Draft Environmental Assessment
Shinn Park and Waterdog
Laterals Piping Salinity Control
Project

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

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

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

This Draft Environmental Assessment (EA) has been prepared to disclose and evaluate the potential environmental effects of the Bureau of Reclamation’s (Reclamation) proposed Bostwick Park Water Conservancy District’s (BPWCD’s) Shinn Park and Waterdog Laterals Piping Salinity Control Project (hereinafter, “Proposed Action”). The Federal action evaluated in this EA is the piping of the open Shinn Park Lateral and Waterdog Lateral with approximately 7.73 miles of high-density polyethylene pipe (HDPE). This document has been prepared in compliance with the National Environmental Policy Act (NEPA) and the Council on Environmental Quality’s (CEQ) NEPA regulations 40 CFR Parts 1500-1508 (2020). If potentially significant impacts to environmental resources are identified, an Environmental Impact Statement (EIS) will be prepared. If no significant impacts are identified, a Finding of No Significant Impact (FONSI) will be issued.

1.1 Project Location and Legal Description

The Project Area sits within the Uncompahgre Valley of the Gunnison River Basin within the Upper Colorado River Basin, approximately 11.5-miles southeast of the City of Montrose in northeast Montrose County, Colorado (see Figures 1 and 2 in Appendix A).

There are three general physical locations involved in the Proposed Action: the Shinn Park Lateral (Figure 3 in Appendix A), the Waterdog Lateral (Figure 3 in Appendix A), and the Habitat Replacement Plan (HRP) Habitat Replacement Site (HRS) located on private property east of the laterals (Figure 4 in Appendix A).

- **The Shinn Park Lateral** is in Sections 1, 2, 12, and 13, Township 48 North, Range 8 West, and Section 18, Township 48 North, Range 7 West, in Montrose County, Colorado. The lateral is located in the Shinn Park area, south of US-50. The Silverjack Reservoir on the Cimarron River feeds the lateral through the Cimarron and Hairpin Canals. The Shinn Park Lateral would be constructed within the existing ditch right-of-way (ROW), with the exception of approximately 0.56 miles of pipeline that would deviate from the existing alignment. Given that 610 feet of the Shinn Park Lateral occurs on Bureau of Land Management (BLM) land, the piping of Shinn Park Lateral would require BLM to acknowledge a historic prescriptive ROW (Figure 5 in Appendix A).

- **The Waterdog Lateral** is in Sections 13, 14, 21, 22, and 23, Township 48 North, Range 8 West, and Section 18, Township 48 North, Range 7 West, in Montrose County, Colorado. Similar to the Shinn Park Lateral, the Waterdog Lateral is located in the Shinn Park area, south of US-50. The Silverjack Reservoir on the Cimarron River feeds that lateral through the Cimarron and Hairpin Canals. The Waterdog Lateral would be primarily constructed within the existing ditch ROW, with the exception of approximately 1.25 miles of pipeline that would deviate from the existing alignment. Additional ROW or access easements have been acquired for the Waterdog Lateral to accommodate a 1.25-mile deviation from the existing alignment (Figure 6 in Appendix A). The Waterdog Lateral piping would occur...
within approximately 15 feet of BLM land. A small portion of the existing Waterdog Lateral operations and maintenance (O&M) road falls on BLM land, and would be utilized for construction access; therefore, the construction access would require BLM to acknowledge a historic prescriptive ROW.

- **The Habitat Replacement Site** is in Sections 11, 12, and 13, Township 48 North, Range 7 West, in Montrose County, Colorado. The HRS would be located on private property near Cottonwood Creek east of Montrose. The HRP would primarily stabilize and revegetate the stream banks along Cottonwood Creek with native vegetation and protect the area with wildlife fencing. The HRP would also revegetate areas surrounding multiple high-elevation ponds that are fed by springs.

The Project Area lies in the Colorado Plateau physiographic region, and has a semi-arid continental climate characterized by low humidity and moderately low precipitation (averaging about 8-inches annually) (Figure 7 in Appendix A). The average elevation in the Project Area is about 8,092 feet above mean sea level (AMSL). Current land uses in the Project Area and general vicinity include rangeland and agricultural activities.

The Shinn Park Lateral and Waterdog Lateral are part of the Bostwick Park Project (BPP) – the initial project by Reclamation that constructed facilities beginning in 1964 and turned them over to the BPWCD for operation and maintenance in 1976. The BPP facilities deliver full and supplemental water rights to approximately 5,608 acres of land, supporting cattle and sheep ranching and crops such as alfalfa, grass hay pasture, and small feed grains. The irrigation season typically runs from April through October, for an average of 210 days per year. On-farm irrigation is accomplished using ditches, gated pipe, or sprinkler systems. Drainage from crops irrigated with the laterals involved in the Proposed Action eventually returns to the Uncompahgre River, west of the Project Area.

Land cover in the vicinity of the Project Area consists primarily of irrigated agricultural lands and semi-desert shrublands. Within the agricultural and natural upland vegetation, areas adjacent to the open ditch laterals and downgradient areas receiving ditch leakage support riparian habitats. The banks of the existing ditch laterals are sparsely vegetated with coyote willows (Salix exigua), rabbitbrush (Chrysothamnus viscidiflorus), sagebrush (Artemisia nova), and four-winged saltbush (Atriplex canescens) and stands of common ruderal herbaceous and noxious weeds. The downgradient areas receiving ditch seepage support a similar array of plants with the addition of an occasional cottonwood saplings and non-native Russian olives.

### 1.2 Need for and Purpose of the Proposed Action

The purpose of the Proposed Action is to comply with the Colorado River Basin Salinity Control Act (Reclamation’s federal nexus) by implementing salinity controls in the Gunnison River watershed of the Upper Colorado River Basin; and, to comply with the Federal Land Policy and Management Act of 1976 (BLM’s federal nexus).
The Proposed Action is needed to reduce salinity loading to downstream natural resources in the Lower Gunnison Basin and the larger Colorado River Basin. Based on salinity studies in the Lower Gunnison – North Fork area, it was estimated that the Shinn Park and Waterdog Laterals contribute approximately 3,425 tons of salt to the Colorado River Basin, and a potential unquantified amount of selenium loading to the Lower Gunnison Basin, annually (Jacobson 2017). The Proposed Action would reduce salt and selenium loading, while providing a broad spectrum of downstream water quality, aquatic habitat, and water efficiency benefits. The Proposed Action is also needed because the Shinn Park Lateral occurs on BLM land, and would require BLM to acknowledge a historic prescriptive ROW.

1.3 Decision to Be Made

J-U-B ENGINEERS, Inc. (J-U-B) prepared this EA on behalf of Reclamation, which is authorized by the Colorado River Basin Salinity Control Act to provide funding assistance for the Proposed Action. Reclamation awarded a financial assistance agreement to BPWCD for the Proposed Action under Assistance Agreement R18AC00077. As the primary funding entity, Reclamation is the lead federal agency for the NEPA analysis of the Proposed Action. Ongoing operation and maintenance of the constructed project would be funded through annual BPWCD water user assessments.

There are two classifications of land affected by the Proposed Action: federal and private. The federal land is public land administered by BLM. The BLM has a connected action of acknowledging a historic prescriptive ROW for a portion of the project. Private land comprises the majority of the area that potentially would be affected by the Proposed Action, including the HRS.

After a public review period for this Draft EA, Reclamation will determine whether further study or a FONSI for the Proposed Action is warranted before the Proposed Action can be implemented.

1.4 Background

The Colorado River and its tributaries provide municipal and industrial water to approximately 35 to 40 million people and irrigation water to nearly 4.5 million acres of land in the United States. The river also serves about 3.3 million people and 500,000 acres in Mexico. The effects of salinity loading in the Colorado River Basin is a major concern in both the United States and Mexico (Reclamation 2017). Salinity impacts water quality, which in turn affects downstream users by threatening the productivity of crops, degrading wildlife habitat, and corroding residential and municipal plumbing. From 2005 to 2015, an approximate average of 7.5 million tons of salt flowed into the Colorado River annually, and by the year 2035, 1.68 million tons of salt per year will need to be diverted from the system in order to meet water quality standards in the Lower Basin (Reclamation 2017). Irrigated agriculture contributes approximately 37 percent of the salinity in the overall Colorado River Basin (Reclamation 2017). Irrigation increases salinity in the system both by depleting in-stream flows, and by mobilizing salts found in underlying geologic formations into the system, especially during flood irrigation practices.
In June 1974, Congress enacted the Colorado River Basin Salinity Control Act, Public Law (PL) 93-320, which directed the Secretary of the Interior to proceed with a program to enhance and protect the quality of water available in the Colorado River for use in the United States and Republic of Mexico. PL 104-20 of July 28, 1995, authorizes the Secretary of the Interior’s action through Reclamation to implement a Basinwide Salinity Control Program. The Secretary may carry out the purposes of this legislation directly, or make grants, enter into contracts, memoranda of agreement, commitments for grants, cooperative agreements, or advances of funds to non-federal entities under such terms and conditions as the Secretary may require. PL 110-246 (June 18, 2008) amended the Salinity Control Act, establishing the Basin States Program, and authorizing Reclamation to take advantage of new, cost-effective opportunities to control salinity in the basin.

The Proposed Action would pipe two laterals, known as the Shinn Park Lateral and Waterdog Lateral, located in Montrose County, Colorado, east of the City of Montrose in the Gunnison River watershed of the Upper Colorado River Basin. The Proposed Action would pipe the existing open, earthen Shinn Park Lateral (17,370 feet) and Waterdog Lateral (23,430 feet) with a total of approximately 40,800 feet (7.73 miles) of HDPE pipe. The Proposed Action would eliminate ditch seepage loss and reduce salinity loading to the Colorado River Basin by approximately 3,425 tons per year, as well as an unquantified amount of selenium (Jacobson 2017).

Salinity loading is the result of seepage and deep percolation that picks up salt as they move through the underlying geology. The increase in salinity shows up in streams downgradient of the canal prism. Expected salinity reduction is calculated based on measured Total Dissolved Solid loads in basin streams, GIS-based model calculations to determine subbasin loads, and ditch mapping data that include average flows, ditch lengths, and average annual days of use. A list of published references is provided for more detailed information:


1.5 Relationship to Other Projects

1.5.1 Salinity Control Program

Reclamation, under the authority of the Colorado River Basin Salinity Control Act, PL. 93-320, provides funding through the Basinwide Salinity Control Program and the Basin States Program to
implement cost-effective salinity control projects in the Colorado River Basin. Both the Basinwide Salinity Control Program and the Basin States Program fund salinity control projects with a one-time grant that is limited to an applicant’s competitive bid. Once constructed, the facilities are owned, operated, maintained, and replaced by the applicant at their own expense. Figure 8 in Appendix A shows the locations of projects under these programs completed and/or recently funded in the vicinity of the Proposed Action.

Other salinity control projects recently completed or currently underway in the same basin-wide area as the Proposed Action, include the following (Figure 8 in Appendix A):

- Bostwick Park Water Conservation District’s Siphon Lateral Salinity Control Project (near the City of Montrose)
- C Ditch Company’s C Ditch/Needle Rock Pipeline Project (3 miles north of the Town of Crawford in Cottonwood Creek drainage)
- Cattleman’s Ditches Pipeline Projects Phases I and II (south of the Town of Crawford in Alkali Creek drainage)
- Clipper Irrigation Salinity Control Project 4, Zanni Lateral Pipeline Project, Center Lateral Pipeline Project, and Jerdon, West, Hamilton Pipeline Project (2.5 miles southeast of the Town of Hotchkiss)
- Fire Mountain Canal Piping Project (near the Town of Paonia)
- Forked Tongue/Holman Ditch Company’s Salinity Control Project (near the Town of Eckert in the Tongue Creek drainage)
- Gould Canal Improvements Projects A & B (approximately 4 miles southwest of the Town of Crawford and 18 miles northeast of the City of Montrose in the Smith Fork Watershed)
- Grandview Canal Piping Projects, Upper and Middle & Lower (just south of the Town of Hotchkiss)
- Lower and Upper Stewart Ditch Pipeline Projects (near the Town of Paonia in the North Fork of the Gunnison River drainage)
- Minnesota Canal Piping Projects, Phases I and II (near the Town of Paonia in the North Fork of the Gunnison River drainage)
- Minnesota L75 Piping Project (near the Town of Paonia in the North Fork of the Gunnison River drainage)
- Needle Rock/Lone Rock Ditch Piping Project (approximately 2 miles northeast of the Town of Crawford)
- North Delta Irrigation Canal Salinity Control Project Phase I (northeast of the City of Delta)
- Orchard Ranch Ditch Piping Project (near the Town of Eckert)
- Pilot Rock Ditch Piping Project (approximately 4 miles east of Crawford)
- Rogers Mesa Water Distribution Association’s Slack and Patterson Laterals Piping Project (approximately 3 miles west of the Town of Hotchkiss)
- Short Ditch Extension Piping Project (near the Town of Hotchkiss)
- Turner/Lone Cabin Combination Piping Project (approximately 2.5 miles southeast of the Town of Paonia)
• Uncompahgre Valley Water Users Association East Side Laterals Piping Projects Phases 7, 8, 9, and 10 (throughout the Uncompahgre Valley)

1.5.2 CRSP Basin Funds
Reclamation’s Western Colorado Area Office recently utilized Colorado River Storage Project (CRSP) Basin Funds to implement the Aspen Canal Piping Project (just northwest of the Town of Crawford) and the GK Lateral Piping Project (approximately 6.5 miles southwest of Lazear in Delta County) in the vicinity of the Project Area (Figure 8 in Appendix A).

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 Proposed Action include (Figure 8 in Appendix A):
• Needle Rock Diversion Project (approximately one mile west of the Pilot Rock Ditch Piping Project)
• Grandview Canal Piping Project (just south of the Town of Hotchkiss)
• Crawford Clipper Ditch Upper West Lateral Master Plan Projects (various) (just west of Crawford)

1.6 Scoping
Scoping for this EA was completed by Reclamation, in consultation with the following agencies and organizations, during the planning stages of the Proposed Action to identify the potential environmental and human environment concerns associated with the implementation of the Proposed Action and No Action Alternative:
• BLM, Uncompahgre Field Office, Montrose, CO
• Colorado State Historic Preservation Office (SHPO), Denver, CO
• Colorado Parks and Wildlife (CPW), Grand Junction, CO
• U.S. Fish and Wildlife Service (USFWS), Ecological Services, Grand Junction, CO
• U.S. Army Corps of Engineers (USACE), Colorado West Regulatory Branch, Grand Junction, CO
• Colorado Department of Transportation (CDOT), Grand Junction, CO
• Southern Ute Indian Tribe, Ute Mountain Ute Tribe, and Ute Indian Tribe (Uintah and Ouray Reservation)

In compliance with NEPA, this Draft EA will be available for public comment for a 30-day period (see Section 5). Any comments received will be included as an appendix to the Final EA. This Draft EA will be distributed to private landowners and BPWCD shareholders adjacent to the Proposed Action, Waterdog Basin grazing allotment holders, and the organizations and agencies listed in Appendix B. There are no active permits for the Kinikin grazing allotment.
Resources analyzed in this EA are discussed in Chapter 3. The following resources were identified as not present or not affected, and are not analyzed further in this EA.

Table 1. Resources Eliminated from Further Analysis.

<table>
<thead>
<tr>
<th>Resource</th>
<th>Rationale for Elimination from Further Analysis</th>
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<tbody>
<tr>
<td>Indian Trust Assets and Native American Religious Concerns</td>
<td>Indian Trust Assets (ITAs) may include lands, minerals, hunting and fishing rights, traditional gathering grounds, and water rights. No ITAs have been identified within the Project Area. The American Indian Religious Freedom Act was enacted to protect and preserve American Indian traditional rights and cultural practices. These rights include, but are not limited to, access to sacred sites, freedom to worship through ceremonial and traditional rights, and use and possession of objects considered sacred. No American Indian sacred sites are known within the Project Area. Neither the No Action Alternative nor the Proposed Action would have an effect on ITAs or American Indian sacred sites. To confirm this finding, Reclamation provided the Ute Mountain Ute Tribe, the Ute Indian Tribe (Uintah and Ouray Reservation), and the Southern Ute Indian Tribe with a description of the Proposed Action and a written request for comments regarding any potential effects on ITAs or American Indian sacred sites as a result of the Proposed Action. The Southern Ute Indian Tribe requested additional information before determining the project would have no adverse effect to properties of cultural and religious significance, and the other two Ute tribes had no comment on the Proposed Action.</td>
</tr>
<tr>
<td>Environmental Justice and Socio-Economic Issues</td>
<td>Executive Order (EO) 12898 provides that federal agencies analyze programs to assure that they do not disproportionately adversely affect minority or low-income populations or Indian Tribes. The Project Area does not occur on Indian reservation lands or within disproportionately adversely affected minority or low-income populations. The Proposed Action would not involve population relocation, health hazards, hazardous waste, property takings, or substantial economic impacts. Therefore, neither the No Action Alternative nor the Proposed Action would have an environmental justice effect.</td>
</tr>
<tr>
<td>Wild and Scenic Rivers, Land with Wilderness Characteristics, or Wilderness Study Areas</td>
<td>No Wild and Scenic Rivers, land with wilderness characteristics, or Wilderness Study Areas exist in the Project Area. Therefore, neither the No Action Alternative nor the Proposed Action would impact these designated areas.</td>
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2 PROPOSED ACTION AND ALTERNATIVES

In accordance with NEPA and the CEQ regulations, a No Action Alternative is presented and analyzed in this EA in order to provide a baseline for comparison to the Proposed Action. The alternatives evaluated in this EA include a No Action Alternative and the Proposed Action. The resource analysis contained within this document, along with other pertinent information, will guide Reclamation’s decision about whether to fund the Proposed Action for implementation. The Proposed Action is analyzed in comparison to a No Action Alternative to determine potential environmental effects if funding is authorized and the Proposed Action is implemented.

2.1 Alternatives Considered but not Carried Forward

Two alternatives were considered during the conceptual design process for the Proposed Action but were not proposed to Reclamation. The first alternative considered but not carried forward was to keep the Waterdog Lateral in the same alignment. This alternative was eliminated because of the safety risks for personnel that would need to install the pipe at the bottom of a deeply eroded portion of the existing alignment. The current alignment functions as a natural wash. With highly erosive soils in this area, portions of the natural wash eroded deeply over the 100 plus years the lateral has been in place. Therefore, there were concerns about safety during pipe installation, and the potential for erosion to undermine the pipeline cover over time if the lateral was maintained in the original alignment.

The second alternative considered but not carried forward was the use of polyvinyl chloride (PVC) pipe, rather than HDPE pipe. This alternative was eliminated due to the sinuosity of the alignment, which would require several mitered bends, likely making this alternative uneconomical.

2.2 No Action Alternative

Under the No Action Alternative, Reclamation would not authorize funding to BPWCD to pipe the Shinn Park and Waterdog Laterals. Irrigation practices and seepage from the unlined open laterals would continue to contribute to salt and selenium loading in the Colorado River Basin. Riparian habitats associated with the unlined open canal laterals would likely remain in place and continue to provide some benefits to local wildlife. The HRP would not be implemented and improvements to Cottonwood Creek would not occur.

2.3 Proposed Action

The specific locations of the Proposed Action are described in Section 1.1 and shown on Figures 2, 3, and 4 in Appendix A. Under the Proposed Action, Reclamation would authorize funding to BPWCD to develop the Shinn Park and Waterdog Laterals and necessary habitat restoration. Overall, the Proposed Action would pipe the existing open, unlined Shinn Park Lateral (17,370 feet) and Waterdog Lateral (23,430 feet) with a total of approximately 7.73 miles (40,800 feet) of HDPE pipe (Figures 9 and 10 in Appendix A). The majority of the Proposed Action would follow the
existing alignment, with slight deviations occurring within 10 to 15 feet of the centerline of the existing ditch. Minor lateral deviations would occur in four locations, with two deviations at each lateral. Two deviations totaling approximately 0.56 miles of the Shinn Park Lateral would be realigned; one 0.5-mile deviation would occur beneath the O&M road and a short, 0.06-mile deviation would occur in the bottom third of the lateral to minimize fittings and help control hydraulics within the pipeline. BLM would acknowledge a historic prescriptive ROW to allow for the straightening and conversion of the open ditch to pipe on the segment of the Shinn Park Lateral which is located on BLM land. A total of approximately 1.37 miles of the Waterdog Lateral would be realigned as part of two deviations. One deviation would realign approximately 1.25 miles of the middle section of the Waterdog Lateral to avoid a highly eroded portion of the existing alignment and to create a slightly more linear footprint, as the existing lateral curves through pinyon (Pinus edulis)-juniper (Juniperus scopulorum) and Gambel oak (Quercus gambelii) woodland. The second deviation would realign the Waterdog Lateral by approximately 0.12 miles to allow the Waterdog Lateral to share a single intake structure with the Shinn Park Lateral, requiring the Waterdog Lateral to parallel the Shinn Park Lateral for the first 485 feet. A small portion of the existing Waterdog Lateral O&M road (approximately 125 feet) falls on BLM land, and would be utilized for construction access; therefore, the construction access would require BLM to acknowledge a historic prescriptive ROW.

Improvements included in the Proposed Action are a screening and pipeline intake structure, turnouts for existing users, concrete hydraulic overflow structures, and wildlife guzzlers. Installation of the piping would include removal of most existing ditch structures, excavation, backfilling, and surface restoration. Existing turnout locations would be maintained along the new pipelines. The existing laterals would be fully or partially backfilled with native materials, re-graded to match site contours where applicable, and all disturbed soils would be seeded with a BLM approved seed mix at a rate of approximately 14.4 pounds of seed per acre (Appendix C). To reduce impacts to wildlife from the loss of the open laterals, wildlife guzzlers would be installed at roughly equal intervals along the entire pipeline for each lateral (Figure 3 in Appendix A). These guzzlers would provide a water source to wildlife and livestock during the irrigation season. The Proposed Action would not include new water storage facilities or result in an increase in irrigated acreage.

The Proposed Action would be implemented in accordance with the environmental commitments listed in Section 4. Best Management Practices (BMPs) would be used to control erosion, minimize disturbance to wildlife, prevent spills or petroleum products, and minimize the spread of weeds during site plantings and maintenance (see Section 4).

2.3.1 Pipeline Installation and Canal Decommissioning

2.3.1.1 Alignment and Structures at the Lateral Split
The pipeline component of the Proposed Action was designed and engineered by J-U-B in accordance with Reclamation standards. The Shinn Park and Waterdog Laterals both stem from the Hairpin Canal at its westernmost point. Historically, the termination of the Hairpin Canal coincides with the split between Shinn Park and Waterdog Laterals. A third lateral, the Kinikin Lateral, splits off from the Waterdog Lateral a short distance below the metal split structure for the Shinn Park and Waterdog Laterals. The split structure would remain in place, while the intake structure for both
pipelines would be located immediately downstream of the split. The shared Kinikin/Waterdog channel would remain in place up to the split between the Waterdog and Kinikin Laterals.

The intake structure would pass flow for both the Waterdog and Shinn Park Laterals through a Coanda screen and serve as the start of both the laterals. After the intake structure, the Waterdog pipeline would parallel the Shinn Park Pipeline (in the existing Shinn Park alignment) for approximately 485 feet. The Waterdog alignment would then turn southwesterly to travel down the old Waterdog alignment. The shared Waterdog/Kinikin lateral terminates with another metal split structure with an adjustable split that divides the two channels. This structure would be removed, and the Waterdog pipeline would pass under the Kinikin channel. Minor earthwork would be performed to regrade the start of the Kinikin channel, allowing the system to function without the metal split structure. The structure would be able to bypass any water that cannot be utilized by the Shinn Park and Waterdog pipelines. Bypass would occur before or after the Coanda screen, and bypassed water would be spilled into the old Waterdog/Kinikin channel.

2.3.1.2  Structures in the Shinn Park Lateral
A concrete hydraulic structure with a grating over all openings is located approximately 2,300 feet from the end of the piping project. This structure provides an overflow by using offsetting weirs, which sets a maximum piezometric elevation in the pipeline so that thinner (and thereby cheaper) pipe can be used. Water that spills from the structure goes under the existing O&M road via a short pipe segment and discharges to an existing ditch operational spill that outlets to a natural wash. The structure also checks water supply for two users through individual headgates.

2.3.1.3  Structures in the Waterdog Lateral
A concrete hydraulic structure with grating over all openings is approximately 5,900 feet from the end of the piping project. The structure provides an overflow location with a weir that spills to a box with a pipe outlet. The short segment of pipe goes under the adjacent O&M road and discharges into the Operational Spill Location (which outlets to a natural wash). This series of elements would be used to set a maximum water surface elevation for the pipeline downstream of the structure, allowing for smaller pipe to be used in the remaining pipeline.

2.3.1.4  Wildlife Guzzlers
Wildlife guzzlers would be distributed along the Proposed Action alignment at roughly equal intervals. The guzzlers require a pressurized pipe. Some areas of the pipeline are designed to be unpressurized, therefore the longest stretch on the Waterdog Lateral without guzzlers is approximately 7,500 feet. Some guzzlers are close together due to the location of fence lines and the desire to provide water on both sides of a single fence line. Certain areas also have local low spots, which pressurize and allow for easy integration of the guzzlers, which also serve as drains in these local low spots. Guzzlers have been incorporated along the entire alignment even though not equally spaced due to engineering constraints (Figure 3 in Appendix A). All wildlife guzzlers would be located on private land (Figures 5 and 6 in Appendix A).
Pipeline Specifications and Alignments

The pipe diameters would range from approximately 24- to 36-inches in the Shinn Park Lateral and from 10- to 24-inches in the Waterdog Lateral (excluding the smaller pipe used for turnouts). Both systems would continue to be gravity fed and would not require pumps or lift stations to deliver water. The existing farm turnout structures on the newly piped sections would be replaced with new structures equipped with electronic flow meters and control valves.

The existing lateral alignments are in prescriptive easements on private lands. A portion of the Shinn Park Lateral occurs on BLM lands, which would require BLM to acknowledge a historic prescriptive ROW. All private landowners in the footprint of the Proposed Action where activities would take place outside of the prescriptive easement have agreed to allow the activities of the Proposed Action to be conducted on their lands. The ROW and easements for the Proposed Action and their specific locations would be clearly marked on the construction drawings.

The Proposed Action would cross Q72 Road as part of the Waterdog Lateral piping. The road crossing would require that a trench be cut across the road, pipe be laid and embedded in ¾-inch crushed rock, and flow fill used to cap the top 18-inches of the trench.

The Proposed Action would largely follow the existing alignment of the two laterals, with slight deviations occurring within 10 to 15 feet of the centerline of the existing ditch, except for two minor deviations on each lateral. The deviations on the Shinn Park Lateral would total 0.56 miles, and 1.37 miles of the Waterdog Lateral would deviate from the existing alignment.

Permanent vegetation disturbance is associated with the removal of large trees within a 200-foot corridor (100-foot buffer from the centerline of the laterals), when necessary. Areas of permanent ground disturbance would be graded and reclaimed with native vegetation to avoid erosion. The prescribed seed mix is identified in Appendix C. Permanent tree removal would be associated with the 1.25-mile realignment of the Waterdog Lateral and the piping of the lower segment of Waterdog Lateral. Tree removal for the realignment of Waterdog Lateral and piping of the lower segment would occur at a 20-foot width, based on the necessary equipment (i.e., trackhoes, excavators, fusion welder, dump truck, large pickups with trailers) and trench width, for approximately 5,140 feet of Waterdog Lateral. A 10-foot width for tree removal was assumed where the Waterdog Lateral realignment occurs adjacent to the fence line (approximate 2,300-foot area). It is estimated that approximately 2.9 acres of the alignment would require some tree removal to complete the Proposed Action. The Project Area along the canal segments is contained within a 200-foot-wide corridor. The anticipated average width of the construction area for the Proposed Action would be 100 feet but could be as wide as 200 feet under certain conditions. The width of the construction footprint would depend on site conditions (slope, nearby infrastructure, nearby sensitive resources) and the ability to operate equipment safely. The authorized construction area widths would not be constrained by the existing ditch centerline, but rather would be adjustable to site conditions in order to complete the work safely and with the smallest possible disturbance footprint. Construction footprints would be limited to only those necessary to safely implement the Proposed Action. The authorized construction width would not be mechanically cleared to its maximum outer limits as a part of site
preparation. Areas of temporary ground disturbance would be graded and reclaimed with native vegetation to avoid erosion. The prescribed seed mix is identified in Appendix C.

2.3.2 Habitat Replacement Plan
In accordance with the Colorado River Basin Salinity Control Act, habitat replacement would be required to mitigate for riparian and wetland habitat lost as a result of the Proposed Action. J-U-B prepared a HRP at the Gerdin property in coordination with Reclamation, BPWCD, a private landowner, and the Colorado West Land Trust. The HRP would replace wildlife habitat losses associated with two BPWCD projects: the Siphon Lateral Project and the current Proposed Action. The Siphon Lateral Project and its associated habitat replacement project at Billy Creek State Wildlife Area were implemented in 2014. The habitat replacement project at Billy Creek State Wildlife Area was determined to have a low likelihood of success due to the lack of water availability, and therefore failed to generate as many habitat credits as originally anticipated. Subsequently, BPWCD and Reclamation have determined that the Gerdin HRP would replace the habitat losses that remain unfulfilled by the HRP at the Billy Creek State Wildlife Area, as well as the habitat losses associated with Proposed Action. The combined habitat units needed to replace the wildlife habitat value lost by both projects is 29.6, which was approved by Reclamation in April 2021.

Habitat value lost due to the Proposed Action and Siphon Lateral Project would be offset at the HRS in accordance with the HRP. The HRP project would stabilize and revegetate stream bank along Cottonwood Creek utilizing native vegetation. Additionally, the HRP project would remove invasive thistle species in wet meadow areas and would exclude cattle from wet meadow and riparian areas in a rotational grazing system using fences with wildlife flags to avoid any potential harm to Gunnison sage-grouse (*Centrocercus minimus*) if present in the area. Native plant species such as narrowleaf cottonwood (*Populus angustifolia*), peachleaf willow (*Salix amygdaloides*), shining willow (*Salix lucida*), and skunkbush sumac (*Rhus trilobata*) would be planted in the riparian area of the creek and around the edges of the spring-fed ponds. BPWCD would be responsible for maintenance of the restoration and habitat site for 50 years after its establishment.

2.4 Construction

2.4.1 Equipment
It is anticipated that bulldozers, backhoes, trackhoes, excavators, haul trucks, and various smaller construction vehicles and equipment (such as pipe fusion equipment) would be used to complete the project. Installation of the pipeline in the existing lateral alignments would involve using trackhoes and a bulldozer to grub vegetation and prepare the existing ditch laterals. An excavator would then trench in the prepared area to place the pipe. Front end loaders with pallet forks would likely be used to handle pipe in the staging areas. Fill and borrow material would be transported in dump trucks loaded with a trackhoe or loader. Pipe arriving at the staging areas would be transported on flatbed trucks and fused adjacent to (or within) the trench. A bulldozer and grader would be used to grade the surface and prepare it for re-vegetation following completion of pipe installation activities.
2.4.2 Access
Construction and access footprints would be limited to only those necessary to safely implement the Proposed Action. All access ways for construction of the Proposed Action would be on the existing lateral prisms, county roads, or existing private roads. A small portion of the existing Waterdog Lateral O&M road (approximately 125 feet) falls on BLM land, and would be utilized for construction access; therefore, the construction access would require BLM to acknowledge a historic prescriptive ROW. Access points to BLM land would be primarily along the existing canal ROW. Some access routes may require minor grading and smoothing to allow truck access to the project alignment. Access routes and road crossings would be returned to the same or better conditions than they were prior to construction.

2.4.3 Staging and Borrow Areas
Several construction borrow/staging areas have been identified for the Proposed Action (Figures 9 and 10 in Appendix A). All staging and material borrow would take place on previously disturbed ground on private land. A central staging area would be located in a parking pullout on the Q72 road, which is an actively disturbed site within the roadway prism. Materials would be lined out beside the existing laterals in sections as construction proceeds. Stockpiles would not be placed along the lateral for staging. The existing O&M roads are anticipated to remain in their existing positions, parallel with the laterals. The existing O&M road would be used to access the entire Shinn Park Lateral. Any unavoidable shifts in the O&M road, should they be necessary, would remain within the 200-foot corridor (100 feet to either side from the centerline of the lateral), which is included in the Project Area and evaluated in this analysis. The upper segments of the Waterdog Lateral would be accessed using the existing O&M road that parallels the lateral. The bottom segment of the Waterdog Lateral also has an existing O&M road, which would be used to access the lateral during construction. A small portion of the existing O&M road in the bottom segment of the Waterdog Lateral falls on BLM land, and would be utilized for construction access; therefore, the construction access would require BLM to acknowledge a historic prescriptive ROW. In certain segments, or where the piping project would deviate from the existing alignment, there is no existing O&M road, so equipment would move adjacent to the proposed alignment. Materials for the Waterdog Lateral would be staged within the primary staging area on Q72 Road as well as within the construction buffer surveyed for the project. Any identified cultural resource areas would be fenced and avoided to prevent impacts to those resources.

The material needed for construction would ideally be generated within the construction footprint; however, if additional borrow materials are needed, it would be obtained either from the borrow/staging areas designated for the Proposed Action, or from an off-site commercial source. All surface disturbances caused by construction of the Proposed Action would be reclaimed. Vegetation slash would be hauled off-site to one of the several identified proposed staging areas and chipped or removed to a proper disposal or composting facility. All disturbed areas would be smoothed with tracked equipment without back dragging the blade and revegetated with a drought-tolerant seed mix that is approved by BLM and appropriate for the surrounding habitat, especially if located within sage-grouse critical habitat (Appendix C). Revegetation efforts on BLM property would be monitored subject to Environmental Commitments, unless there is an agreement between private landowners and BPWCD for alternative revegetation plans.
BMPs would be used to control erosion, minimize harm to wildlife, reduce impacts to air quality, and minimize the spread of noxious weeds during and following construction. Noxious weeds would be controlled in disturbed areas according to Environmental Commitments and county standards. BMPs and other protective measures are described and analyzed as part of the Proposed Action in Section 3 (Affected Environment and Environmental Consequences) under each resource topic and summarized in Section 4 (Environmental Commitments).

### 2.4.4 Construction Timeframe

Construction for the Proposed Action would be spanned two years. Construction would begin in the fall/winter in year one and would be complete by April 1 in year two. The Shinn Park Lateral would be piped first with construction occurring from fall/winter to April 1 in year one, and piping of the Waterdog Lateral would follow with construction starting late the next September and completing by April 1 in year two.

The HRP would be implemented concurrently with the piping of the Shinn Park and Waterdog Laterals. Full implementation of the HRP would begin in fall/winter with invasive thistle removal and native plant installation along portions of Cottonwood Creek. Native shrubs would be planted again in early spring along Cottonwood Creek. Wet meadows would be seeded with native forbs and grasses in spring. All activities would be completed within two years, after which the project would be maintained by BPWCD and the private landowner for 50 years.

The timing of certain activities related to the Proposed Action would be subject to limitations to protect special status species and their habitats. These timing limitations are explained in Section 3.2.9 and listed in the Environmental Commitments Section (Section 4) as well as in the HRP document.

### 2.5 Permits and Authorizations

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

- **BLM Historic Prescriptive ROW Acknowledgement.**

- **ROW approvals from private landowners outside the prescriptive easement of the laterals with land involved in the Proposed Action, obtained by BPWCD.**

- **Stormwater Management Plan, to be submitted to Colorado Department of Public Health and Environment (CDPHE) by the construction contractor prior to ground disturbance.**

- **CWA Section 402 Storm Water Discharge Permit compliant with the National Pollutant Discharge Elimination System (NPDES), to be obtained from CDPHE by the construction contractor prior to ground disturbance (regardless of whether dewatering would take place during construction).**
• Spill Prevention, Control, and Countermeasures (SPCC) 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 contractor prior to construction activities from local utilities in the area.

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

• Any construction, access, or use permits which may be required by Montrose County.

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

2.5.1 Natural Resource Protection Laws
  • Clean Air Act of 1963 (CAA; 42 U.S.C. § 7401)
  • Clean Water Act of 1972 as amended (CWA; 33 U.S.C. 1251 et seq.)
  • Migratory Bird Treaty Act of 1918 (MBTA; 16 U.S.C. 703-712)
  • Bald and Golden Eagle Protection Act of 1940 (BGEPA; 16 U.S.C. 668- 668c)

2.5.2 Cultural Resource Laws
  • National Historic Preservation Act of 1966 (NHPA; 16 U.S.C. 470 et seq.)
  • Archaeological Resources Protection Act of 1979 (ARPA; 16 U.S.C. 470aa-470mm et seq.)
  • Native American Graves Protection and Repatriation Act of 1990 (NAGPRA; 25 U.S.C. 3001 et seq.)
  • American Indian Religious Freedom Act of 1978 (AIRFA; 42 U.S.C. PL 95-341)
  • Archaeology and Historic Preservation: Secretary of the Interior’s Standards and Guidelines (48 FR 44716)

2.5.3 Paleontological Resource Laws
  • Paleontological Resources Preservation Act of 2009 [PRPA; Section 6301-6312 of the Omnibus Land Management Act of 2009 (PL 111-11 123 Stat. 991-1456)]
3 AFFECTED ENVIRONMENT & ENVIRONMENTAL CONSEQUENCES

3.1 Introduction

This chapter discusses resources that may be affected by the Proposed Action and the No Action Alternative. For each resource, the potentially affected area and/or interests are identified, existing conditions described, and potential impacts and environmental consequences evaluated under the No Action and Proposed Action. BMPs and other mitigation or protective measures described below are considered part of the Proposed Action and are taken into consideration when evaluating environmental consequences. During preparation of this EA, information on issues and concerns was received from BPWCD, resource agencies, and other interested parties, as noted in the subsections below. 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 Gunnison River Basin covers approximately 8,000 square miles, with the BPP and the Proposed Action located within the southwestern quadrant of the basin. The key component of the BPP was the construction of the Silverjack Dam and Reservoir, which is located on the Cimarron River approximately 20 miles above its confluence with the Gunnison River. Construction on the Silverjack Dam and Reservoir was completed in 1971 and delivery of BPP water began in 1972. The BPP water is released from the Silverjack Reservoir to Cimarron Creek, which then flows to the Cimarron Canal and is diverted to laterals within the BPWCD system. Overall, the BPP provides supplemental irrigation water to approximately 5,608 acres of land in the BPWCD.

The Hairpin Canal is fed BPP water by the Cimarron Canal, and feeds both the Shinn Park and Waterdog Laterals of the Proposed Action. The Cimarron Canal via the Hairpin Canal is responsible for irrigating approximately 1,875 acres of agricultural land (CWCB 2004). Water rights associated with the BPP consist of the Cimarron Canal Water Right of 1903 for 60 cubic feet per second (cfs); the Cimarron Canal Water Right of 1905 for 39 cfs; the Cimarron Canal Water Right of 1925 for 86 cfs; the Silverjack Reservoir Water Right of 1955 for 14,000 acre-feet, and the conditional Silverjack Reservoir Water Right for 30,600 acre-feet (CWCB 2004).

There is a regional effort to reduce water loss to seepage and evaporation in the Lower Gunnison and Colorado River watersheds, resulting in improved water quantity at a basinwide scale. Water supplies in the Cimarron River drainage are generally abundant from the start of the irrigation season until the middle of the irrigation season, at which time the supplies are severely reduced, which is why the BPWCD was formed for the general purpose of supplying supplemental irrigation water to the Bostwick Park area (CWCB 2004). Irrigation generally begins around the first of May...
and continues until early September. The main crops present within the Cimarron River drainage and the laterals of the Proposed Action are alfalfa, grass hay, and small grains.

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

**No Action Alternative:** The No Action Alternative would have no effect on water rights and uses within the Gunnison River Basin. The water delivery system would continue to function as it has in the past. Unlined canals in the BPWCD service area and basinwide would continue to experience seepage and evaporation, which contribute to reduced irrigation water supplies in the watershed.

**Proposed Action:** Under the Proposed Action, BPWCD would have the ability to better manage irrigation water use and delivery due to the efficiency gained by eliminating seepage through piping the Shinn Park and Waterdog Laterals. Piping would result in reduced water loss during the irrigation season due to evaporation and seepage and would provide more reliable flows to water users. The water savings resulting from the Proposed Action would contribute to the regional efforts underway to reduce water loss to seepage and evaporation in the Lower Gunnison and Colorado River watersheds. As part of the HRP, BPWCD would direct the spill of excess irrigation flows from the Cimarron Canal to Cottonwood Creek during the irrigation season to provide more consistent seasonal flows in the creek. The Proposed Action would not alter water rights, nor would current uses for irrigation water change. No adverse effects on water rights in the Gunnison River Basin would occur due to implementation of the Proposed Action.

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

### 3.2.2 Water Quality

The Proposed Action is located within the Gunnison River watershed, which is a major tributary of the Colorado River in west-central Colorado. Irrigation practices in the region and in the Project Area contribute to high salinity levels downstream and adversely affect the water quality of the Colorado River Basin (see Section 1.4). Canal seepage associated with the Shinn Park and Waterdog Laterals contribute 3,425 tons of salt per year to the Colorado River Basin (Jacobson 2017). Fish habitat in the Uncompahgre, Gunnison, and Colorado Rivers is also threatened by elevated selenium levels, which occurs in the area’s soils in soluble forms and is leached into rivers through runoff and irrigation. Selenium is necessary for cellular function in a wide range of organisms; however, it can be toxic in slightly elevated concentrations.

There is a regional effort to reduce salinity in the Lower Gunnison and Colorado River watersheds, resulting in improved water quality at a basinwide scale (see Section 1.4). There are also ongoing
regional efforts to reduce selenium loading in the Lower Gunnison and Colorado River basins (SMPW 2011, Reclamation 2020).

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

No Action Alternative: Under the No Action Alternative, the high salt levels contributed to the Colorado River Basin from this system would continue, along with current levels of selenium loading, leaving lasting, negative effects downstream. The HRP would not be implemented under the No Action Alternative.

Proposed Action: In the long term, the Proposed Action would eliminate seepage from the unlined canals, reducing the overall amount of salt loading to the Colorado River Basin by 3,425 tons annually (Jacobson 2017). The Proposed Action is also expected to reduce selenium loading into the Gunnison River Basin by an unquantified amount. Improved water quality from the reduction of salt and selenium loading into the Uncompahgre River would likely benefit downstream aquatic species. The improved water quality resulting from the Proposed Action would contribute to the regional efforts underway to reduce salinity and selenium in the Lower Gunnison and Colorado River watersheds.

The Proposed Action would affect surface and shallow subsurface hydrology supplied to the riparian areas associated with the irrigation canals in the Project Area. The riparian areas are directly related to seepage occurring from the unlined, earthen canals. Seepage influence extends a total average of 7 feet around the earthen canals. This seepage induced vegetation would be lost once the piping is completed. Per Reclamation requirements, the earthen canals would be filled once the piping is completed. Therefore, since most irrigation ditches are considered WOTUS, the Proposed Action 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 Proposed Action would be authorized under RGP-5, by submitting documentation required by RGP-5 to the Army Corps at least 30 days in advance of construction. The required documentation for the new Proposed Action, 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.”

The Proposed Action would also include improvements at the HRS. Establishing native shrubs and trees along Cottonwood Creek would increase structure, reduce erosion and transport of sediment, and improve riparian habitat and thereby indirectly improving water quality in the general Project Area.
3.2.3 Air Quality

The National Ambient Air Quality Standards (NAAQS) established by the U.S. Environmental Protection Agency (EPA) under the CAA specify limits for criteria air pollutants. 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. According to the EPA’s Green Book, Montrose County is currently in attainment for all criteria pollutants (EPA 2021). All areas of the state, other than the Front Range of Colorado, are in attainment for all criteria pollutants and achieve NAAQS (EPA 2021). Local and regional efforts to maintain air quality and achieve NAAQS enable the majority of the state to remain in attainment.

**No Action Alternative:** Under the No Action Alternative, there would be no effect and no change to air quality. The unlined canals would continue to operate in their current positions and configurations, and dust and exhaust would occasionally be generated by vehicles and equipment during routine operation and maintenance activities. Under the No Action Alternative, Montrose County and the surrounding areas would continue existing practices that enable the region to meet NAAQS and remain in attainment.

**Proposed Action:** There would be no long-term impacts to air quality from the Proposed Action. Dust from construction activities would cause short-term impacts to air quality in the immediate vicinity of the Proposed Action. BMPs would be implemented as appropriate to minimize dust and would include measures such as wetting the construction site surface and access roads, minimizing vehicle travel over unpaved surfaces, limiting activity during periods of extreme winds and stabilizing stockpiles. Construction related impacts to air quality would be temporary and would cease upon completion of the project. Following construction, the air quality in the vicinity of the Proposed Action would be comparable to existing conditions. Construction at the HRS would have short-term impacts to air quality, similar to other construction impacts described above and would cease upon completion of improvements at the HRS. Given the implementation of BMPs and temporary nature of construction related air quality impacts, the implementation of the Proposed Action would not hinder regional efforts to maintain air quality standards for criteria pollutants in Montrose County or the surrounding areas.

3.2.4 Access, Transportation, & Public Safety

Access, transportation, and public safety in the region is managed by various local, state, and federal agencies, including the Montrose County Sheriff, Montrose County Fire Protection District, Montrose County Public Works Departments, the Colorado Department of Transportation, and BLM. The major transportation routes in the vicinity of the Proposed Action are US-50 and US-550. The Proposed Action would be accessed through local roads, such as Kinikin Road, Q72 Road, and R71 Road. Private maintenance roads along the existing canals provide access to each segment of the Project Area. The HRS would be accessed via US-50 and a private access road. Access points to BLM land would be along the existing canal ROW. Alternate routes are not anticipated to be necessary.
Private roads and county-maintained roads generally provide access and mobility for local residents traveling in and out of the Project Area. The Montrose County Sheriff and the Montrose Fire Protection District cover the Project Area for emergency response.

**No Action Alternative:** There would be no effect to public safety, transportation, or public access from the No Action Alternative. The No Action Alternative would not impact access, transportation, or public safety at the local or regional level. No permits or coordination with local, state, or federal agencies would be required under the No Action Alternative.

**Proposed Action:** The Project Area, including the HRS, would be accessed using existing public roads and private roads. There would be no need for construction of new access roads for the Proposed Action, as construction access would be on existing roads and within the lateral’s ROW. Some access routes may require minor grading and smoothing to allow truck access to the project alignment. Access routes and road crossings would be returned to the same or better conditions than they were prior to construction. A small portion of the existing Waterdog Lateral O&M road (approximately 125 feet) falls on BLM land, and would be utilized for construction access; therefore, the construction access would require BLM to acknowledge a historic prescriptive ROW. There are no known bridges in the Project Area with weight restrictions that would be used by construction vehicles. Implementation of the Proposed Action may cause brief delays along public roadways adjacent to the Proposed Action from construction vehicles entering and exiting local roadways. In an effort to minimize local and regional impacts to access, transportation, and public safety from the Proposed Action, BPWCD and the Contractor would coordinate with Montrose County Public Works Departments for construction road crossings or any necessary permits and would also coordinate with the County and Sheriff departments when traffic or access would be delayed or re-routed.

Active construction areas would be adequately marked and barricaded to prevent public access. Trenches left open overnight would be limited to the extent practicable. In the case that a trench is left open overnight, it would be covered to adequately prevent entrapment of people, livestock, and wildlife.

### 3.2.5 Recreational and Visual Resources

Lands in the basin constitute a combination of private and federally owned lands, including lands administered by the National Parks Service, U.S. Forest Service, and BLM. The majority of land affected by the Proposed Action is privately owned and closed to public access for recreation. Public lands in the Project Area are lands administered by BLM. These BLM lands are managed under the Uncompahgre Resource Management Plan (RMP) (BLM 2019). The Proposed Action specifically crosses BLM lands within the Waterdog Basin and Kinikin Grazing Allotments, which encompass approximately 786 acres and 160 acres, respectively, surrounding the Project Area.

The RMP assigned the BLM lands within the Project Area as Visual Resource Management (VRM) Class II (BLM 2020). Actions within VRM Class II areas should retain the existing character of the landscape, but the Class II classification allows for visible changes that do not attract attention (BLM 2022).
2021). The BLM lands involved in the Proposed Action are not visible to any nearby highways or residences. No formal recreation areas occur within the Project Area.

**No Action Alternative**: The No Action Alternative would have no effect on recreational or visual resources on private or federally managed lands in the basin or Project Area. Recreation in the Project Area and basin would continue as in the past, and visual resources would remain unchanged. Given that existing conditions would be maintained under the No Action Alternative, no coordination with private landowners or federal agencies would be required.

**Proposed Action**: The majority of the Project Area is privately owned and closed to public access. Under the Proposed Action, 610 feet of the Shinn Park Lateral occurs on BLM land and the Waterdog Lateral piping would occur within approximately 15 feet of BLM land. A small portion of the existing Waterdog Lateral O&M road (approximately 125 feet) falls on BLM land, and would be utilized for construction access. There would be temporary visual impacts during construction by the presence of construction equipment and activities. After construction, affected areas would be graded to match the surrounding topography and revegetated. Once vegetation becomes established, the affected areas would merge with surrounding areas and create a contiguous landscape. Given that the Proposed Action would temporarily impact visual resources in the Project Area, and that affected areas would be graded and revegetated post-construction, the Proposed Action is not anticipated to impact visual resources at the basin level. The Proposed Action could disrupt informal recreation activities in the immediate area due to construction activities (e.g., noise, equipment, access delays, dust, etc.); however, these disruptions would be temporary, would not impact regional recreation opportunities, and are expected to cease following construction. No formal recreation opportunities in the Project Area or basin would be impacted by the Proposed Action, including during construction.

The HRS would experience temporary disruption during restoration activities. Visual aesthetics would improve as native trees and shrubs become established as part of the creek bank stabilization and would likely improve existing visual conditions after the removal of invasive species and implementation of the livestock rotational grazing around the spring-fed ponds. Visual aesthetics would improve with every growing season as the plants mature.

### 3.2.6 BLM Grazing Allotments

The BLM authorizes livestock grazing on 7.8 million acres within Colorado, which comprise about 2,400 separate grazing allotments and more than 1,000 ranching operations (BLM 2022). The BLM lands within the Project Area fall within the Waterdog Basin Grazing Allotment and Kinikin Grazing Allotment, which cover approximately 786 acres and 160 acres, respectively. The Waterdog Lateral comes within approximately 15 feet of the Waterdog Basin Grazing Allotment and does not pass through the allotment. However, existing O&M road for the Waterdog Lateral occurs on the Waterdog Basin Grazing Allotment for approximately 125 feet, amounting to approximately 0.043 acres. The Shinn Park Lateral passes through the Kinikin Grazing Allotment for 610 feet, assuming a 200-foot construction corridor, approximately 2.8 acres of the Project Area occur on the Kinikin Grazing Allotment. The grazing allotments include pinyon-juniper woodland, Gambel oak woodland, and sagebrush steppe with black sagebrush, winterfat (*Krascheninnikovia lanata*), antelope

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bitterbrush (*Purshia tridentata*), serviceberry (*Amelanchier alnifolia*), snowberry (*Symphoricarpus rotundifolius*), mountain brome (*Bromus marginatus*), bluegrass (*Poa spp.*), Junegrass (*Koeleria macrantha*), milkvetch (*Astragalus spp.*), and mountain muhly (*Muhlenbergia montana*). Along the open laterals, riparian vegetation associated with seepage includes scouring rush (*Equisetum laevigatum*), wood’s rose (*Rosa woodsii*), dandelion (*Taraxacum officinale*), coyote willow, serviceberry, rabbitbrush, long-leaf phlox (*Phlox longifolia*), lupine (*Lupinus argenteus*), and Russian knapweed (*Acroptilon repens*). Overall, vegetative health within the Project Area is reduced due to livestock grazing pressure during the growing season.

**No Action Alternative**: The No Action Alternative would have no effect on grazing allotments or grazing operations on BLM lands within the Project Area or basinwide. Livestock grazing in the Project Area and basin would continue as in current operations.

**Proposed Action**: Under the Proposed Action, temporary disturbance of up to 2.8 acres of grazing pastureland within the Kinikin BLM Grazing Allotment would occur during construction of the Shinn Park Lateral. Access points to BLM land would be primarily along the existing canal ROW. Some access routes may require minor grading and smoothing to allow truck access to the project alignment. Surface disturbances would be reclaimed per BMPs and the area would be restored to previous conditions. Access routes and road crossings would be returned to the same or better conditions than they were prior to construction. A small portion of the existing O&M road along the bottom segment of the Waterdog Lateral is situated on the Waterdog Basin BLM Grazing Allotment. No temporary disturbance of grazing pastureland within the Waterdog Basin Grazing Allotment is anticipated, as grading of access routes is not anticipated to be required in this area. Livestock grazing in the pastureland could be temporarily affected by the Proposed Action during construction; however, piping of the laterals would occur outside the irrigation season, which would correspond with the winter months and the absence of livestock grazing. Additionally, the quality of the grazing range represents a small percent of the overall grazing pastureland and the Proposed Action would not alter the range quality. The pastureland permittees would be notified of activities under the Proposed Action. During construction, pipeline trenches left open overnight would be kept to a minimum and covered to reduce potential for entrapment of big game, small mammals or livestock, and to protect public safety. Covers would be secured in place and strong enough to prevent livestock or wildlife from falling through. Both trench covers and wildlife escape ramps would be utilized at all times.

The Proposed Action would not alter or remove BLM lands from grazing access in the Project Area or at the basinwide level, nor would the quality of those range lands be degraded. The Proposed Action may result in a small increase of lands capable of providing livestock grazing with the Project Area by filling and vegetating the lateral alignments. The Proposed Action would include wildlife guzzlers on private land along the lateral alignments, which livestock would be able to access.

### 3.2.7 Vegetative Resources & Weeds

Figure 7 (Appendix A) shows the general vegetation land cover types in the Project Area and the basin. Land cover types around the Project Area include low semi-desert shrublands dominated by shadscale, mat saltbush, or greasewood, with areas of disturbed ground and irrigated hayfields or
pastures. Land cover types in the region are generally consistent with the Project Area but includes a total of six different land cover types (see Figure 7 in Appendix A). The natural community within the laterals’ Project Area is characterized by pinyon-juniper woodland, Gambel oak woodland, and sagebrush steppe with black sagebrush, winterfat, antelope bitterbrush, serviceberry, snowberry, mountain brome, bluegrass, Junegrass, milkvetch, and mountain muhly. At elevations between 6,945 and 8,100 feet, and with predominantly west-northwest and west-southwest facing slopes, vegetation along the Shinn Park and Waterdog Laterals exhibit transition zones where species associated with semi-arid benchlands and mid-elevation forests arise in close proximity. Along the open laterals and drainage patterns downgradient of the laterals, narrow bands of riparian vegetation associated with seepage includes scouring rush, wood’s rose, dandelion, coyote willow, serviceberry, rabbitbrush, long-leaf phlox, lupine, and Russian knapweed.

The riparian and wetland vegetation along the open ditch lateral corridors support or contribute to the support of aquatic wildlife, terrestrial wildlife, and migratory birds. PL 980-569 and PL 104-20 require the Secretary of the Interior to “implement measures to replace incidental fish and wildlife values foregone” and develop a program that “shall provide for the mitigation of incidental fish and wildlife values that are lost.”

The HRS is described in Section 2.3.2. The site consists of heavily grazed meadows and highly eroded channels within Cottonwood Creek. The natural vegetative community is similar to the Shinn Park and Waterdog Laterals, and is dominated by species such as sagebrush, sumac, Gambel oak, pinyon pine, juniper, rubber rabbitbrush (*Ericameria nauseosa*), coyote willow, sedges (*Carex* spp.), and a mixture of grasses and forbs.

Noxious weed presence and the need for weed management exists in the Project Area, much like at the regional level. Pursuant to the Colorado Noxious Weed Act, Montrose County developed the Montrose County Weed Management Plan (2011) to address noxious weed management in the region. Several noxious weed seed dispersal processes contribute to the spread of noxious weeds in the region, including but not limited to, the movement of livestock, application of contaminated seeds, irrigation water, and use of contaminated equipment.

**No Action Alternative:** There would be no effect on existing vegetation or habitat from the No Action Alternative. The Project Area would continue to support a riparian vegetative community and associated wildlife species along the existing lateral alignments due to seepage, and noxious weed seed transport would continue to occur due to the open waterways immediately adjacent to agricultural fields. The No Action Alternative would not alter vegetation or habitat in the region, and existing weed seed dispersal processes in the region would continue as current conditions, as would basinwide efforts to manage noxious weeds.

**Proposed Action:** Construction activities would temporarily disturb habitat in the immediate Project Area. Those areas disturbed by construction and the backfilled canal prisms would be restored following construction by contouring and reseeding with approved seed mixes as described in Appendix C. Construction footprints would extend, in some cases, into previously undisturbed ground, creating optimal conditions for weeds to spread. Construction BMPs, such as cleaning...
vehicles before bringing them onsite, would help minimize the risk of weed introduction and recruitment, and the BPWCD would continue to implement weed management measures such as mechanical removal and herbicide application during revegetation and operation of the canals. Revegetation on BLM-administered land would be implemented according to Environmental Commitments and Montrose County standards.

In the long term, piping the canals would remove segments of open water, a contributing factor to invasive seed transport in this landscape. Certain segments of the laterals may no longer require regular maintenance, lowering the potential for continued spread and establishment of weeds. Downgradient seeps from the canal banks that currently support herbaceous and woody noxious weeds would be dried and the ability of the soils to support these weeds would be reduced and likely removed altogether. The piping of laterals would remove a key vector for weed seed dispersal which would contribute to the regional efforts underway to manage noxious weeds at the basinwide level.

The Proposed Action would result in the loss of riparian and wetland vegetation associated with seepage from the unlined laterals. A habitat evaluation was performed for the Project Area to quantify the potential habitat values that would be lost due to implementation of the Proposed Action (J-U-B 2021). The evaluation followed the methodology outlined in Reclamation’s April 2018 Basinwide Salinity Control Program: Procedures for Habitat Replacement. A Total Habitat Value (THV) score was calculated for each affected wetland and riparian habitat area by multiplying the acreage of the area by its habitat quality score (HQS), which is based on ten habitat criteria. The predicted total THV units that would be affected due to the Proposed Action and the previous Siphon Lateral Project is approximately 29.6, with 24.9 credits associated with the Proposed Action and 4.7 credits associated with the Siphon Lateral Project. The HRP component of the Proposed Action would add to ongoing basinwide efforts to address impacts associated with the direct and indirect loss of seepage induced riparian vegetation from piping canals in the region.

To compensate for the loss of 29.6 THV units caused by the implementation of the Proposed Action and the previous Siphon Lateral Project, BPWCD would implement the HRP (J-U-B 2021) described in Section 2.3.2. Noxious weeds and non-native trees and shrubs would be reduced by treatment and removal efforts. Native species abundance would increase from seeding and planting activities, as well as the continued management of invasive species. Implementation of the HRP would result in a healthier riparian corridor within the HRS, and would contribute to habitat improvements downstream of the HRS. Construction of the Proposed Action, including the HRS, would follow BMPs to minimize construction footprint, protect water quality, and minimize dust and soil erosion. Revegetation would be implemented in consultation with underlying landowners or according to Environmental Commitments. The noxious weed removal component of the HRP would contribute to regional efforts underway to manage noxious weeds in the region, as well as improving riparian habitat with native plant species.

3.2.8 Wildlife Resources
The Lower Gunnison and Colorado River watersheds support a variety of wildlife and provide important wildlife habitat. Given the negative impact of salt and selenium loading on wildlife resources, there is a regional effort to reduce salinity and selenium in the Lower Gunnison and
Colorado River watersheds, improving water quality and thereby enhancing wildlife habitat at a basinwide scale. The canals in the Project Area provide sections of riparian and wetland habitat within an overall area of upland, semi-arid vegetation. Vegetation and water resources supported by the existing canals provide nesting, breeding, foraging, cover, and movement corridors for an array of wildlife.

According to the CPW Species Activity Dataset, the Project Area supports mule deer year-round. Similarly, the overall Project Area overlaps with elk year-round ranges. The overall range for black bear and mountain lion also lies within the Project Area, as does the winter range for bald eagle (CPW 2020).

Small mammals, reptiles, and amphibians also inhabit the general Project Area. Small rodents, such as white-tailed prairie dog, mice, voles, shrews, and cottontail rabbit likely use the existing open canals and adjacent areas. Other species common in the vicinity of the Project Area are wild turkey, terrestrial gartersnake, smooth greensnake, prairie lizard and plateau fence lizard, plateau striped whiptail, ornate tree lizard, Hernandez's short-horned lizard, common sagebrush lizard, and Brazilian free-tailed bat (CPW 2020). Scat observed in the Project Area during field surveys was primarily from elk, deer, mountain cottontail, jack rabbit, pygmy rabbit, and black bear.

**No Action Alternative**: Under the No Action Alternative, terrestrial wildlife habitat in the Project Area would remain in its current condition, and no displacement of wildlife would occur. The No Action Alternative would not alter vegetation or habitat in the region. Salinity loading of the Colorado River Basin would continue at current rates, which would continue to affect water quality within the drainage, potentially causing continued negative downstream effects on fish and wildlife.

**Proposed Action**: The Proposed Action would temporarily impact upland wildlife habitat, which would result in minor temporary impacts to wildlife species within the Project Area. Big game impacts would include short-term temporary disturbances due to construction activities from October 15th – April 1st. Long-term, the Proposed Action would remove a source of wildlife drinking water from the area by piping the open canals, however, the Proposed Action would provide wildlife guzzlers along the alignment to mitigate against the loss of the seasonal open water feature.

Due to the irrigation season, the Proposed Project would be constructed from October 15th – April 1st, which would overlap with winter use for big game. Mule deer, moose and elk populations within the vicinity of the Proposed Action would likely move to other suitable areas to avoid disturbances from temporary construction activities. For the protection of wildlife species in the immediate area, pipeline trenches left open overnight would be kept to a minimum and would be covered to reduce the potential for entrapment or harm to large game animals and other smaller mammals. Covers would be secured in place and strong enough to support the weight of a bull moose (1,000+ pounds) and prevent wildlife and livestock from falling through. Both trench covers and wildlife escape ramps would be utilized at all times. Mule deer, elk, and moose habitat is abundant surrounding the Project Area, and population-level impacts are unlikely; therefore, overall impacts would be minor. Given the Project Area does not contain preferred forage for these species, it would be expected that ground disturbance in these areas during the winter would not impact elk,
mule deer, and moose foraging access. Post piping, the Project Area would be reseeded with native grasses and forbs, thereby increasing future forage potential within the alignment for these species. Wildlife would have to go around the Project Area to access habitat below the alignments, however, these animals are accustomed to navigating around the existing canal, therefore it is anticipated that movement for these species would not be altered significantly by the presence of the construction activities.

Direct impacts to small animals, including burrowing amphibians, reptiles, and small mammals, could include mortality and displacement during construction activities along the existing canal alignments. However, these species, and their habitat, are relatively common throughout the area, and population-level impacts would be unlikely; therefore, overall impacts would be minor.

Amphibian and avian species that utilize wetland and riparian fringe habitats would experience a long-term loss of the narrow fringe habitat associated with the existing canals as described in Section 3.2.7. In compliance with the Colorado River Basin Salinity Control Act, the wetland and riparian habitat value lost due to the construction of the Proposed Action would be replaced per the Reclamation-approved HRP, as described in Section 2.3.2 (J-U-B 2021). Through revegetation, species diversification, and bank stabilization, the HRP would improve wildlife habitat for ungulates, small mammals, avian species, and pollinators. The HRP would potentially improve habitat for aquatic species in Cottonwood Creek downstream of the HRS through the new direction of excess irrigation flows from the Cimarron Canal to Cottonwood Creek, and downstream through the reduction of salt and selenium loading in the Colorado River Basin. The improved water quality resulting from the Proposed Action would contribute to the regional efforts underway to reduce salinity and selenium in the Lower Gunnison and Colorado River watersheds, thereby improving wildlife habitat in the basin.

3.2.9 Special Status Species

3.2.9.1 Migratory Birds & Raptors
Migratory birds protected under the Migratory Bird Treaty Act (MBTA) use the Lower Gunnison and Colorado River watersheds, including the Project Area, for nesting and/or migratory habitat. According to the USFWS Information for Planning and Consultation (IPaC) database, migratory birds of conservation concern protected under the MBTA that could potentially find habitat and be present within the Project Area and immediate vicinity include: black rosy-finch (*Leucosticte atrata*), Brown-capped rosy-finch (*Leucosticte australis*), Lewis’s woodpecker (*Melanerpes lewis*), and Virginia’s warbler (*Vermivora virginiae*). In addition to the MBTA, bald eagles and golden eagles are protected by the Bald and Golden Eagle Protection Act of 1940 (BGEPA). The IPaC Report did not identify any species protected under the BGEPA as potentially occurring in the Project Area.

Field investigations performed by J-U-B found no active nests of raptors or migratory species in the Project Area; however, the surrounding area could provide suitable habitat for raptors and migratory species.

No Action Alternative: Under the No Action Alternative, migratory songbird and raptor nesting and foraging habitat in the Project Area, and at the basinwide scale, would remain in its current
condition, and no temporary displacement of or disturbance to migratory birds or raptors would occur as a result of construction activities. Salinity and selenium loading in the Project Area would continue to add to basinwide conditions at current rates, which would continue to affect water quality within the drainage, potentially impacting wildlife in the region.

**Proposed Action:** Direct impacts to migratory songbirds and raptors could include short-term disturbance and displacement from the Project Area as a result of construction activities that extend into early spring, otherwise the anticipated construction window for the Proposed Action would occur after most migratory birds have moved south for the winter. Wintering and migrating songbirds and raptors are not expected to experience measurable short- or long-term effects due to constructions disturbance or displacement because adult birds have the flexibility to move away from disturbances to other areas. Higher quality winter habitat for songbirds and raptors in the vicinity of the Project Area is widespread and readily available, and the habitat within the Project Area does not provide high quality forage or cover.

Given that construction would occur outside of the irrigation season, the majority of construction activities would occur outside of bird migration, breeding, and nesting seasons. There would be no direct effect on breeding songbirds because pre-construction vegetation grubbing would occur outside of the primary nesting season. The Proposed Action would require some tree removal along approximately 2.9 acres of the Waterdog Lateral, including the removal of some larger trees on the lower elevation segment of the Waterdog Lateral that could provide suitable habitat for birds; as such, the Project Area should be cleared for any migratory bird or eagle nests prior to the removal of large vegetation. No active nests were present at the time field surveys were completed. If a nest is identified within the Project Area, the Reclamation biologist and USFWS would be notified immediately to discuss the appropriate course of action. In compliance with the Colorado River Basin Salinity Control Act, the wetland and riparian habitat value that would be lost due to construction of the Proposed Action would be mitigated by implementing the HRP.

Implementation of the HRP would improve habitat for avian species by improving vegetative diversity, structure and health. The HRP component of the Proposed Action would add to ongoing basinwide efforts to address impacts associated with the direct and indirect loss of seepage induced riparian vegetation from piping canals in the region.

### 3.2.9.2 Threatened & Endangered Species & their Critical Habitats

The ESA protects federally-listed endangered, threatened, and candidate plant and animal species and their critical habitats. The Lower Gunnison and Colorado River watersheds support a variety of wildlife and provide important wildlife habitat, including federally protected species. There is a regional effort to reduce salinity and selenium in the Lower Gunnison and Colorado River watersheds, and improving water quality enhances federally protected wildlife habitat at a basinwide scale. A Threatened and Endangered Species Inventory was completed for the Project Area (J-U-B 2022). Reclamation’s ESA Section 7 consultation with USFWS is underway and concurrence is pending (see Appendix D).
Table 2 shows the federally-listed species that have the potential to occur within or near the Project Area according to the IPaC database and summarizes habitat requirements and the status of each species in the Project Area.

**Table 2. Federally-listed Species with the Potential to Occur within the Project Area.**

<table>
<thead>
<tr>
<th>Common Name</th>
<th>Scientific Name</th>
<th>Listing Status</th>
<th>Effect Determination</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>BIRDS</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gunnison sage-grouse</td>
<td><em>Centrocercus minimus</em></td>
<td>Threatened</td>
<td>May Affect, Not Likely to Adversely Affect</td>
</tr>
<tr>
<td>Mexican spotted owl</td>
<td><em>Strix occidentalis lucida</em></td>
<td>Threatened</td>
<td>No Effect</td>
</tr>
<tr>
<td><strong>FISH</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bonytail chub</td>
<td><em>Gila elegens</em></td>
<td>Endangered</td>
<td>Adversely Affect</td>
</tr>
<tr>
<td>Colorado pikeminnow</td>
<td><em>Ptychocheilus lucius</em></td>
<td>Endangered</td>
<td>Adversely Affect</td>
</tr>
<tr>
<td>Humpback chub</td>
<td><em>Gila cypha</em></td>
<td>Endangered</td>
<td>Adversely Affect</td>
</tr>
<tr>
<td>Razorback sucker</td>
<td><em>Xyrauchen texanus</em></td>
<td>Endangered</td>
<td>Adversely Affect</td>
</tr>
<tr>
<td><strong>MAMMALS</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Canada lynx</td>
<td><em>Lynx canadensis</em></td>
<td>Threatened</td>
<td>No Effect</td>
</tr>
<tr>
<td><strong>PLANTS</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Clay-loving wild buckwheat</td>
<td><em>Eriogonum pelinophilum</em></td>
<td>Endangered</td>
<td>No Effect</td>
</tr>
<tr>
<td><strong>CRITICAL HABITAT</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gunnison sage-grouse</td>
<td></td>
<td></td>
<td>No Effect</td>
</tr>
</tbody>
</table>

**No Action Alternative**: Under the No Action Alternative, the laterals would remain unlined, and salt and selenium would continue to leach into the Colorado River Basin. Aquatic species within water systems downstream of the Project Area may be negatively impacted from continued salt loading and elevated selenium concentrations basinwide. Upland species with suitable habitat within the Project Area would remain unaffected. Riparian habitat associated with the laterals within the Project Area would not be disturbed and would continue to provide resources and travel corridors for wildlife. The HRP would not be implemented under the No Action Alternative. The No Action Alternative would not impact federally listed species or alter wildlife habitat in the region.

**Proposed Action**: The improved water quality resulting from the Proposed Action would contribute to the regional efforts underway to reduce salinity and selenium in the Lower Gunnison and Colorado River watersheds, thereby improving wildlife habitat in the basin. The HRP component of the Proposed Action would add to ongoing basinwide efforts to protect overall range for Gunnison sage-grouse (GUSG) and enhancing suitable habitat in the region. The determination of effects for the listed species and their critical habitats are described in detail in the Threatened and Endangered Species Inventory, and briefly summarized below (J-U-B 2022).
Canada Lynx
Although the Project Area is within the preferred elevation of the species, there are no dense forests or areas of heavy cover that would provide adequate concealment for lynx. Given the lack of suitable habitat for the species, the Proposed Action, including the HRP, would have no effect on Canada lynx.

Mexican Spotted Owl
Within the Project Area, there are no recent records of occurrence for the species, and there is no suitable habitat within or relatively close to the laterals or HRP site. Due to the lack of suitable habitat for the species within the Project Area, the Proposed Action, including the HRP, would have no effect on the Mexican spotted owl.

Clay-loving Wild Buckwheat
The Project Area is heavily disturbed by maintenance activities and lacks suitable habitat for the species. Given the lack of suitable habitat, the Proposed Action, including the HRP, would have no effect on clay-loving wild buckwheat.

Colorado River Endangered Fishes
Based on previously issued biological opinions, the amount of annual water depletions to the Colorado River and Gunnison River basins from irrigation by the ditches involved with the Proposed Action affect the Colorado pikeminnow, razorback sucker, humpback chub, and bonytail chub. No change to the BPWCD’s estimated historic consumptive use rate or historic water depletions to the Colorado and Gunnison River basins would occur as a result of the Proposed Action. Historic depletions by federal facilities in the Gunnison Basin, including the BPP (from which the ditches involved in the Proposed Action receive their water) are covered under the umbrella of the Gunnison Basin Programmatic Biological Opinion (PBO) (FWS 2009), which avoids the likelihood of jeopardy and/or adverse modification of critical habitat for the endangered fishes.

Potential inherent benefits to the Colorado River fishes may occur from the reduction of salt loading to the Colorado River Basin by approximately 3,425 tons per year, and a potential unquantified reduction in selenium loading to the Lower Gunnison Basin, as a result of the Proposed Action (Jacobson 2017).

Gunnison Sage-Grouse & Critical Habitat
The HRP contains suitable habitat to support the GUSG. Of the 2.19 miles of the Shinn Park alignment that occur within GUSG critical habitat, 0.56 miles of the existing alignment would be realigned (Figure 11 in Appendix A). Approximately 0.20 acres of marginally suitable GUSG critical habitat would be permanently disturbed by the new Shinn Park alignment. The Waterdog Lateral alignment deviation would occur outside of GUSG critical habitat (Figure 11 in Appendix A). Piping and construction activities would be timed to occur in late September to April 1st, which would primarily avoid the GUSG’s breeding, nesting and early brood rearing seasons.
Based on the marginal quality of sagebrush cover along the laterals; the small area of anticipated disturbance from the realigned sections; the presence of significant grazing pressure on grasses and forbs throughout the Project Area; the lack of field indicators for usage of the area by any groups of birds; and, the timing and temporary nature of the Proposed Action, effects of piping of the Shinn Park and Waterdog Laterals would be insignificant but not discountable. The HRP HRS is expected to benefit GUSG and its habitat by protecting overall range and enhancing suitable habitat for the species. Although there are no records of occurrence for GUSG in the HRS, their potential presence cannot be ruled out entirely. Therefore, it is determined that the Proposed Action, including the HRP, may affect, but would not be likely to adversely affect the GUSG.

Given that minor lateral deviations would occur outside of critical habitat for the Waterdog Lateral, that the Shinn Park Lateral deviations would occur in poor to marginal habitat within designated critical habitat boundaries, and that one of the HRP goals is to improve suitable critical habitat for GUSG, it is anticipated that the Proposed Action, including the HRP, would have no effect on critical habitat for GUSG.

### 3.2.10 Cultural Resources

A number of federal statutes and EOs guide the protection of historic and cultural resources. Cultural resources are often defined as physical or other expressions of human activity or occupation, and can include culturally significant landscapes, prehistoric and historic archaeological sites, isolated artifacts or features, traditional cultural properties, Native American and other sacred places, and artifacts and documents of cultural and historical significance. Cultural resources can be found throughout the Lower Gunnison and Colorado River watersheds.

A Class III cultural resources inventory of the Shinn Park and Waterdog Laterals was completed by the Grand River Institute in November 2018, with a supplemental study completed for the Waterdog Lateral in October 2020. A Class III cultural resources inventory was completed for the HRS in June 2020. The inventories resulted in the documentation of several sites within the Project Area, some of which were determined to be eligible for listing in the National Register of Historic Places (NRHP).

**No Action**: Under the No Action Alternative, the Project Area would remain undisturbed, and no cultural resources would be affected. The No Action Alternative would not impact cultural resources that may exist in the Lower Gunnison and Colorado River watersheds.

**Proposed Action**: Under the Proposed Action, all sites eligible for listing in the NRHP would be preserved and avoided by installing temporary protective fencing. Reclamation consulted with the SHPO, and the SHPO concurred with the effects determination that a finding of no adverse effect to historic properties is appropriate for the undertaking (Appendix E). If previously unidentified cultural resources are encountered during construction activities, construction in the immediate area would cease and the proper regulatory agency would be consulted. Construction would not resume until the site has been adequately documented and cleared by the leading agency. The Proposed
Action would not impact cultural resources that may be present in the Lower Gunnison and Colorado River watersheds.

### 3.2.11 Agricultural Resources & Soils

According to the National Agricultural Statistics Survey (NASS) 2017 Agricultural Census, there are over 39,000 farm operations in Colorado, encompassing more than 31.8 million acres. Montrose County contains 1,135 farm operations, and over 330,500 acres in the County are involved in farming operations. Approximately 79,821 acres of farmland are irrigated in the County (NASS 2017). The USDA NRCS maintains and keeps current “an inventory of the prime farmland and unique farmland of the Nation... the objective of the inventory is to identify the extent and location of important rural lands needed to produce food, feed, fiber, forage, and oilseed crops” (7 CFR 657.2). Farmlands are categorized into farmlands of national and statewide importance based on soil types and irrigation status. Prime farmland, as defined by the USDA, is land that has the best combination of physical and chemical characteristics for producing food, feed, forage, fiber, and oilseed crops, and is available to these uses. It can be cultivated land, pastureland, forestland, or other land, but is not urban or built-up land or water areas. Farmland of statewide importance are lands that nearly meet the requirements for Prime Farmland and have been identified by state agencies. Farmland of Unique Importance has a special combination of soil quality, location, growing season, and moisture supply required to produce high quality crops when properly managed.

According to the NRCS Web Soil Survey, the major mapped soils in the Project Area are Cerro, extremely stony-Shermap-Curecanti complex, 2 to 25 percent slopes; Bacbuster-Curecanti, extremely stony-Chivers complex, 3 to 35 percent slopes; Wellsbasin-Xeribrush complex, 3 to 25 percent slopes, extremely stony; and Barboncito, extremely flaggy-Badland complex, 15 to 65 percent slopes (NRCS 2018). The majority of soils in the Project Area are classified as “not prime farmland,” but small areas at the bottom of the Waterdog Lateral and the middle of the Waterdog Lateral are classified as “farmland of statewide importance” (NRCS 2018).

**No Action Alternative:** The No Action Alternative would have no effect on prime farmlands or farmlands of statewide importance in the Project Area, or at the basinwide scale. Farmlands in the Project Area and surrounding area would continue to produce as in the past. Salinity loading from irrigation water contact with Mancos Shale-derived soils in the current irrigation ditch system would continue in current conditions.

**Proposed Action:** The Proposed Action would occur adjacent to irrigated agricultural lands, including agriculturally significant lands (farmlands of national or statewide importance). The existing canal laterals convey irrigation water to agriculturally significant lands; however, no change in the configuration of BPWCD-irrigated lands would occur as a result of the Proposed Action. Under the Proposed Action, installation of the buried pipe would cause temporary disturbance to soils that are classified as “farmland of statewide importance,” however, these lands are situated within the existing canal prism and are not in irrigated agricultural production. No farmlands would be temporarily or permanently removed from production as a result of the Proposed Action, and no interruption to agricultural production would occur. No part of the irrigation season is expected to
be lost during implementation of the Proposed Action. The Proposed Action would have no impact on farmlands of statewide importance in the Project Area, or in the region.

To minimize soil erosion during implementation of the Proposed Action, any topsoil would be reserved prior to excavation, replaced on the ground surface following pipe installation, then reseeded with seed mixes compatible with the surrounding vegetation (Appendix C). Where construction disturbances take place within areas of native vegetation, the seed mix for re-seeding would be a certified weed-free drought-tolerant native plant seed mix compatible with the native plant community present (Appendix C). Where construction disturbance takes place adjacent to farmland, re-seeding would be conducted with appropriate dryland cover species or farm cultivar grass species as determined by coordination with private landowners. If farm cultivar species are not applied, appropriate native species identified in Appendix C would be used for revegetation. A weed control program, pursuant to the Montrose County Weed Management Plan (2011) and environmental commitments described in Chapter 4, would be implemented in all areas of surface disturbance.

### 3.2.12 Noise

Various federal, state, and local statutes, regulations, and ordinances regulate noise. At the basinwide level, noise is linked to traffic noise, farming operations, and residential use, among other sources. A moderate level of noise occurs in the Project Area associated with traffic on Highway 50, farming and ranching activities, and BPWCD’s operation and routine maintenance of the BPWCD system. BPWCD operation and maintenance activities involve the use of light vehicles. Farming and ranching activities in the Project Area involve the use of farming equipment, light vehicles, and the occasional use of heavy equipment.

**No Action:** The No Action Alternative would have no effect on baseline noise levels in the Project Area or basinwide.

**Proposed Action:** During construction of the Proposed Action, noise levels would increase above baseline noise levels in the Project Area. Construction noise would be associated with the use of heavy equipment and vehicles in the Project Area and would be limited to the duration of construction. Noise levels are anticipated to return to baseline noise levels following the completion of construction. The Proposed Action would not permanently alter noise levels in the Project Area or basinwide. Noise disturbance from human activity along the lateral alignments would likely be reduced over the long-term given a decreased need for maintenance.

### 3.3 Summary of Impacts

Table 3 provides a summary of environmental consequences for the resources evaluated in this EA. Resource impacts are outlined for both the No Action and the Proposed Action. Mitigation, if required, is also described.
Table 3. Summary of Impacts of the No Action and Proposed Action Alternatives.

<table>
<thead>
<tr>
<th>Resource</th>
<th>Impacts</th>
<th>Proposed Action Alternative</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water Rights and Use</td>
<td>No effect</td>
<td>BPWCD would have the ability to better manage irrigation water use and delivery due to the efficiency gained by eliminating seepage through piping the Shinn Park and Waterdog Laterals. Piping the Shinn Park and Waterdog Laterals would result in reduced water loss during the irrigation season due to evaporation and seepage and would provide more reliable flows to water users. The water savings resulting from the Proposed Action would contribute to the regional efforts underway to reduce water loss to seepage and evaporation in the Lower Gunnison and Colorado River watersheds. As part of the HRP, BPWCD would direct the spill of excess irrigation flows from the Cimarron Canal to Cottonwood Creek during the irrigation season to provide more consistent seasonal flows in the creek. The Proposed Action would not alter water rights, nor would current uses for irrigation water change. Ditch companies have the right to improve the efficiency of their ditches pursuant to CRS § 37-86-103. Consequently, domestic water well owners cannot rely on canal seepage water to recharge domestic water wells. Therefore, there would be no adverse effect on permits which authorize wells to draw on natural sources of groundwater.</td>
</tr>
<tr>
<td>Water Quality</td>
<td>Salt and selenium loading from the Project Area would continue to affect water quality in the Colorado River Basin</td>
<td>An estimated salt loading reduction of 3,425 tons per year to the Colorado River Basin would result from implementation of the Proposed Action (Jacobson 2017). The Proposed Action is also expected to reduce selenium loading into the Gunnison River Basin by an unquantified amount. Improved water quality from the reduction of salt and selenium loading into the Uncompahgre River would likely benefit downstream aquatic species. The improved water quality resulting from the Proposed Action would contribute to the regional efforts underway to reduce salinity and selenium in the Lower Gunnison and Colorado River watersheds. The Proposed Action 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 Proposed Action would be</td>
</tr>
</tbody>
</table>
authorized under RGP-5, by submitting documentation required by RGP-5 to the Army Corps at least 30 days in advance of construction.

| Air Quality | No effect | Minor short-term impacts due to construction activity are possible. Construction related impacts to air quality would be temporary and would cease upon completion of the project. Following construction, the air quality in the vicinity of the Proposed Action would be comparable to existing conditions. No long-term effect or potential benefit due to reduction in maintenance vehicle trips. Given the implementation of BMPs and temporary nature of construction related air quality impacts, the implementation of the Proposed Action would not hinder regional efforts to maintain air quality standards for criteria pollutants in Montrose County or the surrounding areas. |
| Access, Transportation, and Public Safety | No effect | Minor temporary disruptions to local public roadways from construction traffic entering and exiting roadways. No long-term effects. In an effort to minimize local and regional impacts to access, transportation, and public safety from the Proposed Action, BPWCD and the Contractor would coordinate with Montrose County Public Works Departments for construction road crossings or any necessary permits and would also coordinate with the County and Sheriff departments when traffic or access would be delayed or re-routed. |
| Recreation | No effect | Part of the Proposed Action lies on BLM lands. The Proposed Action could disrupt informal recreation activities in the immediate area due to construction activities (e.g., noise, equipment, access delays, dust, etc.); however, these disruptions would be temporary, would not impact regional recreation opportunities, and are expected to cease following construction. No formal recreation opportunities in the Project Area or basin would be impacted by the Proposed Action, including during construction. |
| Visual Resources | No effect | The public lands in the Project Area are classified as Class II under the Uncompahgre RMP VRM. There would be temporary visual impacts during construction by the presence of construction equipment and activities. After construction, affected areas would be graded to match the surrounding topography and revegetated. Once vegetation becomes established, the affected areas would merge with surrounding areas and create a contiguous landscape. Given that the Proposed Action would temporarily impact visual resources in the Project Area, and that affected areas would be graded |
and revegetated post-construction, the Proposed Action is not anticipated to impact visual resources at the basin level.

| BLM Grazing Allotments | No effect | Under the Proposed Action, temporary disturbance of up to 2.8 acres of grazing pastureland within the Kinikin BLM Grazing Allotment would occur during construction of the Shinn Park Lateral. Access points to BLM land would be primarily along the existing canal ROW. Some access routes may require minor grading and smoothing to allow truck access to the project alignment. Surface disturbances would be reclaimed per BMPs and the area would be restored to previous conditions. Access routes and road crossings would be returned to the same or better conditions than they were prior to construction. A small portion of the existing O&M road along the bottom segment of the Waterdog Lateral is situated on the Waterdog Basin BLM Grazing Allotment. No temporary disturbance of grazing pastureland within the Waterdog Basin Grazing Allotment is anticipated, as grading of access routes is not anticipated to be required in this area. Livestock grazing in the pastureland could be temporarily affected by the Proposed Action during construction, however piping of the laterals would occur outside the irrigation season, which would correspond with the winter months and the absence of livestock grazing. Project personnel would coordinate with grazing permit holder(s) to avoid conflict with grazing operations. |
| Vegetative Resources and Weeds | No effect | Construction activities would temporarily disturb habitat in the immediate Project Area. Short-term impacts to vegetation where construction would occur in upland areas. The long-term loss of 29.6 THV units of riparian and wetland habitat would occur from the elimination of seepage from the involved unlined laterals. To compensate for the loss of 29.6 THV units caused by the implementation of the Proposed Action and the previous Siphon Lateral Project, BPWCD would implement the HRP. The HRP component of the Proposed Action would add to ongoing basinwide efforts to address impacts associated with the direct and indirect loss of seepage induced riparian vegetation from piping canals in the region. Weed control measures would be implemented as a part of the Proposed Action, and the piping of the laterals would remove open water from the Project Area, a contributing factor to invasive seed transport in this landscape. The |
Wildlife Resources | No effect | Proposed Action would contribute to the regional efforts underway to manage noxious weeds basinwide. Short-term temporary impacts would occur to local wildlife during construction of the Proposed Action. A HRP would be implemented to mitigate for the long-term loss of riparian and wetland habitat due to the Proposed Action. Through revegetation and species diversification, and bank stabilization, the HRP would improve wildlife habitat for ungulates, small mammals, avian species, and pollinators. The HRP would potentially improve habitat for aquatic species in Cottonwood Creek downstream of the HRS through the new direction of excess flows from the Cimarron Canal to Cottonwood Creek, and downstream through the reduction of salt and selenium loading in the Colorado River Basin. The improved water quality resulting from the Proposed Action would contribute to the regional efforts underway to reduce salinity and selenium in the Lower Gunnison and Colorado River watersheds, thereby improving wildlife habitat in the basin.

Special Status Species | No effect | Given that construction would occur outside of the irrigation season, the majority of construction activities would occur outside of bird migration, breeding, and nesting seasons. There would be no direct effect on breeding songbirds because pre-construction vegetation grubbing would occur outside of the primary nesting season. The Proposed Action would require some tree removal along approximately 2.9 acres of the Waterdog Lateral, including the removal of a few large trees on the lower elevation segment of the Waterdog Lateral that could provide suitable habitat for birds; as such, the Project Area should be cleared for any migratory bird or eagle nests prior to the removal of large vegetation. If a nest is identified within the Project Area, the Reclamation biologist and USFWS would be notified immediately to discuss the appropriate course of action. In compliance with the Colorado River Basin Salinity Control Act, the wetland and riparian habitat value that would be lost due to construction of the Proposed Action would be mitigated by implementing the HRP. Implementation of the HRP would improve habitat for avian species by improving vegetative diversity, structure and health. The HRP component of the Proposed Action would add to ongoing basinwide efforts to protect overall range for GUSG and enhancing suitable habitat in the region.
The IPaC Report identified federally listed species with the potential to occur in the Project Area, including: Canada lynx, Mexican spotted owl, Gunnison sage-grouse and GUSG critical habitat, clay-loving wild buckwheat, Colorado pikeminnow, razorback sucker, humpback chub, and bonytail chub. The Proposed Action is anticipated to have no effect to Canada lynx, Mexican spotted owl, clay-loving wild buckwheat, and GUSG critical habitat. However, it is anticipated that the Proposed Action may affect, not likely to adversely affect Gunnison sage-grouse. Furthermore, the Proposed Action is anticipated to adversely affect Colorado River endangered species. USFWS concurrence with the Threatened and Endangered Species Inventory and effect determinations is pending (Appendix D).

<table>
<thead>
<tr>
<th>Cultural Resources</th>
<th>No effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>Under the Proposed Action, all sites eligible for listing in the NRHP would be preserved and avoided by installing temporary protective fencing (Appendix E). If previously unidentified cultural resources are encountered during construction activities, construction in the immediate area would cease and the proper regulatory agency would be consulted. Construction would not resume until the site has been adequately documented and cleared by the leading agency. The Proposed Action would not impact cultural resources that may be present in the Lower Gunnison and Colorado River watersheds.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Agricultural Resources and Soils</th>
<th>No effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Proposed Action would temporarily disturb soils that are classified as “farmland of statewide importance,” however, these lands are situated within the existing canal prism and are not in agricultural production. BMPs would conserve soils and minimize the potential for erosion in the Project Area. No farmlands would be temporarily or permanently removed from production as a result of the Proposed Action, and no interruption to agricultural production would occur. No part of the irrigation season is expected to be lost during implementation of the Proposed Action. For these reasons stated above, the Proposed Action is anticipated to have no impact on farmlands of statewide importance in the Project Area, or in the region.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Noise</th>
<th>No effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>Temporary increases in noise associated with construction activities are expected to occur as a result of the Proposed Action. Noise levels are anticipated to return to baseline noise levels following the completion of the project.</td>
<td></td>
</tr>
</tbody>
</table>
of construction. The Proposed Action would not permanently alter noise levels in the Project Area or basinwide. Noise disturbance from human activity along the lateral alignments would likely be reduced over the long-term given a decreased need for maintenance.
4 ENVIRONMENTAL COMMITMENTS

This section summarizes the environmental commitments to protect resources and mitigate adverse impacts from the Proposed Action to a non-significant level. The cooperative agreement (R18AC00077) between Reclamation and BPWCD requires that BPWCD be responsible for “…implementing and/or complying with the environmental commitments contained in the NEPA/ESA compliance documents to be developed by Reclamation for the project.”

The actions in Table 4 would be implemented as an integral part of the Proposed Action and shall be included in the contractor bid specifications.

Note that any construction activities proposed outside of the inventoried Project Area or the planned timeframes would first require additional review by Reclamation to determine if the existing surveys and information are adequate to evaluate additional impacts to special status plants and wildlife, including federally threatened and endangered species, BLM-sensitive, or migratory bird species. Additional NEPA documentation may be required.

Table 4. Environmental Commitments

<table>
<thead>
<tr>
<th>Environmental Commitment</th>
<th>Affected Resource</th>
<th>Authority</th>
</tr>
</thead>
<tbody>
<tr>
<td>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.</td>
<td>Water Quality</td>
<td>CWA</td>
</tr>
<tr>
<td>Stormwater Management Plan is to be submitted to CDPHE by the construction contractor prior to ground disturbance.</td>
<td>Water Quality</td>
<td>CWA</td>
</tr>
<tr>
<td>A Construction Submittal Package for the CWA Section 404 Regional General Permit 5 will be submitted to USACE at least 30 days prior to construction.</td>
<td>Water Quality</td>
<td>CWA</td>
</tr>
<tr>
<td>CWA Section 402 Storm Water Discharge Permit compliant with the NPDES, to be obtained from CDPHE by the construction contractor prior to ground disturbance (regardless of whether dewatering would take place during construction).</td>
<td>Water Quality</td>
<td>CWA</td>
</tr>
<tr>
<td>The ROW and easements for the Proposed Action and their specific locations would be clearly marked on the construction drawings.</td>
<td>Access</td>
<td>BLM</td>
</tr>
<tr>
<td>Utility clearances would be obtained by the contractor prior to construction activities from local utilities in the area.</td>
<td>Access</td>
<td>Montrose County</td>
</tr>
<tr>
<td>Any construction, access, or use permits which may be required by Montrose County shall be obtained prior to construction.</td>
<td>Access</td>
<td>Montrose County</td>
</tr>
<tr>
<td>BPWCD and the Contractor would coordinate with Montrose County Public Works Departments for construction road crossings or any necessary permits and would also coordinate with the County and Sheriff departments when traffic or access</td>
<td>Access</td>
<td>Montrose County</td>
</tr>
</tbody>
</table>
would be delayed or re-routed. Active construction areas would be adequately marked and barricaded to prevent public access.

<table>
<thead>
<tr>
<th>Access routes and road crossings would be returned to the same or better conditions than they were prior to construction.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Access</strong></td>
</tr>
</tbody>
</table>

Ground disturbance and construction areas shall be limited to only those areas necessary to safely implement the Proposed Action. Construction limits shall be clearly flagged onsite to avoid unnecessary plant loss or ground disturbance. The authorized construction width would not be mechanically cleared to its maximum outer limits as a part of site preparation. Areas of temporary and permanent ground disturbance would be graded and reclaimed with native vegetation to avoid erosion. The prescribed seed mix is identified in Appendix C.

<table>
<thead>
<tr>
<th>Ground disturbance and construction areas shall be limited to only those areas necessary to safely implement the Proposed Action. Construction limits shall be clearly flagged onsite to avoid unnecessary plant loss or ground disturbance. The authorized construction width would not be mechanically cleared to its maximum outer limits as a part of site preparation. Areas of temporary and permanent ground disturbance would be graded and reclaimed with native vegetation to avoid erosion. The prescribed seed mix is identified in Appendix C.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Soil, Vegetation, Weeds, Habitat, Wildlife</strong></td>
</tr>
</tbody>
</table>

Following construction, all disturbed areas shall be smoothed with tracked equipment (without back dragging blade), shaped, and contoured to as near to the pre-disturbance topography as practicable.

<table>
<thead>
<tr>
<th>Following construction, all disturbed areas shall be smoothed with tracked equipment (without back dragging blade), shaped, and contoured to as near to the pre-disturbance topography as practicable.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Soil, Vegetation, Weeds, Habitat</strong></td>
</tr>
</tbody>
</table>

Topsoil shall be stockpiled and then redistributed after completion of construction activities. Any topsoil would be reserved prior to excavation, replaced on the ground surface following pipe installation, then reseeded with seed mixes compatible with the surrounding vegetation (Appendix C).

<table>
<thead>
<tr>
<th>Topsoil shall be stockpiled and then redistributed after completion of construction activities. Any topsoil would be reserved prior to excavation, replaced on the ground surface following pipe installation, then reseeded with seed mixes compatible with the surrounding vegetation (Appendix C).</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Soil, Vegetation, Weeds, Habitat</strong></td>
</tr>
</tbody>
</table>

Native fill material shall be utilized to diminish new weed introductions to the Project Area.

<table>
<thead>
<tr>
<th>Native fill material shall be utilized to diminish new weed introductions to the Project Area.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Vegetation, Weeds, Habitat, Special Status Species</strong></td>
</tr>
</tbody>
</table>

BMPs would be implemented as appropriate to minimize dust and would include measures such as wetting the construction site surface and access roads, minimizing vehicle travel over unpaved

| BMPs would be implemented as appropriate to minimize dust and would include measures such as wetting the construction site surface and access roads, minimizing vehicle travel over unpaved | **Air Quality, Soil, Water Quality** | CAA CWA |
surfaces, limiting activity during periods of extreme winds and stabilizing stockpiles.

<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>Noxious weeds would be controlled in disturbed areas according to county standards.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>All equipment shall be cleaned before being transported to another job site, to avoid introducing weed species from the Project Area to another job site.</td>
<td>Vegetation, Weeds, Habitat</td>
<td>Montrose County Weed Management Plan (2011)</td>
</tr>
<tr>
<td>Re-seeding shall occur following project construction at appropriate times and with appropriate methods, using drought tolerant, weed-free seed mixes per Reclamation specifications (Appendix C). Specifically, a BLM-prescribed seed mix shall be used to re-seed all disturbances on BLM lands (Appendix C). The BLM approved seed mix and prescribed seeding rate for the Project Area are included in Appendix C. The BLM approved seed mix shall be used on the entire Project Area, unless there is an agreement between private landowners and BPWCD for alternative revegetation plans. BPWCD shall coordinate with private landowners to develop a seed mix compatible with alternative revegetation plans.</td>
<td>Soil, Vegetation, Weeds, Habitat</td>
<td>Montrose County Weed Management Plan (2011)</td>
</tr>
<tr>
<td>Weed control shall be implemented by BPWCD or BPWCD’s contractor in accordance with current Montrose County weed control standards (Montrose County 2011).</td>
<td></td>
<td>CNWA</td>
</tr>
<tr>
<td>All equipment shall be cleaned before being brought to the construction area to minimize introduction of new weed species to the construction area.</td>
<td>Vegetation, Weeds, Habitat, Wildlife</td>
<td>Montrose County Weed Management Plan (2011)</td>
</tr>
<tr>
<td>Vegetation removal shall be confined to the smallest portion of the Project Area necessary for completion of the work.</td>
<td>Soil, Vegetation, Weeds, Habitat</td>
<td>Montrose County Weed Management Plan (2011)</td>
</tr>
<tr>
<td>Vegetative material shall be removed by mowing or chopping, and either hauled to the County landfill or to a proposed staging area to be burned, chipped, and/or mulched. Stumps shall be</td>
<td>Soil, Vegetation,</td>
<td>Montrose County Weed Management Plan (2011)</td>
</tr>
</tbody>
</table>

June 2022
<table>
<thead>
<tr>
<th>Event</th>
<th>Responsible Party</th>
</tr>
</thead>
<tbody>
<tr>
<td>grubbed and hauled to the County landfill or a proposed staging area to be burned.</td>
<td>Weeds, Habitat Management Plan (2011) CNWA</td>
</tr>
<tr>
<td>The Project Area should be cleared for any migratory bird or eagle nests prior to the removal of large vegetation. If a nest is identified within the Project Area, the Reclamation biologist and USFWS would be notified immediately to discuss the appropriate course of action.</td>
<td>Special Status Species MBTA</td>
</tr>
<tr>
<td>Vegetation removal shall avoid the primary nesting season of migratory birds (April 1 – July 15).</td>
<td>Special Status Species MBTA</td>
</tr>
<tr>
<td>Non-native tree and shrub removal at the HRS shall avoid the primary breeding season of migratory birds (April 1 – July 15).</td>
<td>Special Status Species MBTA</td>
</tr>
<tr>
<td>If a new raptor nest is discovered within 1/3-mile of the Project Area during construction, or a bald eagle or other raptor roost site is discovered within 1/4-mile of the Project Area during construction, construction would cease until Reclamation could complete consultation with USFWS and CPW.</td>
<td>Special Status Species MBTA BGEP</td>
</tr>
<tr>
<td>Where work occurs within 0.53 miles of a lek, construction must halt prior to April 1st.</td>
<td>Special Status Species Gunnison Sage-Grouse Rangewide Conservation Plan (2005)</td>
</tr>
<tr>
<td>A native seed mix, approved by BLM and appropriate to Gunnison sage-grouse habitat, would be reseeded in all areas where ground disturbance has occurred. The BLM approved seed mix and prescribed seeding rate for the Project Area are included in Appendix C. The BLM approved seed mix shall be used on the entire Project Area, unless there is an agreement between private landowners and BPWCD for alternative revegetation plans.</td>
<td>Special Status Species Gunnison Sage-Grouse Rangewide Conservation Plan (2005)</td>
</tr>
<tr>
<td>In the event that threatened and endangered species are encountered during construction, construction activities must cease until Reclamation has consulted with USFWS to ensure adequate measures are in place to avoid or reduce impacts to the species.</td>
<td>Special Status Species ESA</td>
</tr>
<tr>
<td>Culverted embankment fill creek crossings shall be constructed during periods when the watercourse is not flowing or flowing at low levels. If a small amount of flow is present, appropriate water control measures shall be employed, such as temporary impoundments or drainage ditches, which allow for construction to proceed while minimizing potential for mobilization of silt or erosion. Culverts shall be appropriately sized to allow for normal stream flow and bedded and stabilized to prevent erosion. Embankments shall be stabilized and appropriately vegetated.</td>
<td>Water Quality, Soil CWA</td>
</tr>
<tr>
<td>Straw wattles, silt curtains, cofferdams, dikes, straw bales, or other suitable temporary erosion control measures shall be used</td>
<td>Water Quality, Soil CWA</td>
</tr>
</tbody>
</table>
to prevent erosion from entering water bodies during construction.

<table>
<thead>
<tr>
<th>Activity Description</th>
<th>Category</th>
<th>Law/Act</th>
</tr>
</thead>
<tbody>
<tr>
<td>Any concrete pours shall occur in forms and/or behind cofferdams to prevent discharge into waterways. Any wastewater from concrete-batching, vehicle washdown, and aggregate processing shall be contained and treated or removed for off-site disposal at an approved facility.</td>
<td>Water Quality</td>
<td>CWA</td>
</tr>
<tr>
<td>The contractor shall transport, handle, and store any fuels, lubricants, or other hazardous substances involved with the Proposed Action in an appropriate manner that prevents them from contaminating soil and water resources.</td>
<td>Water Quality, Soil</td>
<td>CWA</td>
</tr>
<tr>
<td>Portable secondary containment shall be provided for any fuel or lubricant containers staged on BLM land within the Project Area. Any staging of fuels or lubricants, or fueling or maintenance of vehicles and equipment, would not be conducted within 100 feet of any water body or drainage.</td>
<td>Water Quality, Soil</td>
<td>CWA</td>
</tr>
<tr>
<td>Equipment shall be inspected daily and immediately repaired, as necessary, to ensure equipment is free of petrochemical leaks.</td>
<td>Water Quality, Soil</td>
<td>CWA</td>
</tr>
<tr>
<td>Construction equipment shall be parked, stored, and serviced only at an approved staging area.</td>
<td>Water Quality, Soil</td>
<td>CWA</td>
</tr>
<tr>
<td>A copy of any report required or requested by any Federal agency or State government as a result of a reportable release or spill of any toxic substance shall be furnished to BLM, if on BLM lands, concurrent with the filing of the report(s) to the involved Federal agency or State government.</td>
<td>Water Quality, Soil</td>
<td>BLM</td>
</tr>
<tr>
<td>The pastureland permittees would be notified of activities under the Proposed Action. Pipeline trenches left open overnight shall be kept to a minimum and covered to reduce potential hazards to the public and to wildlife. Covers shall be secured in place and strong enough to support the weight of a bull moose (1,000+ pounds) and prevent livestock or wildlife from falling through. Both trench covers and wildlife escape ramps shall be installed and utilized at all times.</td>
<td>Wildlife, Grazing, Recreation</td>
<td>CRS 33-1-101 to 125 Parks and Wildlife Article 1: Wildlife</td>
</tr>
<tr>
<td>Any identified cultural resource areas would be preserved and avoided by installing temporary protective fencing. 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. Additional surveys shall be required for cultural resources if construction plans or proposed disturbance areas are changed.</td>
<td>Cultural Resources</td>
<td>NHPA ARPA PRPA</td>
</tr>
</tbody>
</table>
5 CONSULTATION & COORDINATION

5.1 Introduction

Reclamation’s public involvement process presents the public with opportunities to obtain information about a given project and allows interested parties to participate in the project through written comments. This chapter discusses public involvement activities taken to date for the Proposed Action. The key objective is to facilitate a well-informed public that actively assists decision makers though the process, culminating in the implementation of an alternative.

5.2 Public Involvement

In compliance with NEPA, the Draft EA will be released for a 30-day public review period. Any substantive comments received from the public, regulatory agencies, or other entities during the review period will be addressed in this section of the Final EA. Notice of the public review period and availability of the Draft EA will be distributed to private landowners adjacent to the Project Area, and the organizations and agencies listed in Appendix B. The Draft EA will be available on Reclamation’s website (https://www.usbr.gov/uc/DocLibrary/index.html). Publicly available electronic versions of the Draft and Final EA will meet the technical standards of Section 508 of the Rehabilitation Act of 1973, so that the documents can be accessed by people with disabilities using accessibility software tools.
## 6 PREPARERS

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

<table>
<thead>
<tr>
<th>Name</th>
<th>Agency</th>
<th>Title</th>
<th>Areas of Responsibility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jennifer Ward</td>
<td>Reclamation</td>
<td>Environmental Protection Specialist</td>
<td>EA Review, Threatened and Endangered Species, Cultural Resources</td>
</tr>
<tr>
<td>Amanda Ewing</td>
<td>Reclamation (former)</td>
<td>Biologist</td>
<td>Threatened and Endangered Species</td>
</tr>
<tr>
<td>Autumn Foushee Davies</td>
<td>J-U-B</td>
<td>Senior Biologist</td>
<td>General authorship, mapping</td>
</tr>
<tr>
<td>Lexie Conley</td>
<td>J-U-B</td>
<td>Environmental Planner</td>
<td>General authorship, mapping</td>
</tr>
</tbody>
</table>
7 REFERENCES


EPA. 2021. “Green Book National Area and County-Level Multi-Pollutant Information – Montrose County.”


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## Abbreviations and Acronyms

<table>
<thead>
<tr>
<th>Abbreviation or Acronym</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>AIRFA</td>
<td>American Indian Religious Freedom Act</td>
</tr>
<tr>
<td>AMSL</td>
<td>Above mean sea level</td>
</tr>
<tr>
<td>ARPA</td>
<td>Archaeological Resources Protection Act</td>
</tr>
<tr>
<td>BGEPA</td>
<td>Bald and Golden Eagle Protection Act</td>
</tr>
<tr>
<td>BLM</td>
<td>Bureau of Land Management</td>
</tr>
<tr>
<td>BMP</td>
<td>Best Management Practices</td>
</tr>
<tr>
<td>BPP</td>
<td>Bostwick Park Project</td>
</tr>
<tr>
<td>BPWCD</td>
<td>Bostwick Park Water Conservancy District</td>
</tr>
<tr>
<td>CAA</td>
<td>Clean Air Act</td>
</tr>
<tr>
<td>CDOT</td>
<td>Colorado Department of Transportation</td>
</tr>
<tr>
<td>CDPHE</td>
<td>Colorado Department of Public Health and Environment</td>
</tr>
<tr>
<td>CEQ</td>
<td>Council on Environmental Quality</td>
</tr>
<tr>
<td>cfs</td>
<td>Cubic feet per second</td>
</tr>
<tr>
<td>CNWA</td>
<td>The Colorado Noxious Weed Act</td>
</tr>
<tr>
<td>CPW</td>
<td>Colorado Parks and Wildlife</td>
</tr>
<tr>
<td>CRSP</td>
<td>Colorado River Storage Project</td>
</tr>
<tr>
<td>CWA</td>
<td>Clean Water Act</td>
</tr>
<tr>
<td>EA</td>
<td>Environmental Assessment</td>
</tr>
<tr>
<td>EIS</td>
<td>Environmental Impact Statement</td>
</tr>
<tr>
<td>EO</td>
<td>Executive Order</td>
</tr>
<tr>
<td>EPA</td>
<td>United States Environmental Protection Agency</td>
</tr>
<tr>
<td>ESA</td>
<td>Endangered Species Act</td>
</tr>
<tr>
<td>FONSI</td>
<td>Finding of No Significant Impact</td>
</tr>
<tr>
<td>GUSG</td>
<td>Gunnison sage-grouse</td>
</tr>
<tr>
<td>HDPE</td>
<td>High-density Polyethylene</td>
</tr>
<tr>
<td>HQS</td>
<td>Habitat Quality Score</td>
</tr>
<tr>
<td>HRP</td>
<td>Habitat Replacement Plan</td>
</tr>
<tr>
<td>HRS</td>
<td>Habitat Replacement Site</td>
</tr>
<tr>
<td>IPaC</td>
<td>Information for Planning and Consultation</td>
</tr>
<tr>
<td>ITA</td>
<td>Indian Trust Asset</td>
</tr>
<tr>
<td>J-U-B</td>
<td>J-U-B ENGINEERS, Inc.</td>
</tr>
<tr>
<td>MBTA</td>
<td>Migratory Bird Treaty Act</td>
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<tr>
<td>NAAQS</td>
<td>National Ambient Air Quality Standards</td>
</tr>
<tr>
<td>NAGPRA</td>
<td>Native American Graves Protection and Repatriation Act</td>
</tr>
<tr>
<td>NASS</td>
<td>National Agricultural Statistics Survey</td>
</tr>
<tr>
<td>NEPA</td>
<td>National Environmental Policy Act</td>
</tr>
<tr>
<td>NPDES</td>
<td>National Pollution Discharge Elimination System</td>
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<tr>
<td>NRCS</td>
<td>National Resources Conservation Service</td>
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<tr>
<td>NRHP</td>
<td>National Register of Historic Places</td>
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<tr>
<td>Abbreviation or Acronym</td>
<td>Definition</td>
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<td>------------------------</td>
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<tr>
<td>O&amp;M</td>
<td>Operations and Maintenance</td>
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<td>Water of the U.S.</td>
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Appendix A

A. Figures
   1. Project Vicinity Map
   2. Project Area Map
   3. Piping Project Area Map
   4. Habitat Replacement Plan Project Location
   5. Land Ownership Map: Shinn Park Lateral
   6. Land Ownership Map: Waterdog Lateral
   7. Ecoregion Map
   8. Nearby Projects Map
  11. Sage-Grouse Habitat
FIGURE 1: PROJECT VICINITY MAP
BPWCD Shinn Park and Waterdog Laterals Piping Salinity Control Project
FIGURE 2: PROJECT AREA MAP

BPWCD Shinn Park and Waterdog Laterals Piping Salinity Control Project
FIGURE 3: PIPING PROJECT AREA MAP

BPWCD Shinn Park and Waterdog Laterals Piping Salinity Control Project
FIGURE 6: LAND OWNERSHIP MAP WATERDOG LATERAL
BPWCD Shinn Park and Waterdog Laterals Piping Salinity Control Project
FIGURE 7: ECOREGION MAP

BPWCD Shinn Park and Waterdog Laterals Piping Salinity Control Project

Waterdog Lateral
Shinn Park Lateral
Proposed Realignments

Level IV Ecoregions

- 20b Shale Deserts and Sedimentary Basins
- 20c Semiarid Benchlands and Canyonlands
- 21e Sedimentary Subalpine Forests
- 21f Sedimentary Mid-Elevation Forests
- 21g Volcanic Subalpine Forests
- 21h Volcanic Mid-Elevation Forests
**FIGURE 9:** PROPOSED CONSTRUCTION ALIGNMENT SHINN PARK LATERAL

BPWCD Shinn Park and Waterdog Laterals Piping Salinity Control Project
FIGURE 10: PROPOSED CONSTRUCTION ALIGNMENT
WATERDOG LATERAL
BPWCD Shinn Park and Waterdog Laterals Piping Salinity Control Project.
FIGURE 11: SAGE-GROUSE CRITICAL HABITAT MAP

BPWCD Shinn Park and Waterdog Laterals Piping Salinity Control Project
Appendix B

B. Distribution List
Distribution List: Shinn Park and Waterdog Laterals Piping Salinity Control Project

The Draft Plan EA was distributed to the following agencies, organizations, tribes, and individuals.

- **Federal**
  - U.S. Bureau of Land Management, Uncompahgre Field Office
  - U.S. Fish & Wildlife Service, Ecological Services
  - U.S. Army Corps of Engineers, Colorado West Regulatory Branch
  - Natural Resources Conservation Service, Area 1
- **State**
  - Colorado Parks and Wildlife
  - Colorado Department of Transportation
  - Colorado Office of Archeology & Historic Preservation
- **Local**
  - Montrose County Planning and Development
  - Montrose County Road and Bridge
  - Montrose County Commissioners
  - City of Montrose
- **Tribal**
  - Southern Ute Tribe
  - Ute Mountain Ute Tribe
  - Ute Indian Tribe (Uintah and Ouray Reservation)
- **Other**
  - Trout Unlimited
  - Colorado Water Conservation Board
  - Colorado River Water Conservation District
  - Citizens for a Healthy Community
  - Western Slope Conservation Center
  - 68 Shareholders/Water Users
  - 1 Waterdog Basin grazing allotment holder
Appendix C

C. BLM Approved Seed Mix
Hi Trent,
So the two shapefiles appear to be the same alignment so hopefully I did not miss anything and I was unsure of the disturbance footprint but if you put the acres disturbed into the field the sheet will generate the PLS pounds of the various species to order for the project.

Here is a mix that should offer broad applicability to the numerous soil/ecological site types in your project area. There is a mix of species that are grazing tolerant and unpalatable as well so hopefully if the site is rested following seeding something desirable should establish. I do not prescribe sagebrush for narrow linear disturbances such as these because of the complexities of the species/subspecies. Mother nature will put the right sage on the site from adjacent stands. Hope it helps let me know if you have any other questions.

Ken Holsinger, Biologist
Uncompahgre Field Office
2465 S. Townsend Ave.
Montrose, CO 81401
970-240-5389

On Tue, Mar 5, 2019 at 9:26 AM Trent Hamada <thamada@jub.com> wrote:

Good Morning Ken,

Thank you for taking the time to speak with me this morning. As I mentioned, I am working on a project that will involve re-seeding disturbed areas within GUSG critical habitat and I could use some assistance with creating some seed mixes appropriate for the area. The project location is east of Montrose in critical habitat for the Cerro Summit-Cimarron-Sims Mesa Population. The attached .shp files show the project location and alignment. The existing sagebrush/shrub stratum is generally healthy but the area is heavily grazed and the grass/forb understory gets hammered by cattle. It would be very helpful if you could advise on the grasses/forbs that would be most appropriate for the location’s soils and climate as well as being beneficial to GUSG. Please don’t hesitate to contact me if you have questions or need additional information. Thank you again for your willingness to assist.

Regards,
This e-mail and any attachments involving J-U-B or a subsidiary business may contain information that is confidential and/or proprietary. Prior to use, you agree to the provisions found on the Electronic Documents/Data License, which can be accessed from the footer on the J-U-B home page. If you believe you received this email in error, please reply to that effect and then delete all copies.
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<th>Code</th>
<th>Common</th>
<th>Cultivar</th>
<th>Genus</th>
<th>species</th>
<th>Seeds/Pound (INPUT_DATA)</th>
<th>Seeds Drilled (BLM req)</th>
<th>Actual</th>
<th>Desired % of Project</th>
<th>PLS lbs of species</th>
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Appendix D

D. Endangered Species Act Compliance Documentation (pending)
Threatened and Endangered Species Inventory

Bostwick Park Water Conservancy District—Shinn Park and Waterdog Laterals Piping and Salinity Control Project (Cooperative Agreement #R18AC00077)

Montrose County, Colorado

March 2022

Prepared for:
Bureau of Reclamation – Western Colorado Area Office
U.S. Department of Interior

Prepared by:

J-U-B ENGINEERS, Inc.
392 E. Winchester St., Ste. 300
Salt Lake City, Utah 84107
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**Appendices**

Appendix A: Project Vicinity, Project Area, Piping Project Area & Habitat Replacement Plan Project Location Maps

Appendix B: Gunnison Sage-grouse Critical Habitat Map

Appendix C: IPaC Report

Appendix D: Photo Inventory
1. Introduction

The following Threatened and Endangered Species Inventory has been prepared for the proposed Shinn Park and Waterdog Laterals Piping and Salinity Control Project (Proposed Project) located in Montrose County, Colorado (Appendix A). This inventory and assessment were prepared on behalf of the Bostwick Park Water Conservancy District (BPWCD) for the U.S. Department of Interior’s Bureau of Reclamation (Reclamation) as part of the Colorado River Basin Salinity Control Program. This Threatened and Endangered Species Inventory serves as supporting documentation for the Environmental Assessment (EA) for the Proposed Project, and as supporting rationale for effect determinations for Endangered Species Act (ESA) consultation purposes. Reclamation, with authorization by the Colorado River Basin Salinity Control Act, is proposing to provide funding assistance for the Proposed Project, under an Assistance Agreement (R18AC00077).

1.1 Background

As part of the inventory completed for the Proposed Project, a species list from the U.S. Fish and Wildlife Service’s (USFWS) Information for Planning and Consultation (IPaC) system was updated for the Proposed Project on February 24, 2022 (see IPaC Reports in Appendix C). Table 1 summarizes the ESA-listed species identified by the IPaC Reports, and the effect determinations proposed for each species relative to the Proposed Project. Additionally, the IPaC Report identified that final designated critical habitat for the Gunnison sage-grouse (GUSG) (*Centrocercus minimus*) exists within a portion of the Proposed Project Action Area (Action Area). The Action Area includes the Shinn Park Lateral, Waterdog Lateral, and the habitat replacement site (Appendix A). A field visit was conducted by a biologist with J-U-B ENGINEERS, Inc. (J-U-B) on September 23, 2020 to survey the Action Area.

Personal communication with Creed Clayton, USFWS Biologist, and Evan Phillips, wildlife biologist with Colorado Parks and Wildlife (CPW), determined that a previously active GUSG lek had been recorded within approximately 0.53 miles of the Shinn Park Lateral (Phillips, personal communication, 2019). Personal communication with Evan Phillips indicated that the recorded lek has been inactive since 2010 (Phillips, personal communication, 2019). To obtain additional information about suitable habitat and potential species use within the Action Area, an additional habitat survey and pellet survey were performed along the section of proposed piping realignment, which is located within the identified critical habitat.

### Table 1. Summary of ESA-Listed Species (IPaC Report) and Proposed Effect Determinations

<table>
<thead>
<tr>
<th>Common Name</th>
<th>Scientific Name</th>
<th>Listing Status</th>
<th>Effect Determination</th>
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<tbody>
<tr>
<td>Animals</td>
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<td>Fish</td>
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<td>Adversely Affect</td>
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<td>Colorado pikeminnow</td>
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<td>Adversely Affect</td>
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<td>Humpback chub</td>
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<td>Adversely Affect</td>
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<tr>
<td>Razorback sucker</td>
<td><em>Xyrauchen texanus</em></td>
<td>Endangered</td>
<td>Adversely Affect</td>
</tr>
<tr>
<td>Common Name</td>
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<td>Listing Status</td>
<td>Effect Determination</td>
</tr>
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<td>---------------------------------</td>
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<td>----------------</td>
<td>----------------------------------------------------------</td>
</tr>
<tr>
<td>Gunnison sage-grouse</td>
<td>Centrocercus minimus</td>
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<td>May Affect, Not Likely to Adversely Affect</td>
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<tr>
<td>Mexican spotted owl</td>
<td>Strix occidentalis lucida</td>
<td>Threatened</td>
<td>No Effect</td>
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</table>

### Insects

- **Monarch butterfly**
  - **Danaus plexippus**
  - **Candidate**
  - **Eliminated. Because the monarch butterfly is a candidate species, an effects determination is not provided, and consultation is not requested.**

### Plants

- **Clay-loving wild buckwheat**
  - **Eriogonum pelinophilum**
  - **Endangered**
  - **No Effect**

### Critical Habitat

- **Gunnison sage-grouse Critical Habitat**
  - **No Effect**

### 1.2 Project Location

The Proposed Project is located in Sections 1, 2, 12, 13, 14, 21, 22, and 23 of Township 48 North, Range 8 West, as well as Section 18, Township 48 North, Range 7 West in Montrose County, Colorado (see Project Vicinity Map and Project Area Map in Appendix A). The laterals (Shinn Park and Waterdog) are located south of US-50. The laterals split from the Hairpin Ditch at the pass between Squaw Hill and Waterdog Peak, where the Hairpin Ditch nears and parallels Q72 Road. Water in the BPWCD system is fed from the Hairpin Canal, which is supplied by the Cimarron Canal. The Cimarron Canal, which transports water from the Silverjack Reservoir, is supplied by the Cimarron River. The Cimarron Canal is the main water supply for BPWCD. Land use within the Proposed Project vicinity is predominantly rangeland with active livestock grazing. The elevation of the Action Area ranges from 6,945 to 8,100 feet above mean sea level (AMSL).

As part of the Proposed Project, the BPWCD would implement a habitat replacement site on a private parcel within Sections 11, 12, 13 of Township 48 North, Range 7 West outside of Montrose city limits in Montrose County, Colorado. To reach the site, travel east on Highway 50 from Montrose, and turn left onto P77 Road. After approximately 4.5 miles, the southern boundary of the property will be accessible (see Habitat Replacement Project Map in Appendix A).

### 1.3 Proposed Action

The Proposed Project Action would pipe two BPWCD laterals located in Montrose County, Colorado, southeast of the City of Montrose (see Project Area and Piping Project Area Maps in Appendix A), within the Uncompahgre River watershed in the Gunnison Basin of the Upper Colorado River Basin. The Proposed Project would pipe the existing open, unlined Shinn Park Lateral (17,370 feet) and Waterdog Lateral (23,430 feet) with a total of approximately 7.73 miles (40,800 feet) of high-density polyethylene (HDPE) pipe. The majority of the Proposed Project would follow the existing alignment, with slight deviations occurring within 10 to 15 feet of the centerline of the existing ditch to minimize...
fittings. Minor lateral deviations would occur in four locations, with two deviations at each lateral. Two deviations totaling approximately 0.56 miles of the Shinn Park Lateral would be realigned; one 0.5-mile deviation would occur beneath the operations and maintenance (O&M) road and a short, 0.06-mile deviation would occur in the bottom third of the lateral to minimize fittings and help control hydraulics within the pipeline. A total of approximately 1.37 miles of the Waterdog Lateral would be realigned as part of two deviations. One deviation would realign approximately 1.25 miles of the middle section of the Waterdog Lateral to avoid a highly eroded portion of the existing alignment and to create a more linear footprint, as the existing lateral curves through pinyon pine (*Pinus edulis*)-juniper (*Juniperus scopulorum*) and Gambel oak (*Quercus gambelii*) woodland. The second deviation would realign the Waterdog Lateral by approximately 0.12 miles to allow the Waterdog Lateral to share a single intake structure with the Shinn Park Lateral, requiring the Waterdog Lateral to parallel the Shinn Park Lateral for the first 485 feet.

Permanent vegetation disturbance is associated with the removal of large trees within a 200-foot corridor (100-foot buffer from the centerline of the laterals), when necessary. Areas of permanent ground disturbance would be graded and reclaimed with native vegetation to avoid erosion. Permanent tree removal would be associated with the 1.25-mile realignment of the Waterdog Lateral and the piping of the lower segment of Waterdog Lateral. Tree removal for the realignment of Waterdog Lateral and piping of the lower segment would occur at a 20-foot width, based on the necessary equipment (i.e., trackhoes, excavators, fusion welder, dumptruck, large pickups with trailers) and trench width, for approximately 5,140 feet of Waterdog Lateral. A 10-foot width for tree removal was assumed where the Waterdog Lateral realignment occurs adjacent to the fence line (approximate 2,300-foot area). It is estimated that approximately 2.9 acres of the alignment would require some tree removal to complete the Proposed Project. The Action Area along the canal segments is contained within a 200-foot-wide corridor. The anticipated average width of the construction area for the Proposed Project would be 100 feet but could be as wide as 200 feet under certain conditions. The width of the construction footprint would depend on site conditions (slope, nearby infrastructure, nearby sensitive resources) and the ability to operate equipment safely. The authorized construction area widths would not be constrained by the existing ditch centerline, but rather would be adjustable to site conditions in order to complete the work safely and with the smallest possible disturbance footprint. Construction footprints would be limited to only those necessary to safely implement the Proposed Project. The authorized construction width would not be mechanically cleared to its maximum outer limits as a part of site preparation.

A central staging area would be located in a parking pullout on the Q72 road, which is an actively disturbed site within the roadway prism. Materials would be lined out beside the existing laterals in sections as construction proceeds. Stockpiles would not be placed along the lateral for staging. The existing O&M roads are anticipated to remain in their existing positions, parallel with the laterals. The existing O&M road would be used to access the entire Shinn Park Lateral. Any unavoidable shifts in the O&M road, should they be necessary, would remain within the 200-foot corridor (100 feet to either side from the centerline of the lateral), which is included in the Action Area and evaluated in this analysis. The upper segments of the Waterdog Lateral would be accessed using the existing O&M road that parallels the lateral. The bottom segment of the Waterdog Lateral also has an existing O&M road, which would be used to access the lateral during construction. In certain segments, or where the
piping project will deviate from the existing alignment, there is no existing O&M road, so equipment would move adjacent to the proposed alignment. Some access routes may require minor grading and smoothing to allow truck access to the project alignment. Access routes and road crossings would be returned to the same or better conditions than they were prior to construction. Materials for the Waterdog Lateral would be staged within the primary staging area on Q72 Road as well as within the construction buffer surveyed for the project. Any identified cultural resource areas would be fenced and avoided to prevent impacts to those resources.

Improvements included in the Proposed Project are a screening and pipeline intake structure, turnouts for existing users, concrete hydraulic overflow structures, and wildlife water guzzlers. Installation of the piping would include removal of most existing ditch structures, excavation, backfilling, and surface restoration. Existing turnout locations would be maintained along the new pipelines. The existing laterals would be fully or partially backfilled with native materials, re-graded to match site contours where applicable, and all disturbed soils would be seeded with a BLM approved seed mix at a rate of approximately 14.4 pounds of seed per acre. To reduce impacts to wildlife from the loss of the open laterals, wildlife guzzlers would be installed at intervals along the entire pipeline for each lateral. These guzzlers would provide a water source to wildlife and livestock during the irrigation season. The Proposed Project would not include new water storage facilities or result in an increase in irrigated acreage.

To mitigate for the loss of riparian wildlife habitat associated with the Proposed Project, as well as that of a previous project—the Siphon Lateral Project—an HRP is proposed for areas along Cottonwood Creek east of Montrose in partnership with a private landowner and Colorado West Land Trust. The HRP project would stabilize and revegetate the stream bank along a segment of Cottonwood Creek, utilizing native vegetation. Additionally, the project would remove invasive thistle species in wet meadow areas and would exclude cattle from wet meadow and riparian areas surrounding spring-fed ponds in a rotational grazing system using temporary, seasonal fences with wildlife flags to avoid any potential harm to Gunnison sage-grouse, if present in the area. Native plant species such as narrowleaf cottonwood (Populus angustifolia), peachleaf willow (Salix amygdaloides), shining willow (Salix lucida), and skunkbush sumac (Rhus trilobata) would be planted in the riparian area of the creek and around the edges of the spring-fed ponds.

It is anticipated that bulldozers, backhoes, trackhoes, excavators, haul trucks, and various smaller construction vehicles and equipment (such as pipe fusion equipment) would be used to complete the project. Construction for the Proposed Project would be spanned two years. Construction would begin in the fall/winter in year one and would be complete by April 1 in year two. The Shinn Park Lateral would be piped first with construction running from fall/winter to April 1 in year one, and piping of the Waterdog Lateral would follow with construction starting late the next September and completing by April 1 in year two. The HRP would be implemented concurrently with the piping of the Shinn Park and Waterdog Laterals. Full implementation of the HRP would begin in fall/winter with native plant installation along portions of Cottonwood Creek. Native shrubs would be planted again in early spring along Cottonwood Creek. Wet meadows would be seeded with native forbs and grasses in spring. All activities would be completed within two years, after which the project would be maintained by BPWCD and the private landowner for 50 years.
1.3.1 Conservation Measures and Best Management Practices

Construction Best Management Practices (BMPs) are standard requirements and would be required during implementation of the Proposed Project. These would include, but are not limited to, soil and erosion control devices, noxious weed prevention and control, construction timing to avoid breeding and nesting season for migratory birds and Gunnison sage-grouse, as well as Standard Operating Procedures required by Reclamation. The following BMPs and conservation measures are intended to minimize effects on listed species and their habitats, as well as to protect water quality and minimize disturbance to soils and vegetation.

1. All work would be completed within the designated Proposed Project footprint and during established working hours.
2. When feasible, construction equipment and vehicles would be fueled offsite and adequately buffered from riparian zones and aquatic areas. If offsite fueling is impractical, fueling would occur in designated fueling areas.
3. Equipment would be pressure washed to avoid noxious weed dispersal within the Action Area.
4. Adequate spill response equipment (i.e., spill kits and cleanup materials) would be maintained and present onsite at all times to avoid chemical contamination in the event of a spill. All spills would be cleaned up immediately.
   a. When not in use, construction equipment would be stored away from concentrated flows of stormwater, drainage courses, and inlets.
      i. Equipment would be parked over plastic sheeting, or an equivalent, wherever possible. Plastic would not be considered a substitute for drip pans or absorbent pads. Hydraulic equipment would be protected from runoff by placing them on plywood and covering them with a plastic or a comparable material prior to the onset of rain.
      ii. The Contractor would follow proper storage, handling, use, and disposal of petroleum products and other hazardous materials.
5. All areas of ground disturbance would be rehabilitated.
6. Temporary Erosion and Sediment Controls (TESCs), such as silt fences, fiber wattles, or other erosion control mechanisms would be placed adjacent to or below disturbance areas to prevent and minimize sediment transport into any waterway. Erosion control materials would be certified weed free in order to prevent the spread of noxious weeds. Sediment control devices would be maintained throughout construction activities that could result in erosion or sedimentation, as determined by the site foreman/engineer. When the risk of erosion has passed, the devices would be removed, and sediment would be disposed of in an upland location outside of the floodplain or transported off-site.
7. Construction activities should not occur during extreme wet weather conditions, if practicable. If heavy precipitation is predicted to occur within 24 hours, appropriate measures would be taken to cover up any stockpiles and check that BMPs are in good condition.
8. During extreme weather events, temporary sediment traps, filter fabric fences, inlet protectors, vegetative filters and buffers, or settling basins would be used to retain runoff water long enough
for sediment particles to settle out. Construction materials, including topsoil and chemicals, would be stored covered, and isolated to prevent runoff losses and contamination of groundwater.

9. To minimize potential impacts, all work would, when possible, be completed from the existing roadway, shoulders, and upland area.

10. If required, a spill prevention control and countermeasure (SPCC) plan and a stormwater pollution prevention plan (SWPPP) would be in place prior to any construction activities.

11. All associated permit conditions shall be met during construction operations.

BMPs Associated with the Preservation and Retention of Existing Vegetation:

1. Areas where vegetation is to be protected would be clearly marked, flagged, or fenced.
2. Appropriate buffer zones would be established to protect sensitive vegetation (i.e., native riparian vegetation). Berms, fencing, signs, etc. would be used to demarcate the buffer limits.
3. Work within wetland areas would be avoided or minimized to the extent practical.
4. Construction staging areas, waste areas, etc. would be located away from sensitive vegetation and 200 feet from any surface water, if possible.
5. Undisturbed areas would be maximized within Action Area boundaries wherever possible to retain vegetation for erosion control purposes.
6. Native site vegetation and plant communities, including milkweed and wetland vegetation, would be protected when practicable.

Specific conservation measures to avoid and minimize impacts to Gunnison sage-grouse and migratory birds include the following:

1. Construction would be timed to occur beginning in fall/winter and ending in the spring of each construction phase (Anticipated Years: 2022-2023 and 2023-2024).
   a. Where work occurs within GUSG critical habitat or within ½-mile of any known or previously identified leks, construction must halt by April 1st.
2. Equipment would be cleaned to avoid noxious weed dispersal within the Action Area, particularly, in or near GUSG critical habitat.
3. A native seed mix appropriate to GUSG habitat would be reseeded in all areas where ground disturbance has occurred. The seed mix would include western wheatgrass, mountain brome, Indian ricegrass, slender wheatgrass, and small burnet.
4. All necessary BMPs would be in place to control sediment and erosion, and to protect water quality during construction activities. Piping would occur outside the irrigation season while the laterals are dry.
5. Invasive species removal at the habitat replacement site would occur in mid-late fall and early spring before the arrival of migratory bird species. Installation of native plants along the streambank would occur in late fall and/or early spring.
6. Cattle exclusions at the HRP habitat replacement site would include wildlife friendly fence with reflective wildlife flagging to avoid any potential harm to Gunnison sage-grouse.
1.4 Existing Habitat Conditions

The Proposed Project would be constructed within the existing easements for each lateral; however, additional right-of-way (ROW) or access easements have been acquired for the Waterdog Lateral to accommodate a 1.25-mile deviation from the existing alignment. The natural community within the laterals’ Action Area is characterized by pinyon-juniper woodland, Gambel oak woodland, and sagebrush steppe with black sagebrush (Artemisia nova), winterfat (Krascheninnikovia lanata), antelope bitterbrush (Purshia tridentata), serviceberry (Amelanchier alnifolia), snowberry (Symphoricarpus rotundifolius), mountain brome (Bromus marginatus), bluegrasses (Poa spp.), Junegrass (Koeleria macrantha), milkvetch (Astragalus spp.), and mountain muhly (Muhlenbergia montana). At elevations between 6,945 and 8,100 feet, and with predominantly west-northwest and west-southwest facing slopes, vegetation along the Shinn Park and Waterdog Laterals exhibits transition zones where species associated with semi-arid benchlands and mid-elevation forests arise in close proximity. Along the open laterals, riparian vegetation associated with seepage along segments of the laterals include scouring rush (Equisetum laevigatum), wood’s rose (Rosa woodsii), dandelion (Taraxacum officinale), coyote willow (Salix exigua), serviceberry, rabbitbrush (Chrysothamnus viscidiflorus), long-leaf phlox (Phlox longifolia), lupine (Lupinus argenteus) and Russian knapweed (Acroptilon repens).

The Proposed Project alignment along the Shinn Park Lateral is an actively maintained irrigation ditch with an O&M road directly adjacent to the lateral. Vegetation along the lateral is controlled by BPWCD through mechanical removal and herbicide application. Livestock actively graze the area during the growing season, and their presence is clearly visible in the reduced health and condition of vegetation within the Action Area. Half the length of the Waterdog Lateral also has an O&M road that parallels the irrigation ditch. Where the O&M road is present, the vegetation within the Action Area has been maintained and controlled by BPWCD. The middle segments of the Waterdog Lateral do not have O&M road access, and the unlined lateral has experienced significant erosion as it descends the relatively steep hillslope to the southwest (see Photo Inventory in Appendix D). In these areas, the lateral’s prism has been less maintained and has small areas of well-established vegetation at the base of the eroded lateral. Along these segments of the Waterdog Lateral, a few trees such as cottonwoods, elms (Ulmus sp.), willow, serviceberry, and hawthorn (Crataegus sp.) occur. Plant diversity in these areas is higher than the more maintained segments of the laterals. Fish-bearing habitat is not present within the lateral prisms, as each lateral is screened, heavily maintained in most sections, and is ephemeral outside the irrigation season.

The habitat replacement site is an undeveloped parcel ranging in elevation from 7,440 feet to 8,290 feet AMSL. Existing conditions within the habitat replacement site are characterized by heavily grazed meadows and eroded channels within Cottonwood Creek, primarily due to the presence of cattle. The plant community is dominated by species such as narrowleaf cottonwood, sagebrush, sumac, Gambel oak, pinyon pine, juniper, rubber rabbitbrush (Ericameria nauseosa), coyote willow, sedges (Carex sp.), and a mixture of grasses and forbs. Existing riparian habitat along Cottonwood Creek is marginal in quality due to the lack of stratification, species diversity, and the presence of noxious species, namely Russian olive. There are large overstory cottonwood trees that are beginning to decline in health and vigor because of age, however little to no mid-story or sapling regeneration is present. Wet meadows and pond edges, as well as the riparian area along Cottonwood Creek, are heavily disturbed by
livestock grazing, such that barren soil is present in many of these locations or vegetation is grazed nearly to soil surface.

2. Species Descriptions and Determinations
The following sections describe the physical characteristics and habitat requirements of the ESA-listed species identified as having the potential to occur within the Action Area. Nine species were identified by the IPaC Report and are subsequently discussed herein. The monarch butterfly (*Danaus plexippus*) is a candidate species, and as such no formal consultation is necessary under the Endangered Species Act (ESA) and none is requested for the species in this analysis. Therefore, an effects analysis and determination are not presented for the monarch butterfly in this inventory.

Species that have been dismissed from further evaluation due to a lack of suitable habitat and lack of recent records of occurrence within the Action Area include the Canada lynx (*Lynx canadensis*), Mexican spotted owl (*Strix occidentalis lucida*) and clay-loving wild buckwheat (*Eriogonum pelinophilum*). An analysis of potential effects to the bonytail chub (*Gila elegans*), Colorado pikeminnow (*Ptychocheilus lucius*), humpback chub (*Gila cypha*), razorback sucker (*Xyrauchen texanus*), and the Gunnison sage-grouse follows in Section 2.2.

2.1 Species Dismissed from Further Evaluation
Monarch Butterfly:
The monarch butterfly is a candidate species that is under consideration for official listing under the ESA. Adult monarch butterflies are large, highly visible insects with bright orange wings surrounded by a black border with black veins. The bright coloring of the monarch is aposematic and serves as a warning to predators that eating them can be toxic (USFWS 2020). The black border on the upper side of its wings is lined with a double row of white spots. In many regions, monarchs breed year-round. Milkweed (*Asclepias* spp.) is an obligate plant species in the monarch butterfly’s lifecycle. Breeding monarchs lay their eggs in milkweed plants and larvae emerge between two to five days later. After larvae have emerged, they will feed on milkweed as they develop into a chrysalis. Nectar and milkweed resources for monarch butterflies are often associated with riparian corridors. These butterflies migrate 1,200 to 2,800 miles from breeding grounds in Canada and the United States to hibernation grounds/overwintering sites in central Mexico or southern California (USFWS 2021).

The monarch butterfly is a candidate species, and as such no formal consultation is necessary under the ESA and none is requested for the species in this analysis. However, BMPs and conservation measures would be implemented to reduce impacts to vegetation, including wetland and riparian habitats, where milkweed is often found. Disturbed areas within riparian zones or wetland areas would be revegetated with native plants. Native site vegetation and plant communities, including milkweed if identified, would be protected whenever practicable.

Canada Lynx:
In the Lower 48 states, the Canada lynx was designated as a distinct population segment (DPS) and was listed as threatened under the ESA in 2000 due to inadequate forest management regulations on Federal lands (USFWS 2013). Canada lynx is a mid-sized carnivore typically found in dense boreal-spruce
forested areas with an abundance of windfalls, swamps, and brushy thickets (Maas 1997). Lynx require heavy cover for concealment while stalking prey and have adapted morphological features advantageous to hunting its primary prey, the snowshoe hare (*Lepus americanus*), in deep powdery snow. In the western U.S., the species is rarely observed in areas below 4,000 feet AMSL (McKelvey et al. 2000). Although the Action Area is within the preferred elevation of the species, the Action Area does not contain dense boreal-spruce forests or areas of heavy cover that would provide concealment for lynx. Given the lack of suitable habitat for the species within the Action Area, it is anticipated that the Proposed Project, including the habitat replacement site, would have no effect on the Canada lynx, which is therefore dismissed from further evaluation.

**Mexican Spotted Owl:**
In this region of Colorado—the northern edge of the species’ range—preferred habitat for Mexican spotted owls exists in rocky, steep-walled canyons with caves and cliff ledges used for nesting (USFWS 2018a). Within the Action Area, there are no recent records of occurrence for the species (Colorado Bird Atlas Partnership 2016), and moreover there are no steep-walled rocky canyons or cliff structure within, or relatively close to, the Proposed Project or the habitat replacement site. Given the lack of suitable habitat for the species within the Action Area, it is anticipated that the Proposed Project, including the habitat replacement site, would have no effect on the Mexican spotted owl, which is therefore dismissed from further evaluation.

**Clay-loving Wild Buckwheat:**
As the name would suggest, the clay-loving wild buckwheat is found in clay soils derived from shales of the Mancos Formation. The species’ characteristic landscape is typified by rolling adobe hills characterized by clay soils of the Billings Series and known for their fine texture and weak structure. The species occurs on mid- to lower slopes of hillsides and is often accompanied by shadscale. Field observations indicate the species is typically found in an elevation range from 5,220 to 6,378 feet AMSL (CNHP 2014). The Action Area is characterized by stony badland soils and stony loams at an elevation range of 6,945 to 8,100 feet AMSL, which is above the typical elevation of the species. Additionally, the Action Area is heavily disturbed by maintenance activities, or is within heavy canopy cover of pinyon-juniper-Gambel oak woodland. The habitat replacement site is at a similar elevation to the laterals with the same type of soils. These conditions would not be suitable to the clay-loving wild buckwheat. Therefore, given the lack of suitable habitat within the Action Area, it is reasonable to determine that the Proposed Project, including the habitat replacement site, would have no effect on the clay-loving wild buckwheat and it is dismissed from further evaluation.

### 2.2 Species Descriptions, Effects Analysis and Determinations

**Colorado River Endangered Fishes:**
The Upper Colorado River Basin is home to four federally listed endangered fish: bonytail chub, Colorado pikeminnow, humpback chub, and the razorback sucker. Decline of the four endangered species is due, in part, to habitat destruction (diversion and impoundment of rivers), as well as competition and predation from introduced fish species. In 1994, USFWS designated critical habitat for the four endangered species described in 56 FR 54957-54967, which in Colorado includes the 100-year floodplain of the Upper Colorado River, including the Gunnison River upstream to the confluence with the Uncompahgre River near Delta, Colorado to the City of Grand Junction.
Water depletions in the Gunnison Basin have the potential to diminish backwater spawning areas in downstream designated critical habitat in the Colorado River Basin, directly affecting the four endangered fishes and the extents and quality of designated critical habitat. Irrigation waters in the Shinn Park and Waterdog Laterals originates from the Silver Jack Reservoir and Cimarron Canal, whose historic depletions are covered under the original Bostwick Park Project in the Gunnison River Basin Programmatic Biological Opinion (PBO) issued by the USFWS in 2009 (USFWS Tails: 65413-2009-F-0044). Under the Gunnison River Basin PBO, the Bostwick Park Project is assumed to have an estimated average annual depletion of 4,000 acre-feet per year. Irrigation water delivered via the Shinn Park and Waterdog Laterals originates solely from the Bostwick Park Project; therefore all historic depletions have been accounted for under the Gunnison River Basin PBO. No additional historic depletions exist for the Proposed Project. The Bostwick Park Project depletion rate is expected to remain unchanged if the Proposed Project is implemented. Therefore, no additional consultation is needed.

Based on previously issued biological opinions that all depletions (continued historic depletions and new depletions) within the Upper Colorado River Basin may adversely affect these four fishes, it is expected that the piping of the Shinn Park Lateral and Waterdog Lateral may adversely affect the Colorado pikeminnow, razorback sucker, humpback chub, and bonytail chub. The Upper Colorado River Endangered Fish Recovery Program, a partnership of public and private organizations working to recover the four species while allowing continued and future water development, was established in 1988. 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 2018, the USFWS determined that the Recovery Program had 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 2018b). Furthermore, the Gunnison River Basin PBO issued by USFWS in 2009 found that the Recovery Program is the reasonable and prudent alternative to avoid jeopardy to the endangered Colorado River fishes and avoid adverse modification of designated critical habitat. No change to the BPWCD’s estimated historic consumptive use rate or historic water depletions (the “existing depletion”) to the Colorado River Basin would occur as a result of the Proposed Project. However, potential inherent benefits to the Colorado River fishes may occur from the reduction of salt loading to the Colorado River Basin by approximately 3,425 tons per year, and a potential unquantified reduction in selenium loading to the Lower Gunnison Basin, as a result of the Proposed Project (Jacobson 2017).

Gunnison Sage-grouse (GUSG) & GUSG Critical Habitat:
The GUSG is a distinct species of sage-grouse identified in 2000, and only found south of the Colorado River in southwestern Colorado and Utah. The species has disappeared from approximately 90 percent of its former range due to loss and degradation of habitat (Audubon 2020). The male Gunnison sage-grouse conducts elaborate displays to attract females on their breeding grounds, or leks, in the spring. Nesting begins in mid-April and continues into July. Historically, Gunnison sage-grouse were found in the southwestern portion of Colorado, southeastern Utah, northeastern Arizona, and northwestern New Mexico. The largest population, about 4,000 individuals, inhabits the Gunnison Basin (USFWS 2019) (see GUSG Critical Habitat Map in Appendix B). A previously active lek was recorded by CPW, which was located approximately 0.53 miles from the Shinn Park Lateral. This lek has been classified as inactive since 2010 due to a lack of GUSG presence (Phillips, personal communication, 2019).
Approximately 2.19 miles of the Shinn Park Lateral occur within designated GUSG critical habitat (see GUSG Critical Habitat Map in Appendix B). Of the 2.19 miles of the Shinn Park alignment that occur within GUSG critical habitat, approximately 0.56 miles of the existing alignment would be realigned, including moving 0.5 miles of the existing alignment to parallel the existing 15-foot wide O&M road and shortcutting the corner of the existing alignment with a 0.06-mile realignment to minimize fittings and control hydraulics. Given the proximity of a known, previously active lek (0.53 miles northeast of the Shinn Park alignment), an informal GUSG pellet survey was conducted to further assess potential habitat use within the Action Area, where the lateral would be realigned. Within the O&M road prism (50-foot buffer on each side of the road), no evidence was found of clockers, cecal tar, foraging scat, or piles of winter scat, suggesting that the area around and between the O&M road and the existing lateral alignment is most likely not used by any nearby GUSG populations or groups of birds. Scat observed in the area was primarily from elk, deer, mountain cottontail, jack rabbit, pygmy rabbit, and black bear.

A 0.5-mile realignment would occur along the Shinn Park Lateral (see GUSG Critical Habitat Map in Appendix B). Within this segment, the O&M road is also within critical habitat for GUSG, however the habitat that surrounds the O&M road in this location would be considered marginal due to the presence of heavy cattle grazing and the density of serviceberry and Gambel oak (approximately 90% coverage by ocular estimate), with less coverage represented by sagebrush (approximately 5% coverage). Grasses and forbs are scattered among the dense, mixed shrub layer; however, the impact of heavy grazing is evident in the area with grasses and forbs browsed almost to the soil surface from late spring to fall. A 0.06-mile realignment would also occur along the Shinn Park Lateral (see GUSG Critical Habitat Map in Appendix B), which has marginal sage-grouse habitat due to vegetative assemblage and heavy cattle grazing. The habitat in this area is dominated by dandelion, Baltic rush (*Juncus balticus*), and wood’s rose.

The realigned Shinn Park Lateral section would be placed within the existing footprint of the O&M road or immediately adjacent to the road. The footprint of the excavated pipeline for the section of new alignment would be approximately three feet wide, running for a total of approximately 0.56 miles before rejoining the existing alignment. Therefore, approximately 0.20 acres of marginally suitable GUSG critical habitat would be permanently disturbed by the new alignment. The remainder of the Shinn Park Lateral would be piped in its existing alignment and would not disturb any habitat beyond the prism of the existing lateral.

Approximately 0.28 miles of the Waterdog Lateral occur within GUSG critical habitat. Under the Proposed Project, the Waterdog Lateral alignment deviation would occur outside of GUSG critical habitat. Therefore, the Proposed Project associated with the Waterdog Lateral would not disturb any critical habitat beyond the prism of the existing lateral.

The habitat replacement site is situated on private property, within overall range for GUSG and within designated critical habitat (Appendix B). The habitat replacement site contains suitable sagebrush habitat to support the GUSG; however, there are no records of occurrence within the Action Area for the HRP, and there were no signs of occupation identified during field surveys. The plant community is dominated by species such as sagebrush, sumac, Gambel oak, pinyon pine, juniper, rubber rabbitbrush,
coyote willow, sedges, and a mixture of grasses and forbs. Established sagebrush habitat with an assemblage of grasses and forbs was present within the habitat replacement site. A small patch of Canada thistle (*Cirsium arvense*) was observed at the habitat replacement site and would be treated as part of the Proposed Project. The purpose of the HRP is to reduce the impacts of livestock grazing and restore wet meadow habitat in several areas throughout the habitat replacement site, which would improve GUSG habitat by allowing grasses and forbs to reestablish in areas that were previously overgrazed.

Piping and construction activities would be timed to occur in late September to April 1st, which would primarily avoid the GUSG’s breeding, nesting, and early brood rearing seasons. Based on the marginal quality of sagebrush cover along the laterals; the small area of anticipated disturbance from the realigned sections; the presence of significant grazing pressure along the entire alignment of each lateral; and, the timing and temporary nature of the Proposed Project, it is anticipated that the overall effects of the piping of the Shinn Park and Waterdog Laterals would be insignificant, but not discountable. The HRP habitat replacement site is expected to benefit GUSG and its habitat by protecting overall range and enhancing suitable habitat for the species. Although there are no records of occurrence for GUSG in the Action Area, their potential presence cannot be ruled out entirely. Therefore, it is determined that the Proposed Project, including the HRP, may affect, but would not be likely to adversely affect the GUSG. The MANLAA determination for the GUSG relates to the realignment actions along two segments of the Shinn Park Lateral, the known, previously active lek within 0.53 miles of the Shinn Park Lateral, and the potential effects to GUSG individuals with potential to inhabit the vicinity of the Action Area.

The habitat around the Shinn Park Lateral is previously disturbed and actively maintained by BPWCD for irrigation purposes, and the sagebrush habitat directly within the Action Area is marginal and unoccupied based on information gathered during field surveys. Given that minor lateral deviations would occur outside of critical habitat for the Waterdog Lateral, that the Shinn Park Lateral deviations would occur within marginal habitat inside designated critical habitat boundaries, and that the purpose of the HRP is to improve suitable critical habitat for GUSG and other wildlife, it is anticipated that the Proposed Project, including the HRP, would have no effect on GUSG critical habitat.

3. Migratory Bird Treaty Act / Bald and Golden Eagle Protection Act

The IPaC Report identified four avian species protected under the Migratory Bird Treaty Act (MBTA). No species protected under the Bald and Golden Eagle Protection Act (BGEPA) were identified by the IPaC Report as potentially occurring within the Action Area that are (Table 3).

<table>
<thead>
<tr>
<th>Common Name</th>
<th>Scientific Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Black Rosy-finch</td>
<td><em>Leucosticte atrata</em></td>
</tr>
<tr>
<td>Brown-capped Rosy-finch</td>
<td><em>Leucosticte australis</em></td>
</tr>
<tr>
<td>Lewis’s Woodpecker</td>
<td><em>Melanerpes lewis</em></td>
</tr>
<tr>
<td>Virginia’s Warbler</td>
<td><em>Vermivora virginiae</em></td>
</tr>
</tbody>
</table>
Field investigations found no active nests for raptors or migratory species. The Action Area and surrounding area could provide suitable habitat for raptors and migratory species, therefore, protected avian species may be present within, or in the vicinity of, the Action Area. Given that construction would occur outside of the irrigation season, the majority of construction activities would occur outside of bird migration, breeding, and nesting seasons. The Proposed Project would require some tree removal along approximately 2.9 acres of the Waterdog Lateral, including the removal of some larger trees at the bottom of the Waterdog Lateral, which could provide suitable habitat for birds; as such, the Action Area should be cleared for any migratory bird or eagle nests prior to the removal of vegetation. If a nest is identified within the Action Area, the Reclamation biologist and USFWS would be notified immediately to discuss the appropriate course of action.

4. Conclusion
This analysis was prepared to summarize the Proposed Project’s potential effects on species listed as endangered, threatened, proposed, and candidate, as well as designated and proposed critical habitat protected under the ESA. The IPaC Reports identified nine ESA-listed species with the potential to occur within the Action Area. Final designated critical habitat for the threatened Gunnison sage-grouse exists within the Action Area.

The monarch butterfly is a candidate species, and as such no formal consultation is necessary under the ESA and none is requested for the species in this analysis. Therefore, an effects analysis and determination are not presented for the monarch butterfly in this memo. Due to a lack of suitable habitat, as well as a lack of field indicators for species presence, it is reasonable to determine that the Proposed Project, including the HRP habitat replacement site, would have no effect to the Canada lynx, Mexican spotted owl and the clay-loving wild buckwheat.

As determined by the previous Gunnison River Basin PBO (USFWS Tails: 65413-2009-F-0044) issued by the USFWS, the historic water depletions associated with the Shinn Park and Waterdog Laterals may adversely affect the bonytail chub, Colorado pikeminnow, humpback chub, and the razorback sucker. Based on the potential for species presence and the existing marginally suitable habitat, potential effects to the Gunnison sage-grouse could not be discounted, therefore the Proposed Project may affect, but would not be likely to adversely affect the GUSG. Given the minor project activities which would occur in the poor to marginal habitat within designated GUSG critical habitat, it is anticipated that the Proposed Project would have no effect on critical habitat for GUSG.

<table>
<thead>
<tr>
<th>Common Name</th>
<th>Scientific Name</th>
<th>Listing Status</th>
<th>Effect Determination</th>
</tr>
</thead>
<tbody>
<tr>
<td>Animals</td>
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<td></td>
</tr>
<tr>
<td>Canada lynx</td>
<td>Lynx canadensis</td>
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<td>No Effect</td>
</tr>
<tr>
<td>Fish</td>
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<td></td>
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<tr>
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<td>Gila elegans</td>
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<td>Adversely Affect</td>
</tr>
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<tr>
<td>Common Name</td>
<td>Scientific Name</td>
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<tr>
<td>--------------------------</td>
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</tr>
<tr>
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<td>May Affect, Not Likely to Adversely Affect</td>
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<tr>
<td>Clay-loving wild buckwheat</td>
<td><em>Eriogonum pelinophilum</em></td>
<td>Endangered</td>
<td>No Effect</td>
</tr>
<tr>
<td>Critical Habitat</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Gunnison sage-grouse</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

If additional species are listed or proposed, or if critical habitat is designated prior to completion of construction, and the species or designated habitat occur within the Action Area, or may be affected by the Proposed Project, construction would be paused, and a species evaluation would be prepared. Species for which a no effect determination has been previously prepared would not be readdressed. It should be noted that the final authority rests with the appropriate regulatory agency.
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Appendix A: Project Vicinity, Project Area, Piping Project Area & Habitat Replacement Plan Project Location Maps
FIGURE 1:
PROJECT VICINITY MAP

BPWCD Shinn Park and Waterdog Laterals Piping Salinity Control Project
FIGURE 2: PROJECT AREA MAP

BPWCD Shinn Park and Waterdog Laterals Piping Salinity Control Project
FIGURE 3:
PIPING PROJECT AREA MAP

BPWCD Shinn Park and Waterdog Laterals Piping Salinity Control Project
Appendix B: Gunnison Sage-grouse Critical Habitat Map
FIGURE 5: SAGE-GROUSE CRITICAL HABITAT MAP

BPWCD Shinn Park and Waterdog Laterals Piping Salinity Control Project
Appendix C: IPaC Report
In Reply Refer To:  
February 24, 2022  
Project Code: 2022-0012033  
Project Name: Shinn Park and Waterdog Laterals Piping 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 ECOS-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 ECOS-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:

http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.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/birds/policies-and-regulations.php.

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/birds/bird-enthusiasts/threats-to-birds.php.

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/birds/policies-and-regulations/executive-orders/e0-13186.php.

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
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Attachment(s):

- Official Species List
- USFWS National Wildlife Refuges and Fish Hatcheries
- Migratory Birds
- Wetlands
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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: 2022-0012033  
Event Code: None  
Project Name: Shinn Park and Waterdog Laterals Piping Project  
Project Type: Irrigation  
Project Description: The Proposed Project would pipe the existing open, unlined Shinn Park Lateral and Waterdog Lateral with high-density polyethylene (HDPE) pipe.  

Project Location:  
Approximate location of the project can be viewed in Google Maps: [https://www.google.com/maps/@38.422884232057626,-107.69224198694361,14z](https://www.google.com/maps/@38.422884232057626,-107.69224198694361,14z)

Counts: Montrose County, Colorado
Endangered Species Act Species
There is a total of 8 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.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries\(^1\), 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.

### Birds

<table>
<thead>
<tr>
<th>NAME</th>
<th>STATUS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gunnison Sage-grouse <em>Centrocercus minimus</em></td>
<td>Threatened</td>
</tr>
<tr>
<td>Mexican Spotted Owl <em>Strix occidentalis lucida</em></td>
<td>Threatened</td>
</tr>
</tbody>
</table>

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<th>Name of Species</th>
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<td>Gunnison Sage-grouse <em>Centrocercus minimus</em></td>
<td>Threatened</td>
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<tr>
<td>There is final critical habitat for this species. Your location overlaps the critical habitat.</td>
<td></td>
</tr>
<tr>
<td>Species profile: <a href="https://ecos.fws.gov/ecp/species/6040">https://ecos.fws.gov/ecp/species/6040</a></td>
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<tr>
<td>Species profile: <a href="https://ecos.fws.gov/ecp/species/8196">https://ecos.fws.gov/ecp/species/8196</a></td>
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</table>
### Fishes

<table>
<thead>
<tr>
<th>NAME</th>
<th>STATUS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bonytail <em>Gila elegans</em></td>
<td>Endangered</td>
</tr>
<tr>
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</tr>
<tr>
<td>Species profile: <a href="https://ecos.fws.gov/ecp/species/1377">https://ecos.fws.gov/ecp/species/1377</a></td>
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</tr>
<tr>
<td><strong>Colorado Pikeminnow (=squawfish) <em>Ptychocheilus lucius</em></strong></td>
<td>Endangered</td>
</tr>
<tr>
<td><em>Population: Wherever found, except where listed as an experimental population</em></td>
<td></td>
</tr>
<tr>
<td><em>There is final</em> critical habitat for this species. The location of the critical habitat is not available.*</td>
<td></td>
</tr>
<tr>
<td>Species profile: <a href="https://ecos.fws.gov/ecp/species/3531">https://ecos.fws.gov/ecp/species/3531</a></td>
<td></td>
</tr>
<tr>
<td>Humpback Chub <em>Gila cypha</em></td>
<td>Threatened</td>
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<tr>
<td><em>There is final</em> critical habitat for this species. The location of the critical habitat is not available.*</td>
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</tr>
<tr>
<td>Species profile: <a href="https://ecos.fws.gov/ecp/species/3930">https://ecos.fws.gov/ecp/species/3930</a></td>
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</tr>
<tr>
<td>Razorback Sucker <em>Xyrauchen texanus</em></td>
<td>Endangered</td>
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<tr>
<td><em>There is final</em> critical habitat for this species. The location of the critical habitat is not available.*</td>
<td></td>
</tr>
<tr>
<td>Species profile: <a href="https://ecos.fws.gov/ecp/species/530">https://ecos.fws.gov/ecp/species/530</a></td>
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### Insects

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<tr>
<th>NAME</th>
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</thead>
<tbody>
<tr>
<td>Monarch Butterfly <em>Danaus plexippus</em></td>
<td>Candidate</td>
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<tr>
<td><em>No critical habitat has been designated for this species.</em></td>
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</tr>
<tr>
<td>Species profile: <a href="https://ecos.fws.gov/ecp/species/9743">https://ecos.fws.gov/ecp/species/9743</a></td>
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### Flowering Plants

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<th>STATUS</th>
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</thead>
<tbody>
<tr>
<td>Clay-loving Wild Buckwheat <em>Eriogonum pelinophilum</em></td>
<td>Endangered</td>
</tr>
<tr>
<td><em>There is final</em> critical habitat for this species. The location of the critical habitat is not available.*</td>
<td></td>
</tr>
<tr>
<td>Species profile: <a href="https://ecos.fws.gov/ecp/species/3348">https://ecos.fws.gov/ecp/species/3348</a></td>
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### Critical habitats

There is 1 critical habitat wholly or partially within your project area under this office's jurisdiction.

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<td>Final</td>
</tr>
<tr>
<td><a href="https://ecos.fws.gov/ecp/species/6040#crithab">https://ecos.fws.gov/ecp/species/6040#crithab</a></td>
<td></td>
</tr>
</tbody>
</table>
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.
Migratory Birds

Certain birds are protected under the Migratory Bird Treaty Act\(^1\) and the Bald and Golden Eagle Protection Act\(^2\).

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

3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

THERE ARE NO FWS MIGRATORY BIRDS OF CONCERN WITHIN THE VICINITY OF YOUR PROJECT AREA.

Migratory Birds FAQ

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

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

What does IPaC use to generate the migratory birds potentially occurring in my specified location?

The Migratory Bird Resource List is comprised of USFWS [Birds of Conservation Concern (BCC)](https://www.fws.gov/migration/birds-of-conservation-concern.html) and other species that may warrant special attention in your project location.

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

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the [AKN Phenology Tool](https://www.audubon.org/phenology).
**What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?**

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

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

**How do I know if a bird is breeding, wintering, migrating or present year-round in my project area?**

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may refer to the following resources: **The Cornell Lab of Ornithology All About Birds Bird Guide**, or (if you are unsuccessful in locating the bird of interest there), the **Cornell Lab of Ornithology Neotropical Birds guide**. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

**What are the levels of concern for migratory birds?**

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

1. "BCC Rangewide" birds are **Birds of Conservation Concern (BCC)** that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the **Eagle Act** requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

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

**Details about birds that are potentially affected by offshore projects**

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

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

What if I have eagles on my list?
If your project has the potential to disturb or kill eagles, you may need to obtain a permit to avoid violating the Eagle Act should such impacts occur.

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

- **FRESHWATER EMERGENT WETLAND**
  - PEM1A

- **FRESHWATER FORESTED/SHRUB WETLAND**
  - PSS1A

- **RIVERINE**
  - R4SBC
  - R4SBCx
  - R5UBFx
  - R5UBH
IPaC User Contact Information
Name: Lexie Yoder
Address: 422 W Riverside Ste 304
City: Spokane
State: WA
Zip: 99201
Email: lyoder@jub.com
Phone: 5094583727
In Reply Refer To: February 24, 2022
Project Code: 2022-0012032
Project Name: Shinn Park and Waterdog Laterals Piping Project - Habitat Replacement Project

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

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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.).

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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/birds/bird-enthusiasts/threats-to-birds.php.

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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: 2022-0012032
Event Code: None
Project Name: Shinn Park and Waterdog Laterals Piping Project - Habitat Replacement Project
Project Type: Irrigation
Project Description: The purpose of the habitat replacement project is to mitigate for the loss of riparian wildlife habitat associated with the Proposed Project, as well as that of a previous project. The habitat replacement project would stabilize and revegetate streambank and remove invasive species.

Project Location:
Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@38.4267522,107.5843596,14z

Counties: Montrose County, Colorado
Endangered Species Act Species

There is a total of 8 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.

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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

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</thead>
<tbody>
<tr>
<td>Canada Lynx <em>Lynx canadensis</em></td>
<td>Threatened</td>
</tr>
<tr>
<td>Population: Wherever Found in Contiguous U.S.</td>
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</tr>
<tr>
<td>There is final critical habitat for this species. The location of the critical habitat is not available.</td>
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<td>Threatened</td>
</tr>
<tr>
<td>There is final critical habitat for this species. The location of the critical habitat is not available.</td>
<td></td>
</tr>
<tr>
<td>Species profile: <a href="https://ecos.fws.gov/ecp/species/8196">https://ecos.fws.gov/ecp/species/8196</a></td>
<td></td>
</tr>
</tbody>
</table>
### Fishes

<table>
<thead>
<tr>
<th>NAME</th>
<th>STATUS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bonytail <em>Gila elegans</em></td>
<td>Endangered</td>
</tr>
<tr>
<td>There is final critical habitat for this species. The location of the critical habitat is not available. Species profile: <a href="https://ecos.fws.gov/ecp/species/1377">https://ecos.fws.gov/ecp/species/1377</a></td>
<td></td>
</tr>
<tr>
<td>Colorado Pikeminnow (=squawfish) <em>Ptychocheilus lucius</em></td>
<td>Endangered</td>
</tr>
<tr>
<td>Population: Wherever found, except where listed as an experimental population</td>
<td></td>
</tr>
<tr>
<td>There is final critical habitat for this species. The location of the critical habitat is not available. Species profile: <a href="https://ecos.fws.gov/ecp/species/3531">https://ecos.fws.gov/ecp/species/3531</a></td>
<td></td>
</tr>
<tr>
<td>Humpback Chub <em>Gila cypha</em></td>
<td>Threatened</td>
</tr>
<tr>
<td>There is final critical habitat for this species. The location of the critical habitat is not available. Species profile: <a href="https://ecos.fws.gov/ecp/species/3930">https://ecos.fws.gov/ecp/species/3930</a></td>
<td></td>
</tr>
<tr>
<td>Razorback Sucker <em>Xyrauchen texanus</em></td>
<td>Endangered</td>
</tr>
<tr>
<td>There is final critical habitat for this species. The location of the critical habitat is not available. Species profile: <a href="https://ecos.fws.gov/ecp/species/530">https://ecos.fws.gov/ecp/species/530</a></td>
<td></td>
</tr>
</tbody>
</table>

### Insects

<table>
<thead>
<tr>
<th>NAME</th>
<th>STATUS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monarch Butterfly <em>Danaus plexippus</em></td>
<td>Candidate</td>
</tr>
<tr>
<td>No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/9743">https://ecos.fws.gov/ecp/species/9743</a></td>
<td></td>
</tr>
</tbody>
</table>

### Critical habitats

There is 1 critical habitat wholly or partially within your project area under this office's jurisdiction.

<table>
<thead>
<tr>
<th>NAME</th>
<th>STATUS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gunnison Sage-grouse <em>Centrocercus minimus</em></td>
<td>Final</td>
</tr>
<tr>
<td><a href="https://ecos.fws.gov/ecp/species/6040#crithab">https://ecos.fws.gov/ecp/species/6040#crithab</a></td>
<td></td>
</tr>
</tbody>
</table>
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.
Migratory Birds

Certain birds are protected under the Migratory Bird Treaty Act\(^1\) and the Bald and Golden Eagle Protection Act\(^2\).

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

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)

The birds listed below are birds of particular concern either because they occur on the USFWS Birds of Conservation Concern (BCC) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ below. This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the [E-bird data mapping tool](https://ecos.fws.gov/ecp/species/9460) (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found below.

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

<table>
<thead>
<tr>
<th>NAME</th>
<th>BREEDING SEASON</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Black Rosy-finch Leucosticte atrata</strong></td>
<td>Breeds Jun 15 to Aug 31</td>
</tr>
<tr>
<td>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</td>
<td></td>
</tr>
<tr>
<td><a href="https://ecos.fws.gov/ecp/species/9460">https://ecos.fws.gov/ecp/species/9460</a></td>
<td></td>
</tr>
<tr>
<td><strong>Brown-capped Rosy-finch Leucosticte australis</strong></td>
<td>Breeds Jun 15 to Sep 15</td>
</tr>
<tr>
<td>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</td>
<td></td>
</tr>
<tr>
<td><strong>Lewis’s Woodpecker Melanerpes lewis</strong></td>
<td>Breeds Apr 20 to Sep 30</td>
</tr>
<tr>
<td>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</td>
<td></td>
</tr>
</tbody>
</table>
Virginia's Warbler *Vermivora virginiae*

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

[https://ecos.fws.gov/ecp/species/9441](https://ecos.fws.gov/ecp/species/9441)

**Breeding Season**

<table>
<thead>
<tr>
<th>NAME</th>
<th>BREEDING SEASON</th>
</tr>
</thead>
<tbody>
<tr>
<td>Virginia's Warbler Vermivora virginiae</td>
<td>Breeds May 1 to Jul 31</td>
</tr>
</tbody>
</table>

**Probability Of Presence Summary**

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

**Probability of Presence (■)**

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

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

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.

2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is 0.25/0.25 = 1; at week 20 it is 0.05/0.25 = 0.2.

3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

**Breeding Season (■)**

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

**Survey Effort (■)**

Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.
No Data (—)
A week is marked as having no data if there were no survey events for that week.

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

![Species and months as a table]

Additional information can be found using the following links:


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

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

What does IPaC use to generate the migratory birds potentially occurring in my specified location?
The Migratory Bird Resource List is comprised of USFWS Birds of Conservation Concern (BCC) and other species that may warrant special attention in your project location.

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

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the AKN Phenology Tool.

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?
The probability of presence graphs associated with your migratory bird list are based on data provided by the Avian Knowledge Network (AKN). This data is derived from a growing collection of survey, banding, and citizen science datasets.

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

How do I know if a bird is breeding, wintering, migrating or present year-round in my project area?
To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may refer to the following resources: The Cornell Lab of Ornithology All About Birds Bird Guide, or (if you are unsuccessful in locating the bird of interest there), the Cornell Lab of Ornithology Neotropical Birds guide. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?
Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are Birds of Conservation Concern (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and

3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the Eagle Act requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

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

**Details about birds that are potentially affected by offshore projects**

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

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the [Diving Bird Study](https://dbs.nos.noaa.gov/) and the [nanotag studies](https://www.nos.noaa.gov/ncos/oci/nanotag.html) or contact Caleb Spiegel or Pam Loring.

**What if I have eagles on my list?**

If your project has the potential to disturb or kill eagles, you may need to [obtain a permit](https://www.fws.gov/eagle/conservation許) to avoid violating the Eagle Act should such impacts occur.

**Proper Interpretation and Use of Your Migratory Bird Report**

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

FRESHWATER EMERGENT WETLAND
- PEM1B
- PEM1C

FRESHWATER FORESTED/SHRUB WETLAND
- PSS1A

RIVERINE
- R3UBH
- R4SBA
- R4SBC
- R5UBH
- R4SBCx
IPaC User Contact Information
Name: Lexie Yoder
Address: 422 W Riverside Ste 304
City: Spokane
State: WA
Zip: 99201
Email lyoder@jub.com
Phone: 5094583727
Photo Inventory

The following photos were taken within critical habitat for Gunnison sage-grouse (GUSG).

Photo 1: This photo was taken along the Shinn Park Lateral O&M road where the pipe alignment will be moved from the existing location. This portion of the O&M road is situated within critical habitat for GUSG; however, the habitat within this area is considered marginal due to the presence of heavy cattle grazing and vegetative assemblage.

Photo 2: This photo was taken at the final portions of the Waterdog Lateral as it nears its terminus. The portion of Waterdog Lateral is situated within critical habitat for GUSG; however, the vegetative assemblage and degree of disturbance does not represent suitable habitat for the species.
Photo 3: This photo was taken along Cottonwood Creek within GUSG critical habitat that overlaps with the Habitat Replacement Site (HRS).
Appendix E

E. Cultural Resources Compliance Documentation
Ed Warner  
Area Manager  
Western Colorado Area Office  
Bureau of Reclamation  
445 West Gunnison Avenue, Suite 221  
Grand Junction, CO 81501

RE: Determination of Eligibility and Effect; Waterdog Lateral Realignment, Shinn Park and Waterdog Laterals Salinity Control Project, Colorado River Basin Salinity Control Program; Montrose County, Colorado (R18AC00077) (HC# 75330)

Dear Mr. Warner,

Thank you for your correspondence dated October 26, 2020 and received by our office on October 27, 2020 reinitiating consultation for the above referenced undertaking under Section 106 of the National Historic Preservation Act (NHPA) and its implementing regulations 36 CFR 800. The provided documentation notes that the Bureau of Reclamation proposes altering the subject undertaking by rerouting 6,200 feet of the proposed lateral.

After review of the documentation provided, we find acceptable the updated area of potential effects (APE) for the subject undertaking. We understand that cultural resource specialists inventoried the rerouted segmented of the proposed lateral and identified seven cultural resources (5MN.12370, 5MN.12371, 5MN.12372, 5MN.12373, 5MN.12374, 5MN.12375, and 5MN.12376).

We concur that 5MN.12370, 5MN.12371, 5MN.12372, 5MN.12373, and 5MN.12374 are not eligible for the National Register of Historic Places (NRHP) under any criteria. We also concur that isolated finds 5MN.12375 and 5MN.12376 are not eligible for the NRHP under any criteria. Based on the documentation provided, we concur that the project modification would not affect historic properties. Our previous statement, however, regarding assessment of effect for the overall undertaking remains. We previously stated in our December 2018 letter that a finding of no adverse effect [36 CFR 800.5(d)(1)] to historic properties is appropriate for the subject undertaking.

Should unidentified archaeological resources be discovered in the course of the project, work must be interrupted until the resources have been evaluated in terms of the National Register eligibility criteria (36 CFR 60.4) in consultation with our office pursuant to 36 CFR 800.13. Also, should the consulted-upon scope of the work change, please contact our office for continued consultation under Section 106 of the National Historic Preservation Act.

We request being involved in the consultation process with other consulting parties. Additional information provided by the consulting parties might cause our office to re-evaluate our eligibility and potential effect findings. Please note that our compliance letter does not end the 30-day review period provided to other consulting parties.
Thank you for the opportunity to comment. If you have any questions, please contact Matthew Marques, Section 106 Compliance Manager, at (303) 866-4678, or matthew.marques@state.co.us.

Sincerely,

Dr. Holly Kathryn Norton

We are now accepting electronic consultation through our secure file transfer system, MoveIT. Directions for digital submission and registration for MoveIT are available at https://www.historycolorado.org/submitting-your-data-preservation-programs.
Ed Warner  
Area Manager  
Western Colorado Area Office  
Bureau of Reclamation  
445 West Gunnison Avenue, Suite 221  
Grand Junction, CO 81501

RE: Determination of Eligibility and Effect; Habitat Replacement Plan, Shinn Park and Waterdog Laterals Salinity Control Project, Colorado River Basin Salinity Control Program; Montrose County, Colorado (R18AC00077) (HC# 75330)

Dear Mr. Warner,

Thank you for your correspondence dated and received by our office on April 5, 2021 reinitiating consultation for the above referenced undertaking under Section 106 of the National Historic Preservation Act (NHPA) and its implementing regulations 36 CFR 800. The provided documentation notes that the Bureau of Reclamation proposes altering the subject undertaking by adding habitat replacement activities.

We understand that cultural resource specialists inventoried the habitat replacement locations and identified 5MN.12255. We concur that 5MN.12255 is not eligible for the National Register of Historic Places under any criteria. Based on the documentation provided, we concur that the project modification would not affect historic properties. Our previous statement, however, regarding assessment of effects for the overall undertaking remains. We previously stated in our December 2018 letter that a finding of no adverse effect [36 CFR 800.5(d)(1)] to historic properties is appropriate for the subject undertaking.

Should unidentified archaeological resources be discovered in the course of the project, work must be interrupted until the resources have been evaluated in terms of the National Register eligibility criteria (36 CFR 60.4) in consultation with our office pursuant to 36 CFR 800.13. Also, should the consulted-upon scope of the work change, please contact our office for continued consultation under Section 106 of the National Historic Preservation Act.

We request being involved in the consultation process with other consulting parties. Additional information provided by the consulting parties might cause our office to re-evaluate our eligibility and potential effect findings. Please note that our compliance letter does not end the 30-day review period provided to other consulting parties.

Thank you for the opportunity to comment. If you have any questions, please contact Matthew Marques, Section 106 Compliance Manager, at (303) 866-4678, or matthew.marques@state.co.us.

Sincerely,

Dr. Holly Kathryn Norton  
Digitally signed by Dr. Holly Kathryn Norton  
Date: 2021.04.08 12:06:46 -06'00'

Steve Turner, AIA  
State Historic Preservation Officer

We are now accepting electronic consultation through our secure file transfer system, MoveIT. Directions for digital submission and registration for MoveIT are available at https://www.historycolorado.org/submitting-your-data-preservation-programs.