



— BUREAU OF —  
RECLAMATION

# Draft Environmental Assessment for the Fire Mountain Canal Salinity Control Project – Phase 2

**Basinwide Salinity Control Program**

**Upper Colorado Basin: Interior Region 7**

**Western Colorado Area Office**

**WC-GJ-EA-2025-001**



## **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.

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# CHAPTER 1 - INTRODUCTION

This Environmental Assessment (EA) evaluates the potential environmental effects of the Fire Mountain Canal and Reservoir Company (FMC or “Applicant”) proposed Phase 2 Salinity Control Project (“Project”) and assesses its compliance with the National Environmental Policy Act (NEPA). The EA determines whether the Bureau of Reclamation (Reclamation), under the Colorado River Basin Salinity Control Program, should provide funding assistance for this Project, which aims to improve salinity control within the Colorado River Basin.

Reclamation prepared this EA in compliance with NEPA, 42 U.S.C. §§ 4321 et seq. Following the public review period, Reclamation would decide on a Finding of No Significant Impact (FONSI) for the proposed Project.

## 1.1 – Project Location and Legal Description

The Project would take place in the southeastern part of Delta County, Colorado, near the town of Hotchkiss (Figure 1). The Project consists of two components: salinity control and habitat replacement.

The Fire Mountain Canal and Reservoir Company (FMC) owns and manages the Fire Mountain Canal (canal) which stretches about 34.7 miles between a diversion from the North Fork of the Gunnison (North Fork River) in the early runoff season (April-June) and then from Paonia Reservoir in the later season (July-September), to Leroux Ditch’s headgate, east of Paonia and west of Hotchkiss in Delta County, Colorado. The Project would consist of placement of a siphon and one section of pipe in two distinct segments: the Wolf Park Area and the Leroux Creek Extension Area. The Wolf Park Area is located approximately 2.5 miles north of Hotchkiss, Colorado, in an undeveloped area with portions on Reclamation land along Short Draw, which runs from north to south in the Project Area. The Leroux Creek Extension Area is approximately 3 miles northwest of Hotchkiss, Colorado, and is located along the south-facing steep side slope of the Leroux Creek drainage, and parallel to the drainage.

The Wolf Park Area includes about 0.20 mile (1,044 linear feet [LF]) of 54-inch fusion welded high-density polyethylene (HDPE) pipeline, allowing one horseshoe bend of the existing ditch to be abandoned (8,659 LF). The Leroux Creek Extension Area would include about 0.19 mile (1,000 LF) of 72-inch diameter profile wall HDPE bell and spigot pipe.

Most access roads are already in place, but the Project would use existing access routes in the Wolf Park Area, and two access routes (new to FMC) for the Leroux Creek Extension Area; about 634 feet of an existing private driveway would be used for small trucks and small equipment to access the canal from 3300 Road, and another access point farther north for large equipment and turn-around is associated with a 1.78-acre staging area on Town of Hotchkiss property (western staging area). Two additional staging areas would be used to serve the Wolf Park Area; one on Reclamation property off the Wolf Park (3500) Rd to support operations during the Wolf Park Area siphon installation (Siphon Staging Area; 0.64-acre), and another on FMC property southeast of the Project Area (eastern staging area; 85-acre).

The habitat replacement component includes an approximately 9.2-acre site where invasive Russian olives would be removed, and native riparian vegetation would be established to maintain the value of riparian and wetland habitat which would be lost as a result of the salinity control improvements. The Habitat Replacement Site is on land owned by Colorado Parks and Wildlife west of Rogers Mesa and north of Colorado State Highway 92 (Figure 1).

The general physical locations of the Project are depicted on Figure 1 and listed in Table 1.



Figure 1. Project Overview

Fire Mountain Salinity Control Project

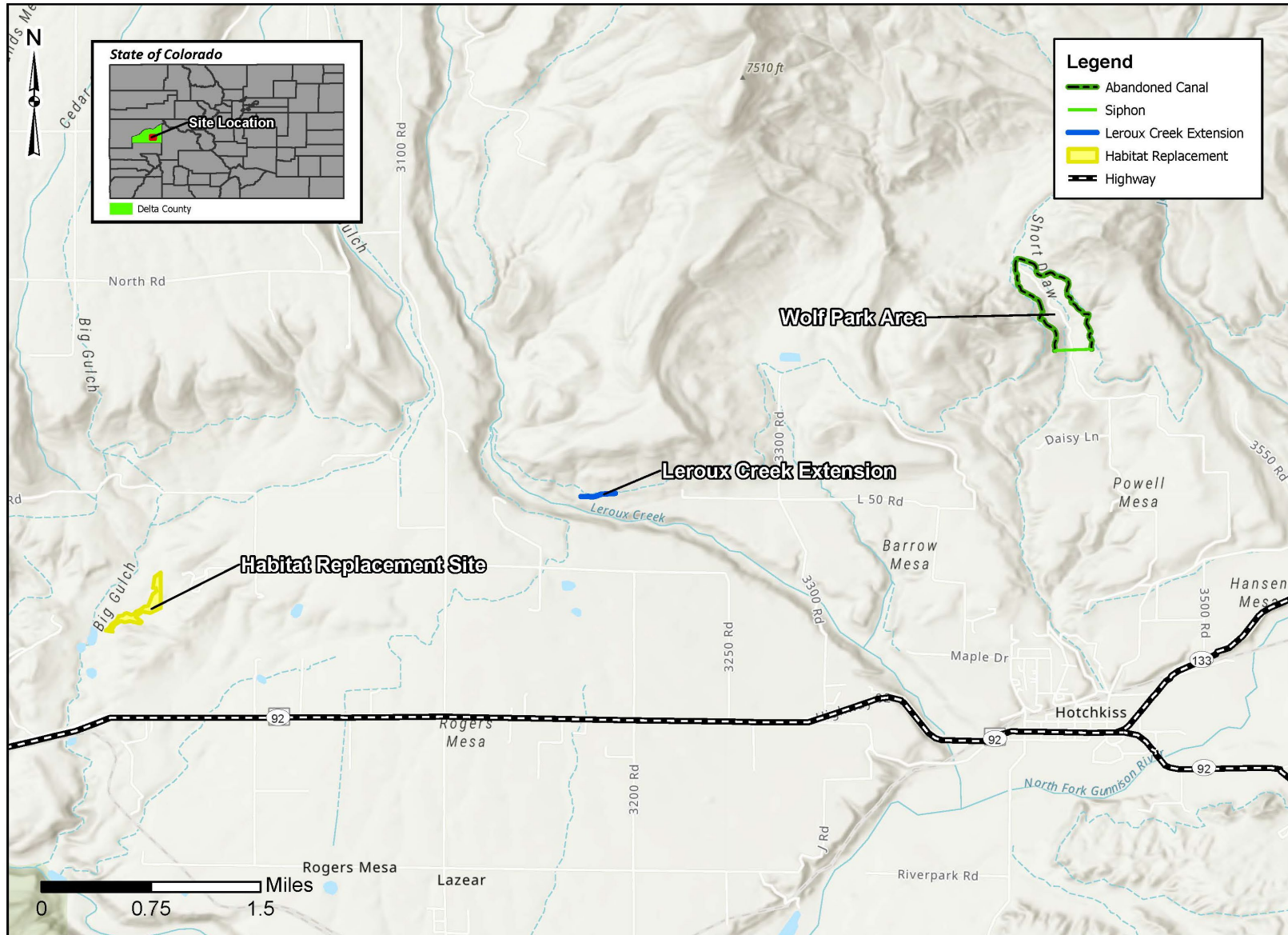


Table 1. Areas Involved in the Project

Project Area	Main Project Elements	General Physical Location
Wolf Park Area	Installation of 1,044 linear feet (0.2 mile) of 54-inch fusion welded HDPE pipeline and siphon, emergency spillway, and energy dissipation structure. Clearing, use and restoration of the Siphon Staging Area. Abandonment and backfilling along one horseshoe bend of the existing ditch to be abandoned (8,659 LF of canal).	Section 18; Township 14 South, Range 92 West in Delta County, Colorado (State of Colorado Map Viewer, 2024). The latitude/longitude coordinates of the approximate center are 38.835266, -107.719689.
Leroux Creek Extension Area	Installation of 1,000 LF (0.19 mile) of 72-inch diameter profile wall HDPE bell and spigot pipe.	Sections 22 and 23; Township 14 South, Range 93 West in Delta County, Colorado (State of Colorado Map Viewer, 2024). The latitude/longitude coordinates of the approximate center are 38.822149, -107.767361.
Western staging area, turn-around and canal access	Large, heavy equipment access and turn-around, as well as staging.	Section 14; Township 14 South, Range 93 West in Delta County, Colorado (State of Colorado Map Viewer, 2024). The latitude/longitude coordinates of the approximate center are 38.833709°, -107.747916°
Eastern staging area	Equipment and material staging,	Section 18; Township 14 South, Range 93 West in Delta County, Colorado (State of Colorado Map Viewer, 2024). The latitude/longitude coordinates of the approximate center are 38.830499°, -107.710557°
Small equipment and truck access	Use of 634 linear feet of existing driveway for small equipment and truck access.	Section 23; Township 14 South, Range 93 West in Delta County, Colorado (State of Colorado Map Viewer, 2024). The latitude/longitude coordinates of the approximate center are 38.828309°, -107.749231°
Habitat Replacement Site	Removal of Russian olive trees and replacement with native mid and over story.	Section 29, Township 14 South, Range 92 West of the 6 <sup>th</sup> Prime Meridian in Delta County, Colorado (State of Colorado Map Viewer, 2024). The latitude/longitude coordinates of the approximate center are 38.812577°, -107.814445°

## **1.2 – Need for Purpose and Action**

The need and purpose of the Proposed Action is to improve water quality and efficiency by reducing salinity loading into the Colorado River Basin, in compliance with the Colorado River Basin Salinity Control Act of 1974 (43 U.S. Code [U.S.C.] §§ 1571, et seq., as amended).

## **1.3 – Decision to be Made**

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

## **1.4 – Background**

### **1.4.1 – Salinity Control Program**

The salinity levels in the Colorado River Basin have steadily increased over recent decades, largely driven by agricultural irrigation practices that contribute to salt and selenium loading. High salinity affects water quality, agricultural productivity, and the health of riparian ecosystems.

In 1974, the U.S. Congress passed the Colorado River Basin Salinity Control Act, establishing a framework for managing and reducing salinity to protect the basin's resources. Acting through Reclamation, the Secretary of the Interior is authorized through Public Law 104-20 of July 28, 1995, to implement a Colorado River basinwide Salinity Control Program. The Salinity Control Program provides funds for salinity control projects through a one-time grant that is limited to the applicant's competitive bid. Salinity control projects are awarded based on applications received in response to a Notice of Funding Opportunity (NOFO) (formerly called Funding Opportunity Announcement [FOA]) issued by Reclamation. As part of the NOFO, applicants are evaluated individually according to the following criteria: cost effectiveness, ability to enable on-farm salinity control features, risk assessment, detailed project plan, costs and capability to implement the project, future operation and maintenance and management capabilities for the project, past performance, and Department of the Interior goals. Applications are ranked by an Application Review Committee made up of multiple disciplines, and high-ranking projects are recommended to the Salinity Control Program Manager for consideration. The Salinity Control Program Manager then provides recommendations to the Grants Officer for award. Facilities constructed using funds are owned, operated, maintained, and replaced by the applicant at their own expense.

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

Earthen irrigation ditch water seepage and the resultant deep percolation through saline soils is one way that salts are mobilized and transported into regional streams and rivers. Piping such ditches removes a source of deep percolation and salt mobilization to regional streams and rivers from the system. The Project would eliminate water seepage from approximately 1.83 miles of earthen

ditches, reducing salinity loading by 756 tons per year (Applegate Group Inc., 2023) in the Lower Gunnison Basin and the Colorado River Basin.

While the Project is not a selenium reduction project, it is anticipated that an unquantified reduction in selenium loading in the Colorado River Basin would also be associated with the Project. The U.S. Geological Survey (USGS) monitors dissolved selenium loads in rivers and tributaries immediately downstream of the Project Area. There has been a 47.7 percent (%) decrease in selenium levels in the Gunnison River near Whitewater between 1986 and 2020 (Henneberg, 2021). The Gunnison Basin Selenium Management Program (SMP), a private/public partnership of concerned parties working together to identify and implement solutions to reduce selenium concentrations in the Gunnison and Colorado rivers, attributes a portion of the reduction in selenium throughout the area to the reduction of deep percolation from seeping irrigation ditches due to the implementation of salinity control projects (Reclamation, 2024a).

In the years following the passage of the Salinity Control Act, multiple salinity control projects have been implemented throughout the basin, modernizing infrastructure, improving water conveyance, and reducing salt seepage into groundwater and river systems. The North Delta Canal Phase 1 Salinity Control Project, completed in a previous funding cycle, set a foundation for the Phase 2 improvements outlined in this EA. Phase 1 included canal lining, installation of piping, and habitat replacement initiatives. The proposed Phase 2 Project aims to build on the success of Phase 1 by extending canal upgrades to additional areas of high salinity loading. This action supports federal and state initiatives to achieve long-term salinity reductions across the Colorado River Basin.

## **1.4.2 – The Applicant**

The FMC, the Applicant, is the primary entity that would implement the Project.

## **1.5 – Relationship to Other Projects**

### **1.5.1 – Salinity Control Program**

Under the authority of the Colorado River Basin Salinity Control Act, Public Law 93-320, as amended, Reclamation provides funding through the Basinwide Salinity Control Program and the Basins States Program to implement salinity control projects in the Colorado River Basin. The following list of salinity control projects in the vicinity of the Project have been funded through Reclamation’s Western Colorado Area Office:

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

12. Minnesota Canal Piping Project Phase I and II, and Minnesota L75 Piping Project
13. Needle Rock/Lone Rock Piping Project
14. North Delta Canal Piping Project – Phase I and Phase I Extension
15. Orchard Ranch Ditch Piping Project
16. Pilot Rock Ditch Piping Project
17. Rogers Mesa Slack and Patterson Lateral Piping Project
18. Short Ditch Extension Piping Project
19. Stewart Ditch – Upper, Middle, and Lower Piping Projects

### **1.5.2 – CRSP Basin Funds**

Reclamation’s Western Colorado Area Office recently utilized Colorado River Storage Project (CRSP) Basin Funds to implement the following projects:

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

### **1.5.3 – RCPP Funds**

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

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

## **1.6 – Scoping**

During the planning stages of the Project, Reclamation performed scoping in consultation with the following agencies to identify potential environmental and human environment issues and concerns associated with the Proposed Action and No Action alternatives:

- Colorado State Historic Preservation Office (SHPO), Denver, CO
- U.S. Army Corps of Engineers (USACE), Northwestern Colorado Branch, Grand Junction, CO
- Southern Ute Tribe, Ute Mountain Ute Tribe, and Ute Indian Tribe (Uintah and Ouray Reservation)
- U.S. Fish and Wildlife Service (USFWS), Ecological Services, Grand Junction, CO
- Colorado Parks and Wildlife (CPW), Grand Junction, CO

Resources analyzed in this EA are discussed in Chapter 3. The following resources or potential issues were identified as not present or not affected, and are eliminated from further analysis<sup>1</sup>:

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<sup>1</sup> Executive Order 14154, Unleashing American Energy (Jan. 20, 2025), and a Presidential Memorandum,

Table 2. 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	The Project Area does not contain any identified Indian trust assets or Native American sacred sites. Neither the Proposed Action or No Action Alternative would affect Indian trust assets or Native American sacred sites. Reclamation will provide the Ute Mountain Ute Tribe, the Ute Indian Tribe (Uintah and Ouray Reservation), and the Southern Ute Indian Tribe with a description of the Project and a written request for comments regarding any potential effects on Indian trust assets or Native American sacred sites as a result of the Proposed Action Alternative. Results of this consultation will be included in the Final EA.
Wild and Scenic Rivers, Lands 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. Neither the No Action Alternative nor the Proposed Action would impact these designated areas.
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 that 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 open irrigation ditches.

## 1.7 – Alternative Considered but Not Carried Forward

Lining instead of piping in Leroux Creek Extension Area was considered but dismissed, because FMC is working towards potentially transitioning the lower end of the canal into a low-pressure, demand-based system requiring a regulating reservoir upstream coupled with piping to the already piped section during Salinity Control Project Phase I (Applegate Group Inc., 2023), although this project has not been approved by Reclamation and is still speculative at this time. In the Wolf Park Area, no alternatives to the siphon were considered, as siphon construction and abandonment of the horseshoe bend along Short Draw is far more cost-efficient than lining or piping the canal in this area. The Project would eliminate long-term maintenance, such as cleaning, mowing, and rock fall mitigation.

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Ending Illegal Discrimination and Restoring Merit-Based Opportunity (Jan. 21, 2025), require the Department to strictly adhere to the National Environmental Policy Act (NEPA), 42 U.S.C. §§ 4321 et seq. Further, such Order and Memorandum repeal Executive Orders 12898 (Feb. 11, 1994) and 14096 (Apr. 21, 2023). Because Executive Orders 12898 and 14096 have been repealed, complying with such Orders is a legal impossibility. Reclamation verifies that it has complied with the requirements of NEPA, including the Department’s regulations and procedures implementing NEPA at 43 C.F.R. Part 46 and Part 516 of the Departmental Manual, consistent with the President’s January 2025 Order and Memorandum.

# CHAPTER 2 - PROPOSED ACTIONS AND ALTERNATIVES

This chapter describes the alternatives analyzed in this EA, including the No Action Alternative and the Proposed Action Alternative. The Proposed Action Alternative was developed based on the Project's purpose and need, as discussed in Chapter 1, to reduce salinity loading in the Colorado River Basin. Environmental impacts of each alternative are discussed in detail in Chapter 3.

## 2.1 – No Action Alternative

Under the No Action Alternative, the Project would not be funded and implemented. The existing irrigation infrastructure would continue to operate in its current state, utilizing unlined, earthen ditches for water conveyance. Consequently, salinity and selenium would continue to seep from these unlined sections into the surrounding soils and waterways, contributing to the ongoing degradation of water quality within the Gunnison and Colorado river basins.

## 2.2 – Proposed Action

The Proposed Action Alternative involves the extension of canal piping, installation of a siphon and canal abandonment, and other infrastructure upgrades along the FMC, supported by Reclamation funding. These improvements are designed to reduce water seepage, thereby minimizing salinity and selenium loading into the Gunnison and Colorado river basins. The Project would be implemented in two areas north of Hotchkiss, and treatment measures to control salinity are based on the unique characteristics of each area.

In addition to the physical improvements, the Project includes best management practices (BMPs) to mitigate environmental impacts during construction, including erosion control measures, dust suppression, and noise management. The Project would also establish a Habitat Replacement Site to compensate for any ecological disruptions caused by canal modifications, thereby aligning with state and federal conservation standards.

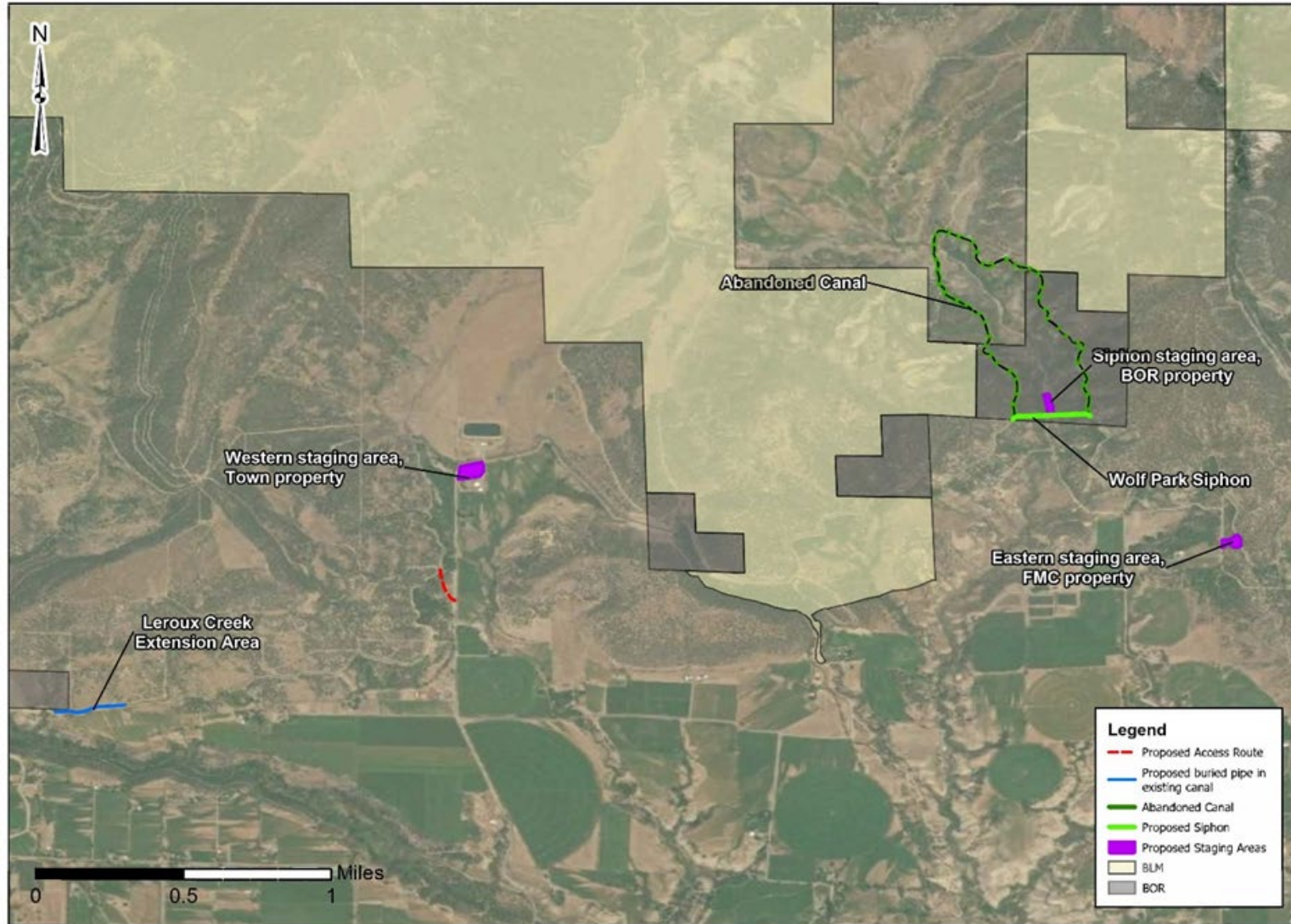
The following sections provide an overview of each component of the Proposed Action, including planned improvements and anticipated environmental benefits.

### 2.2.1 – Project Overview

The Project would take place in three areas north of the North Fork River near Hotchkiss, Colorado (Figure 1). From east to west, a siphon would be installed across Short Draw in the Wolf Park Area, allowing an existing open canal to be abandoned along a horse-shoe bend (Figure 2). The existing maintenance road would remain in use. In the Leroux Creek Extension Area, an existing pipeline installed during Phase I would be extended upgradient to the east; the pipeline would be placed in the existing, open canal (Figure 2). Salinity Control Improvements are summarized in the table below. The Project would also establish a Habitat Replacement Site along Turkey Draw, addressing 9.2 acres of degraded riparian vegetation (Figure 3).



Figure 2. Proposed Project Components





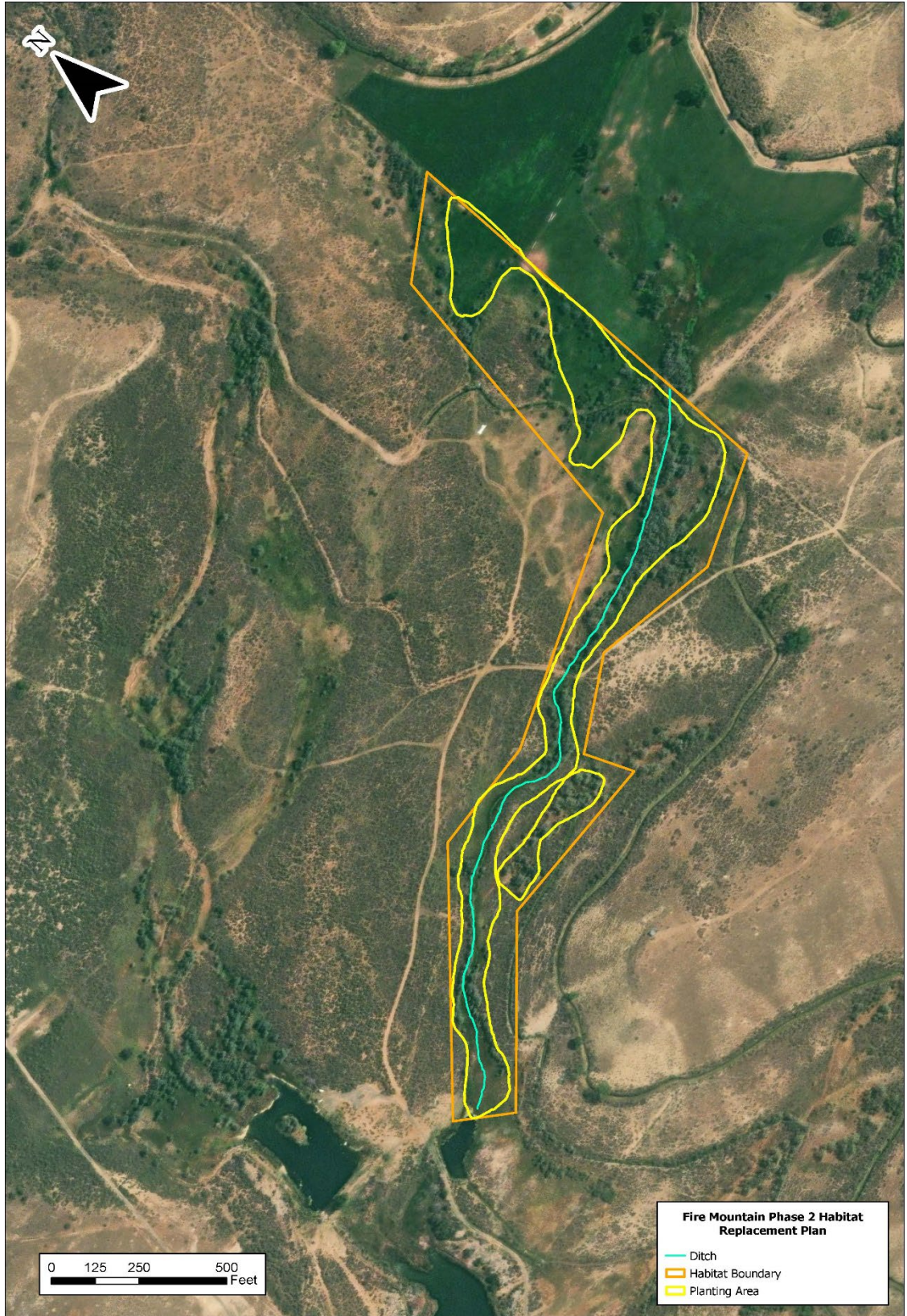


Figure 3. Habitat Replacement Site

Table 3. Summary of FMC Phase 2 Salinity Control Improvements<sup>1</sup>

Treatment	Linear Feet	Miles	Maximum width	Acres
<b>Wolf Park Area</b>				
Siphon Installation	1,044	0.20	50 at top of draw, 100 feet at valley floor	1.45
Abandonment of Existing Canal	8,659	1.64	50	9.94
Staging area along siphon	-	-	-	0.64
Eastern staging area southeast of Wolf Park	-	-	-	0.85
<b>Total Wolf Park Area Extents</b>	<b>9,703</b>	<b>1.84</b>	-	<b>12.88</b>
<b>Leroux Creek Extension Area</b>				
Pipeline extension	1,000	0.19	50	1.15
Staging, large equipment access and turn-around	-	-	-	1.78
Small equipment access on private drive	634	0.12	12	0.17
<b>Total Leroux Creek Area Extents</b>	<b>1,634</b>	<b>0.31</b>	-	<b>3.10</b>
<b>PROJECT TOTAL</b>				<b>15.98</b>

<sup>1</sup>Salinity control improvements would occur along 1.83 miles of canal, including 1.64 miles of abandoned canal and 0.19 mile of piped canal.

### 2.2.2 – Siphon, Spillway and Pipeline Installation

This section describes construction at two sites: the upstream/eastern end of the Project at the Wolf Park Area; and the downstream/western end of the Project, at Leroux Creek Extension Area (Figure 2). Prior to construction, equipment and materials would be mobilized to the site and staged at nearby staging areas. Heavy equipment used on-site would include track hoes, loaders, haul trucks, and bulldozers. Construction disturbance width would generally be 50 feet at a maximum, unless otherwise specified. The actual width would vary depending on site conditions such as slope/ability to operate safely and nearby infrastructure or sensitive resources (width could be as narrow as 30 feet in some places but would not exceed 50 feet, with the exception of the bottom of Short Draw which would be 100 feet as described).

The Wolf Park Area and Short Draw are at the upstream (eastern) end of the Project Area between and north of Powell Mesa Road and Wolf Park Road. The proposed siphon in the Wolf Park Area includes about 0.19 mile of 54-inch fusion welded HDPE pipeline, which would be constructed across Short Draw, dropping in elevation about 120 feet (from 5,850 feet to 5,730 feet at the bottom of the draw). To prepare for the siphon installation, the siphon alignment area and staging area would be cleared of vegetation to the minimum extent needed for construction. A 50-foot construction width would be needed at the top of the draw, expanding to 100 feet at the valley floor (this area would overlap with the 0.64-acre staging area along Wolf Park Road at the valley floor); the extra width would accommodate a drain and concrete dissipating structure. Vegetation would be grubbed and cleared from the new trench area, and the surface cleared from surrounding areas as much as necessary with vegetation crushed instead of grubbed to enable revegetation from intact root stock.

Some woody debris would be set aside and replaced over the surface after construction is complete to provide screening and cover for wildlife.

Trenching would progress from east to west; on the east side, the trench would be 10 feet wide and 7 to 9 feet deep (to accommodate both the siphon pipe, and a 36-inch spillway pipe). On the west side, the trench would be 6.5 feet wide and 7 to 9 foot deep. During trenching, topsoil containing a native seed bank would be carefully segregated and set aside for post-construction restoration. Rocks would be removed from the trench, and the trench shaped to accommodate the siphon pipe on the west side, and both the siphon and spill way pipe on the east side. During the installation phase, pipe would be fused at the staging area along the valley floor and heavy equipment used to drag the pipe up and set it in place. The siphon and spillway pipe would be appropriately bedded, the siphon and pipe backfilled using materials from excavating the trench, and the surface graded to match surrounding topography and to restore drainage. Segregated topsoil would be placed on top. On the west side of Short Draw, the siphon would transition to the open earth canal.

Two new concrete structures would be incorporated into the siphon facility: an intake structure and an energy dissipation structure. On the east side of Short Draw, a concrete intake structure (approximately 12 feet long by 12 feet wide, by 10 feet deep) would transition the open canal to the siphon pipe, while also incorporating an overflow and spillway. A spill way would consist of a 36" fusion welded HDPE pipeline extending from the concrete intake structure at the top of Short Draw to the valley floor, parallel to and in the same trench as the first one-half of the siphon. The spill way would end at the valley floor in a concrete energy dissipation structure (approximately 14 feet long by 12 feet wide by 7 feet deep). The spill way is necessary to spill water when the canal is primed in the spring and would functionally replace a flap gate currently installed at the apex of the horseshoe bend. The extent of water spilled seasonally would be similar to current conditions and very minor - between 1 and 3 cubic feet per second spilled for a few hours upon start up in the spring, and one or two times during the irrigation season as needed.

Construction of the concrete structures would require excavation, setting of concrete forms, and mobilization of a concrete truck to the site using the existing maintenance road from Powell Mesa Road (for the intake structure), or using Wolf Park Road (for the energy dissipation structure). The concrete would be poured, finished, and cured.

As part of the siphon installation, approximately 8,659 LF of existing canal transecting the sides of Short Draw along the horseshoe bend would be decommissioned, and the hillside reclaimed as discussed in Section 2.2.3.

At the downstream end of the Project Area, the Leroux Creek Extension Area traverses an adobe hillslope north of Leroux Creek, between and north of 3300 and 3100 Roads. Approximately 4 miles west of the siphon, an existing pipeline would be extended by 1,000 feet (0.19 mile). Excavation to accommodate the pipe in the existing canal would be minimal — up to 3 feet at most, if needed. The pipe would consist of 72 inch diameter profile wall HDPE bell and spigot pipe. The extension pipe would tie into the existing pipe using a coupling device on the west end, and transition to an open canal on the east end. The pipe would be backfilled, and the surface restored to match the surrounding topography. The maintenance road would be preserved.

### 2.2.3 – Abandoned Ditch Segment Decommissioning

The Project involves abandoning 8,659 LF of unlined canal, as the canal would be functionally replaced with a siphon. This process would involve backfilling the canal with material sourced from along the canal or adjacent areas within the Project Area to minimize environmental disruption. The abandoned canal area would be sloped to match the natural gradient, restored, and revegetated. The topography would match the surrounding land’s natural contours, ensuring proper drainage and erosion control. The adjacent maintenance road would continue to be used by FMC staff for operations and would be installed via grading at a lower elevation relative to the existing road to allow for achieving the proper slope.

### 2.2.4 – Access

Access for construction activities would use existing county roads and routes along the canal corridor, minimizing the need for new road construction. The Wolf Creek Siphon would be accessed via Highway 92, Hanson Mesa Road, the FMC canal maintenance road, and Wolf Creek Road north of Hotchkiss. Leroux Creek Extension Area access would be provided from Highway 92, county roads 3300 Road and L 50 Road northwest of Hotchkiss, and approximately 634 feet along a well-maintained private road off of 3300 Road (see Figure 2). An additional access point for large equipment and a turn-around area would be incorporated into the eastern staging area. The Habitat Replacement Site would be accessed from a well-maintained private road off of Highway 92.

Temporary access measures, including dust suppression and vehicle restrictions, would be implemented to limit disturbance to surrounding agricultural lands and prevent unnecessary impacts on local traffic. Signage would be placed along main access routes to alert the public to construction activities and ensure safety for residents and workers.

### 2.2.5 – Staging

The Project would utilize three main staging areas (Figure 2). Two are already in existence and one near the proposed Wolf Park Area siphon would be developed and reclaimed as part of siphon construction. Minimal vegetation clearing would be performed to prepare the Siphon Staging Area for use; no vegetation clearing would be necessary for the other locations.

Table 4. Staging Areas

Staging Area	Acres	Lat	Long	Baseline Conditions/Landcover
Western (Town of Hotchkiss Property)	1.78	38.833709°	-107.747916°	Site of a former water holding pond with about 75% disturbed and/or saline and bare and 25% vegetated with scrub-shrub vegetation, including several Russian olive bushes and Siberian elm trees. Area is bordered on all sides by existing roads
Eastern (FMC Property)	0.85	38.830499°	-107.710557°	Bare/disturbed, surrounded by open juniper woodland on the north, west and south side, and bound on the east side by the ditch road and canal.



Staging Area	Acres	Lat	Long	Baseline Conditions/Landcover
Siphon area	0.64	38.837293°	-107.719637°	Natural, undisturbed, with scrub-shrub vegetation dominated by sage brush and rabbitbrush.

### 2.2.6 – Fill Material

All fill required for the Project would be obtained from within the Project Area. The existing road in the Wolf Park Area along the portion of the canal to be abandoned is above-grade. To return topography in the area of the canal to natural slope and grade, it would be necessary to lower the elevation of the maintenance road. Extra fill would be excavated from the road area and used to fill the canal. The surface would be sloped to the maintenance road, at a lower elevation. Trenching for the siphon would supply enough fill for the siphon pipe, and for bedding the pipe in the Leroux Creek Extension Area if needed. Fill for the piped section along Leroux Creek would be obtained from the adjacent spoils.

### 2.2.7 – Weed Control and Post -Construction Revegetation

The Project includes measures to prevent the spread of weeds during and after construction. Prior to mobilizing to the site, all equipment and vehicles would be cleaned to prevent the spread of weeds. Slash from areas cleared of woody noxious weeds, including Russian olive and tamarisk, would be contained and removed from the site or stockpiled and burned at a staging area. Following construction, the Applicant would follow county standards and public land permit stipulations to monitor and control noxious weeds.

Two options would be used for post-construction revegetation: 1) Sterile soil (subsoil without a seedbank) used as topsoil/natural revegetation, or 2) Conventional revegetation method. Project construction drawings would indicate which revegetation method would be used throughout the Project alignment, in coordination with the landowner.

Option 1 would be used where adjacent vegetation is sparse. For these areas, a weed-free, sterile topsoil would be used to mitigate the spread of weeds and the topsoil would not be seeded. The soil would revegetate naturally over time. Examples include along the abandoned canal in the Wolf Park Area and the piped Leroux Creek Extension Area (Figure 2).

Option 2 would also be used where disturbed areas are adjacent to upland native vegetation, or where the landowner requests seeding. For these areas, a weed-free seed mix would be used, including drought-tolerant and common native grass such as western wheatgrass. The seed mix used on public lands would be certified weed-free and approved by Reclamation and BLM (Appendix A). Examples include along the Siphon Area and the Siphon Staging Area.

The eastern and western staging areas are generally disturbed, but the Siphon Staging Area is vegetated with sage brush and scrub-shrub vegetation. To aid revegetation in the Siphon Staging Area, vegetation would generally be crushed, rather than cleared, leaving root stock intact. The Applicant would limit blading to only what is needed for equipment. Woody vegetation (native tree branches and underbrush) set aside during clearing and grubbing would be placed over the surface,

to be used as cover or nesting for wildlife. It is estimated the revegetation of the siphon corridor would take more than 25 years.

### **2.2.8 – Habitat Replacement**

In accordance with the Colorado River Basin Salinity Control Act, habitat replacement would be required to maintain riparian and wetland habitat affected as a result of the Project. The plan addresses open wet meadow areas and patches infested with Russian olive along Turkey Draw, east of Big Gulch. Riparian areas along Turkey Draw (a total of approximately 9.2 acres) would be addressed by noxious weed removal and shrub and tree plantings to establish structure, connectivity and diversity. A total of approximately 680 tree and shrub plantings would be established in designated areas (Figure 3), with the goal of 125 trees and 300 shrubs surviving. Open meadow areas would benefit from added structure and areas infested with Russian olive would be reduced from over 25 % cover to 15 % cover, replacing Russian olive with native species. Contractors with equipment and chainsaws would remove and stump-treat approximately 200 Russian olive trees. Branches would either be stacked to create habitat piles or hauled away and disposed of off-site. Planting areas would be flagged for each of the six designated riparian areas, and tree and shrub materials would be mobilized to the site and planted. Protective cages would be placed around the plantings. The site would be monitored and watered weekly during the spring, summer and fall (for about 16 weeks), for the initial 3 to 5 years, until plants are established. Approximately 880 gallons of water would be required weekly, totaling approximately 14,080 gallons used annually. Depending on the location within the site, water would be drawn from a nearby pond, from flows in Turkey Draw, or from the Fleming Ditch. An all-terrain vehicle or truck with watering tank, pump, and hose attachment would be used to transport water to planted areas.

The Habitat Replacement Site along Turkey Draw would provide suitable habitat for species affected by the canal improvements, focusing on enhancing riparian and wetland vegetation to support wildlife, including mule deer (*Odocoileus hemionus*), elk (*Cervus canadensis*), amphibians, small mammal populations; and avian species, including raptors, migratory birds, and waterfowl. Ongoing coordination with CPW would ensure the habitat replacement efforts align with state conservation goals and provide long-term ecological benefits.

### **2.2.9 – Schedule**

Project construction would take approximately six months to complete. Siphon construction and canal abandonment would likely require 16 weeks to complete, and piping in the Leroux Creek Extension Area 10 weeks to complete. Timing of construction would depend on contractor availability and timing to avoid impacts to wildlife outlined in Table 5 as well as the need to complete construction by April, in time for the irrigation season to start. Construction may occur over the 2025 and 2026 winter season, or (if contractors are not available) over the 2026 and 2027 winter season.

Siphon construction could begin during the irrigation season; therefore, it is possible that clearing, grubbing, and trenching for siphon construction, and laying of siphon pipe could begin in the mid to late summer. Under this scenario it is possible that construction could be completed by the end of December. If construction begins in October or November, a six-month construction timeframe is likely due to weather delays, and construction would need to conclude by April prior to the start of irrigation season.

Construction at the Habitat Replacement Site would not need to avoid the irrigation season and could occur during any time of the year, observing timing restrictions to protect wildlife (see Table 5 below). Project construction activities, including canal improvements and habitat replacement, are expected to conclude by 2028.

Table 5. Summary of Construction Timing Restrictions

Location	Activity	Timing Restriction	Reason
All Project Areas, including Habitat Replacement Site	Vegetation grubbing or clearing	Avoid February 15 – July 15	Protect early-nesting raptors such as the red-tailed hawk (February 15 – July 15) and migratory songbirds during their core nesting season (April 1 to July 15)
Habitat Replacement Site	Russian olive and tamarisk removal; heavy equipment use	Avoid December 1 – April 30	To protect big game on severe winter range and mule deer winter concentration area
All Project Areas	Heavy equipment use	Between December 1 and April 30, limit use of heavy equipment as much as possible/practical to between the hours of 10 am and 4 pm	To protect big game on severe winter range and winter concentration areas.

### 2.2.10 – Permits & Authorizations

Permits and authorizations would be obtained from relevant agencies before construction.

#### *Agreements and Authorizations*

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

- Programmatic Agreement (PA) Proposal or Memorandum of Agreement executed between Reclamation and the Colorado SHPO.
- Clean Water Act (CWA) Section 404 Regional General Permit 5 for Ditch Related Activities in the State of Colorado: 30-Day Advance of Construction Submittal Package (to include “(1) the respective agency’s documentation for compliance with the Endangered Species Act and National Historic Preservation Act [NHPA] and/or the lead Federal Agency NEPA document containing the same, (2) a project description, (3) project plans, and (4) a location map.”).

#### *Construction Permits and Plans*

The following construction permits and plans would be required prior to Project implementation:

- CWA Section 402 Storm Water Discharge Permit compliant with the National Pollutant Discharge Elimination System (NPDES), to be obtained from Colorado Department of Public Health and Environment (CDPHE) by the construction contractor prior to construction disturbance (regardless of whether dewatering would take place during construction). This permit would include a Stormwater Management Plan, to be submitted to CDPHE by the construction contractor prior to construction disturbance.
- Certification under CDPHE Water Quality Division Construction Dewatering Discharges Permit COG070000 (when dewatering is to take place during construction).
- Spill Response Plan, to be prepared in advance of construction by the contractor for areas of work where spilled contaminants could flow into water bodies.
- Utility clearances, to be obtained by the construction contractor prior to construction activities from local utilities in the area.
- Any construction, access, or use permits which may be required by the Delta County Planning Department, Delta County Road and Bridge District #3, or Colorado Department of Transportation.

Compliance with the following federal laws and EOs are required prior to and during Project implementation:

*Natural Resource Protection Laws*

- Clean Air Act (CAA) of 1963 (42 U.S. Code [U.S.C.] § 7401)
- Endangered Species Act (ESA) of 1973 as amended (16 U.S.C. 1531-1544, 87 Stat. 884)
- CWA of 1972 as amended (33 U.S.C. 1251 et seq.)
- Migratory Bird Treaty Act (MBTA) of 1918 (16 U.S.C. 703-712)
- Bald and Golden Eagle Protection Act of 1940 (16 U.S.C. 668- 668c)



# CHAPTER 3 – AFFECTED ENVIRONMENT & ENVIRONMENTAL CONSEQUENCES

## 3.1 – Introduction

This chapter discusses resources potentially impacted by the Proposed Action and No Action alternatives. Each section defines the affected area, describes current conditions, and evaluates impacts from both alternatives. Environmental commitments are components of the Project and are considered in this analysis. A summary of impacts and environmental consequences of the Proposed Action is included at the end of this section.

## 3.2 – Affected Environment and Environmental Consequences

### 3.2.1 – Water Rights and Use

The geographic scope of the analysis is the Project Area shown on Figure 1, which covers the area of potential effect for this resource. The canal is 34.7 miles in length, and almost entirely an open earth canal. Irrigation water is supplied to the canal from direct diversion out of the North Fork River at a diversion point located just below the town of Somerset, east of Paonia. Water is supplied from the North Fork River directly during the early runoff season (typically April through June) and from shares stored in the Paonia Reservoir later in the season (typically July to September).

The canal provides irrigation to 15,300 acres and 491 shareholders. Approximately 60% of water is delivered to Rogers Mesa directly west of Leroux Creek (Applegate, 2023). The last 4.3 miles of the canal was piped in 2019-2020 through improvements funded by an award from the 2015 Basinwide Salinity Control FOA and the Lower Gunnison RCPP. Principal crops produced in the area include alfalfa, grass hay meadows and pastures, fruit orchards, and vegetables.

An average of 47,342 acre-feet (AF) is diverted annually from the North Fork River and another 5,841 AF annually from Leroux Creek. By decree, the FMC is allowed to divert a total of 238 cubic feet per second (cfs) out of the North Fork River during the early season and 46,424 AF from Paonia Reservoir during the summer and fall (Applegate Group, Inc., 2023).

*No Action:* Under the No Action Alternative, the water system would continue to function as it has in the past, and there would be no effect on water rights and uses within the Project Area.

*Proposed Action:* The Project would result in no change to existing, decreed water rights. The improved system would provide efficiencies in water delivery, eliminate water seepage, and enable full shares to be delivered to the farm turnouts, benefiting shareholders on the system. Eliminating a long section of open canal as a result of the Wolf Park Area siphon would help protect against the risk of failure from geological hazards. The timing of the Project would allow water delivery during the irrigation season, as construction would occur during the winter. The Project would not alter natural sources of groundwater or effect domestic well permits, which allows for natural sources of groundwater to be drawn.

Proposed activities associated with the Habitat Replacement Site would have no effect on current water rights and usage. Plantings on the Habitat Replacement Site would be watered with natural flows from Turkey Draw, the Flemming Ditch, and a nearby pond downgradient from the site.

The total quantity used would be 0.04 AF annually (at a maximum), which is equal to  $8.9 \times 10^9$  cfs. This amount, when compared to a minimum of 1 cfs flow in Turkey Draw, is considered immeasurable and therefore impacts to downstream water users (e.g., to water rights) from use of water is not significant. No adverse effects on water rights would occur as a result of the Proposed Action, and no impacts; therefore, there would be no significant impacts on water rights.

### **3.2.2 – Water Quality**

The geographic scope of the analysis for water quality is the lower Gunnison River (hydrological unit code [HUC] 14020005) and the greater Colorado River Basin, due to regional influence of irrigation practices on downstream water quality. Irrigation practices in the region and in the Project Area are contributing to elevated downstream salinity and selenium levels, creating an adverse effect on the water quality of the Gunnison River and in the greater Colorado River Basin.

In the Project Area, water for irrigation is diverted from streams and rivers into constructed, unlined ditches and canals that traverse the gradient, flowing through soils derived from Mancos shale; this practice contributes elevated levels of salinity and selenium (often in the soluble form of selenate) in the Gunnison River and in the greater Colorado River Basin. Salinity contributions to the Gunnison River and greater Colorado River Basin within the Project Area (along 1.83 miles of canal) are currently made at a rate of 756 tons of salt per year (Applegate Group Inc., 2023). In addition to salinity, elevated levels of selenium are caused by deep percolation beneath open, unlined canals where they flow through Mancos shale. Selenium has been determined to be toxic to living organisms when present beyond trace amounts (U.S. Environmental Protection Agency [EPA], 2016). Leroux Creek and the mainstem of the North Fork of the Gunnison River have been classified as impaired waters in accordance with Section 303(d) of the CWA, due to the effects of selenium on aquatic life (CDPHE, 2016; EPA, 2024a). Concentrations of selenium in the North Fork of the Gunnison River account for about 8% of the selenium load in the Lower Gunnison River Basin (CDPHE, 2011). The Salinity Control Program is a regional effort to improve water quality at a basinwide scale by reducing salinity in the Lower Gunnison and Colorado River watersheds (see Section 1.4.1). In addition, there are ongoing regional efforts to reduce selenium loading in the Lower Gunnison and Colorado river basins (Selenium Management Program Workgroup [SMPW], 2011; Reclamation, 2024a). The Habitat Replacement Site is transected by perennial flows in the Fleming Ditch and a diversion along Turkey Draw.

Most irrigation ditches are considered Waters of the U.S. (WOTUS) and are under the jurisdiction of the CWA. In 2021, USACE issued Regional General Permit 5 (RGP-5) for Ditch Related Activities in the state of Colorado, which authorizes construction, realignment, and relocation of existing ditches and conversion of such ditches into pipes.

*No Action:* Under the No Action Alternative, the high salt levels contributed to the Colorado River Basin from this system would continue at a rate of 756 tons of salt per year (Applegate Group Inc., 2023), along with current levels of selenium loading, leaving lasting negative effects downstream. The Habitat Replacement Plan would not be implemented under the No Action Alternative.

*Proposed Action:* Project activities would result in a total of 1.83 linear miles of existing open canal to be abandoned, or piped; as a result, the proposed Project would reduce salt loading into the Gunnison River by 756 tons of salt per year (Applegate Group Inc., 2023). The Project would reduce selenium loading into the Gunnison River Basin, although the amount of selenium loading reduction that would result from the Project has not been quantified. Improved downstream water quality would benefit aquatic species and is of high importance for users and wildlife.

The Habitat Replacement Plan would involve planting and tree removal at discrete locations close to open water flowing in Fleming Ditch and along Turkey Draw. Erosion control logs would strategically be implemented to prevent sedimentation loading, and therefore no adverse impacts to water quality would occur as a result of the Habitat Replacement Plan.

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

The materials that would be used for the piping and siphon tubing are inert and water transport through the materials would not degrade water quality; the materials meet safety standards established by the NRCS and the American Water Works Association for use for irrigation and for stock water.

Under the Proposed Action, BMPs would be implemented to further minimize any minor and short-term erosion that would occur during construction; therefore, the effects to water quality would be negligible and not significant. Construction would take place in the ditch prism when water is not present. The construction contractor would be required to operate under a Stormwater Management Plan, a Stormwater Discharge Permit, a Spill Response Plan, and a Dewatering Permit (when dewatering is conducted) (see Section 2.2.10 and Chapter 4). As stated previously, the Project would be authorized under RGP-5 which determines no significant impacts to waters under the jurisdiction of CWA Section 404.

There would be no significant short- or long-term adverse impacts to water quality. While potential minor or negligible short-term adverse impacts to water quality may occur during construction, the Project would result in overall beneficial, long-term impacts to water quality in the Lower Gunnison and Colorado River basins.

### **3.2.3 – Air Quality**

The EPA under the CAA specifies National Ambient Air Quality Standards (NAAQS) for criteria pollutants. Standards for criteria pollutants include carbon monoxide (CO), particulate matter (PM<sub>10</sub> and PM<sub>2.5</sub>), ozone, sulfur dioxide, lead, and oxides of nitrogen (EPA, 2024b). If the levels of a criteria pollutant in an area are higher than the NAAQS, the airshed is designated as a nonattainment area. Areas that meet the NAAQS for criteria pollutants are designated as attainment areas.

This analysis covers the airshed directly over the Project Area and nearby agricultural lands potentially affected by dust and machinery emissions. Ambient air quality in the Project Area is influenced by natural sources such as dust from soil erosion, as well as agricultural activities, emissions from vehicles, and residential wood burning. A primary air quality concern associated with construction activities is the temporary increase in PM; construction equipment, vehicles, and soil-disturbing activities can result in a short-term increase of local levels of PM<sub>10</sub> and PM<sub>2.5</sub>.

Delta County is classified as an attainment area for all criteria pollutants as defined by the EPA, indicating that pollutant levels do not exceed established air quality standards and air quality is generally good (EPA, 2024c).

*No Action:* Under the No Action Alternative, there would be no construction activities or soil disturbance, and existing air quality conditions in the Project Area would remain unchanged. Emissions associated with vehicle operations, soil erosion, and agricultural activities would continue at current levels, with no additional impacts to local air quality.

*Proposed Action:* Project related primary air quality impacts would be temporary and minor and would occur during construction activities required to implement the Project. The use of heavy machinery and vehicles for habitat improvements (vegetation removal, planting and watering), and during pipeline and siphon installation, ditch backfilling, and other canal improvements would generate emissions of nitrogen oxides (NO<sub>x</sub>), CO, and PM. Additionally, fugitive dust would be generated from soil disturbance activities such as excavation, grading, and movement of construction materials. Construction activities associated with restoration at the Habitat Replacement Site would also generate emissions and fugitive dust. The adverse impacts to air quality from the Proposed Action would be short-term and temporary and would not exceed NAAQS. There would be no long-term significant impacts to air quality from the Project, as air quality would return to its baseline level and Delta County would remain in attainment for all criteria pollutants.

To further minimize air quality impacts, BMPs would be implemented, including regular watering of disturbed areas to control fugitive dust and minimizing vehicle idling.

### **3.2.4 – Public Access, Transportation, & Safety**

County, public, and private roads provide access for residents and other members of the public traveling in and out of the Project Areas. Wolf Park Road and Powell Mesa Road are the main access routes for the Wolf Park Area and the section of existing canal that is abandoned, both staging areas, as well as the northeastern portion of the Project Area. For the Leroux Creek Extension Area, County Road 3300 is an access route for ditch and staging access for pipe deliveries and a turnaround point for large equipment. A short section of existing private driveway (634 feet) would be used for small equipment and truck access off County Road 3300. County Road 3300 serves as the main construction access point for the Leroux Creek Extension Area. The outlying

areas of the town of Hotchkiss are scarcely populated and intermittent public access is required for residences and farms along County Road 3300 Road, Powell Mesa Road, and Wolf Park Road Roads in these areas experience low to potentially moderate traffic depending on time of day. The Habitat Replacement Site is accessed off Highway 92 using a private road. Highway 92 and Highway 133 are the main major road routes that run near the Project Area. On an annual average, both highways receive moderate daily traffic.

Overhead and underground utilities are potentially present near some of the Project Area. The utility entities include Delta – Montrose Electric Association (electricity and fiber optic), Black Hills Energy (natural gas), and Town of Hotchkiss Utilities (domestic water).

*No Action:* Under the No Action alternative, there would be no impact on transportation, safety, or access into or within the vicinity of the Project Area. Current conditions and the baseline status of traffic, transportation routes, public safety, public access, and utilities in the vicinity of the Project Area would remain unchanged.

*Proposed Action:* Construction activities and access related to the Project would take place on existing roads and rights-of-way (ROWs). There is no need for construction of new access roads. Some short-term disruption of traffic would occur on public roads when equipment and materials are brought into and out of the Project Area. Increased construction traffic along county roads would cause temporary delays and increase in traffic for residents and the public traveling through the area. If necessary, the Applicant or Applicant’s contractor would coordinate with the county and sheriff department when traffic or access would be delayed or re-routed. Due to the temporary nature of the traffic disruptions and the traffic management provided by coordination with the county and sheriff department, the impacts on traffic would not rise to the level of significant.

All construction activities related to the Project would take place entirely in approved access routes and prescriptive ROWs. Temporary staging areas would be established to store materials, equipment, and pipe adjacent to the Project and generally within the Construction Area, minimizing transportation-related congestion on public roadways.

No significant impacts to access, transportation, and public safety would occur as a result of the Project, because traffic and access disruptions would be short-term and coordinated with authorities, and public safety measures would be implemented in construction areas.

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

### **3.2.5 – Noise**

Noise impacts are assessed within the geographic scope of the immediate Project Area with a focus on construction zones and nearby residential areas (Figure 1).

The Noise Control Act and the Quiet Communities Act were established in the 1970s to create an environment free from noise that threatens the health and welfare of Americans. The EPA initially oversaw all federal noise control activities through the Office of Noise Abatement and Control (ONAC). Over time, however, the responsibility for noise control shifted to state and local

governments, though these federal acts remain in effect. The EPA has identified a level of 70 decibels over a 24-hour exposure period as the threshold to prevent any measurable hearing loss over a lifetime and a level of 55 decibels outdoors as the level preventing activity interference and annoyance (EPA, 1974; EPA, 2024d; DigiExtreme, 2025).

The Project Area in Delta County, Colorado, is primarily rural and agricultural, with a minor baseline level of detectable noise occurring from normal farm/tractor activity, light traffic on public and private roads, and intermittent heavy construction for utility maintenance. Heavy equipment traffic associated with maintenance of the canal occurs throughout the Project Area during annual maintenance and periodic repairs. The community of Hotchkiss is approximately 2 miles away from the nearest construction site. The Project Area does not contain any sensitive noise receptors, such as wildlife conservation areas or nature preserves, recreational areas, hospitals, schools, or high-density residential zones. Baseline noise levels are present at the Habitat Replacement Site due to an adjacent shooting range, and vehicle use on the property, and nearby Highway 92.

*No Action:* Under the No Action Alternative, there would be no changes to existing noise levels in the Project Area. Current noise conditions for the majority of the Project Area, characterized by moderate ambient sound levels with occasional spikes due to agriculture and vehicular traffic, would remain unchanged. No Project-related noise impacts would occur, and the area's typical soundscape would be preserved.

*Proposed Action:* The Project would cause temporary noise sources associated with construction activities, including the operation of heavy machinery, such as trackhoes, bulldozers, loaders, and concrete mixers. Table 9.1 in the Federal Highway Administration (FHWA) Construction Noise Handbook (FHWA, 2006) provides an inventory of common construction equipment and operation noise levels. Measured at 50 feet from the source, noise levels ranged from 74 decibels (flatbed truck) to 101 decibels (impact pile driver). As the distance from the site of construction increases, noise levels decrease substantially. For example, a concrete mixer emits, on average, a maximum noise level of 79 decibels at 50 feet, dropping to roughly 53 decibels at 1,000 feet. Residents near the Project Area are located more than 500 feet from any staging area and more than 1,000 feet from construction sites. The community of Hotchkiss is approximately 2 miles away. According to Table 9.1, noise from equipment used at the site would be reduced to less than 55 decibels, the limits established by the EPA to prevent activity interference and annoyance (FHWA, 2006). Therefore, due to the distance of residential areas from the Project Area, noise emitted from Project activities would be reduced to a level below the 70 decibel and 55 decibel thresholds established by the EPA for either hearing loss or annoyance (EPA, 1974; EPA, 2024d; DigiExtreme, 2025), and would not cause significant impacts to residents near the area. Noise levels would return to baseline noise levels following the completion of construction for each localized portion of the Project Area.

Noise would also be emitted during construction activities associated with restoration at the Habitat Replacement Site. The Habitat Replacement Site is in a rural area that is sparsely populated and sees little public use. The nearest residence is located over 500 feet away and the community of Hotchkiss is over 4 miles away. Noise generated during restoration activities would be temporary and short-term.

BMPs would be employed to further reduce noise impacts, such as maintaining equipment to minimize excessive noise and establishing operational hours that avoid early morning or late evening construction (Sitemate, 2023).

In the long-term, improvements to the FMC from the Proposed Action would result in reduced operation and maintenance and associated noise, benefiting the area's soundscape. Due to the distance of residential areas, limited public use surrounding the Project Area, and short-term duration of Project activities, the Proposed Action would have negligible impacts on noise that would not be significant.

### **3.2.6 – Recreation and Visual Resources**

The geographic scope of analysis is the Project Area, public lands visible from and near the Project Area, and recreation amenities near the Project Area (Figure 1). The Project Area overlaps with CPW big game hunting unit 52 offering opportunity for big game hunting on private land. Visual resources in the Project Area are defined by open juniper woodland, scrub-shrub, and dry adobe slopes; agricultural land and intermittent views of natural features, such as Leroux Creek and Short Draw; and surrounding benched areas of pinyon-juniper woodland, scrub-shrub, and dry adobe slopes. A baseline level of visual disturbance occurs associated with county roads, the Highway 92 and Highway 133 corridors, residential development, local construction, and local ranching and farming activities. The canal itself is a minor, functional feature within this setting and is screened from view by topography and vegetation, and non-existent within the viewshed. A small portion of BLM land is located in the northeast region of the Project Area, and portions of the canal to be abandoned as well as siphon construction would occur on Reclamation land (Figure 2). The siphon construction area and staging is within the viewshed for traffic along Wolf Park Road; however, this road is not a throughfare and public traffic along this road is limited to FMC maintenance staff, a ranch, and several nearby residences. Construction materials staged at the eastern staging area would temporarily be partially visible from Powel Mesa Road. Traffic along Powell Mesa Road is very limited, as less than 10 residences are accessed by the northern portion of the loop and the road is not a thoroughfare.

*No Action:* Under the No Action Alternative, there would be no change to the existing visual environment in the vicinity of the Project Area. The canal would continue to function as an open, unlined ditch, and its current visual appearance would remain unchanged with no impact to the area's visual resources.

*Proposed Action:* The Project's construction noise would impact the presence of big game in the Wolf Park Area during hunting season but would not cause any long-term impacts on hunting opportunities or experiences on public lands in the Project Area (Allysa Meiers, CPW Wildlife Biologist, pers. comm. December 13, 2024). These impacts would not be significant, because the impacts on game species would be short-term and temporary, making the impact to hunting opportunities or experiences short term and temporary (Section 3.2.9). CPW recommended timing construction to protect big game and these recommendations have been incorporated into the project (Table 5).

The Project would cause minor temporary visual impacts to occur due to the presence of construction equipment, materials, and staging areas, which may be partially visible to the public from Powell Mesa Road, Wolf Park Road, and surrounding lands. However, these impacts would be short-term and limited to the construction period, and therefore would not rise to the level of significant. Although the Project primarily takes place on private or Reclamation lands, visual impacts from nearby public lands are possible at the site of the Wolf Park Area siphon. Loss of vegetation along the trenched area, where the siphon would be placed, would create a long-term scar

as revegetation in the pinyon-juniper and sage brush habitat would take many decades. These long-term impacts are similar to vegetation clearing beneath power lines that are present throughout the surrounding areas, and are confined and limited to the extent of the swale (1,000 feet) and less than 100 feet in width. The extent would be limited to 1.45 acres and is very small (0.03%) relative to the extent of undeveloped vegetation in the vicinity (approximately 4,201 acres of undeveloped/naturally vegetated land are within 1 miles of the Wolf Park and Leroux Creek Extension Areas) and would be in view for very few members of the public; therefore, visual impacts associated with the loss of vegetation are minor, though long-term, and do not rise to the level of significance. Backfilling the abandoned open ditches and installation of the siphon would result in a low level of change to visual resources and would not attract a viewer's attention or contrast with existing landforms and the residential, rural, and agricultural nature of the surrounding landscape; therefore, this low level of change to visual resources does not rise to the level of significant.

Changes to visual quality at the Habitat Replacement Site include temporary impacts due to the presence of construction equipment and materials. These impacts would be short-term and limited to the construction period. Current vegetation would change from non-native vegetation to native vegetation, but the plant community architecture would not change substantially because the overstory, mid-story, and understory would be retained with woody and herbaceous species.

Under the Proposed Action, short-term, temporary impacts to recreation and visual resources would occur. These impacts would not be significant because the impact to hunting opportunities or experiences are short term and temporary, and the location of the Project Area is within a rural area that sees little public use and the impacts would be limited to the period of construction. Long-term impacts to the visual resources at the Habitat Replacement Site would not be significant because the vegetation architecture would not change substantially, rather the non-native vegetation would be replaced with native vegetation.

### **3.2.7 – Vegetative Resources**

The geographic scope of analysis for upland and riparian vegetation includes the construction alignment at Wolf Park Area siphon and Leroux Creek Extension Area plus an approximate 1-mile buffer. It also includes the Turkey Gulch Habitat Replacement Site. This analysis focuses on the Project Area's vegetative cover, including riparian and upland vegetation along the canal alignment, and the context within which physical disturbance or changes to vegetation would take place because of the Project activities.

The Project Area is located in a transition area between the major ecoregions of the Southern Rockies and the Colorado Plateau along steep, dry, sparsely vegetated slideslopes and shale terraces above the North Fork of the Gunnison River valley (Chapman et al., 2006). The Project Area includes two discontinuous segments of the FMC separated by approximately 4 miles of canal: the Wolf Park Area and Short Draw (an erosional feature/narrow valley) to the east, and the Leroux Creek area to the west. Additionally, the Habitat Replacement Site is located southwest of the Leroux Creek Extension Area within a degraded riparian area along Turkey Draw.

The Leroux Creek Extension begins along an open channel and connects to an existing piped section of irrigation water. The canal transects a south-facing dry alluvial hillside above several irrigated hay fields and rural residential areas. Open juniper (*Juniperus osteosperma*) and scrub-shrub habitat dominated by sagebrush species (*Artemisia tridentata*), greasewood (*Sarcobatus nées*), and rubber



rabbitbrush (*Ericameria nauseaosa*) grows on the dry, south facing alluvial hillsides above and below the irrigated fields. Below this terrace, Leroux Creek supports a robust riparian area with cottonwood (*Populus* spp.), willow (*Salix* spp.), and sedge (*Carex* spp.) species growing in the drainage. In the Wolf Park Area, the proposed siphon and abandoned section are located along a drainage with pinyon-juniper, sage-steppe, and riparian habitat along and downgradient of the canal, supporting a cottonwood canopy in some areas. The 8,659 LF horseshoe bend in the canal is bisected by a ranch access road running north to south. No farmland borders the proposed Wolf Park Area, but a rural residential area is located about 1/3 mile to the south and irrigated ranch land is located about 700 feet northwest.

Water in the canal supports a narrow fringe of rushes, sedges, grasses, and weeds, including non-native and noxious species. Cottonwood trees and willows are present in patches/intermittently. Some areas are too steep, dry, or rocky to support vegetation. Native trees and shrubs growing in the riparian areas include mature and sapling cottonwood trees, willow species, Wood's rose (*Rosa woodsii*), and three-leaved sumac (*Rhus trilobata*), Russian olive (*Elaeagnus angustifolia*), Canada thistle (*Cirsium arvense*), and Russian knapweed (*Rhaponticum repens*) are common noxious species in the area.

The Habitat Replacement Site is a degraded riparian complex with mid-story dominated by Russian olive, and understory consisting of a mix of weeds and grasses dominated by alkali muhly (*Muhlenbergia asperifolia*) and reed canarygrass (*Phalaris arundinacea*), intermixed with common chicory (*Cichorium intybus*), showy milkweed (*Asclepias speciosa*) and weedy species such as Canada thistle and burdock (*Arctium minus*).

*No Action:* Under the No Action alternative, vegetative resources would remain in their current state, with no impacts from construction or soil disruption. Noxious weed populations would likely continue to persist and spread.

*Proposed Action:* Project construction activities, including excavation, pipeline and siphon installation, staging, and backfilling abandoned sections of the canal, would temporarily disturb an estimated 16.0 acres, of which 11.2 acres have been previously disturbed, along the canal prism and adjacent to the maintenance road; an estimated 4.8 acres of new disturbance would result from construction. Of the total, temporary use areas for staging would disturb a total of 3.3 acres, of which 2.2 acres have been previously disturbed, resulting in 1.1 acres of new disturbance from temporary staging areas. A new access route to the Leroux Creek Area would be utilized on 0.17 acre of existing private road. No grading would be necessary on this section of existing road.

Impacts to upland vegetation would occur along the Siphon Staging Area and siphon alignment. Other areas used for the project are already disturbed and generally lack vegetation, including the pipeline installation area and staging areas. Sagebrush and pinyon-juniper vegetation in this area would likely return post-construction over several decades.

A habitat loss assessment was performed for the Project to quantify the fish and wildlife values that would be lost due to the conversion of these areas to uplands or farmlands by the Project (Sundance Consultants LLC, 2024a). The evaluation followed the methodology outlined in *Basinwide Salinity Control Program: Procedures for Habitat Replacement* (Reclamation 2018a). In accordance with the protocol, the habitat value is calculated for each affected wetland or riparian habitat area by multiplying its acreage by its habitat quality score, which is assigned based on evaluation of a series of ten physical and biological criteria. These criteria include vegetative diversity, vegetative

stratification, presence of noxious weeds, overall vegetative condition, interspersions of open water with vegetation, connectivity and proximity of other wildlife habitat areas, wildlife use, uniqueness or abundance, water supply, and degree of human-caused alteration. The Project would result in the permanent loss of approximately 4.52 acres of riparian and wetland vegetation associated with the unlined ditches, which when combined with the scores from the 10 habitat quality criteria described above, is the equivalent of 24.0 habitat value units (Sundance Consultants, LLC, 2024a). As stipulated by the Salinity Control Act, a Habitat Replacement Plan has been developed (Sundance Consultants, LLC, 2025a) which would generate 22.0 habitat value units and is included as a component of the Project. As part of the Project, a Habitat Replacement Plan would be implemented to improve a degraded riparian area along the Fleming Ditch and Turkey Draw. This Habitat Replacement Site consists of dense patches of Russian olive infestation, as well as open, wet meadows and mesic patches. Approximately 200 Russian olive trees and shrubs would be removed and treated, and the area replanted with native shrubs and trees, including Fremont's cottonwood (*Populus fremontii*), New Mexico privet (*Forestiera pubescens*), three-leafed sumac (*Rhus trilobata*), rose (*Rosa woodsii*), buffaloberry (*Shepherdia canadensis*), and chokecherry (*Prunus virginiana*). Naturally, open areas would be planted along the fringes to establish structure. In total, 200 cottonwood trees would be planted and 480 shrub species in areas around the open meadow/open patches, and in areas where Russian olive are removed along the draw. In addition, 4.6 excess habitat value units from the Phase I Project would be applied to this Project (Reclamation, 2018b; Wildlife and Natural Resource Concepts and Solutions, LLC, 2018). Because the value of the habitat protected from degradation (26.6) is greater than the value of the habitat lost (24.0), there would be no net loss of fish and wildlife values (in this case, riparian and wetland vegetation) associated with implementation of the Project. Because there would be no net loss of riparian and wetland values associated with implementation of the Project, the effects of the loss of riparian and wetland vegetation would be insignificant from a habitat perspective.

Dust from operating equipment and vehicles would temporarily affect nearby vegetation; however, increased dust would be minor and temporary, and therefore the impact to nearby vegetation would be minor and temporary. Following construction, disturbed areas would be revegetated with native plant species to support ecosystem recovery and reduce the potential for weed invasion. Given the extensive amount of undisturbed lands surrounding the Project (1,507 acres, based on a 500-meter [m] buffer around the Project, about 3/4 of which is undisturbed), temporary loss of 4.8 acres of native vegetation represents 0.3 % of undisturbed lands in the vicinity and would be a short-term, minor and insignificant impact to native vegetation. A majority of the Project activities would take place in previously disturbed areas along the canal prism and adjacent maintenance roads limiting the amount of disturbance to vegetation. Minor impacts to upland native vegetation located within the construction corridor and associated staging areas would occur (20% of the area). Construction would follow BMPs, including limiting the construction footprint to the minimum required preventing unnecessary impacts to vegetation, and revegetation/restoration of disturbed areas post-construction.

No significant impacts to vegetation would occur as a result of the Project, because the construction footprint would be revegetated, and riparian and wetland values related to the ditches involved with the Project would be maintained with the implementation of the Habitat Replacement Site.

### 3.2.8 – Noxious Weeds

The geographic scope of analysis for noxious weeds is the Project Area plus a 1-mile buffer, the context within which Project activities have the potential to affect this resource. Nine State of Colorado (CDA, 2024) and Delta County-listed (Delta County, 2020) noxious weeds were observed during site visits within the Project Area (Sundance Consultants, 2024, 2025a and 2025b). The most conspicuous noxious weeds present within the Project Area are Russian olive (*Elaeagnus angustifolia*), Canada thistle (*Cirsium arvense*), Russian knapweed (*Acroptilon repens*), field bindweed (*Convolvulus arvensis*), cheatgrass (*Bromus tectorum*), and white top (*Cardaria draba*) (Colorado Department of Agriculture [CDA], 2024). These species are common along the edges of the canal and maintenance road due to disturbances from routine maintenance. Russian olive, Canada thistle, common chicory (*Cichorium intybus*) and common burdock (*Arctium minus*) are present at the habitat site.

The Colorado Noxious Weed Act designates undesirable plants that are considered a threat to Colorado's natural resources. FMC is responsible for complying with the Colorado Noxious Weed Act in the Project Area. Impacts from weed infestations include the loss of forage for wildlife and livestock, decreased availability of habitat for wildlife, and a loss of biodiversity relative to undisturbed areas. Flowing water in the irrigation ditches along with the movement of vehicles, wildlife, and livestock along the ditch corridors serve as vectors for the spread of noxious weeds in the area.

The Applicant manages noxious weeds on the ditch prisms by spot-spraying or mowing seasonally, or by mechanical removal with heavy equipment, as resources permit. Common weeds in the Habitat Replacement Site are Russian olive and salt cedar (*Tamarisk spp.*), as well as Canada thistle and common burdock (*Arctium minus*).

*No Action:* There would be no effect on noxious weeds from the No Action Alternative and noxious weeds would continue to spread in the Project Area. Flowing water in the irrigation ditches along with the movement of vehicles, wildlife, and livestock along the ditch corridors would continue to serve as vectors for the spread of noxious weeds in the area. Routine maintenance would continue to create opportunities for noxious weed establishment by disturbing soil surfaces.

*Proposed Action:* The Project would result in both beneficial and adverse impacts regarding the presence of noxious weeds in the Project Area. The Project would abandon 1.83 miles of the existing canal resulting in a reduction of open water flow, a key element of invasive seed transport. Finishing the ground surface with subsurface soil would help eliminate the weed seed bank in the construction area. Certain segments of the ditch within the Project Area would no longer require regular maintenance, lowering the potential for the continued spread and establishment of weeds. Herbaceous and woody noxious weeds that are currently supported by ditch seepage would no longer be supported where the canal would be abandoned and backfilled or piped. The Habitat Replacement Site weed infestations would be treated as part of the Habitat Replacement Plan with goals for maintaining total weed cover below 15 % (Sundance Consultants, LLC, 2025a).

Despite the beneficial effects that would reduce noxious weed presence in some areas, noxious weeds would continue to be present throughout the Project Area. Further, soil disturbances and vehicle use associated with the Proposed Action would have adverse impacts on noxious weed presence by increasing the potential for noxious weed spread and establishment. However, even assuming a total lack of weed control post-construction, the Project impacts on noxious weed presence would be minor and not significant.

The Project would generate a maximum of 4.8 acres of new ground disturbance. Weed cover is approximately 20% of disturbed areas in the Project Area. If noxious weeds colonize 20% of the new disturbed land, the Project would create 0.96 acre of additional weed cover within the evaluation area (within 1 mile radius of the Project, which totals 8,468 acres). Based on aerial imagery, about 2/3 of the evaluation area is undisturbed land, and the remaining 1/3 is developed agricultural land, formal and informal roads and road corridors, or residences (3,120 acres). Assuming that about 1/4 of 3,120 acres is disturbed, and weeds cover accounts for 20% of cover on disturbed land, there are about 156 acres of noxious weeds in the evaluation area (this represents a 2% noxious weed cover across the 8,468-acre evaluation area). Under these assumptions, the Project would result in an increase of 0.6% in noxious weed cover, which is considered a minor impact and does not rise to the level of significant. The Project would have no significant impacts on noxious weed presence.

The analysis for weeds is conservative in that it assumes a total lack of weed control post-construction. To further minimize the spread of noxious weeds and protect native vegetation, the Project would implement BMPs, including pre-construction weed treatments, washing equipment before entering the Project Area, and applying certified weed-free straw for soil stabilization.

After construction and reclamation of the Project Area, noxious weed presence would be monitored subject to agreements between the Applicant and individual landowners, and regulated by Delta County in accordance with county standards (Delta County, 2020).

The Proposed Action would result in both beneficial and adverse effects regarding the presence of noxious weeds in the Project Area. Through the implementation of BMPs and ongoing noxious weed management within the Project Area, the Proposed Action's impacts on noxious weed presence would be negligible and not significant.

### **3.2.9 – Wildlife Resources**

The geographic scope of analysis for wildlife is the Project Area plus an approximately 1-mile buffer, the approximate context within which the Project has the potential to affect this resource. Wildlife impacts are analyzed within habitats surrounding the Project Area, including riparian zones and terrestrial habitats.

A wide variety of mammals, birds, amphibians, and reptiles are likely to inhabit the general area near the Project site. The most common wildlife likely to be found in or adjacent to the Project Area include coyotes, bobcats, badgers, skunks, gray fox, red fox, raccoons, white-tailed jackrabbit, mule deer, elk, American black bear, mountain lions, wild turkey, and several species of rodents and bats. Terrestrial garter snake, bullsnake, and smooth green snake have the potential to be found in the area around the Project Area.

Note: A variety of Special Status species, including migratory birds and raptors also inhabit the Project Area and are discussed in Section 3.2.10.

The Project Area is within several important winter areas for game species. Severe Winter Range is defined as part of the overall range where 90% of the individuals are located when the annual snowpack is at its maximum and temperatures are at a minimum in the two worst winters out of ten. Winter Concentration Areas are mapped where animal densities are at least 200 % greater than the surrounding winter range from the first heavy snowfall through spring green-up (CPW, 2024).

The entire Project Area (including the Habitat Replacement Site) intersects with Mule Deer and Elk Severe Winter Range, and a Mule Deer Winter Concentration Area. The Wolf Park Area is also an Elk Winter Concentration (CPW, 2024). The Wolf Park Area and Leroux Creek Extension Area overlap with Wild Turkey Winter Range (CPW, 2023) and a Wild Turkey Winter Concentration Area is mapped near the piping project at the Leroux Creek Extension Area, overlapping with access to the Project.

Deer and occasionally elk migrate through this area for foraging in winter. In the Leroux Creek Extension Area, wildlife fences are frequent barriers to natural movement. The canal provides a drinking water source for wildlife during the irrigation season, though alternative water sources are nearby, including Leroux Creek, water flowing through Short Draw, and several laterals not related to the canal.

Wildlife in the Project Area experience a baseline level of disturbance due to disturbed soils within the canal corridor, and noise associated with operational traffic along the ditch road and heavy equipment use for annual ditch cleaning, ranching and farming activities, as well as light traffic on public and private roads.

*No Action:* Under the No Action alternative, there would be no effect on wildlife resources. Wildlife would continue to use the habitat and water resources in the area as in the past. Salt and selenium loading from the area would continue to affect aquatic dependent species.

*Proposed Action:* Temporary Project construction activities such as trenching, heavy machinery operation, and vegetation clearing would disrupt wildlife in the immediate area, including mule deer, elk, migratory birds and raptors, wild turkey, small mammals, reptiles, and amphibians. Increased human activity, noise, and equipment use would cause temporary disturbances to wildlife species, potentially displacing them to adjacent habitats. Some loss of vegetation used for foraging, bedding, or cover may be removed. However, there is abundant wildlife habitat in the surrounding area, and therefore, the impact on common wildlife species would be minimal and temporary, and not significant.

Project timing would avoid nesting birds and occur when most wildlife have migrated out of the area, or are hibernating and least active. During construction, direct impacts to hibernating amphibians in the mud and banks along the canal would occur but effects would be localized and minor, population-level effects would not occur. Therefore, these effects would not rise to the level of significant.

Wildlife habitat values associated with the riparian/wetland vegetation adjacent to the canal or sourced by the canal that would be lost due to the Project would be maintained at the nearby Habitat Replacement Site created by the FMC, along Turkey Draw. Vegetation improvements would be made at the site, including replacement of Russian olive with native mid- and over-story, to enhance conditions for wildlife.

Indirect effects to wildlife occupying sagebrush and dry adobe slopes in the vicinity of the Project would be temporary and minimized by Project timing (winter) when many species have migrated out of the area or are hibernating. Direct effects to natural terrestrial habitat would be limited to 4.8 acres, representing less than 0.1 % of available undisturbed uplands in the vicinity of the Project (approximately 5,348 acres) and therefore not significant. Disturbed uplands would be restored post-

construction to allow habitat recovery. BMPs, including timing restrictions to avoid critical wildlife breeding seasons for sensitive species and measures to confine and contain construction-related disturbances, would further reduce impacts and disturbances, and would facilitate the safe movement of wildlife around the Project Area (CPW, 2023).

Effects to wildlife due to loss of open spring, summer, and fall water in the canal along the Leroux Creek Extension Area and the Wolf Park Area would be minor or less than minor and not significant, because wildlife would adjust to finding other sources of water nearby (within 1,000 feet). Either the remaining open canal, or a nearby natural water source in Leroux Creek or along Short Draw is available within 1,000 feet or less of any portion of the canal to be piped or abandoned due to the Project. The canal is filled seasonally, and no water is available in the canal after the irrigation season is over (during the winter); therefore, wildlife wintering in the area would not be affected by the loss of open water where the canal would be piped or abandoned.

Access across the Wild Turkey Winter Concentration area near Leroux Creek is on existing roads, where a baseline level of disturbance exists and any temporary additional disturbance to wild turkeys associated with additional traffic on the access route would be minor or negligible, and therefore not significant. Trips along the access road would generally be limited to between two and eight trips/day during the course of construction.

Construction at the Habitat Replacement Site would occur during the summer, avoiding winter disturbance to elk and mule deer, and would not be significant.

Mule deer and elk foraging and bedding along the Project Area would be temporarily displaced during winter construction; these temporary impacts would not be significant. Impacts to Severe Winter Range for elk and mule deer would be minor and not significant. The Project is at the southern boundary of the mapped elk and mule deer Severe Winter Range and Elk Winter Concentration Area, where impacts would be minimized relative to other locations, as a baseline level of disturbance is already present due to nearby roads and residences (pers. comm., Alyssa Meier, biologist with CPW, December 13, 2024). In addition, impacts to big game from construction disturbance would be temporary, as the Project would last one winter season. To minimize impacts, as much as possible/practical, heavy equipment would be operated between the hours of 10 am and 4 pm as recommended by CPW (pers. comm., Alyssa Meier, biologist with CPW, December 13, 2024) (Table 5).

No significant 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 nesting birds during sensitive periods, disturbed upland habitats would be revegetated, winter wildlife watering resources would not be impacted and alternative water sources are available nearby the Project Area, and wetland and riparian habitat values would be maintained with the implementation of a Habitat Replacement Site. Effects to wintering elk and mule deer would be minor and not significant relative to existing baseline disturbance, and the ample amount of nearby range. Loss of water from the open canal would not result in a significant impact to wildlife, because the canal currently does not provide a winter water source, and loss of the open canal would not affect wintering wildlife in the area.

### **3.2.10 – Special Status Species; Migratory Birds; Threatened and Endangered Species and Their Critical Habitats**

#### **Migratory Birds and Raptors**

Migratory birds protected under the MBTA find nesting and/or migratory habitat in the Project Area. Under the MBTA, it is illegal to take, possess, import, export, transport, sell, purchase, or barter any migratory bird, bird parts, nests, or eggs of such birds except by permit. According to a list generated using the USFWS' Environmental Conservation Online System Information for Planning and Consultation (IPaC) for the Project Area (USFWS, 2024a), migratory songbirds of conservation concern protected under MBTA that could potentially find habitat in the Project Area are listed in Appendix B. Destruction of vegetation that harbors active bird nests during nesting season can result in direct loss (i.e., “take”) of eggs or young, or cause adult birds to abandon eggs. The primary nesting season for migratory birds and raptors in the Project Area is April 1 through July 15. However, some raptor individuals, particularly red-tailed hawks and great-horned owls, may begin courtship and nest construction as early as February 15 (CPW, 2020). Vegetation removal would occur in the fall, outside of this earlier nesting period. Common migratory raptors with a high potential to occur in the Project Area include red-tailed hawk (nesting, foraging, wintering, migrating), great-horned owl (nesting, foraging, wintering, migrating), long-eared owl (nesting, migrating), and American kestrel (year-round). Bald eagles and other raptors are common hunters during winter on the local mesas around the Project Area, especially on open and agricultural ground where prairie dogs and other burrowing rodents provide prey. Less common but potentially present migratory raptors, including burrowing owl (breeding), ferruginous hawk (wintering), prairie falcon (year-round), and Swainson’s hawk (breeding), are protected by the MBTA. Habitat in the surrounding valley area is extensive, providing ample opportunities for raptor foraging and nesting.

The Project Area was surveyed for raptor nests in June 2024 and no raptor nests were identified within line of sight, up to 1/2 mile (recommended buffer distances, CPW 2020), from the Project Area (Sundance Consultants, LLC, 2025b).

An active Bald Eagle nest site is within 1.5 miles of the Leroux Creek Extension Area, and multiple Bald Eagle roosts are located along the North Fork River, just over 1 mile from the eastern staging area. In addition, active golden eagle nests are mapped between 1 and 2 miles from the Project Area (CPW, 2024) and outside the recommended buffer distances for golden eagles (CPW 2020).

Migratory birds and raptors experience a baseline level of disturbance within the Project Area, including the Habitat Replacement Site, from ranching and farming activities, routine maintenance along the canal, and light traffic on public and private roads in the area.

*No Action:* Under the No Action Alternative, migratory bird and raptor habitats would remain in their current condition and no disturbance from construction activities would occur. No temporary displacement of migratory birds or raptors would occur. Salinity and selenium loading in the Colorado River Basin would continue at current rates, which would continue to affect water quality within the drainage, potentially affecting the wildlife using the area.

*Proposed Action:* Under the Proposed Action, Project construction activities, particularly from noise and habitat clearing, would inflict temporary disturbances on wintering and migrating songbirds and raptors. Migratory songbirds or raptors wintering or foraging in the Project Area would be displaced temporarily by the disturbance; however, habitat in the surrounding area is extensive, providing

ample alternative habitat to any displaced species, and therefore this impact would not rise to the level of significant. There would be no direct effect on nesting songbirds or raptors because vegetation removal would take place outside of the active nesting season (April 1 – July 15). Other construction activities would take place in the late fall, winter, and early spring, minimizing noise and human activity during critical breeding and migration periods. Adverse effects to migratory songbirds and raptors in the Project Area would be short-term and temporary and would not impact the population viability of any species of migratory songbird or raptor; therefore, the effects to migratory songbirds and raptors under the Proposed Action would not be significant.

Effects to active raptor nests or roosts (including bald eagle and golden eagle) would be avoided, as construction would occur outside the maximum buffer distances established by CPW (CPW, 2020) or would be timed to occur outside the nesting season. According to mapped data (CPW, 2024), the distance to any known bald eagle or golden eagle active nesting or roosting site is greater than ½ mile.

Construction activities would cease and authorities with the USFWS and Reclamation would be notified immediately upon the unanticipated discovery of a new active raptor nest within 1/2 mile of the Project Area, or a new bald eagle roost site or nest site within 1/2 mile. Potential appropriate action may include ceasing construction near the sensitive area until the nest fledges and/or establishing a buffer between the nest and construction activities, or (in coordination with USFWS biologists) relocating the nest. The Project would result in some loss of potential raptor nesting habitat (tall trees); however, the number of tall trees lost would be very small in relation to ample raptor nesting habitat in the areas surrounding the Project Area. When considering the relatively minor loss of nesting habitat, together with the increase in new habitat at the Habitat Replacement Site, loss of tall trees for nesting would not rise to the level of significant. The presence of nesting habitat for migratory birds and raptors would be maintained by the habitat replacement project in compliance with the Colorado River Basin Salinity Control Act.

No significant impacts to migratory birds and raptors 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 nesting birds during sensitive periods, and riparian/wetland nesting habitat would be maintained with the implementation of a Habitat Replacement Site.

### **Threatened and Endangered Species and Their Critical Habitats**

The ESA of 1973 protects federally listed endangered, threatened, and candidate plant and animal species and their critical habitats. This section evaluates potential impacts on species listed or proposed to be listed, as well as their designated or proposed critical habitat, as a result of implementation of the Proposed Action.

Table 6 lists the eleven federally threatened, endangered, proposed, or candidate (TEPC) species that have the potential to occur in the Project Area or be affected by actions in the Project Area, along with habitat descriptions (USFWS, 2024a).

A field verification survey for species protected under the ESA was conducted on June 25, 2024 (Sundance Consultants, LLC, 2025c). Based on existing habitat within the Project Area and known habitat preferences for listed species, potential habitat for three insect species, the silverspot



butterfly (*Speyeria nokomis nokomis*), monarch butterfly (*Danaus plexippus*) and Suckley's cuckoo bumble bee (*Bombus suckleyi*), and one plant species, the Colorado hookless cactus (*Sclerocactus glaucus*) have potential to occur in the Project Area. The northern bog violet (*Viola nephrophylla*), the host plant for the silverspot butterfly, was not located in or near the Project Area during the survey. The silverspot butterfly was not observed during surveys. Isolated occurrence of showy milkweed (around 10 individual plants or less), a host plant for the monarch butterfly, was identified in the Project Area during surveys. No monarch butterfly species were observed. The Project Area is outside migrating corridors for the monarch butterfly (USFS, 2024). Habitat for the Suckley's cuckoo bumble bee includes grassy areas with access to pollinators; potential habitat may occur on irrigated pasture near the Project Area along the Leroux Creek pipeline. The Suckley's cuckoo bumble bee was last sighted in 2016 in Oregon and there are no recorded sightings in Delta County (Liebich, 2024). Surveys for federally protected plant species did not locate any individuals or populations in the Project Area. The Project Area is not suitable nesting habitat for the yellow-billed cuckoo (*Coccyzus americanus*), although foraging is possible. Designated critical habitat for the yellow-billed cuckoo is located along Roatcap Creek near Coal Road and along the Gunnison River, between 1.5 miles and 2.5 miles south of the Project Area (USFWS, 2024b). Critical habitat for the Mexican spotted owl (*Strix occidentalis lucida*) is located in Utah, distant from the Project footprint and foraging in the Project Area is very unlikely, due to distance from nesting habitat (USFWS, 2024b). No potential habitat for the five other listed species occurs within the Project Area, including four federally listed Colorado river fish and the gray wolf (*Canis lupus*) (Table 5).

The upper Colorado River Basin has three fish species listed as endangered: bonytail chub (*Gila elegans*), Colorado pikeminnow (*Ptychocheilus lucius*), and razorback sucker (*Xyrauchen texanus*), and one listed as threatened: humpback chub (*Gila cypha*). Decline of these fish species is due in part to habitat destruction (diversion and impoundment of rivers) and competition and predation from introduced fish species. In 1994, the USFWS designated critical habitat for the four federally listed fish species in the Federal Register (56 FR 54957-54967), which in Colorado includes the 100-year floodplain of the upper Colorado River from Rifle to Lake Powell, and the Gunnison River from the city of Delta to the city of Grand Junction. None of the four listed endemic Colorado River fish occur in the Project Area and the Project Area does not occur within or adjacent to designated critical habitat. However, water depletions in the Gunnison River Basin have the potential to diminish backwater spawning areas in downstream designated critical habitat in the Colorado River Basin, directly impacting the four listed fishes and the extent and quality of their designated critical habitat.

Previously issued biological opinions by the USFWS state that all depletions within the upper Colorado River Basin may adversely impact the four fishes. The Upper Colorado River Endangered Fish Recovery Program (Recovery Program) was established in 1988 as a partnership of public and private organizations working to recover the four species while allowing continued 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 2011, the Service determined that the Recovery Program has made "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" (USFWS, 2011). Furthermore, the Gunnison River Basin Programmatic Biological Opinion (PBO) issued by USFWS in 2009, found that the Recovery Program is the reasonable and prudent alternative to avoid jeopardy to the listed Colorado River fishes and avoid adverse modification of designated critical habitat (USFWS, 2009). The FMC has a historic depletion of

approximately 17,826 acre-feet per year. A total of 5,420 acre-feet of these annual depletions are associated with the federal Paonia Project and are covered under the 2009 PBO. The remaining 12,406 acre-feet are associated with diversions from the North Fork of the Gunnison River and Leroux Creek. FMC and the USFWS have previously completed consultation (TAILS ES/GJ-6-CO-09-F-001-GP034) and a Recovery Agreement with the USFWS was executed on January 25, 2018 (Appendix B), acknowledging FMCs historic depletions associated with diversions from the North Fork of the Gunnison River and Leroux Creek are governed by the provisions of the 2009 PBO for the Gunnison Basin (USFWS, 2009).

Table 6. Federally Listed Species with Potential to Occur in the Project Area.

Common Name (Scientific Name)	Status	Habitat Description	Potential to Occur in Project Area
Yellow-billed Cuckoo ( <i>Coccyzus americanus</i> )	Threatened	Deciduous riparian woodlands, with dense cottonwood and willow, and sometimes tamarisk/Russian olive.	Yes. No suitability for nesting; the Project Area lacks suitable dense cottonwood with a riparian understory and is outside of the designated critical habitat, but potential foraging habitat is along riparian areas within the Project vicinity (USFWS, 2024b). The species migrates to the area for breeding season between May 1 and August 31.
Mexican Spotted Owl ( <i>Strix occidentalis lucida</i> )	Threatened	Forested mountains and rocky-canyon environments. In canyonlands, nesting habitat is typically in caves or on cliff ledges in steep-walled canyons. In forested sites, nests are typically in Douglas-fir trees.	No, the Project Area lacks rocky canyonlands or mature coniferous forest habitat for nesting and roosting and is outside of the designated critical habitat (USFWS, 2024b). Potential for foraging in the Project Area is very low due to distance from nesting habitat.
Bonytail chub ( <i>Gila elegans</i> )	Endangered	Slow-moving, deep river sections with backwater habitats.	No, but water effects should be considered on downstream critical habitat.
Humpback chub ( <i>Gila cypha</i> )	Threatened	Deep canyon sections of large rivers with fast currents.	No, but water effects should be considered on downstream critical habitat.
Colorado pikeminnow ( <i>Ptychocheilus lucius</i> )	Endangered	Large rivers with slow-moving backwaters and pools.	No, but water effects should be considered on downstream critical habitat.
Razorback sucker ( <i>Xyrauchen texanus</i> )	Endangered	Large rivers and backwaters with slow-flowing, warm waters.	No, but water effects should be considered on downstream critical habitat.

Common Name (Scientific Name)	Status	Habitat Description	Potential to Occur in Project Area
Monarch butterfly ( <i>Danaus plexippus</i> )	Candidate	Open fields and meadows with milkweed for breeding and feeding.	Yes, limited habitat suitability; disturbance to milkweed plants is negligible or immeasurable (less than 10 plants).
Silverspot butterfly ( <i>Speyeria nokomis</i> )	Threatened	Grasslands and meadows with host plants (violets) for larvae.	Yes, low suitability; Project footprint is distant from preferred meadow habitats, and surveys for the butterfly and the bog violet conducted in June 2024 were negative for both species (Sundance Consultants, LLC, 2025b).
Suckley's cuckoo bumble bee ( <i>Bombus suckleyi</i> )	Proposed listed	Prairies, grasslands, meadows, woodlands and agricultural and urban areas (Liebich, 2025).	No, no suitable habitat in the Project Area.
Gray wolf ( <i>Canis lupus</i> )	Experimental Population	Various habitats with adequate prey availability.	No, low suitability due to the absence of significant prey populations or habitat overlap in the Project Area.
Colorado hookless cactus ( <i>Sclerocactus glaucus</i> )	Threatened	Dry, rocky soils on river slopes and desert shrublands.	No, suitable soils were found and plant surveys did not locate the species.

Source: USFWS-IPaC 2024; NatureServe 2024

A maximum of 0.04 AF in depletions from water in the Fleming Ditch would occur due to Habitat Replacement and vegetation watering.

*No Action:* Under the No Action Alternative, the current conditions would remain, and no construction activities would take place in the Project Area. This means there would be no direct or indirect disturbances to listed species' habitats, nor would the Project contribute to the improvement of water quality that might benefit aquatic species, including all four federally listed fish.

*Proposed Action:* The Project Area does not contain suitable nesting habitat for the Mexican spotted owl and is outside of the designated critical habitat (USFWS, 2024a; USFWS, 2024b). Woody vegetation within the action area consists of pinyon-juniper and cottonwood species that do not meet the habitat requirements for nesting Mexican spotted owls. In addition, all construction activities would occur outside of the migratory and breeding seasons (from the period of March 1 to August 31). There would be no direct impacts to nesting habitat, and very limited likelihood for the Mexican spotted owl to forage in the Project Area as mapped critical habitat for the owl is distant from the Project Area (USFWS, 2024b). Based on this analysis, the determination for the Mexican spotted owl is No Effect.

The Project Area does not contain suitable nesting habitat for the yellow-billed cuckoo and is outside of the designated critical habitat (USFWS, 2024a; USFWS, 2024b). The vegetation within the action area consists of less dense riparian areas that do not meet the habitat requirements for nesting yellow-billed cuckoos. In addition, all construction activities would occur outside of the migratory and breeding seasons (from the period of May 15 to August 31). Based on this analysis, the determination for the yellow-billed cuckoo is No Effect. There would be no direct impacts to nesting habitat, and any temporary disruption to foraging areas would be minimal and temporary. Vegetation improvements at the Habitat Replacement Site would provide potential habitat for foraging and nesting, which would have a potential beneficial effect on the yellow-billed cuckoo.

The 2009 PBO and FMC's Recovery Agreement provides ESA compliance for FMC's historic depletions under the 2009 PBO for the Gunnison Basin (USFWS, 2009). The FMC's historical depletion rate is part of baseline conditions, and the Project would not create additional depletions that would adversely impact the listed Colorado river fish. In addition, the Recovery Program ensures significant effects to the fishes and their designated critical habitat do not occur due to projects covered under the PBO. Watering requirements for establishing vegetation at the Habitat Replacement Site would result in de minimis new depletions (0.04 AF) (USFWS, 2024c).

Impact to habitat for monarch butterflies may occur as a result of Project construction and loss of showy milkweed plants; however, impacts would be minor as the monarch would be displaced to nearby areas and the extent of milkweed in the Project Area is very small (several isolated occurrences; less than 10 plants). Although the extent of milkweed habitat in the surrounding valley has not been quantified, there are many existing natural water features, including Short Draw, Roatcap Creek, Leroux Creek, and the Gunnison River, as well as laterals, irrigated fields, open canals, and ditches. Based on review of the National Wetland Inventory (NWI) mapper, the estimated extent of potential milkweed habitat in the surrounding valley would likely be approximately 2 to 5 acres (USFWS, 2024d). Impacts would be minor and would not rise to the level of significant. The Project Area is hundreds of miles distant from flyways and congregational areas (USFS, 2024). Therefore, the Project would have no effect on the monarch butterfly population.

There would be no direct or indirect impacts to the silverspot butterfly due to the absence of suitable habitat. Conditions in the Project Area are primarily disturbed and not suitable for the establishment of the host plant (bog violet), which prefers moist soil and cooler, less alkaline environments. Surveys for the butterfly and the bog violet conducted in June 2024 were negative for both species (Sundance Consultants, LLC, 2025b). The Project would have no effect on the silverspot butterfly.

The Proposed Action would not interfere with any established gray wolf corridors or key habitats. The Project does not include a predator management program. Therefore, there would be no effect on the gray wolf due to the Project's location outside its range.

The Project Area is outside the range for Colorado hookless cactus with the exception of the Habitat Replacement Site (USFWS, 2024b). The Project Area was surveyed, and no occurrences were found for Colorado hookless cactus (Sundance Consultants, LLC, 2025b). Therefore, there would be no effect to Colorado hookless cactus.

Overall, the Proposed Action would have No Effect on any listed species or critical habitats, and no new effect to the four listed fish species since the previous consultation.

### **3.2.11 – Cultural Resources**

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

Pinyon Environmental Inc., conducted Class III cultural resource inventories of the Project Area (Tyberg et al., 2024). The geographic area of analysis for these inventories were the ditches and ground disturbance areas involved with the Project, plus a 100-foot buffer (e.g., the Area of Potential Effect). All ditch reaches involved with the Project were inventoried, as well as the Habitat Replacement Site, roads subject to improvement, and staging/borrow areas. The inventories resulted in the documentation of two segments of the FMC (a previously recorded segment above Leroux Creek and the horseshoe shaped segment to be abandoned above Short Draw) that are eligible for listing in the National Register of Historic Places (NRHP).

There is an ongoing trend of piping earthen irrigation ditches in the region, many of which are eligible for listing in the NRHP. This conversion is typically viewed as an adverse effect on eligible and nationally listed cultural properties.

*No Action Alternative:* The No Action Alternative would have no effect on cultural resources. The cultural resources documented as eligible for listing in the NRHP would continue to exist in their current condition on the landscape.

*Proposed Action:* As a result of the Class III cultural resources inventory of the Project Area, and in consultation with the Colorado SHPO, Reclamation has determined that the Project would have an adverse effect on several ditch elements involved with the Project, which are resources eligible for listing in the NRHP. A Memorandum of Agreement (MOA) is in the process of being executed between Reclamation and the Colorado SHPO, with the Applicant participating as an invited party, regarding the management of cultural resources related to the Project. The MOA will outline

stipulations designed to maintain the cultural heritage of irrigation history through public interpretation and/or documentation, and will be included in Appendix C of the Final EA.

Maintaining the cultural heritage of irrigation history would ensure that piping the ditches would not result in the loss of knowledge of early irrigation systems, their design, or reduce the ability to gain knowledge of early irrigation systems into the future.

No significant impacts to cultural resources would occur as a result of the Project, because the cultural heritage of irrigation history would be maintained.

### **3.2.12 – Soils and Farmlands of Agricultural Significance**

The geographic scope of analysis for soils and farmlands of agricultural significance covers the Project Area and surrounding farmlands served by the FMC (Figure 1).

The soils within the Project Area are primarily derived from weathered Mancos Shale, exhibiting characteristics that influence their agricultural suitability. These soils are generally well-drained with high to very high runoff potential and low to very low water storage capacity, presenting challenges for agricultural productivity due to limited water retention and increased surface runoff (Department of Energy, 2011).

Additionally, soils in the Project Area are often slightly to moderately saline, a natural trait of landscapes underlain by Mancos Shale. This salinity can affect plant growth, soil fertility, and sustainable agricultural use. The USDA NRCS classifies these soils based on productivity, slope, and other suitability factors for agricultural use (NRCS, 2024a). Within the Project Area, these soils fall under categories such as prime farmland if irrigated, farmland of unique importance, or not prime farmland. In the Wolf Park Area, approximately 25% of the soils are classified as farmland of unique importance indicating significant agricultural potential when supported by adequate irrigation infrastructure, while the remaining 75% do not meet prime farmland criteria (NRCS, 2024a). In the Leroux Creek Extension Area, there is only one soil type mapped by NRCS and it is considered farmland of unique importance. Land classified as Unique farmland does not have the most desirable characteristics typical of Prime farmland but is still suitable for cultivation and is used for the production of food, feed, fiber, forage, or oilseed crops.

*No Action:* Under the No Action Alternative, current conditions would persist without modifications to the FMC system. Consequently, historical levels of water loss, salinity, and selenium loading into the Gunnison and Colorado river basins would continue, contributing to ongoing salinity issues in both soil and water in downstream agricultural areas. These conditions would affect soil health by reducing fertility, degrading soil structure, and limiting the productivity of farmlands, particularly in areas designated as unique farmland (Department of Energy, 2011).

*Proposed Action:* Project activities such as construction, soil compaction, and canal modification would temporarily impact soil quality, structure, and fertility within the Project Area. Construction activities would disrupt soil structure, impacting porosity and limiting root growth, while heavy equipment would compact soils, particularly in loamy or clayey areas, potentially reducing water infiltration and increasing surface runoff (NRCS, 2024a). New disturbance to soils would be limited to 4.8 acres, less than 0.1 % of total undisturbed soils in the vicinity of the Project (an estimate total of 5,348 acres, within a 1-mile buffer), and therefore, impacts to soil quality, structure and fertility from Project activities would not be significant

Replacing open ditches with buried pipelines would reduce soil erosion along the canal route, leading to decreased sediment transport and reduced soil degradation in irrigated fields and water bodies downstream. This improved management approach would benefit agricultural soils by minimizing erosion impacts and protecting soil resources. BMPs would be implemented during construction to protect soils, including topsoil preservation and post-construction restoration, and disturbed agricultural soils would be returned to production in the following growing season.

The Project would have a beneficial effect on the FMC's ability to manage irrigation water, through improved efficiencies and modernized infrastructure. Improved water efficiency from the installation of pipelines and a siphon would benefit shareholders by providing more water per share, allowing for enhanced soil management and maintenance of soil fertility. The Project would maintain the current configuration of irrigated lands, ensuring that no part of the irrigation season is disrupted during implementation. No adverse impacts to farmlands would occur as a result of the Project; therefore, no significant impacts would occur to farmlands.

The Project would result in no significant impacts to Soils and Farmlands of Agricultural Significance, as no areas would be removed from production. Temporary soil disturbances during construction would occur primarily on previously disturbed lands and would be protected by BMPs. The long-term benefits of reduced salinity and erosion control are anticipated to enhance the productivity and sustainability of prime farmlands in the area. Reduced salinity levels in irrigation water would enhance soil productivity over time.



### 3.3 – Summary of Impacts

Table 7 provides a summary of environmental impacts for each resource evaluated in this EA for both the No Action and Proposed Action alternatives. As described within Chapter 3 of this EA, environmental impacts of the Proposed Action Alternative were not determined to be significant.

Table 7. Summary of Impacts for the No Action and Proposed Action Alternatives.

Resource	Impacts: No Action Alternative	Impacts: Proposed Action Alternative
<b>Water Rights and Use</b>	No Effect; the water system would continue to function as it has in the past.	The improved system would provide efficiencies in water delivery, eliminate water seepage, and enable full shares to be delivered to the farm turnouts, benefiting shareholders on the system. Piping or abandoning the canal in areas of steep topography would help protect against the risk of failure from geological hazards.
<b>Water Quality</b>	The high salt levels contributed to the Colorado River Basin from this system would continue at a rate of 756 tons of salt per year (Applegate Group Inc., 2023), along with current levels of selenium loading.	The Proposed Action would provide an estimated reduction of 756 tons of salt per year and an unquantified amount of selenium. Further, it would provide improved water quality downstream, with benefits to aquatic species through reduced salt and selenium loading in the Gunnison and Colorado rivers. The Project would affect waters under the jurisdiction of CWA Section 404 (the ditches themselves) and disturb irrigation-induced wetland and riparian vegetation associated with the ditches. There would be no significant short- or long-term adverse impacts to water quality. The Project would result in overall beneficial, long-term impacts to water quality in the Lower Gunnison and Colorado River basins.
<b>Air Quality</b>	No Effect; continued routine maintenance and operation with minimal dust or emissions from vehicles/equipment.	The Proposed Action would cause temporary vehicle and equipment exhaust and dust from construction activities. BMPs such as dust control and minimized idling would reduce air quality impacts to short-term and minor. There would be no long-term and no significant impact.
<b>Access, Transportation and Safety</b>	No Effect; existing conditions for access, public safety, and transportation remain unchanged.	The use of heavy machinery and vehicles for habitat improvements (vegetation removal, planting and watering), pipeline installation, ditch backfilling, shotcrete lining, and other canal improvements would generate emissions of nitrogen oxides (NO <sub>x</sub> ), CO, and PM. Additionally, fugitive dust would be generated from soil disturbance activities such as excavation, grading, and movement of construction materials. There would be no long-term significant impacts to air quality from the Project, as air quality would return to its baseline level and Delta County would remain in attainment for all criteria pollutants.

Resource	Impacts: No Action Alternative	Impacts: Proposed Action Alternative
<b>Noise</b>	No Effect; continued maintenance activities with negligible noise impacts.	The Project would cause temporary noise sources associated with construction activities, including the operation of heavy machinery, such as trackhoes, bulldozers, loaders, and concrete mixers. These activities would produce intermittent, short-term noise levels that may be audible in nearby areas. No significant short-term or long-term noise impacts are anticipated to occur because noise associated with construction of the Project would be short-term and would not raise the noise level of the area above the moderate noise baseline.
<b>Public Recreation</b>	No Effect; continued access to dispersed recreation without Project-related disruptions.	The Project would cause temporary interruptions to recreational quality due to construction noise, traffic, and equipment presence. No long-term and no significant impacts on recreational activities, as disruptions cease post-construction.
<b>Visual Resources</b>	No Effect; visual landscape remains with open earthen ditches and agricultural/rural character intact.	The Project would cause minor temporary visual disruption due to construction. Changes to visual resources are consistent with the character of the surrounding landforms and the rural and agricultural character in the vicinity of the Project. The Project would cause long-term benefit through stabilization of canal banks and minimized erosion. Thus, there would be no significant impacts.
<b>Vegetative Resources</b>	No Effect; vegetation resources would remain in their current state.	The Project would cause temporary new disturbance of 4.8 acres resulting in a temporary impact of an estimated 4.8 acres of upland native vegetation until revegetation efforts post-construction take off. Minor and temporary effects from dust due to construction would occur. Loss and replacement of habitat value associated with 4.52 acres of riparian vegetation would occur. There would be no significant impacts.
<b>Noxious Weeds</b>	Existing invasive species remain unaddressed with potential spread in disturbed areas.	The Project would cause long term reduction in weed spread due to reduction in soil disturbance associated with annual maintenance of earthen ditch, reduction in open water flow and weed seed transport, and drying of seeps that currently support noxious weeds. Control measures for invasive species would be implemented, including use of sterile topsoil, use of certified weed-free materials and monitoring for successful native regrowth. Assuming weed control measures are not effective (as a worst case), the Project would result in an increase of 0.6% in weed cover across the 8,468-acre evaluation area from construction due to soil disturbance and vehicle use. Reduction in cover of noxious weeds at Habitat Replacement site. There would be no significant impacts.

Resource	Impacts: No Action Alternative	Impacts: Proposed Action Alternative
<b>Wildlife Resources</b>	No Effect; wildlife would continue to use the area as in the past, and salt and selenium loading would continue to affect aquatic dependent species.	Minimal and temporary impacts to wildlife due to construction activities, which would temporarily disrupt and displace common wildlife, would occur. Adjacent wildlife habitat is abundant in the surrounding valley, and construction would be timed to avoid nesting birds during sensitive periods; therefore, impacts would be minor. Loss of vegetation habitat for foraging, bedding, or cover would occur, and loss of wetland and riparian vegetation would impact wildlife, with value to wildlife fully maintained with the implementation of the Habitat Replacement Plan. Impacts to mule deer or elk at the Habitat Replacement Site, a winter concentration area, would be avoided by construction timing. Impacts to mule deer and elk wintering in the Wolf Park Area (mapped as CPW High Priority Habitat, Severe Winter Range and Winter Concentration Area for elk and mule deer), or the Leroux Creek Extension Area (mapped Severe Winter Range for elk and mule deer, and a mule deer Winter Concentration Area), would be minor and localized because the disturbance is on the edge of these CPW High Priority Habitat areas, temporary, and minor relative to the extensive surrounding habitat. Access across the wild turkey Winter Concentration area near Leroux Creek is on existing roads, where a baseline level of disturbance exists. Temporary additional disturbance to wild turkeys associated with additional traffic (between two and eight trips daily) on the access route would be minor or negligible and impacts to wild turkeys in the Winter Concentration Area are not significant. Minor impacts due to loss of access to open water during the irrigation season. Construction impacts would be temporary and relatively small in comparison with the substantial surrounding available habitat. No significant impact to wildlife or wildlife resources.

Resource	Impacts: No Action Alternative	Impacts: Proposed Action Alternative
<b>Special Status Species; Migratory Birds, Threatened and Endangered Species and Their Critical Habitats</b>	No Effect; sensitive species would continue. Continued salinity and selenium loading.	Noise and habitat clearing would disrupt or displace wintering and migrating songbirds and raptors. Loss of tall trees would impact raptor nesting habitat, but impacts would be minor and not significant relative to the extent of tall trees in the surrounding area. The Habitat Replacement Site would create new nesting habitat for migratory birds and raptors. Construction timing would avoid the nesting season for raptors other than bald eagles and golden eagles; impacts to these raptors would not occur as the Project is outside buffer distance of ½ mile for a nearby bald eagle roost and golden eagle nest. BMPs would be followed if a new raptor nest is located within ½ mile of the Project. The Proposed Action would have No Effect on listed or candidate species or critical habitats for the monarch butterfly, silverspot butterfly, Suckley’s cuckoo bumble bee, gray wolf, yellow-billed cuckoo, Colorado hookless cactus, or clay-loving wild buckwheat, and no new effect to the four listed Colorado River fish species since the previous consultation with the USFWS in 2018 (Appendix B). Reduced salt and selenium loading would improve habitat for the four listed Colorado River fish downstream of the Project Area. No significant adverse impacts to migratory birds, raptors or federally listed species.
<b>Cultural Resources</b>	No Effect; cultural resources continue in existing condition.	Impacts to two segments of canal (a previously recorded segment above Leroux Creek and the horseshoe shaped segment to be abandoned above Short Draw) that are eligible for listing in the NRHP. Impacts to the canal would be protected through an MOA that would maintain cultural heritage of irrigation history through public interpretation and/or documentation. In addition, impacts managed through adherence to preservation stipulations. No significant impacts.
<b>Soils and Farmlands of Agricultural Significance</b>	No Effect; continued salinity loading from seepage impacting soil productivity.	Temporary impacts due to construction activities to soil structure, quality, and fertility would occur. New disturbance would be limited to 4.8 acres and would be minor, and not significant. Revegetation efforts would promote soil stability post-construction. The Project would provide beneficial impacts to soil from reduced soil erosion, decreased sediment transport, and soil degradation in irrigated fields. Beneficial impact to soils and farming due to FMC’s improved ability to manage irrigation water would also occur. No adverse impact to farmlands, and no significant impact to farmlands or soils.

# CHAPTER 4 - ENVIRONMENTAL COMMITMENTS

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

In the event of a change in the Project description or should any construction activities be 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 8. Environmental Commitments

Type	Environmental Commitment	Affected Resource	Authority
Construction Contractor Plan or Certification Requirement	A Spill Response Plan shall be prepared in advance of construction by the contractor for areas of work where spilled contaminants could flow into water bodies.	Water Quality	CWA of 1972 as amended
Construction Contractor Plan or Certification Requirement	A Stormwater Management Plan shall be prepared and submitted to CDPHE by the construction contractor prior to construction disturbance.	Water Quality	CWA of 1972 as amended
Construction Contractor Plan or Certification Requirement	A CWA Section 402 Storm Water Discharge Permit compliant with the NPDES shall be obtained from CDPHE by the construction contractor prior to construction disturbance (regardless of whether dewatering would take place during construction).	Water Quality	CWA of 1972 as amended
Construction Contractor Plan or Certification Requirement	Certification under CDPHE Water Quality Division Construction Dewatering Discharges Permit COG070000 shall be obtained by the construction contractor prior to any dewatering activities related to construction.	Water Quality	CWA of 1972 as amended
Construction Contractor Plan or Certification Requirement	Any construction, access, or use permits required by the Delta County Planning Department, County Engineering and County Road and Bridge District #3 shall be obtained in advance of road crossings.	Access, Transportation and Safety	County Ordinances and Regulations

Type	Environmental Commitment	Affected Resource	Authority
Construction Contractor Requirement	Required (if any) air quality emissions inventories, record-keeping, or reporting for construction equipment shall be on file with CDPHE prior to commencing construction.	Air Quality	CAA of 1963 and 5 CCR 1001-5 Part I.B.10 (Allowable Emissions), Part II.A (Air Pollutant Emission Notices for New, Modified, and Existing Sources), Part II.D (Exemptions from Air Pollutant Emission Notice Requirements)
General NEPA Compliance	To satisfy the requirements of RGP-5, submit the following package to USACE at least 30 days in advance of construction: (1) documentation for compliance with the ESA and NHPA and/or the lead Federal Agency NEPA document containing the same, (2) a project description, (3) project plans, and (4) a location map.”	Wetlands	RGP-5, Section 404, CWA of 1972 as amended
General BMP	Contractor shall implement periodic application of water to disturbed areas along the construction corridor and access roads for dust control during construction.	Air Quality, Vegetation	CAA of 1963
General BMP	Contractor shall minimize idling of equipment.	Air Quality	CAA of 1963
General BMP	Contractor shall maintain equipment to minimize excessive noise and establish regular operational hours that avoid early morning or late evening construction.	Noise	ESA of 1973, Colorado noise statute 25-12-103
General BMP	Construction limits shall be clearly flagged or marked onsite to avoid unnecessary plant loss or ground disturbance. No grading or blading shall occur inside the Project ROW other than that necessary within the actual construction footprint.	Vegetation, Weeds, Habitat, Wildlife	Delta County Weed Management Plans (Delta County, 2023)
General BMP	All equipment shall be power washed before it is brought to the construction area, to minimize transport of new weed species to the construction area.	Vegetation, Weeds, Habitat, Wildlife	Delta County Weed Management Plans (Delta County, 2023)
General BMP	Prior to construction, vegetative material (“slash”) shall be removed by mowing or chopping, and either reserved for mulch onsite, or hauled to the county landfill or to a staging area to be processed (burned, chipped, and/or mulched). Stumps shall be grubbed and hauled to the County landfill or a proposed staging area to be burned. Slash processing would only occur on public lands in accordance with permit stipulations. No burning shall occur on federal public lands.	Soil, Vegetation, Weeds, Habitat	Delta County Weed Management Plans (Delta County, 2023); Public Land Permit Stipulations; County burn ordinances and restrictions

Type	Environmental Commitment	Affected Resource	Authority
General BMP	Vegetation removal shall be confined to the smallest portion of the Project Area necessary for completion of the work. To aid revegetation in the Siphon Staging Area, vegetation would generally be crushed, rather than cleared, leaving root stock intact. The Applicant would limit blading to only what is needed for equipment.	Soil, Vegetation, Weeds, Habitat	Delta County Weed Management Plans (Delta County, 2023)
General NEPA Requirement	Tree grubbing and vegetation removal in all Project Areas shall avoid the primary nesting season of migratory birds (April 1 – July 15) and nesting season for raptor species that could be in the Project Area (February 15 – July 15). This timing restriction shall be noted on Project construction drawings.	Wildlife	MBTA of 1918
General BMP and Design Feature	Following pipeline and siphon construction, disturbed areas in the pipeline alignment shall be recontoured and either topsoiled and reseeded with a seed mix appropriate for the surrounding vegetation community or finished with sterile subsurface soil and unseeded, depending on the wishes of the underlying landowner.	Soil, Vegetation, Weeds, Habitat	Delta County Weed Management Plans (Delta County, 2023); Public Land ROW Permit Stipulations
General BMP	Weed control shall be implemented by the Applicant or its contractor in accordance with the most current Delta County weed control standards and public lands permit stipulations. Noxious weed presence shall be monitored subject to agreements between the Applicant and individual landowners and regulated by Delta County in accordance with county standards. Certified weed-free straw would be applied for soil stabilization.	Soil, Vegetation, Weeds, Habitat	Delta County Weed Management Plans (Delta County, 2023)
General BMP	Straw wattles, silt curtains, cofferdams, dikes, straw bales, or other suitable erosion control measures shall be used to prevent erosion from entering water bodies during construction along the canal and during planting and tree removal at the Habitat Replacement Site.	Water Quality	CWA of 1972 as amended
General BMP	Any concrete pours shall occur in forms and/or behind cofferdams to prevent discharge into waterways. Any wastewater from concrete-batching, vehicle wash down, and aggregate processing shall be contained and treated or removed for off-site disposal.	Water Quality	CWA of 1972 as amended
General BMP	The construction contractor shall transport, handle, and store any fuels, lubricants, or other hazardous substances involved with the Project in an appropriate manner that prevents them from contaminating soil and water resources.	Water Quality, Soil	CWA of 1972 as amended
General BMP	Equipment shall be inspected daily and immediately repaired as necessary to ensure equipment is free of petrochemical leaks.	Water Quality, Soil	CWA of 1972 as amended

Type	Environmental Commitment	Affected Resource	Authority
General BMP	Ground disturbances and construction areas shall be limited to only those areas necessary to safely implement the Project.	Soil, Vegetation, Weeds, Habitat, Wildlife	Archaeological Resources Protection Act of 1979; Paleontological Resources Preservation Act of 2009
General BMP	Pipeline trenches left open overnight shall be kept to a minimum and covered to reduce potential for hazards to the public and to wildlife. Covers shall be secured in place and strong enough to prevent people, livestock, or wildlife from falling through. Where trench covers would not be practical, wildlife escape ramps shall be used.	Wildlife, Public Safety	Colorado Revised Statute (C.R.S.) 33-1-101 to 125 Parks and Wildlife Article 1: Wildlife
General NEPA Compliance	If previously undiscovered cultural or paleontological resources are discovered during construction, construction activities must immediately cease in the vicinity of the discovery and Reclamation must be notified. In this event, the SHPO shall be consulted, and work shall not be resumed until consultation has been completed, as will be outlined in the Unanticipated Discovery Plan in the MOA (to be included in Appendix C of the Final EA). Stipulations in the MOA will be incorporated into the Final EA by reference. Additional surveys shall be required for cultural resources if construction plans, or proposed disturbance areas are changed.	Cultural Resources	NHPA of 1966 Archaeological Resources Protection Act of 1979 Paleontological Resources Preservation Act of 2009
General NEPA Compliance	In the event that previously undocumented raptor nests within ½ mile of the Project Area, or threatened or endangered species are encountered during construction, the contractor shall stop construction activities until Reclamation has consulted with USFWS to ensure that adequate measures are in place to avoid or reduce impacts to the species.	Threatened and Endangered Species	ESA of 1973 as amended; MBTA of 1918; Bald and Golden Eagle Protection Act of 1940
General NEPA Compliance	Construction activities shall take place only in accordance with the schedule restrictions outlined in this EA and summarized in Table 5. These schedule restrictions and their spatial extents shall be clearly marked on the Project construction drawings.	Wildlife	MBTA of 1918; Bald and Golden Eagle Protection Act of 1940
General NEPA Compliance	Minimize grubbing and clearing of vegetation to what is minimally required for safe construction.	Soil, Vegetation, Wildlife	UFO BLM Resource Management Plan; MBTA of 1918; Bald and Golden Eagle Protection Act of 1940
General BMP	Following construction, except where the maintenance road would be retained in the Wolf Park Area, all disturbed areas shall be smoothed with tracked equipment (without back dragging blade), shaped, and contoured to as near to their pre-Project conditions as practicable.	Soil, Vegetation, Weeds, Habitat	CWA of 1972 as amended



Type	Environmental Commitment	Affected Resource	Authority
Design Feature	All drainage patterns that intersect the ditch shall be shaped to their natural flow patterns following ditch piping.	Soil, Vegetation, Habitat	CWA of 1972 as amended
General BMP	All equipment shall be cleaned before it is transported to another job site to avoid introducing weed species from the construction area to another job site.	Vegetation, Weeds, Habitat	Delta County Weed Management Plans (Delta County, 2023)

# **CHAPTER 5 – CONSULTATION AND COORDINATION**

## **5.1 – Introduction**

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

## **5.2 – Public Involvement**

Notice of the public review period and availability of the Draft EA will be distributed to private landowners adjacent to the Proposed Action, and the organizations and agencies listed in Appendix D. 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.

## CHAPTER 6 - PREPARERS

Table 9. Preparers

<b>Name</b>	<b>Agency</b>	<b>Title</b>	<b>Areas of Responsibility</b>
Jennifer Ward	Reclamation	Environmental Group Chief	EA Review, General Authorship
Cassandra Shenk	Sundance Consultants, LLC (Consultant to FMC)	NEPA Project Manager	Project Management, Contributing Author
Amy Kramer	Sundance Consultants, LLC (Consultant to FMC)	Environmental Specialist	Resource Specialist, Contributing Author
Leo Lentsch	Sundance Consultants, LLC (Consultant to FMC)	Vice President Natural Resources and Planning	Sr. Technical Review
Matt Rice	Sundance Consultants, LLC (Consultant to FMC)	Sr. Natural Resource Project Manager	Sr. Technical Review
Steve Gehring	Sundance Consultants, LLC (Consultant to FMC)	Technical Editor	Review and Formatting

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# CHAPTER 8 - ABBREVIATIONS AND ACRONYMS

Acronym	Definition
%	percent
AF	acre feet
BLM	Bureau of Land Management
BMP	best management practices
CAA	Clean Air Act
CCR	Code of Colorado Regulations
CDA	Colorado Department of Agriculture
CDPHE	Colorado Department of Public Health and Environment
CFR	Code of Federal Regulations
cfs	cubic feet per second
CO	carbon monoxide
CPW	Colorado Parks and Wildlife
C.R.S.	Colorado Revised Statute
CRSP	Colorado River Storage Project
CWA	Clean Water Act
EA	Environmental Assessment
EO	Executive Order
EPA	Environmental Protection Agency
ESA	Endangered Species Act
FHWA	Federal Highway Administration
FMC	Fire Mountain Canal
FOA	Funding Opportunity Announcement
FONSI	Finding of No Significant Impact
GIS	geographic information system
HDPE	high-density polyethylene
HRP	Habitat Replacement Plan
HUC	Hydrologic Unit Code
IPaC	Information for Planning and Consultation
LF	linear feet
m	meter
MBTA	Migratory Bird Treaty Act
MOA	Memorandum of Agreement
NAAQS	National Ambient Air Quality Standards
NDIC	North Delta Irrigation Company
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NO <sub>x</sub>	nitrogen oxides
NOFO	Notice of Funding Opportunity
NPDES	National Pollutant Discharge Elimination System
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
ONAC	Office of Noise Abatement and Control
PA	Programmatic Agreement
PBO	Programmatic Biological Opinion



<b>Acronym</b>	<b>Definition</b>
PM <sub>2.5</sub>	particulate matter (with a diameter of 2.5 micrometers or less)
PM <sub>10</sub>	particulate matter (with a diameter of 10 micrometers or less)
Project	Phase 2 Salinity Control Project
RCPP	Regional Conservation Partnership Program
Reclamation	Bureau of Reclamation
RGP-5	Regional General Permit 5
ROW	right-of-way
SMP	Selenium Management Program
SMPW	Selenium Management Program Workgroup
SHPO	State Historic Preservation Office
TEPC	threatened, endangered, proposed, or candidate
UFO	Uncompahgre Field Office
USACE	U.S. Army Corps of Engineers
U.S.C.	U.S. Code
USDA	U.S. Department of Agriculture
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
WOTUS	Waters of the U.S.

# APPENDICES

## **Appendix A. Seed List**

Appendix A- Seed List (Placeholder- Monitor Phase I Site for Seeding Success, then Coordinate with BLM and Revise Based on Realistic Justification for Expense of Seed)

BLM Standard Native Seed Mix For Adobe-Type Soils  
Below 6500'

Price and seed availability vary, so not all species may be available at the time you need them, or priced affordably. However the major ones should usually available. The rate shown below is for a drilled seeding, or some other method that incorporates the seed into the soil. Rates should be doubled if the seed is to be aerially applied. If price or availability is a concern, reduce or leave out those species and increase percentages of remaining species correspondingly (column A in table below, total to this column should equal 100%, carry through changes in columns B, D, and E following instructions under column headings).

BLM places the following requirements on seed mixes which are put on BLM lands:

- 1) Use the following minimum PLS (Pure Live Seed) tolerances

PLS tested %	Tolerance % points
81-100	-7
61-80	-6
41-60	-5
21-40	-4
0-20	-3

- 2) All seed must comply with BLM and Colorado weed seed guidelines. There should be no prohibited species seed, and no more than allowable levels of restricted species seed. In addition, there should be no more than 0.5% total weed seed, less than 2% other seed, and no trash larger than ¼" in length. Seed shall not be stored in burlap bags.
- 3) The UFO places additional local restrictions on seed to minimize cheatgrass spread. If seed tests show any *Bromus tectorum* or *Bromus japonicus*, the BLM should be consulted with for approval. No mix placed on BLM shall contain more than 150 *Bromus tectorum* and/or *Bromus japonicus* seeds per pound.
- 4) BLM requires additional seed tests on seeding projects that are greater than 20 acres and/or require over 200 lbs of seed. For these seeding projects, the project proponent should have the seed supply company store the purchased seed prior to mixing, and pull samples to be sent to a certified laboratory, such as Colorado State Laboratory at the following address. Seed test results must comply with the criteria listed above before seed is mixed, shipped and applied to the project area:  
Wyoming State Laboratory  
749 Road 9  
Powell, WY 82435
- 5) BLM will need copies of seed tags and test results for all seed applied regardless of project size.
- 6) Only State Certified weed free mulch shall be used

	A	B	C	D	E
Species	Desired % of planting	Multiplier (A x 0.01)	PLS lbs for full stand	PLS lbs per acre needed for mix (B x C)	PLS lbs per acre for project (D x # acres)
Bottlebrush squirreltail ( <i>Elymus elemoides</i> )	25	0.25	16	4	
Western Wheatgrass ( <i>Pascopyrum smithii</i> ) Variety Arriba	25	0.25	10	2.5	
Galleta Grass ( <i>Hilaria</i> or <i>Pleuraphis jamesii</i> )	10	0.1	16	1.6	
Indian Ricegrass ( <i>Acnatherum hymenoides</i> ) Variety Paloma	10	0.1	32	3.2	
Salina Wildrye ( <i>Leymus salinus</i> )	5	0.05	8	0.4	
Scarlet Globemallow ( <i>Sphaeralcea coccinea</i> )	2	0.02	6	0.12	
Annual sunflower ( <i>Helianthus annuus</i> )	3	0.03	10	0.3	
Winterfat ( <i>Eurotia</i> or <i>Krascheninnikovia lanata</i> )	5	0.05	5	0.25	
Shadscale ( <i>Atriplex confertifolia</i> )	5	0.05	5	0.25	
Mat saltbush ( <i>Atriplex corrugate</i> )	5	0.05	6	0.3	
Gardner saltbush ( <i>Atriplex gardneri</i> )	5	0.05	5	0.25	
Totals	100	1.0		13.17	

**Appendix B Biological Resource Information and ESA Compliance.**

## APPENDIX B.

### Migratory Birds of Conservation Concern with Potential to Occur in Project Area

**Table B-1. Birds of Conservation Concern with Potential to Occur in the Action Area**

Species	Status	Habitat Description	Habitat Suitability
Black swift ( <i>Cypseloides niger</i> )	Species of Concern	Coastal areas, nesting along ledges or shallow caves in steep canyons often near waterfalls.	Limited suitability: primary habitat distant from the project footprint.
Broad-tailed hummingbird ( <i>Selasphorus platycercus</i> )	Species of Concern	Montane meadows, pinyon-juniper woodlands, areas with flowering shrubs	Limited suitability: primary habitat distant from the project footprint.
Brown-capped rosy finch ( <i>Leucosticte australis</i> )	Species of Concern	Prefers high-elevation alpine and tundra environments above treeline, descending to lower forested environments in winter	Limited suitability: primary habitat in high elevation areas, distant from the project footprint.
California gull ( <i>Larus californicus</i> )	Species of Concern	Diverse range of habitats, nests on islands in rivers, lakes; forages in open habitats	Limited suitability: primary habitat distant from the project footprint.
Cassin's finch ( <i>Haemorhous cassinii</i> )	Species of Concern	Coniferous forests with pine and aspen	Limited suitability: primary habitat distant from the project footprint.
Clark's grebe ( <i>Aechmophorus clarkii</i> )	Species of Concern	Freshwater lakes and marshes, often in open water	Limited suitability; primary habitat distant from the project footprint.
Clark's nutcracker ( <i>Nucifraga Columbiana</i> )	Species of Concern	Montane coniferous forests.	Limited suitability: primary habitat distant from the project footprint.
Evening grosbeak ( <i>Coccothraustes vespertinus</i> )	Species of Concern	Mixed coniferous forests, primarily spruce and fir.	Limited suitability: primary habitat distant from the project footprint.
Golden eagle ( <i>Aquila chrysaetos</i> )	BLM-Sensitive, MBTA	Open areas, nesting on cliffs or tall trees.	Moderate suitability. Large trees suitable for nesting are in the Project Area along Short Draw and Leroux Creek, as well along the canal and downgradient. Active golden eagle nests are mapped between 1 and 2 miles from the Project Area. (CPW, 2024).
Lesser yellowlegs ( <i>Tringa flavipes</i> )	Species of Concern	Open tundra for breeding; migrates through wetlands.	Limited suitability: some wetlands in or near the project area. Primary breeding habitat is distant from the project footprint.
Lewis's woodpecker ( <i>Melanerpes lewis</i> )	Species of Concern	Open forests, particularly with ponderosa pine, scattered trees and snags, and riparian areas.	Limited suitability: Cottonwoods may provide cavities for nesting. Species distribution overlaps with project area.



<b>Species</b>	<b>Status</b>	<b>Habitat Description</b>	<b>Habitat Suitability</b>
Long-eared owl ( <i>Asio otus</i> )	Species of Concern	Wooded, densely vegetated areas for roosting and nesting, open areas for hunting. Nests in tree cavities or old raven or raptor nests.	Low suitability: primary nesting habitat (dense vegetation) is distant from project area.
Pinyon jay ( <i>Gymnorhinus cyanocephalus</i> )	Species of Concern	Pinyon-juniper woodland, sagebrush, scrub oak and chaparral communities.	Moderate suitability due to sagebrush and scrub-shrub vegetation near Project Area.
Virginia's warbler ( <i>Leiothlypis virginiae</i> )	Species of Concern	Shrubby slopes, woodland edges, oak thickets, pinyon-juniper.	Limited suitability: primary habitat is distant from the Project Area.
Western grebe ( <i>Aechmophorus occidentalis</i> )	Species of Concern	Large lakes and marshes; open-water breeding colonies.	Low suitability: Project Area is distant from preferred habitats.
Bald eagle ( <i>Haliaeetus leucocephalus</i> )	BLM-Sensitive, MBTA	Open areas near water with large trees for nesting.	Moderate suitability for foraging, roosting, and nesting. Open areas are distant from water. Large trees suitable for nesting are in the Project Area along Short Draw and Leroux Creek, as well along the canal and downgradient. An active Bald Eagle nest site is within 1.5 miles of the Leroux Creek area, and multiple Bald Eagle roosts are located along the North Fork River, just over 1 mile from the eastern staging area.

Source: (USFWS, 2025; CPW, 2023).

## RECOVERY AGREEMENT

This RECOVERY AGREEMENT is entered into this 25 day of January, 2018, by and between the United States Fish and Wildlife Service (Service) and Fire Mountain Canal Ditch and Reservoir Company (Water User).

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

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

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

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

WHEREAS, Water User is the owner/operator of Fire Mountain Canal (Water Project), which causes historic water depletions to the Gunnison River subbasin; and

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

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

NOW THEREFORE, Water User and the Service agree as follows<sup>1</sup>:

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

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

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

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

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

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

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<sup>1</sup>Individual Recovery Agreement may be changed to fit specific circumstances.

b. The Service determines that the Recovery Elements are no longer needed to recover or offset the likelihood of jeopardy to the listed species in the Upper Colorado River Basin; or

c. The Service declares that the endangered fish in the Upper Colorado River Basin are extinct; or

d. Federal legislation is passed or federal regulatory action is taken that negates the need for [or eliminates] the Recovery Program.

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

Philip Jacobs Luke  
Water User Representative  
President, Five Mountain Canal  
& Reservoir Board President

1/25/18

Date

Ann Tule  
Western Slope Supervisor  
U.S. Fish and Wildlife Service

1/19/18  
Date



# United States Department of the Interior



## FISH AND WILDLIFE SERVICE

Western Colorado Ecological Services Field Office

445 West Gunnison Avenue, Suite 240

Grand Junction, CO 81501-5711

Phone: (970) 628-7180 Fax: (970) 245-6933

In Reply Refer To:

03/07/2025 21:16:05 UTC

Project Code: 2025-0066086

Project Name: Fire Mountain Canal Phase II Salinity Project

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2) (c)). For projects other than major construction activities, the Service suggests that a biological

evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at: <https://www.fws.gov/sites/default/files/documents/endangered-species-consultation-handbook.pdf>

**Migratory Birds:** In addition to responsibilities to protect threatened and endangered species under the Endangered Species Act (ESA), there are additional responsibilities under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA) to protect native birds from project-related impacts. Any activity, intentional or unintentional, resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the U.S. Fish and Wildlife Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). For more information regarding these Acts, see <https://www.fws.gov/program/migratory-bird-permit/what-we-do>.

The MBTA has no provision for allowing take of migratory birds that may be unintentionally killed or injured by otherwise lawful activities. It is the responsibility of the project proponent to comply with these Acts by identifying potential impacts to migratory birds and eagles within applicable NEPA documents (when there is a federal nexus) or a Bird/Eagle Conservation Plan (when there is no federal nexus). Proponents should implement conservation measures to avoid or minimize the production of project-related stressors or minimize the exposure of birds and their resources to the project-related stressors. For more information on avian stressors and recommended conservation measures, see <https://www.fws.gov/library/collections/threats-birds>.

In addition to MBTA and BGEPA, Executive Order 13186: *Responsibilities of Federal Agencies to Protect Migratory Birds*, obligates all Federal agencies that engage in or authorize activities that might affect migratory birds, to minimize those effects and encourage conservation measures that will improve bird populations. Executive Order 13186 provides for the protection of both migratory birds and migratory bird habitat. For information regarding the implementation of Executive Order 13186, please visit <https://www.fws.gov/partner/council-conservation-migratory-birds>.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Code in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List

- USFWS National Wildlife Refuges and Fish Hatcheries
- Bald & Golden Eagles
- Migratory Birds
- Wetlands

## **OFFICIAL SPECIES LIST**

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

**Western Colorado Ecological Services Field Office**

445 West Gunnison Avenue, Suite 240

Grand Junction, CO 81501-5711

(970) 628-7180



## PROJECT SUMMARY

Project Code: 2025-0066086

Project Name: Fire Mountain Canal Phase II Salinity Project

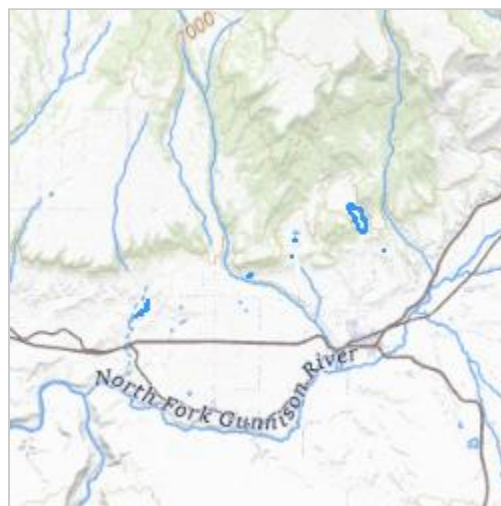
Project Type: Federal Grant / Loan Related

Project Description: The Fire Mountain Canal and Reservoir Company (FMC) owns and manages the Fire Mountain Canal (canal) which stretches about 34.7 miles between a diversion from the North Fork of the Gunnison (North Fork River) in the early runoff season (April-June) and then from Paonia Reservoir in the later season (July-September), to Leroux Ditch's headgate, east of Paonia and west of Hotchkiss in Delta County, Colorado. The Project would consist of placement of a siphon and one section of pipe in two distinct segments: the Wolf Park Area and the Leroux Creek Extension Area. The Wolf Park Area is located approximately 2.5 miles north of Hotchkiss, Colorado, in an undeveloped area with portions on Reclamation land along Short Draw, which runs from north to south in the Project Area. The Leroux Creek Extension Area is approximately 3 miles northwest of Hotchkiss, Colorado, and is located along the south-facing steep side slope of the Leroux Creek drainage, and parallel to the drainage.

The Wolf Park Area includes about 0.20 mile (1,044 linear feet [LF]) of 54-inch fusion welded high-density polyethylene (HDPE) pipeline, allowing one horseshoe bend of the existing ditch to be abandoned (8,659 LF). The Leroux Creek Extension Area would include about 0.19 mile (1,000 LF) of 72-inch diameter profile wall HDPE bell and spigot pipe.

Project Location:

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@38.8339583,-107.74785198655178,14z>



Counties: Delta County, Colorado



## ENDANGERED SPECIES ACT SPECIES

There is a total of 11 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species. Note that 4 of these species should be considered only under certain conditions.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries<sup>1</sup>, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

- 
1. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

**MAMMALS**

NAME	STATUS
Gray Wolf <i>Canis lupus</i> Population: CO No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/4488">https://ecos.fws.gov/ecp/species/4488</a>	Experimental Population, Non-Essential

**BIRDS**

NAME	STATUS
Mexican Spotted Owl <i>Strix occidentalis lucida</i> There is <b>final</b> critical habitat for this species. Your location does not overlap the critical habitat. Species profile: <a href="https://ecos.fws.gov/ecp/species/8196">https://ecos.fws.gov/ecp/species/8196</a>	Threatened
Yellow-billed Cuckoo <i>Coccyzus americanus</i> Population: Western U.S. DPS There is <b>final</b> critical habitat for this species. Your location does not overlap the critical habitat. Species profile: <a href="https://ecos.fws.gov/ecp/species/3911">https://ecos.fws.gov/ecp/species/3911</a>	Threatened

**FISHES**

NAME	STATUS
Bonytail <i>Gila elegans</i> There is <b>final</b> critical habitat for this species. Your location does not overlap the critical habitat. This species only needs to be considered under the following conditions: <ul style="list-style-type: none"> <li>Water depletions in the upper Colorado River basin adversely affect this species and its critical habitat. Effects of water depletions must be considered even outside of occupied range.</li> </ul> Species profile: <a href="https://ecos.fws.gov/ecp/species/1377">https://ecos.fws.gov/ecp/species/1377</a>	Endangered
Colorado Pikeminnow <i>Ptychocheilus lucius</i> Population: Wherever found, except where listed as an experimental population There is <b>final</b> critical habitat for this species. Your location does not overlap the critical habitat. This species only needs to be considered under the following conditions: <ul style="list-style-type: none"> <li>Water depletions in the upper Colorado River basin adversely affect this species and its critical habitat. Effects of water depletions must be considered even outside of occupied range.</li> </ul> Species profile: <a href="https://ecos.fws.gov/ecp/species/3531">https://ecos.fws.gov/ecp/species/3531</a>	Endangered
Humpback Chub <i>Gila cypha</i> There is <b>final</b> critical habitat for this species. Your location does not overlap the critical habitat. This species only needs to be considered under the following conditions: <ul style="list-style-type: none"> <li>Water depletions in the upper Colorado River basin adversely affect this species and its critical habitat. Effects of water depletions must be considered even outside of occupied range.</li> </ul> Species profile: <a href="https://ecos.fws.gov/ecp/species/3930">https://ecos.fws.gov/ecp/species/3930</a>	Threatened
Razorback Sucker <i>Xyrauchen texanus</i> There is <b>final</b> critical habitat for this species. Your location does not overlap the critical habitat.	Endangered

NAME	STATUS
<p>This species only needs to be considered under the following conditions:</p> <ul style="list-style-type: none"> <li>Water depletions in the upper Colorado River basin adversely affect this species and its critical habitat. Effects of water depletions must be considered even outside of occupied range.</li> </ul> <p>Species profile: <a href="https://ecos.fws.gov/ecp/species/530">https://ecos.fws.gov/ecp/species/530</a></p>	

## INSECTS

NAME	STATUS
<p>Monarch Butterfly <i>Danaus plexippus</i></p> <p>There is <b>proposed</b> critical habitat for this species. Your location does not overlap the critical habitat.</p> <p>Species profile: <a href="https://ecos.fws.gov/ecp/species/9743">https://ecos.fws.gov/ecp/species/9743</a></p>	Proposed Threatened
<p>Silverspot <i>Speyeria nokomis nokomis</i></p> <p>No critical habitat has been designated for this species.</p> <p>Species profile: <a href="https://ecos.fws.gov/ecp/species/2813">https://ecos.fws.gov/ecp/species/2813</a></p>	Threatened
<p>Suckley's Cuckoo Bumble Bee <i>Bombus suckleyi</i></p> <p>Population:</p> <p>No critical habitat has been designated for this species.</p> <p>Species profile: <a href="https://ecos.fws.gov/ecp/species/10885">https://ecos.fws.gov/ecp/species/10885</a></p>	Proposed Endangered

## FLOWERING PLANTS

NAME	STATUS
<p>Colorado Hookless Cactus <i>Sclerocactus glaucus</i></p> <p>No critical habitat has been designated for this species.</p> <p>Species profile: <a href="https://ecos.fws.gov/ecp/species/2280">https://ecos.fws.gov/ecp/species/2280</a></p>	Threatened

## CRITICAL HABITATS

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

YOU ARE STILL REQUIRED TO DETERMINE IF YOUR PROJECT(S) MAY HAVE EFFECTS ON ALL ABOVE LISTED SPECIES.

## USFWS NATIONAL WILDLIFE REFUGE LANDS AND FISH HATCHERIES

Any activity proposed on lands managed by the [National Wildlife Refuge](#) system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS OR FISH HATCHERIES WITHIN YOUR PROJECT AREA.

# BALD & GOLDEN EAGLES

Bald and Golden Eagles are protected under the Bald and Golden Eagle Protection Act <sup>2</sup> and the Migratory Bird Treaty Act (MBTA) <sup>1</sup>. Any person or organization who plans or conducts activities that may result in impacts to Bald or Golden Eagles, or their habitats, should follow appropriate regulations and consider implementing appropriate avoidance and minimization measures, as described in the various links on this page.

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1. The [Bald and Golden Eagle Protection Act](#) of 1940.
2. The [Migratory Birds Treaty Act](#) of 1918.
3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

There are Bald Eagles and/or Golden Eagles in your [project](#) area.

## Measures for Proactively Minimizing Eagle Impacts

For information on how to best avoid and minimize disturbance to nesting bald eagles, please review the [National Bald Eagle Management Guidelines](#). You may employ the timing and activity-specific distance recommendations in this document when designing your project/activity to avoid and minimize eagle impacts. For bald eagle information specific to Alaska, please refer to [Bald Eagle Nesting and Sensitivity to Human Activity](#).

The FWS does not currently have guidelines for avoiding and minimizing disturbance to nesting Golden Eagles. For site-specific recommendations regarding nesting Golden Eagles, please consult with the appropriate Regional [Migratory Bird Office](#) or [Ecological Services Field Office](#).

If disturbance or take of eagles cannot be avoided, an [incidental take permit](#) may be available to authorize any take that results from, but is not the purpose of, an otherwise lawful activity. For assistance making this determination for Bald Eagles, visit the [Do I Need A Permit Tool](#). For assistance making this determination for golden eagles, please consult with the appropriate Regional [Migratory Bird Office](#) or [Ecological Services Field Office](#).

## Ensure Your Eagle List is Accurate and Complete

If your project area is in a poorly surveyed area in IPaC, your list may not be complete and you may need to rely on other resources to determine what species may be present (e.g. your local FWS field office, state surveys, your own surveys). Please review the [Supplemental Information on Migratory Birds and Eagles](#), to help you properly interpret the report for your specified location, including determining if there is sufficient data to ensure your list is accurate.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to bald or golden eagles on your list, see the "Probability of Presence Summary" below to see when these bald or golden eagles are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
<b>Bald Eagle <i>Haliaeetus leucocephalus</i></b> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. <a href="https://ecos.fws.gov/ecp/species/1626">https://ecos.fws.gov/ecp/species/1626</a>	Breeds Dec 1 to Aug 31
<b>Golden Eagle <i>Aquila chrysaetos</i></b> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. <a href="https://ecos.fws.gov/ecp/species/1680">https://ecos.fws.gov/ecp/species/1680</a>	Breeds Dec 1 to Aug 31

## PROBABILITY OF PRESENCE SUMMARY

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read "[Supplemental Information on Migratory Birds and Eagles](#)", specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

### Probability of Presence (■)

Green bars; the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during that week of the year.

### Breeding Season (■)

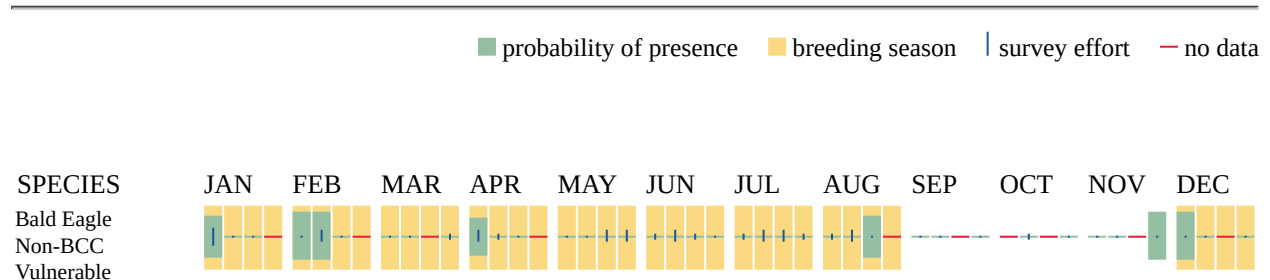
Yellow bars; liberal estimate of the timeframe inside which the bird breeds across its entire range.

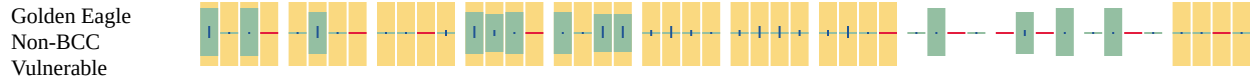
### Survey Effort (|)

Vertical black lines; the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps.

### No Data (-)

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





Additional information can be found using the following links:

- Eagle Management <https://www.fws.gov/program/eagle-management>
- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incident-take-migratory-birds>
- Nationwide avoidance and minimization measures for birds <https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>
- Supplemental Information for Migratory Birds and Eagles in IPaC <https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action>

## MIGRATORY BIRDS

The Migratory Bird Treaty Act (MBTA) <sup>1</sup> prohibits the take (including killing, capturing, selling, trading, and transport) of protected migratory bird species without prior authorization by the Department of Interior U.S. Fish and Wildlife Service (Service). The incidental take of migratory birds is the injury or death of birds that results from, but is not the purpose, of an activity. The Service interprets the MBTA to prohibit incidental take.

1. The [Migratory Birds Treaty Act](#) of 1918.
2. The [Bald and Golden Eagle Protection Act](#) of 1940.
3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, see the "Probability of Presence Summary" below to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
Bald Eagle <i>Haliaeetus leucocephalus</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. <a href="https://ecos.fws.gov/ecp/species/1626">https://ecos.fws.gov/ecp/species/1626</a>	Breeds Dec 1 to Aug 31
Black Swift <i>Cypseloides niger</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. <a href="https://ecos.fws.gov/ecp/species/8878">https://ecos.fws.gov/ecp/species/8878</a>	Breeds Jun 15 to Sep 10

NAME	BREEDING SEASON
<p>Broad-tailed Hummingbird <i>Selasphorus platycercus</i></p> <p>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p> <p><a href="https://ecos.fws.gov/ecp/species/11935">https://ecos.fws.gov/ecp/species/11935</a></p>	Breeds May 25 to Aug 21
<p>Cassin's Finch <i>Haemorhous cassinii</i></p> <p>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p> <p><a href="https://ecos.fws.gov/ecp/species/9462">https://ecos.fws.gov/ecp/species/9462</a></p>	Breeds May 15 to Jul 15
<p>Clark's Nutcracker <i>Nucifraga columbiana</i></p> <p>This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA</p> <p><a href="https://ecos.fws.gov/ecp/species/9421">https://ecos.fws.gov/ecp/species/9421</a></p>	Breeds Jan 15 to Jul 15
<p>Evening Grosbeak <i>Coccothraustes vespertinus</i></p> <p>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p> <p><a href="https://ecos.fws.gov/ecp/species/9465">https://ecos.fws.gov/ecp/species/9465</a></p>	Breeds May 15 to Aug 10
<p>Golden Eagle <i>Aquila chrysaetos</i></p> <p>This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.</p> <p><a href="https://ecos.fws.gov/ecp/species/1680">https://ecos.fws.gov/ecp/species/1680</a></p>	Breeds Dec 1 to Aug 31
<p>Lewis's Woodpecker <i>Melanerpes lewis</i></p> <p>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p> <p><a href="https://ecos.fws.gov/ecp/species/9408">https://ecos.fws.gov/ecp/species/9408</a></p>	Breeds Apr 20 to Sep 30
<p>Long-eared Owl <i>asio otus</i></p> <p>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p> <p><a href="https://ecos.fws.gov/ecp/species/3631">https://ecos.fws.gov/ecp/species/3631</a></p>	Breeds Mar 1 to Jul 15
<p>Pinyon Jay <i>Gymnorhinus cyanocephalus</i></p> <p>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p> <p><a href="https://ecos.fws.gov/ecp/species/9420">https://ecos.fws.gov/ecp/species/9420</a></p>	Breeds Feb 15 to Jul 15

## PROBABILITY OF PRESENCE SUMMARY

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read "[Supplemental Information on Migratory Birds and Eagles](#)", specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

### Probability of Presence (■)

Green bars; the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during that week of the year.

### Breeding Season (■)

Yellow bars; liberal estimate of the timeframe inside which the bird breeds across its entire range.

### Survey Effort (|)

Vertical black lines; the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps.

### No Data (-)

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





BCC Rangewide  
(CON)

Pinyon Jay  
BCC Rangewide  
(CON)



Additional information can be found using the following links:

- Eagle Management <https://www.fws.gov/program/eagle-management>
- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incident-take-migratory-birds>
- Nationwide avoidance and minimization measures for birds
- Supplemental Information for Migratory Birds and Eagles in IPaC <https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action>

## WETLANDS

Impacts to [NWI wetlands](#) and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

### FRESHWATER EMERGENT WETLAND

- PEM1C

### RIVERINE

- R4SBCx

## **IPAC USER CONTACT INFORMATION**

Agency: Bureau of Reclamation  
Name: Jennifer Ward  
Address: 554 W Gunnison Ave Suite 221  
City: Grand Junction  
State: CO  
Zip: 81501-5711  
Email: [jward@usbr.gov](mailto:jward@usbr.gov)  
Phone: 9702480651

**Appendix C [Placeholder for Final EA: Cultural Resources Memorandum of Agreement]**

## **Appendix D. EA Distribution List**

APPENDIX D: Distribution List for Fire Mountain Canal and Reservoir Company- DRAFT Environmental Assessment for Phase 2 Salinity Control Project

Agency or Individual	Address	City	State
US Fish and Wildlife Service	445 W. Gunnison Ave. Ste. 124	Grand Junction	CO
US Fish and Wildlife Service	446 W. Gunnison Ave. Ste. 124	Grand Junction	CO
US Army Corps of Engineers	400 Rood Ave #224	Grand Junction	CO
US Bureau of Land Management	2465 S Townsend Ave	Montrose	CO
Natural Resources Conservation Service	2738 Crossroads Boulevard Suite 104	Grand Junction	CO
Colorado Parks and Wildlife	2300 S Townsend Ave	Montrose	CO
Colorado Parks and Wildlife	2300 S Townsend Ave	Montrose	CO
Colorado Parks and Wildlife	2300 S Townsend Ave	Montrose	CO
Colorado Parks and Wildlife	2300 S Townsend Ave	Montrose	CO
Colorado Parks and Wildlife	2300 S Townsend Ave	Montrose	CO
Colorado Department of Transportation	606 S 9th St	Grand Junction	CO
Colorado Department of Archaeology and Historic Preservation	1200 Broadway	Denver	CO
Southern Ute Indian Tribe	P.O. Box 737 356 Ouray Drive	Ignacio	CO
Ute Mountain Ute Tribe	125 Mike Wash Road	Towaoc	CO
Ute Indian Tribe – Uintah and Ouray Reservation	P.O. Box 190	Fort Duchesne	UT
Colorado Water Conservation Board	1313 Sherman Street, Room 718	Denver	CO
Colorado River Water Conservation District	201 Centennial Dr.	Glenwood Springs	CO
Colorado River Water Conservation District	201 Centennial Dr.	Glenwood Springs	CO
Trout Unlimited	264 County Rd 4	Montrose	CO
Trout Unlimited			
Citizens for a Healthy Community	211 Grand Ave.	Paonia	CO
Western Slope Conservation Center	204 Poplar Ave	Paonia	CO
Delta County Planning and Development	295 W 6th St	Delta	CO
Delta County Road and Bridge	560 Dodge Street	Delta	CO
Delta County Commissioners	560 Dodge Street	Delta	CO
WAITE MATTHEW R	12345 WOLF PARK RD	HOTCHKISS	CO

Agency or Individual	Address	City	State
HOPKINS VICKI LEE	12250 WOLF PARK RD	HOTCHKISS	CO
BUREAU OF RECLAMATION	445 W GUNNISON AVE STE 221	GRAND JUNCTION	CO
HOTCHKISS TOWN OF	PO BOX 369	HOTCHKISS	CO
THE WILLIAM AND SUSAN HILLYARD FAMILY TRUST	31657 L ROAD	HOTCHKISS	CO
THE G RAYMOND SELBE TRUST	25245 RCR 42	STEAMBOAT SPRINGS	CO
THE G RAYMOND SELBE TRUST	25245 RCR 42	STEAMBOAT SPRINGS	CO
HOTCHKISS TOWN OF	PO BOX 369	HOTCHKISS	CO
YOCUM DAVID S	9343 1990 LANE	AUSTIN	CO
SANTOLINA LLC	PO BOX 56	KAYSVILLE	UT
SHELDON RALPH H	11581 3300 RD	HOTCHKISS	CO
BENSON BRIAN W	32255 L50 ROAD	HOTCHKISS	CO
SLATER MARY MONIQUE	PO BOX 1617	PAONIA	CO

**Appendix E [Placeholder: Summary of Comment and Responses on the Draft EA]**

**Appendix F Summary of Habitat Replacement Accounting for Salinity Control Sites in the Region**



## Appendix F – Summary of Habitat Sites

Salinity Project	Status	Habitat Units Lost	Habitat Credits Created
Bostwick Park Siphon Lateral Piping Project and Waterdog & Shinn Park Laterals Piping Project	Past	32.1	32.4
C Ditch/Needle Rock	Past	7.88	10.49
Cattleman's Ditch Phases 1 and 2	Past	18.57	23.32
Crawford Clipper – Center Lateral	Past	33.9	38.4 + Excess from previous project
Crawford Clipper - Jerdon, West, & Hamilton	Project	11.6	33.4
Crawford Clipper – Spurlin Mesa (Clipper 4) & Zanni Lateral	Past	16.38	16.49
East Side Laterals – Phase 1	Past	59.85 acres <sup>1</sup>	100 acres
East Side Laterals – Phase 2	Past	26 acres	26 acres
East Side Laterals – Phase 3	Past	8.6	26
East Side Laterals – Phase 4	Past	7.04	Using excess from previous project
East Side Laterals – Phase 5 & GE, DK Laterals	Past	9.99	Using excess from previous project
East Side Laterals – Phase 7 <sup>4</sup>	Past	2.77	41.9
East Side Laterals – Phase 8	Past	22.2	Using excess from previous project
East Side Laterals – Phase 9 & Phase 9 Mod	Past	35.6	31.7+ Excess from previous project
East Side Laterals – Phase 10	Reasonably Foreseeable	18.7	6.3 <sup>4</sup> + Excess
Fire Mountain Canal	Past	8.42	13.05
Forked Tongue/Holman Ditch	Past	6.7	11.07

Salinity Project	Status	Habitat Units Lost	Habitat Credits Created
Gould Canal – Projects A & B	Past	18.1	24.19
Grandview Canal – Upper, Middle & Lower	Past & Reasonably Foreseeable	33.6 <sup>iv</sup>	34
Minnesota Ditch – Phase 1	Past	11.17	22.73
Minnesota Ditch – Phase 2 and Minnesota L-75	Past	24.92	17.61 + Excess from previous project
Needle Rock/Lone Rock Ditch	Present	13.9	15.8
North Delta Canal – Phase 1 and Phase I Extension	Past	173.03	174.6
Orchard Ranch Ditch	Past	5.12	5.99
Pilot Rock Ditch	Past	16.9	20.9
Roger's Mesa Slack and Patterson Laterals	Past	20.34	39.93
Short Ditch Extension	Present	13.8	14.1
Stewart Ditch – Upper, Middle & Lower	Past	8.67	9.63
Turner/Lone Cabin Ditch	Reasonably Foreseeable	117.8	120.3
<b>TOTAL:</b>		<b>697.8 units, 85.85 acres</b>	<b>784.3 credits, 126 acres</b>

<sup>i</sup> In late 1990's and early 2000's, the habitat replacement procedures focused on acres rather than credits.

<sup>ii</sup> East Side Laterals – Phase 6 was not a salinity control project, and therefore there is no habitat replacement project associated with that phase.

<sup>iii</sup> As Phase 10 is a potential future project and documentation has not been completed at this time, this figure is an estimate.

<sup>iv</sup> As the Middle & Lower Grandview project is a potential future project and documentation has not been completed at this time, this figure is an estimate. The Upper Grandview project resulted in the loss of 26 habitat units and the Middle & Lower is currently anticipated to result in the loss of an additional 7.6 habitat units.

	A	B	C	D	E
Species	Desired % of planting	Multiplier (A x 0.01)	PLS lbs for full stand	PLS lbs per acre needed for mix (B x C)	PLS lbs per acre for project (D x # acres)
Bottlebrush squirreltail ( <i>Elymus elemoides</i> )	25	0.25	16	4	
Western Wheatgrass ( <i>Pascopyrum smithii</i> ) Variety Arriba	25	0.25	10	2.5	
Galleta Grass ( <i>Hilaria</i> or <i>Pleuraphis jamesii</i> )	10	0.1	16	1.6	
Indian Ricegrass ( <i>Acnatherum hymenoides</i> ) Variety Paloma	10	0.1	32	3.2	
Salina Wildrye ( <i>Leymus salinus</i> )	5	0.05	8	0.4	
Scarlet Globemallow ( <i>Sphaeralcea coccinea</i> )	2	0.02	6	0.12	
Annual sunflower ( <i>Helianthus annuus</i> )	3	0.03	10	0.3	
Winterfat ( <i>Eurotia</i> or <i>Krascheninnikovia lanata</i> )	5	0.05	5	0.25	
Shadscale ( <i>Atriplex confertifolia</i> )	5	0.05	5	0.25	
Mat saltbush ( <i>Atriplex corrugate</i> )	5	0.05	6	0.3	
Gardner saltbush ( <i>Atriplex gardneri</i> )	5	0.05	5	0.25	
Totals	100	1.0		13.17	