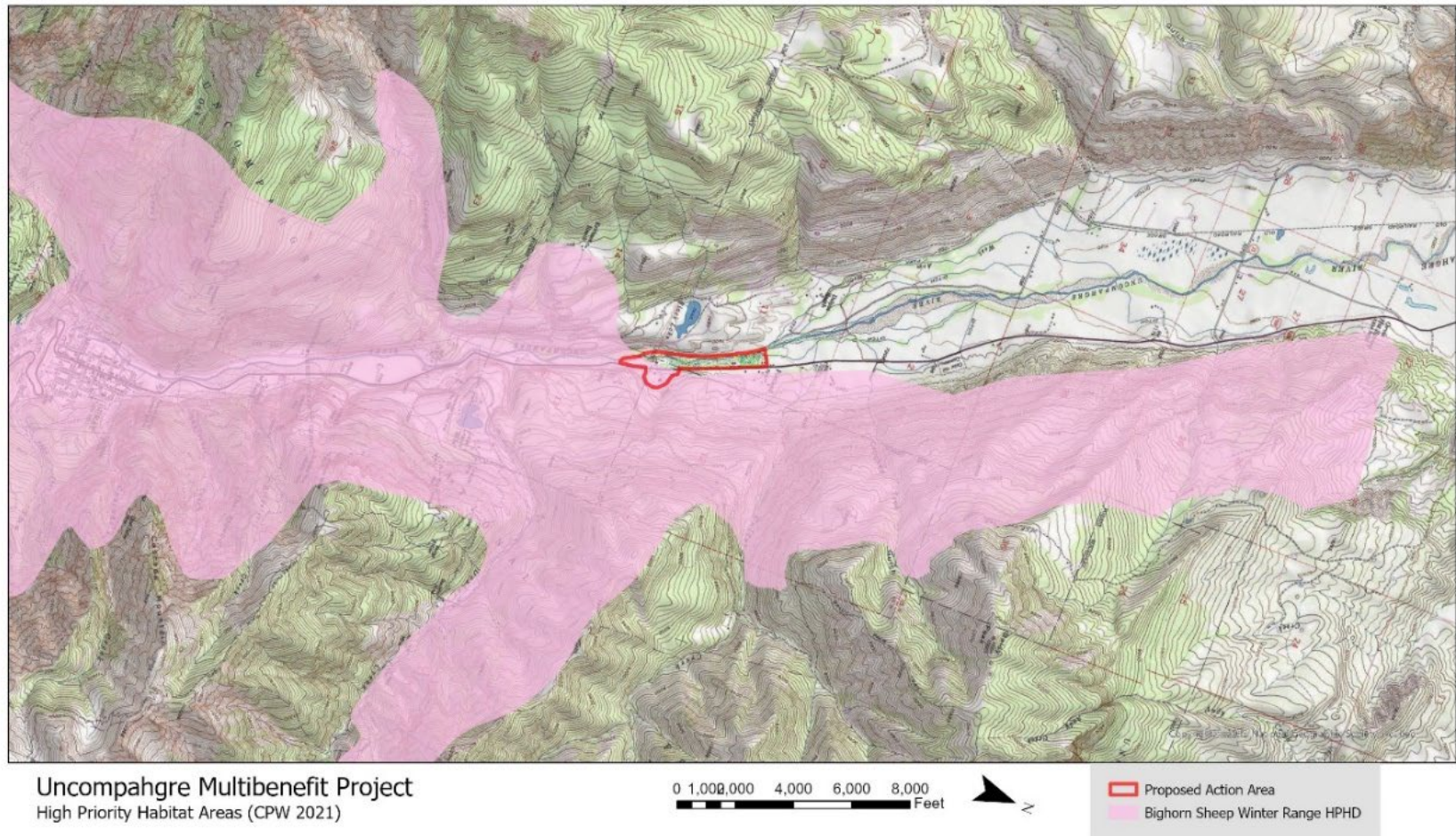


Figure 15: Bighorn Sheep High Priority Habitat

3.2.9.2 Environmental Consequences

3.2.9.2.1 No Action Alternative

Under the No Action Alternative, there would be no change in impacts on existing wildlife resources in the area. Wildlife would continue to utilize the area as they currently do. The continued degradation of riparian areas would impact forage and habitat for species in the future.

3.2.9.2.2 Proposed Action Alternative

Under the Proposed Action Alternative, construction would result in minor and temporary impacts to wildlife resources through increased activity in the project area, including heavy equipment at the headgate and along the river corridor. Most Proposed Action activities would occur in areas where some level of disturbance has already occurred due to historic ditch maintenance activities or residential and agricultural activities.

Construction impacts to small animals with relatively small territory sizes or that do not disperse long distances (especially burrowing amphibians, reptiles, and small rodents) would include direct mortality and displacement in the construction footprint. The relatively immobile small mammal, reptile and amphibian species occurring in the construction footprint are common throughout the region, are not species of concern to FWS, and would continue to propagate in the region. Based on the principles of ecological succession, small animals in the surrounding areas would recolonize the construction footprint following the disturbance. The loss of individuals of these species through direct mortality in the construction footprint would not constitute significant population-level impacts since the affected area is diminishingly small in comparison to surrounding habitat that would remain undisturbed. Bird, bat, small mammals, mountain lion and black bear—species dependent on habitat types within the construction footprint—have the ability to disperse to other similar habitat in the area, both during construction and during the period of revegetation in the construction footprint. Food chain impacts from the loss of small prey animals within the construction footprint would be short-term (less than 2 years) and localized, and would not rise to a level of significant effect on predators in the local area given the diminishingly small size of the construction footprint in comparison to surrounding habitat that would remain undisturbed. Impacts to migratory birds or to big game relying on the area for winter habitat would be avoided, as all activities would occur from September to October, outside of the nesting season and winter months.

Vegetation work associated with the Project would increase biodiversity and ecological uplift, resulting in the improved quality of wildlife habitat throughout the 13-acre area.

Reclamation consulted with CPW to discuss possible impacts to bighorn sheep, mule deer, and elk. CPW indicated that there would be no adverse impacts if project activities occur after March 15th and before December 15th, and therefore project construction does not need to adhere to the

general timing recommendations mentioned in 3.2.9.1 *Affected Environment* above (Kelly Crane, Colorado Parks & Wildlife, Zoom meeting, August 8, 2024).

No significant adverse impacts to wildlife resources would occur as a result of the Project, because construction impacts would be temporary and relatively small in comparison with surrounding available habitat, timing restrictions would protect big game and nesting birds during sensitive periods, and disturbed habitats would be revegetated and recolonized by wildlife. There would be a long-term beneficial effect on wildlife habitat throughout the Project area.

3.2.10 Threatened and Endangered Species

3.2.10.1 *Affected Environment*

There are species listed as threatened or endangered under the Endangered Species Act of 1973 (ESA), as amended, with the potential to be affected by the Proposed Action. Endangered species with the potential to be affected by the Project include the Gray Wolf (*Canis lupus*), Bonytail (*Gila elegans*), Colorado Pikeminnow (*Ptychocheilus lucius*), Razorback Sucker (*Xyrauchen texanus*), and Silverspot (*Speyeria Nokomis nokomis*). Threatened species with the potential to be affected by the Project include the Canada Lynx (*Lynx canadensis*), Mexican Spotted Owl (*Strix occidentalis lucida*), yellow-billed Cuckoo (*Coccyzus americanus*), and Humpback Chub (*Gila cypha*). The monarch butterfly (*Danaus plexippus*) is a candidate species with the potential to be affected by the Project. There is no critical habitat for any of these species within the project area.

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 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 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 to address 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).

Suitable habitat for the Mexican spotted owl is not present within the project area. No cliff structure or narrow, rocky canyons are present, nor is there suitable forest structure to support the species.

There is a lack of understory in the project area, meaning there is no suitable nesting habitat for yellow billed cuckoo. There is a possibility of foraging habitat in the area. There is a multi-colony population of silverspot butterflies within Ouray County and the Uncompahgre River drainage approximately 3 miles downstream from the project area. This subspecies of silverspot butterflies is known to rely on bog violets, upon which their larvae exclusively feed. The project area is mapped within the overall range of the silverspot. No documented populations of silverspot occur in the project area (FWS 2023). Reclamation conducted an informal technical consultation with FWS to confirm that no suitable wet meadow habitat is present in the project area (Fred Phillips Consulting 2024).

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 2020, Colorado citizens voted to restore the gray wolf in Colorado by the end of 2023. In 2023, the FWS designated the Colorado wolf population as “experimental” under the U.S. Endangered Species Act, to provide management flexibility to CPW. CPW completed the first re-introduction of wolves in northern Colorado (Grand and Summit counties) in December 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.

Canada lynx habitat within the Rocky Mountains is generally above 9,514 ft in the subalpine and upper montane forest zones, significantly above the elevation of the project area. There is no suitable Canada lynx habitat within or in the vicinity of the project area.

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 present in the project area because some landowners have planted it in their irrigated pastures.

3.2.10.2 Environmental Consequences

3.2.10.2.1 No Action Alternative

Under the No Action Alternative, there would be no impact on listed species in the project area.

3.2.10.2.2 Proposed Action Alternative

Water depletions in the Gunnison Basin (downstream of the project area) diminish backwater spawning areas for the four listed Colorado River fishes in downstream designated critical habitat, impacts to the fishes result from continuing irrigation practices in the Gunnison Basin. The average historic depletion rate from the Ward Ditch system operations is estimated as 94.56 acre-feet per year (Fred Phillips Consulting 2024). These historic depletions were previously consulted on under the 2009 PBO. Per information from Kate Lunz of the FWS on June 25, 2024, consultation with the FWS is no longer required for historic depletions covered under the 2009 PBO and perfected prior to 1988. Reclamation will provide FWS with a description of the Proposed Action and the estimated historic deletions associated with the Ward Ditch prior to project construction.

There is no suitable Mexican spotted owl habitat within or adjacent to the project area, and there have been no observed Mexican spotted owl within the project area. Because the Mexican spotted owl does not occur within the project vicinity, there would be no effect to Mexican spotted owl as a result of implementing the Project.

There is a lack of understory in the project area, meaning there is no suitable nesting habitat for yellow billed cuckoo. There is a possibility of foraging habitat in the area. The yellow billed cuckoo nesting season occurs from May 1 – September 15. Construction in the river corridor would occur in the early spring or fall. Fall river work would begin after September 1st. Due to this, project activities may affect, but are not likely to adversely affect the yellow billed cuckoo.

There would be no effect to silverspot from the Project, because the project area does not contain suitable habitat.

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.

There is no suitable Canada lynx habitat within or adjacent to the project area, and there have been no observed Canada lynx within the project area. Because the Canada lynx does not occur within the project vicinity, there would be no effect to Canada lynx as a result of implementing the Project.

Monarch butterflies have been found on the site in areas where there are flowering plants, presumably migrating to and from overwintering areas. Monarch butterflies have increased in recent years due to planting of milkweed by private landowners. This type of habitat would be increased

under the Proposed Action, resulting the beneficial effect of providing more support for Monarchs. Candidate species do not require consultation under the ESA, and therefore Reclamation did not consult with FWS regarding this beneficial effect.

No significant adverse impacts to listed threatened and endangered (or proposed or candidate) species and their critical habitat would occur as a result of the Proposed Action. The Project may affect, but is not likely to adversely affect the yellow-billed cuckoo. Consultation with FWS regarding the yellow-billed cuckoo is ongoing, and the results of that consultation will be included in the Final EA.

The Project would result in no effect to any other listed species, and would result in a beneficial effect to the monarch butterfly, a candidate species.

3.2.11 Noise

3.2.11.1 Affected Environment

A moderate level of noise occurs in the project area associated with adjacent Highway 550. Seasonally, moderate noise occurs due to operation and routine maintenance of the Ward Ditch. Operation and maintenance activities primarily involve the use of light vehicles. Farming and ranching activities in the project area involve the use of farming equipment, light vehicles, and the occasional use of heavy equipment. These ongoing sources of noise create a moderate level of noise within the project area.

3.2.11.2 Environmental Consequences

3.2.11.2.1 No Action Alternative

Under the No Action Alternative, there would be no change in baseline noise levels in the project area. Noise related to the adjacent highway, existing ditch operations, as well as residential and agricultural activities on private land, would continue to occur.

3.2.11.2.2 Proposed Action

During construction of the Proposed Action, there would be a short-term, minor increase in noise levels above baseline noise levels in the project area. Construction noise would be associated with the use of heavy equipment, including moving large boulders, and additional vehicles in the project area and would be limited to the duration of construction. Construction noise would not raise the noise level above moderate, and therefore the short-term increase in noise would not rise to the level of significant. Noise levels would return to baseline levels following the completion of construction. Noise associated with maintenance of the irrigation canal would be decreased due to fewer maintenance needs for the headgate. Increased vegetation along Highway 550 would have the beneficial effect of creating a noise buffer in the project area from sound originating from vehicular traffic.

No significant adverse impacts resulting from noise would occur as a result of implementing the Project, as noise increases during construction would be temporary and would fall within the moderate level of noise currently experienced in the project area and ongoing noise sources related to ditch maintenance would decrease after construction. Increased vegetation would create a beneficial effect by creating a noise barrier.

3.2.12 Visual Resources

3.2.12.1 Affected Environment

The Proposed Action is in an area of pastoral beauty, with a pleasing variety of natural forest/shrublands and agricultural areas across the relatively open landscape with alpine mountains in the background. The riparian corridor in the project area is located behind residential and agricultural private property and is not typically visually apparent from publicly accessible locations. A baseline level of visual disturbance associated with residential and agricultural developments, farming activities, and the Applicant's operation and routine maintenance of the ditch system currently occurs in the project area. routine ditch operating activities can involve vehicles, machinery, and earth moving, which can generate a minimal amount of dust, as described in Section 3.2.3 Air Quality.

BLM's UFO Resource Management Plan (RMP) characterizes the BLM land on in the project area as Visual Resource Management (VRM) Class III (UFO 2020). BLM's management objective for VRM Class III lands is to keep changes to basic elements in the landscape subordinate to the visual strength of the existing character.

3.2.12.2 Environmental Consequences

3.2.12.2.1 No Action Alternative

Under the No Action Alternative, there would be no change in the visual continued degradation of the riparian corridor, including the mortality of Narrowleaf Cottonwoods, would negatively impact the existing character of pastoral beauty.

3.2.12.2.2 Proposed Action Alternative

Under the Proposed Action Alternative, temporary minor impacts related to visual disturbance during and after construction would result from the Project. Machinery would be operating on the landscape, however, the impact from the machinery would be on par with the ongoing visual impact of machinery required for reconstruction of the push-up dam and ongoing maintenance of the Ward Ditch. After construction, all disturbed areas would be reseeded and planted. In the long term, the Project's revegetation objectives would contribute to the existing natural and pastoral visual characteristics of the 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 minor and not out of character with the surrounding landforms or with the rural and agricultural character of the vicinity. Project activities

on the VRM Class III area on BLM managed lands would not lead to visible changes significantly different or more dominant in the long-term than what is already present on the landscape. The Project would maintain the existing character of the surrounding landforms or the rural and agricultural character of the vicinity, and therefore would not result in long-term adverse visual effects.

No significant impacts to visual resources would occur as a result of the Proposed Action, because construction impacts would be temporary and the visual characteristics of the landscape in and around the project area during and following construction would be minor and not out of character with the surrounding landforms or with the rural and agricultural character of the vicinity.

3.3 Cumulative Effects

Cumulative effects under NEPA are defined as “the impact on the environment which results from the incremental impact of the action when added to other past, present and reasonably foreseeable future actions, regardless of what agency (Federal or non-Federal) or person undertakes such other actions” (40 CFR 1508.7). Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time.

The direct and indirect effects of past and ongoing (present) actions are reflected in the current conditions described in the affected environment above in each of the resource topics of Chapter 3. Reasonably foreseeable future actions are specific actions, and not speculative actions, in that they have approved NEPA documentation or approved plans with the potential to impact the same resources affected by the Proposed Action. At present there are no known reasonably foreseeable future actions with the potential to affect the same resources impacted by the Proposed Action; therefore, there would be no effects from other actions which could incrementally contribute to cumulative impacts on the resources impacted by the Proposed Action.

3.4 Summary of Impacts

Table 6 provides a summary of environmental impacts for each of the resources evaluated in this EA, 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

Resource	No Action Alternative	Proposed Action Alternative
Water Rights & Use	No effect, but future risk of diversion and river channel degradation causes decreased ability to divert decreed water rights	Preserve ability of the Ward headgate to deliver water rights; Make diversion and utilization of water rights more certain and sustainable in the long term; Make beneficial use more efficient. No impact on downstream users or headgates.

Resource	No Action Alternative	Proposed Action Alternative
Water Quality	No effect.	Temporary impacts during construction due to sediment mobilization. Long term improvement to water quality through increased aggradation and channel stabilization that decreases sediment discharge downstream.
Air Quality	No effect; some dust and vehicle exhaust would continue to occur during routine ditch maintenance	Dust and exhaust from heavy equipment during construction activities would have a minor, short-term effect on the air quality in the Action Area; Long term decrease of dust and exhaust from decreased maintenance requirements for the ditch and diversion.
Access, Transportation, Utilities, and Public Safety	No effect.	Minor temporary impacts during construction on Highway 550 when it is utilized to bring materials and equipment to the project area; Improvements to an existing access road for headgate maintenance. The Project would result in the beneficial effect by reducing safety risks associated with the Ward Ditch diversion.
Agricultural Resources	No effect; agricultural resources would remain as is unless changes occur under the discretion of private landowners.	Improved efficiency of irrigated land and utilization of farmlands of statewide significance due to field terracing and infrastructure improvements; No adverse impacts to agricultural resources.
Cultural Resources	No effect.	No cultural resources were identified and therefore no impacts to cultural resources would occur.
Recreational Resources	No effect; recreation would remain unaffected and hazards in the river, particularly at the push-up dam, would remain.	Beneficial effect of creating a safer environment for boating; no adverse effects to recreation.
Vegetation	No effect, but riparian vegetation would continue to degrade and exotic species such as Russian olive would continue to proliferate.	Increased vegetation and biodiversity through planting and seeding of native species; increased floodplain connection to support existing cottonwoods; improved channel stability for riparian vegetation establishment.

Resource	No Action Alternative	Proposed Action Alternative
Wildlife Resources	No effect on existing wildlife resources, but continued degradation of riparian areas would impact suitable habitat.	Construction would result in minor and temporary impacts to wildlife resources through increased activity in the project area, including heavy equipment at the headgate and along the river corridor; timing restrictions would protect big game and nesting birds during sensitive periods, and disturbed habitats would be revegetated and recolonized. In the long term, the project would increase habitat value for wildlife.
Threatened and Endangered Species	No effect.	Impacts to fish from historic depletions were consulted on under the 2009 PBO; the Project may affect, but is not likely to adversely affect yellow-billed cuckoo. No effect for any other listed threatened and endangered species and their critical habitat would occur. There would be a beneficial effect with increased habitat for the monarch, a candidate species.
Noise	No effect; baseline noise levels would remain the same.	Temporary increases in noise would be limited to the period of construction occurring within the river channel and would not be a significant increase above baseline levels. In the long term, noise from maintenance of the headgate and ditch would be decreased due to fewer maintenance needs. Increased vegetation would buffer the baseline noise that occurs on Highway 550.
Visual Resources	No effect, but continued degradation of the riparian corridor, including the mortality of Narrowleaf Cottonwoods, would negatively impact the existing character of pastoral beauty.	No significant impacts because construction impacts would be minor, temporary, and not out of character with the surrounding landforms and character; Impacts would fall within the management objective of VRM Class III on the BLM lands. The visual resources of the area would be maintained.

4 Environmental Commitment Plan

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 Proposed Action. The actions in the following environmental commitment list would

be implemented as an integral part of the Proposed Action and will be included in any contractor bid specifications.

Note that in the event there is a change in the Proposed Action 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 Commitment Plan

Type	Environmental Commitment	Affected Resource	Authority
Construction Contractor Plan or Certification Requirement	Contractor will be required to file a Storm Water Prevention Pollution Plan with the state since project area is greater than 1 acre.	Water Quality	Clean Water Act
Construction Contractor Plan or Certification Requirement	Any construction, access, or use permits required by Ouray County will be obtained in advance of construction.	Access, Transportation, and Safety	County Ordinances and Regulations
General NEPA Compliance	Prior to construction, any permits and authorizations for access and staging within and outside of the historic ditch ROW will be obtained from BLM.	Vegetation; Wildlife; Access, Transportation and Safety	BLM ROW stipulation
General BMP	Prior to construction, revegetation species will be reviewed and approved by BLM and Ouray County.	Vegetation	Ouray County Noxious Weed Management Plan (Ouray County 2022); BLM stipulation
General BMP	Construction limits will be clearly flagged or marked onsite to avoid unnecessary plant loss or ground disturbance.	Vegetation, Weeds, Habitat, Wildlife	2022 Ouray County Noxious Weed Management Plan

Type	Environmental Commitment	Affected Resource	Authority
General BMP	Prior to construction, vegetative material (“slash”) will 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 processed (burned, chipped, and/or mulched). Slash processing would only occur on public lands in accordance with permit stipulations. If appropriately sized, slash may be utilized in the construction of PALs in the river channel.	Soil, Vegetation, Weeds, Habitat	2022 Ouray County Noxious Weed Management Plan
General BMP	Vegetation removal will be confined to the smallest portion of the project area necessary for completion of the work.	Soil, Vegetation, Weeds, Habitat	2022 Ouray County Noxious Weed Management Plan;
General NEPA Requirement	Tree grubbing and vegetation removal in all project areas will avoid the primary nesting season of migratory birds (April 1 – July 15). This timing restriction will be noted on Project construction drawings.	Wildlife	Migratory Bird Treaty Act of 1918
General BMP	Exotic species control will be implemented by the Applicant or its contractor in accordance with the most current State of Colorado and Ouray County standards. Noxious weed presence will be monitored subject to agreements between the Applicant, BLM, individual landowners, and regulated by Ouray County in accordance with county standards.	Soil, Vegetation, Weeds, Habitat	2022 Ouray County Noxious Weed Management Plan
General BMP	Weed-free straw wattles, silt curtains, cofferdams, dikes, straw bales, or other suitable erosion control measures will be used to prevent erosion from entering water bodies during construction.	Water Quality	Clean Water Act

Type	Environmental Commitment	Affected Resource	Authority
General BMP	Any concrete pours will occur in forms and/or behind cofferdams to prevent discharge into waterways. Any wastewater from concrete-batching, vehicle wash down, and aggregate processing will be contained and treated or removed for off-site disposal.	Water Quality	Clean Water Act of 1972
General BMP	The construction contractor will transport, handle, and store any fuels, lubricants, or other hazardous substances involved with the Proposed Action in an appropriate manner that prevents them from contaminating soil and water resources.	Water Quality, Soil	Clean Water Act of 1972
General BMP	Equipment will be inspected daily and immediately repaired as necessary to ensure equipment is free of petrochemical leaks.	Water Quality, Soil	Clean Water Act of 1972
General BMP	Ground disturbances and construction areas will be limited to only those areas necessary to safely implement the Proposed Action.	Soil, Vegetation, Weeds, Habitat, Wildlife	Archaeological Resources Protection Act of 1979; Paleontological Resources Preservation Act of 2009
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 will be consulted, and work will not be resumed until consultation has been completed. Additional surveys will 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

Type	Environmental Commitment	Affected Resource	Authority
General NEPA Compliance	In the event that previously undocumented threatened or endangered species are encountered during construction, the contractor will 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
General NEPA Compliance	If a previously undocumented active bald or golden eagle nest is discovered within 1/2 mile of the project area during construction, construction will cease until Reclamation can complete consultations with CPW, FWS, and BLM as appropriate.	Wildlife	Migratory Bird Treaty Act of 1918 Bald and Golden Eagle Protection Act of 1940
General BMP	Following construction, except where other finishing techniques indicated on the construction drawings, all disturbed areas will be smoothed with tracked equipment (without back dragging blade), shaped, contoured, and reseeded to pre-project conditions.	Soil, Vegetation, Weeds, Habitat	Clean Water Act
General NEPA Compliance	Within 60 days following completion of the work authorized under Nationwide Permit 27, as-built drawings will be submitted to the Army Corps of Engineers, including ground and aerial photographs, and descriptions of deviations from work authorized by the permit.	Water Quality	Nationwide Permit 27, Clean Water Act Section 404

5 Consultation & 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 will be distributed to private landowners adjacent to the Proposed Action, and the organizations and agencies listed in Appendix C. The publicly-available electronic version of the Draft EA will meet the technical standards of Section 508 of the Rehabilitation Act of 1973, so that the document can be accessed by people with disabilities using accessibility software tools.

6 Preparers

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

Table 8: List of Preparers

Name	Agency	Title	Areas of Responsibility
Emily Ontiveros	Fred Phillips Consulting	Restoration Program Manager	General authorship, mapping
Fred Phillips	Fred Phillips Consulting	Principal	General authorship
Jenny Ward	Bureau of Reclamation	Environmental Protection Specialist	General authorship, EA review
Jake Fleishman	Natural Channel Design	Professional Engineer	General authorship/editing
Fay Hartman	American Rivers	Conservation Director	General authorship/editing
Hannah Holm	American Rivers	Associate Director for Policy	General authorship/editing

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8 Abbreviations and Acronyms

Abbreviation or Acronym	Definition
NEPA	National Environmental Policy Act
EA	Environmental Assessment
Reclamation	Bureau of Reclamation
BLM	Bureau of Land Management
UFO	Uncompahgre Field Office
RMP	Resource Management Plan
VRM	Visual Resource Management
CPW	Colorado Parks & Wildlife
FWS	U.S. Fish and Wildlife Service
National Ambient Air Quality Standards	NAAQS
EPA	U.S. Environmental Protection Agency
USDA	U.S. Department of Agriculture
USACE	U.S. Army Corps of Engineers
NRCS	Natural Resources Conservation Service
ESA	Endangered Species Act of 1973
PBO	Programmatic Biological Opinion
ROW	Right of Way
BMP	Best Management Practice
CDPHE	Colorado Department of Public Health and Environment
SHPO	State Historic Preservation Office
NRHP	National Register of Historic Places
MOA	Memorandum of Agreement