BUREAU OF RECLAMATION

Final Environmental Assessment and Finding of No Significant Impact

Maybell Canal Water Conservation Project
Upper Colorado Region

U.S. Department of the Interior

November 2019

Mission Statements

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

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

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LIST OF ACRONYMS AND ABBREVIATIONS

APE	Area of Potential Effect
BLM	U.S. Department of the Interior Bureau of Land Management
CDA	Colorado Department of Agriculture
CDPHE	Colorado Department of Public Health and Environment
CFR	Code of Federal Regulations
cfs	cubic feet per second
CPW	Colorado Department of Natural Resources Division of Parks & Wildlife
EA	Environmental Assessment
ERO	ERO Resources Corporation
FOAN	Funding Opportunity Announcement Number
FONSI	Finding of No Significant Impact
HUC	Hydrology Unit Code
iPaC	Environmental Conservation Online System Information for Planning and Conservation
LSFO	Little Snake River Field Office
MID	Maybell Irrigation District
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
PBO	Programmatic Biological Opinion
Reclamation	U.S. Department of the Interior Bureau of Reclamation
ROW	Right of Way
SHPO	State Historic Preservation Office
USFWS	U.S. Fish and Wildlife Service

FINDING OF NO SIGNIFICANT IMPACT

United States Department of the Interior

Bureau of Reclamation

Upper Colorado Region, Western Colorado Area Office

Grand Junction, Colorado

Maybell Canal Water Conservation Project

Introduction

In compliance with the National Environmental Policy Act of 1969, as amended (NEPA), the Bureau of Reclamation (Reclamation) has conducted an environmental assessment (EA) for the proposed action to authorize the use of Federal funds to install a liner on two sections of the Maybell Canal near Maybell, Colorado. Reclamation is providing partial funding for the project and is the lead agency for the purpose of compliance with NEPA for this proposed action.

This EA was prepared by Reclamation to address the potential impacts to the human environment due to implementation of the proposed action.

Alternatives

The EA analyzed the No Action Alternative and the Proposed Action Alternative, which is to partially fund the Maybell Canal Water Conservation Project.

Decision and Finding of No Significant Impact

Based upon a review of the EA and supporting documents, Reclamation has determined that implementing the proposed action will not significantly affect the quality of the human environment, individually or cumulatively with other actions in the area. No environmental effects meet the definition of significance in context or intensity as summarized in the EA. Reclamation's decision is to implement the Proposed Action Alternative.

Context

The affected locality is the existing water conveyance structure for water diverted to the canal from the Yampa River, within the Maybell Valley area, approximately 3.6 miles south east of the town of Maybell, in Moffat County, Colorado. Affected interests include Reclamation, the Maybell Irrigation District (MID), shareholders, and adjacent land owners. The project does not have national, regional, or state-wide importance.

Intensity

The following discussion is organized around 10 significant criteria as described in 40 CFR 1508.27. These criteria were incorporated in the resource analysis and issues discussed in the Environmental Assessment (EA).

1. **Impacts may be both beneficial and adverse.** The proposed action will impact resources as described in the EA. Mitigating measures were incorporated into the design of the action alternative to reduce impacts. The predicted short-term effects of the proposed action include impacts to vegetation within the proposed action area, and disturbance during construction which will affect wildlife for the duration of the construction in the immediate vicinity of the project. No detrimental long-term effects are expected. Beneficial effects include improvements to flows in the Yampa River due to repairs on the canal which prevent seepage and water loss of up to 150 acre feet per year. In addition, beneficial effects to water quality downstream of the project area is expected by stabilizing the canal and preventing sloughing into the river and sediment loading. None of the environmental effects discussed in detail in the EA are considered significant. None of the effects from the proposed action, together with other past, present, and reasonably foreseeable actions, rise to a significant cumulative impact.
2. **The degree to which the selected alternative will affect public health or safety or a minority or low-income population.** The proposed action will have no significant impacts on public health or safety. No minority or low-income populations will be disproportionately affected by the proposed action.
3. **Unique characteristics of the geographic area.** There are no park lands or wild and scenic rivers that will be affected by the proposed action. The proposed action will occur upstream of prime farmlands, and adverse effects to these farmlands are not expected. The proposed action area includes two short (1000-foot, and 300-foot) segments of the Maybell Canal including a portion which is adjacent to the Yampa River. No effects to unique characteristics of the geographic area will occur. The corridor has been disturbed previously due to maintenance requirements, and construction will occur on 1.6 acres of previously disturbed land. Potential effects to the Yampa River due to construction and vegetation removal may occur, but effects are expected to be temporary and minor. Disturbed areas (other than the canal and existing maintenance road) will be revegetated.
4. **The degree to which the effects on the quality of the human environment are likely to be highly controversial.** Reclamation contacted representatives of other federal agencies, state and local governments, public and private organizations, and individuals regarding the proposed action and its effects on resources. Based on the responses received, the effects of the proposed action on the quality of the human environment are not highly controversial.
5. **The degree to which the possible effects on the human environment are highly uncertain or involve unique or unknown risks.** There are no predicted effects on the human environment that are considered highly uncertain or that involve unique or unknown risks.
6. **The degree to which the action may establish a precedent for future actions with significant adverse effects or represents a decision in principle about a future consideration.** Implementing the action will not establish a precedent for future actions with significant effects and will not represent a decision in principle about a future consideration.
7. **Whether the action is related to other actions which are individually insignificant but cumulatively significant.** Cumulative effects are possible when the effects of the proposed

action are added to other past, present, and reasonably foreseeable future actions; however, significant cumulative effects are not predicted, as described in the EA in Section 3.7.

8. **The degree to which the action may adversely affect sites, districts, buildings, structures, and objects listed in or eligible for listing in the National Register of Historic Places.** In a letter to Reclamation dated July 30, 2019, the Colorado State Historic Preservation Office (SHPO) has concurred with a recommended finding of no adverse effect for the section of the Maybell Canal (5MF.4143.7).
9. **The degree to which the action may adversely affect an endangered or threatened species or its habitat that has been determined to be critical under the Endangered Species Act of 1973.** The proposed action area includes the Maybell Canal, the adjacent maintenance road, and a 0.1-acre staging area on disturbed land. No habitat for endangered or threatened species exists on or near the project area. Regarding Colorado River endangered fish, the MID's historic depletions are covered under the Final Programmatic Biological Opinion on the Management Plan for Endangered Fishes in the Yampa River Basin (Yampa PBO) (USFWS 2005), and the MID has entered into a recovery agreement with the U.S. Fish and Wildlife Service on October 24, 2019. No change to depletions is expected as a result of this project, and lining the canal could increase water flows in the Yampa, having a net benefit to Colorado endangered fish habitat downstream of the project area.
10. **Whether the action threatens a violation of Federal, state, local, or tribal law, regulation or policy imposed for the protection of the environment.** The proposed action does not violate any federal, state, local, or tribal law, regulation, or policy imposed for the protection of the environment. In addition, this project is consistent with applicable land management plans, policies and programs. State, local, and interested publics were given the opportunity to participate in the environmental analysis process.

Environmental Commitments

The following environmental commitments will be implemented by MID as an integral part of the Proposed Action.

- Environmental commitments described in the EA (Section 4) are incorporated herein by reference.

- Required permits, licenses, clearances, and approvals as described in the EA shall be acquired prior to implementation of the Proposed Action.

- If previously undiscovered cultural or paleontological resources are discovered during construction, construction activities must immediately cease in the vicinity of the discovery and Reclamation must be notified. In this event, the SHPO shall be consulted, and work shall not be resumed until consultation has been completed.

- In the event that threatened or endangered species are discovered during construction, construction activities shall halt until consultation is completed with the U.S. Fish and Wildlife Service (USFWS) and protection measures are implemented. Additional surveys shall be

required for threatened or endangered species if construction plans or proposed disturbance areas are changed.

Approved by:

E. Ted Warner II

FOR Ed Warner

Area Manager, Western Colorado Area Office

11-14-19

Date

ENVIRONMENTAL ASSESSMENT

1 Purpose and Need for Action

1.1 Introduction

This Environmental Assessment (EA) was prepared by the U.S. Bureau of Reclamation (Reclamation) to assess the potential effects of the proposed Maybell Canal Water Conservation Project (Proposed Action) located in Moffat County approximately 3.6 miles southeast of Maybell, Colorado (Proposed Action Area; Figure 1). The Proposed Action includes lining 1,300 feet of the Maybell Canal (canal), which is operated by the Maybell Irrigation District (MID), in order to mitigate water seepage and water loss. The improvements will take place on private land owned by a canal shareholder or within the boundary of a Bureau of Land Management (BLM) easement, recorded in the official records of the Little Snake River Field Office (LSFO; Serial Number COGS—0 022987). The MID has applied for funding under the *WaterSMART* Program administered by Reclamation; therefore, this EA has been prepared in compliance with the National Environmental Policy Act (NEPA) and Reclamation's NEPA procedures.

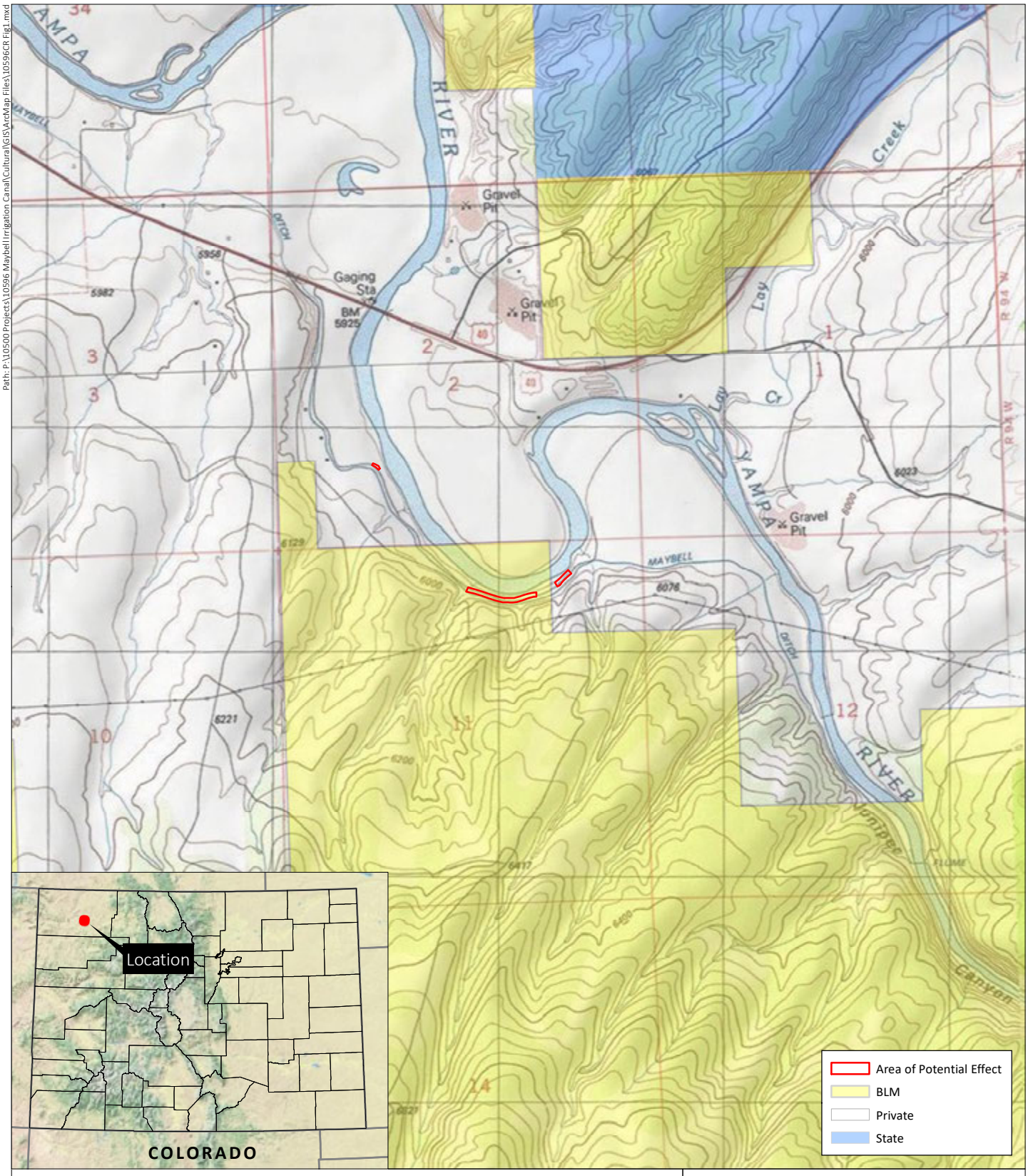
The canal was built in 1896 and diverts water from the Yampa River. The Maybell Canal water right was appropriated on October 2, 1899 and decreed on December 8, 1923, with a decreed capacity of 129 cubic feet per second (cfs) (MID 2018). In 1922, MID was formed for the purpose of operating and maintaining the canal. The canal headgate is structure number 694 in Water District 44 of the Colorado Department of Water Resources. The Maybell Canal is approximately 18 miles long with 78 laterals serving 18 users. Currently, only approximately 400 feet of the canal is lined with the remainder being an unlined, earthen open channel.

High water seepage rates and sloughing in the Proposed Action Area result in inefficient water delivery, periodic landslides directly into the Yampa River, and the threat of a canal breach. Lining the existing canal in the proposed segments is estimated to eliminate seepage by approximately 150 acre-feet per year. The lining project along the canal is expected to take approximately 3-4 weeks to construct and will occur outside of the irrigation season (late fall to early spring).

This EA evaluates two alternatives – the Proposed Action which would partially fund improvements to 1,300 feet of earthen open ditch by installing a canal lining, and the No Action alternative with no change in the existing canal. This EA has been prepared in compliance with the National Environmental Policy Act (NEPA) to analyze the alternatives and evaluate potential issues and impacts on resources and values.

1.2 Background

The Yampa River basin is one of the last largely unregulated major river systems in the Colorado River Basin. Ongoing drought and increased competition for water supplies threaten water security for all who depend on the Colorado River and heighten the urgency of increasing water efficiencies in agricultural infrastructure.



Cultural Resource Survey
Maybell Canal Water Conservation Project
Moffat County, Colorado
MF.R.R7 159.1.2019

Section 11, T6N, R95W; 6th PM
USGS Jupiter Mountain, CO 7.5' Quadrangle
Moffat County, Colorado

Figure 1
Project Location

Prepared for: Reclamation/BLM
File: 10596CR Fig1.mxd (IMC)
April 22, 2019

ERO Resources Corp.

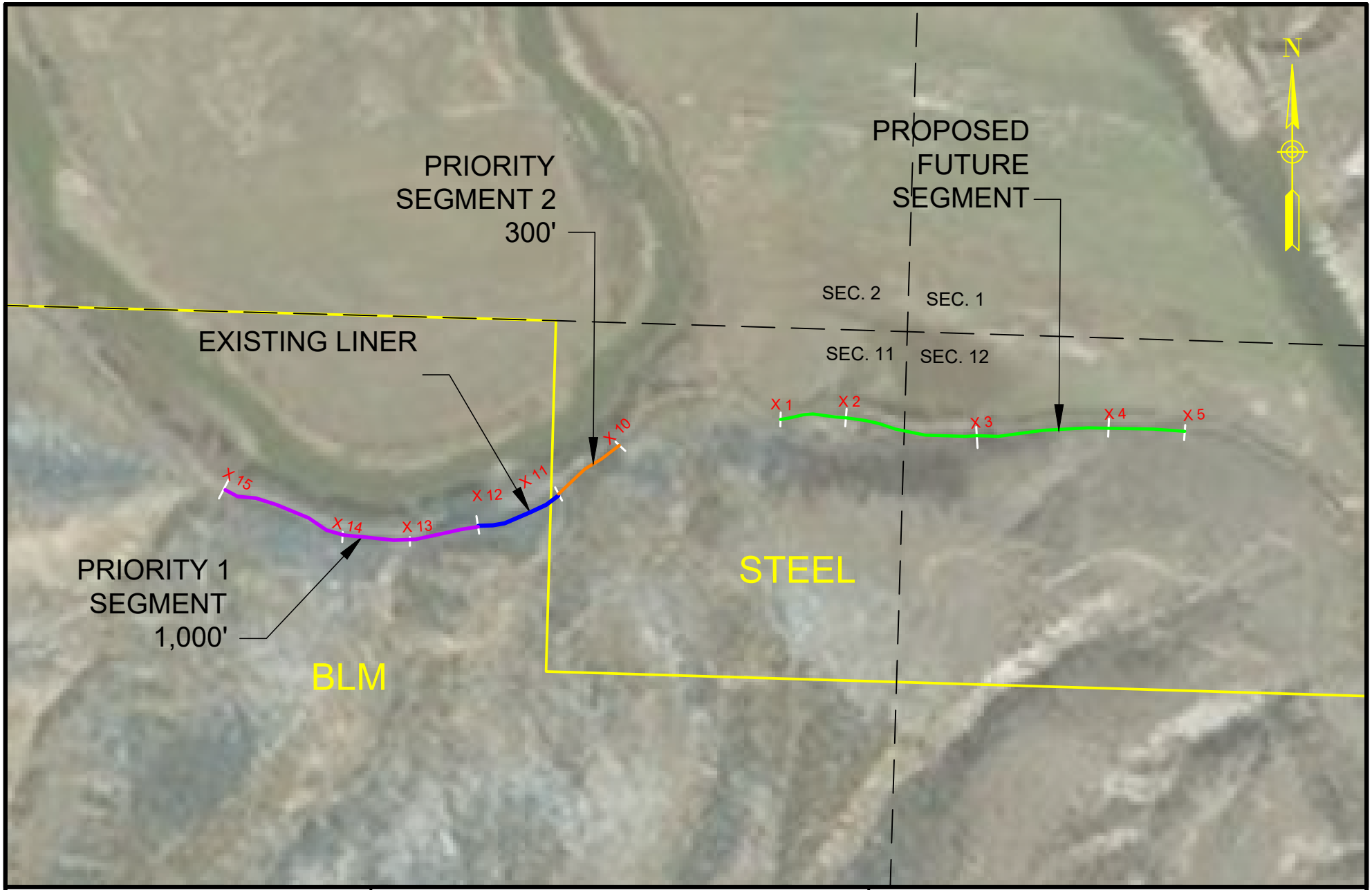
The MID applied for a small-scale water efficiency grant through Reclamation's WaterSMART Program in 2018. Canal lining falls under WaterSMART Program objectives of conserving water and using water more efficiently. The MID is the largest and oldest water diverter on the lower Yampa River and, due to the volume of water diverted by the MID, canal improvements hold a great potential to conserve water and improve flows in the Yampa River watershed. The canal typically operates from late April through the end of October. The diversion headgate is closed and the canal is dewatered during the winter. Average annual diversions through the canal are approximately 20,000 acre-feet per year (AFY) with an irrigation water requirement (IWR) of 1,800 acre-feet (AF). The canal provides water for approximately 1,100 acres of high-elevation hay fields and hay is the predominant irrigated crop in the region. The goal of stakeholders in the region to maintain irrigated agricultural land and the IWR diversion amount is not expected to decrease in the future.

The soil substrate is variable along the length of the canal, ranging from silty sand to a loose conglomerate of sand and gravel with occasional cobbles and small boulders, and seepage from these segments has resulted in substantial sloughing of the adjacent hillside, resulting in large losses of water and a heightened risk of a canal breach event. In addition, the excessive seepage has resulted in increased sediment loading to the Yampa River.

Due to its age and seepage rates, the canal is in need of modernization improvements to increase water efficiency. The canal headgate is downstream of Elkhead Reservoir which includes releases of water as part of the Upper Colorado River Endangered Fish Recovery Program (Recovery Program). Given the canal's location, any decrease in water diversion would enhance critical endangered fish habitat in the canal's reach and allow increased streamflow to remain in the Yampa River. The proposed project area was selected in part because it was identified as having the highest seepage rate along the canal's length. An engineering analysis utilizing Reclamation's Design Standard No. 3 for Canals and Related Structures estimated that total conveyance losses along the canal range from 30 to 50 percent (about 150 acre-feet per year), primarily due to seepage (MID 2018), and MID has identified 1,300 feet (Priority Segment 1 [1,000 feet] and Priority Segment 2 [300 feet]; Figure 2) of the canal as most critical for lining at this time.

1.3 Purpose and Need

The purpose of the Proposed Action is to contribute to the WaterSMART Program objectives of conserving water and using water more efficiently in an effort to contribute to a reliable water supply in the western United States. The need for the Proposed Action is to reduce unnecessary diversions from the Yampa River by eliminating water seepage in the identified segments of the Maybell Canal by approximately 150 acre-feet per year.



0 250 500

GRAPHIC SCALE (FEET)

Drawing Coordinates:
CO83-NF

File:			Revised:
Drawn By: WAM	Checked By: WAM	Date:	Revised:

Prepared By:
Headwater Engineering
696 County Road 22
Craig, CO 81625

Headwater ENGINEERING & CONSULTING, INC.

Prepared For:

MAYBELL DITCH LINER
N/2NE OF SEC. 11 & NWNW OF SEC.12,
T 6 N - R 95 W, 6TH P.M.
MOFFAT COUNTY COLORADO

Figure 2

1.4 Decision to be Made

This EA has been prepared to evaluate adverse and beneficial effects of the Proposed Action and No Action alternatives, and to provide a basis for decision by Reclamation on whether to provide funding for the Proposed Action. Under the Proposed Action, Reclamation would contribute federal funds to MID for lining 1,300 feet of the canal through the Watersmart FY2018: Small-Scale Water Efficiency project grant. Once funded, the MID would implement improvements and continue to operate and maintain the canal. A project life of 50 years has been identified for this project. Should Reclamation choose not to fund the project, the MID will continue to operate the canal in its current state.

1.5 Relationship to Other Projects

Several priority projects were identified by MID in 2016 to improve the operational efficiency of the canal, divert less water while delivering the same volumes to users, and increase the streamflow in the Yampa River immediately downstream of the headgate. In 2017, the MID installed 400 feet of canal lining, a new headgate flow measuring device, an automated waste gate, and new check structures. Lining additional segments of canal, especially Priority Segment 3, is expected to occur as funding is available.

1.6 Scoping, Coordination, and Public Review

Reclamation coordinated with other agencies in scoping and preparing this EA, including the U.S. Fish and Wildlife Service (Service), the U.S. Army Corps of Engineers (Corps), the BLM, Colorado State Historic Preservation Officer (SHPO), and the Advisory Council on Historic Preservation. Coordination occurred via meetings, phone calls, and letters between April and July 2019.

2 Proposed Action

2.1 Location and Environmental Setting of the Proposed Action Area

The Proposed Action Area lies in the Lower Yampa hydrologic unit of the Yampa and White River watershed in the Colorado River Basin and is located in Section 11, Township 6 North, Range 95 West, of the 6th Principal Meridian. The elevation in the project area is approximately 5,957 feet above sea level.

2.2 No Action Alternative

Under the No Action alternative, the canal will continue to slough into the Yampa River and water delivery will continue to be inefficient due to seepage. In order to maintain the canal, MID will continue to re-shape and repair the canal (fix the sloughing) seasonally in an effort to maintain the functionality of the canal and prevent possible breaching.

2.3 Proposed Action Alternative

Under the Proposed Action Alternative, Reclamation would provide funding to the MID for the installation of a polymer liner at two discontinuous segments of canal: Priority Segment 1 (1000 feet); and Priority Segment 2 (300 feet) (Figure 2). A previously lined segment occurs between the two

segments, as shown on Figure 2, and future Priority Segment 3 is shown east of the project area and is not part of the proposed project. A temporary staging area (0.1 acre) is located 0.4 mile to the northwest of the segments in a previously disturbed area between the canal and the river.

The Proposed Action would be implemented after the irrigation season when the canal is dewatered (late fall to early spring). Installation of the liner is expected be completed over a period of 3 to 4 weeks, barring any unforeseen circumstances or inclement weather. The installation would consist of preparing the canal surface (grading/smoothing the canal surface), installing and fastening the lining in place, smoothing and restoring disturbed ground, and re-contouring as needed. The existing canal maintenance road would be used for staging construction equipment and materials during installation. Figure 3 shows a typical cross-section of the canal.

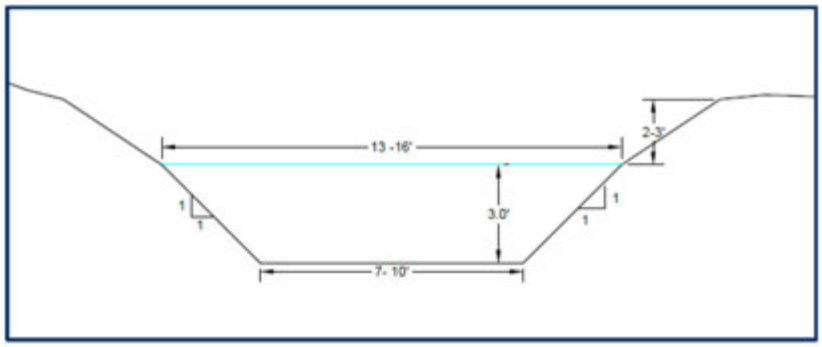


Figure 3. Typical Maybell Canal cross-section in the project area.

Construction equipment would include a truck and flatbed trailer for mobilizing lining material to the construction site, a wheeled backhoe/loader for moving material, and one or more trucks for transporting workers to and from the construction site. The site will be accessed from US Highway 40. Due to the minor amount of construction traffic (up to two trucks per day), safety issues are not anticipated. Once installed, the lining would be inspected annually and repaired as-needed. The project would commence as shown in Table 1.

Table 1. Maybell Canal Water Conservation Project timetable.

Week	Description
1	Mobilization: Stage equipment and material Clear and prepare canal segments for lining
2-3	Line Priority Segments 1 (1,000 feet), and 2 (300 feet)
4	Testing, Demobilize, and Site Cleanup

The seed mix in Table 2 was obtained from the Little Snake Field Office for sandy slopes and semidesert loam (seed mix #4) and would be used to reseed disturbed ground (Rhyne 2019).

Table 2. Recommended seed mix for reseeding disturbed ground.

Description	Pounds (pure live seed per acre)
Western wheatgrass	2
Needleandthread	2
Thickspike wheatgrass	2
Indian ricegrass	2
Sand dropseed	1
Arrowleaf balsamroot	2
Scarlet globemallow	1
Western yarrow	0.5

3 Affected Environment

This chapter describes the current conditions for each environmental resource that may be affected by the Proposed Action and the No Action alternatives. Information regarding each resource was obtained from research including interviews, pedestrian field assessments, desktop reviews, public scoping, and agency coordination as described in Chapters 1 and 5. Chapter 3 is concluded with a summary of impacts and environmental consequences.

3.1 Environmental Resources Considered but Excluded from Analysis

In order to streamline this EA, only resources with the potential to experience more than a negligible adverse effect were retained for analysis; the remaining resources were considered but are not analyzed further. The rationale for excluding these resources from further analysis is as follows:

Agriculture Resources and Soils. Impacts to soils are negligible, as much of the project area is already disturbed. No prime or unique farmland is within the project area.

Air Quality. According to National Ambient Air Quality Standards established by the U.S. Environmental Protection Agency, Moffat County meets the requirements for an attainment area, meaning all criteria pollutants are at safe levels and are below specific limits set under the Clean Air Act (CDPHE 2017). During the construction phase for the proposed Project, grading, contouring, and dirt work would result in particulate emissions and diesel emissions; however, releases would be minor and temporary (one loader, and one to two trucks for transportation to and from the site, for a total of 6 weeks during the construction phase), resulting in a negligible and short-term impact to air quality.

Groundwater. The proposed project would prevent seepage, which may be influencing shallow groundwater flows in the immediate vicinity of the canal. Relative to the influence of the Yampa River on groundwater flows in the vicinity, this effect would be negligible.

Water Rights. The proposed project will have no effect on decreed water rights for the MID or for shareholders along the canal.

Water Quality. The high seepage rate from the canal and hillside sloughing has resulted in increased sediment loading in the Yampa River. Lining the canal as proposed is expected to

eliminate sediment loading from the proposed project segments, and minor water quality improvements are expected. No adverse effects are expected.

BLM Sensitive Plant Species. A database search was conducted, and BLM sensitive plants species have not been documented within the project area (Aimee Huff, LSFO BLM ecologist, personal communication, October 9, 2019). The proposed action would have design features, such as confined work area, erosion control, and dust abatement, to avoid and minimize impacts to adjacent habitat. Therefore, this resource is eliminated from detailed analysis.

Wildlife Resources (including BLM sensitive). The Proposed Action Area is within a previously disturbed area and minimal herbaceous vegetation removal would be needed. Therefore, no changes to wildlife habitat would occur as a result of the project. Effects to wildlife due to construction would be negligible and short-term, since construction work would be temporary, vegetation removal would be timed to avoid peak migratory bird nesting season, construction would occur when the canal is dewatered, and the proposed action would be similar to current ongoing maintenance activities. The area within a mile of the project was surveyed for raptor nests by ERO staff, Marin Millen, in May 2019. No raptors nests were found. According to data from the Colorado Department of Natural Resources Division of Parks and Wildlife (CPW), an eagle roost is nearby. However, construction would occur during daylight hours, would be temporary, and would be similar to existing ongoing levels of disturbance. Therefore, impacts to roosting bald eagles would be negligible. Given the negligible impacts to wildlife, this resource is not carried forward for further analysis.

Access Transportation and Public Safety. The construction site will be accessed from US Highway 40, and the Proposed Action Area is along an existing private maintenance road. Due to the remote nature of the project site along a gated MID maintenance road, and the small scale of construction with one to three vehicles exiting and entering the project area, no effects to access, transportation, or public safety would occur as a result of this project. Visibility of the canal to the public using US Highway 40 is limited, and the Proposed Action Area is not in view.

Noise. Effects from equipment noise will be short-term and minor, due to the limited scale of the construction project. There are no residences or other potential noise receptors in the project area.

Visual Resources. Visual effects would be minimal. The project area is not visible from area roads, trails, residences, or other public viewing areas.

Recreation. The canal maintenance roads are not open for public access and use. The proposed Project would have no effect on recreation.

Tribal Concerns. Project notification, along with an invitation to present concerns, was provided in writing on July 12, 2019, to the Southern Ute Indian Tribe, Ute Mountain Ute Tribe, and Ute Indian Tribe - Uintah and Ouray Reservation. No responses were received from the tribe regarding the project.

Socioeconomic Effects. Socioeconomic impact analyses are intended to analyze population-scale, measurable changes in economic assets. The economic asset associated with the Proposed Action is water. Lining the canal would result in reduced maintenance costs and a minor benefit to users, but not result in a change in the value of the canal water.

Environmental Justice. Within the Maybell area, portions of the population are a minority race and/or Hispanic or Latino. The communities, however, would not constitute Executive Order (EO) 12898 populations as the Hispanic or Latino and non-White populations do not exceed 50 percent of the total population and are not meaningfully greater than Colorado's non-White and Hispanic or Latino populations. Therefore, there would be no effect on environmental justice populations as a result of this project.

All other resources considered and analyzed are presented in the remainder of this chapter, along with a discussion regarding cumulative effects. Environmental commitments necessary to mitigate the effects of the project on the human and natural environment are discussed in Chapter 4.

3.2 Cultural Resources

On May 3, 2018, a cultural resource survey was conducted within the proposed action's Area of Potential Effect (APE) (ERO 2019). Within the APE, ERO documented one new segment of the Maybell Canal (5MF4143.7). Prior to fieldwork, ERO conducted a file and literature review for the project with the Colorado Office of Archeology and Historic Preservation online Compass database on May 2, 2019, and with the BLM-LSFO in Craig on May 3, 2019. ERO included a 1-mile buffer within the APE to include considerations for indirect effects and the regional context. Previous surveys and previously documented cultural resources within one mile of the project were evaluated, although none of the surveys conducted previously intersected the project area.

3.2.1 No Action

Under the No Action alternative, no change is expected to cultural resources.

3.2.2 Proposed Action

Under the proposed action, the newly documented segment of the Maybell Canal would be altered by placing a polymer liner on the surface of the earthen canal. The newly documented segment of the Maybell Canal was recommended by Reclamation to be non-supporting of the eligibility of the entire canal. In a letter written to Reclamation on July 30, 2019, Colorado SHPO concurred with the recommendation and made the determination of no historic properties affected (Appendix B).

3.3 Vegetation

The project area occurs on disturbed ground including an access road and maintenance corridor alongside the canal itself, and vegetation is generally sparse due to dry and disturbed conditions. A narrow intermittent fringe of willow with dense grass occurs in patches along the canal. The vegetation community in the surrounding dry landscape consists of scrub-shrub, with sparse juniper on the upward sloping river bench to the south. The surrounding landscape is occupied by sagebrush (*Artemisia* sp.),

greasewood (*Sarcobatus vermiculatus*), rabbitbrush *(Chrysothamnus* spp.), mustard (*Chorispora tennalla*), willow (*Salix exigua*), and bunch grasses; typical vegetation in the region also includes needle & thread grass (*Hesperostipa comate*), wheatgrasses (*Pascopyrum smithii*), Sandberg bluegrass (*Poa secunda*), prairie junegrass (*Koeleria macrantha*), sedges, bottlebrush squirreltail (*Carex hystericina*), dropseed (*Sporobolus* spp.*),* and various other grasses.

The Colorado Noxious Weed Act designates undesirable plants that are considered a threat to Colorado's natural resources (CDA 2019). State-designated noxious weeds observed in or near the project area (pers. comm. Camblin 2019) include those listed in Table 3.

Table 3. Noxious weeds observed in the project area.

Common Name	*Scientific Name*	Moffat County Noxious Weed List	State of Colorado List
Cheatgrass	*Bromus tectorum*	Yes	C
Canada thistle	*Cirsium arvense*	Yes	B
Tamarisk	*Tamarix* spp.	Yes	B

Source: Colorado Department of Agriculture (CDA) 2019; Moffat County 2017.

Additional weeds including white top (*Cardaria draba*) and Russian knapweed (*Acroptilon repens)* are present along the canal but have not been observed in the project area (pers. comm., Camblin 2019). Leafy spurge (*Tithymalus esula*) is also known to be in the area (MID 2018). The MID is responsible for complying with the Colorado Noxious Weed Act in the project area.

3.3.1 No Action

Under the No Action alternative, no change would occur to vegetation, noxious weeds, and invasive species. Annual maintenance and repair activities, including use of tracked or wheeled backhoes, loaders, and other equipment would continue to disturb the project area including the wetland fringe along the canal, and contribute to the potential for spreading noxious weeds.

3.3.2 Proposed Action

Under the Proposed Action, ground disturbance would occur that may create conditions for the spread of noxious weeds; however, this disturbance is similar to existing disturbance conditions which includes annual maintenance and repair along the canal. Environmental protection measures included in Chapter 4 are expected to mitigate the potential negative effects to vegetation. In addition, disturbed areas would be reseeded with a seed mix approved by Reclamation.

Placing a polymer liner along the canal would alter the narrow wetland fringe in Priority Segments 1 and 2; however, the effects are expected to be minor. Reclamation has received verification from the Corps that the project is exempt from Section 404 of the Clean Water Act. Beneficial indirect effects to the downstream wetlands along the Yampa River may occur due to the expected increase in water volumes in the river, and due to eliminating annual maintenance activities along the canal.

3.4 Surface Water

The Yampa River basin has limited reservoir storage, and therefore retains a natural hydrograph with high spring peak flows and low base flows in summer, fall and winter. The headwaters of the Yampa

River are in the Flat Tops Wilderness, southwest of Steamboat Springs, CO; the river gains flow from the northern Elk River, the Williams Fork, and the Elkhead River as it flows in a southwesterly direction towards Moffat County and the canal headgate.

More than 70 percent of the current water diversion from the Yampa River is agricultural (Friends of the Yampa 2019). The MID canal diversion in Juniper Canyon diverts water from the Yampa River into the Maybell Valley about 30 miles west of Craig; the canal was constructed in 1899, 12 years before Moffat County was established in the western portion of Routt County (Craig Daily Press 2017).

Current low season flows on the Yampa River near Maybell drop below the streamflow target of 93 cfs identified by a local working group and the Recovery Program (MID 2018). For example, during the drought in 2012 the flow dropped below 93 cfs for 67 days and the average flow from August 1 through October 15 was only about 100 cfs (MID 2018).

3.4.1 No Action

Under the No Action alternative, no change would occur to surface water resources.

3.4.2 Proposed Action

Lining the identified segments of the Maybell Canal would eliminate up to 150 acre-feet of seepage from the canal annually. Due to the increased efficiency of the canal, that water previously lost to seepage would no longer be diverted from the Yampa River. The project would have a beneficial effect on surface water by retaining up to 150 acre-feet per year in the Yampa River. In addition, lining the canal sections would help eliminate sloughing, and would therefore help provide a more reliable water source for downstream users.

3.5 Threatened and Endangered Species

The Endangered Species Act of 1973 protects federally listed endangered, threatened, and candidate plant and animal species and their critical habitats. A list of potential species was obtained from the U.S. Fish and Wildlife Service (USFWS 2019). Published range maps and habitat requirements were reviewed for each of the species, and on-site conditions were evaluated during field investigations. Ute-ladies' tresses (*Spiranthes diluvialis*), Mexican spotted owl (*Strix occidentalis lucida*), and Yellow-billed cuckoo (*Coccyzus americanus*) lack suitable habitat in the project area and are, therefore, eliminated from further analysis. The following federally listed species were determined to occur or have the potential to be affected by the Proposed Action.

Endangered Colorado River Fishes: The upper Colorado River Basin has four fish species listed as endangered: bonytail chub (*Gila elegans*), Colorado pikeminnow (*Ptychocheilus lucius*), humpback chub (*Gila cypha*), and razorback sucker (*Xyrauchen texanus*). Decline of these fish species is due, at least in part, to habitat destruction (diversion and impoundment of rivers) and competition and predation from introduced fish species. In 1994, the Service designated critical habitat for the four endangered fish species in the Federal Register (56 FR 54957-54967), including the lower portion of the Yampa River basin. There is critical habitat for the Colorado pikeminnow adjacent to and upstream of the project area (from the project area, east to the Colorado State Highway 394 bridge at Craig CO), and

downstream of the project area there is critical habitat for all four fish species (Roehm 2004). In general, endangered fish are present in the Yampa River in greater amounts than in other western rivers, due to the unrestricted flows which support valuable fish habitat (USFWS 2005; Friends of the Yampa 2019).

Previously issued biological opinions state that all depletions within the upper Colorado River Basin may adversely affect the four fishes. Water depletions in the Yampa River have the potential to diminish backwater spawning areas in downstream designated critical habitat in the Colorado River, directly affecting the four endangered fishes and the extent and quality of their designated critical habitat.

The Upper Colorado River Endangered Fish Recovery Program (Recovery Program) was established in 1988 as a partnership of public and private organizations working to recover the four species while allowing continued and future water development. Recovery strategies include conducting research, improving river habitat, providing adequate stream flows, managing nonnative fish, and raising endangered fish in hatcheries for stocking. Specific upgrades to the Maybell Irrigation Canal occurred, including installation of check structures and automated return flow gate in order to leave more water in the river (USFWS 2018). These upgrades were incorporated in 2017. In 2018, the Service 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 2018).

3.5.1 No Action

Under the No Action alternative, no change is expected to threatened and endangered species.

3.5.2 Proposed Action

Under the Proposed Action, additional upgrades would be made to the Maybell Irrigation Canal, with resulting beneficial effects to Colorado River's endangered fish habitat and other aquatic/riparian-dependent species. Beneficial effects may occur due to the reduction of canal seepage, resulting in up to 150 acre-feet of water remaining in the Yampa River. The MID has entered in to a recovery agreement with the USFWS as of October 24, 2019 (Appendix C), and as a result, the MID's historic depletions are formally covered under the Yampa Programmatic Biological Opinion (PBO) (USFWS 2005). No change to depletions would occur as a result of this project, and lining the canal would potentially increase water flows in the Yampa, having a net benefit to Colorado endangered fish habitat downstream of the project area.

No adverse effects to the endangered fish populations are expected as a result of this project. The construction activities would be confined and controlled away from the bank of the Yampa River, and the construction phase would occur after the irrigation season when water would not be flowing in the canal. Best management practices for storm water erosion control during construction would be implemented (see Chapter 4).

No effects to other threatened and endangered species would occur as a result of this project. Concurrence for the project from the USFWS was received on October 29, 2019 (Appendix C).

3.6 Cumulative Effects

Cumulative effects under NEPA are defined as "the impact on the environment which results from the incremental impact of the action when added to other past, present and reasonably foreseeable future actions, regardless of what agency (Federal or non-Federal) or person undertakes such other actions" (40 CFR 1508.7).

The direct and indirect effects of past and ongoing (present) actions are included in the affected environment analyses above. The primary goal of this cumulative effects analysis is to determine the magnitude and significance of incremental environmental effects on the resources analyzed in this EA due to the implementation of reasonably foreseeable future actions. Reclamation determines the appropriate spatial boundary for the cumulative effects analysis based on several factors, such as scope of the proposed action and how far effects of the proposed action can be measured.

The spatial boundary for the cumulative effects analysis includes the reach of the Yampa River and surrounding valley between the project area, and the Canal's return structure approximately 15 river miles downstream of the project area. The temporal boundary for the cumulative effects analysis is 50 years. Irrigation canal upgrades are occurring throughout the upper Colorado River region in order to modernize water delivery systems, mitigate salt loading, and conserve water (Reclamation 2017); MID has previously lined a different segment of the Maybell Canal (2017) and has identified an additional segment that is prioritized for lining in the future. The Proposed Action would have an overall beneficial cumulative effect to regional agricultural resources (farm land and hay production), along with past, current, and future projects that enhance and maintain water delivery to farmland in the region.

Due to the limited scale and scope of this project, measurable adverse effects are not anticipated for any resources; therefore, there would be no effects to contribute to potential adverse effects of reasonably foreseeable future actions.

3.7 Summary

The proposed project would create ground disturbance that may create conditions for the introduction of noxious weeds; however, this disturbance is similar to existing disturbance conditions, and any new disturbances within the 1.6-acre project area are expected to be minor and negligible. No adverse effects are expected to any other resources. Beneficial effects to water quality are expected from stabilizing the canal and preventing sloughing and sediment loading into the Yampa River. The reduced seepage and water loss will benefit flows in the Yampa River and benefit downstream habitat for the Colorado River's endangered fish. No cumulative effects are expected as a result of this project.

4 Environmental Commitment Plan

Table 4 describes the environmental commitments and related mitigation measures developed to protect resources and mitigate adverse impacts to a nonsignificant level. The cooperative agreement (#R18AP00221) between Reclamation and the MID requires that MID be responsible for "…implementing and/or complying with environmental commitments contained in National Environmental Policy Act (NEPA) compliance documents to be prepared by the Recipient and approved

by Reclamation for the project." The MID will use this table to document compliance with each commitment and will submit it to Reclamation as a record of compliance once construction is complete. The following environmental commitments will be implemented by MID as an integral part of the Proposed Action.

Table 4. Maybell Canal Water Conservation Project environmental commitments.

Environmental Commitment	Timing	Date of Compliance	MID Initials
No Project activities may take place outside the spatial area analyzed in this EA without being subject to additional review by Reclamation.	**All**		
Water Quality and Water Resources			
1. A Storm Water Discharge application will be submitted for General Permit No. COR-030000 as provided by the Colorado Department of Public Health and Environment at least ten (10) days prior to the commencement of construction activities.	Pre-construction		
2. A Storm Water Management Plan will be developed and filed with the Colorado Department of Public Health and Environment. In accordance with the Storm Water Management Plan, Best Management Practices, including storm water drainage, erosion control, and sediment control will be implemented to prevent or reduce point source pollution during and following construction. A copy of this plan will be provided to Reclamation.	Pre-construction		
3. Construction work will be confined and controlled away from the Yampa River. Silt fencing, straw wattles, or other erosion control measures will be used along the northern boundary to protect the river, as needed.	During construction		
4. A Spill Response Plan will be prepared. As part of this plan, fuel storage, equipment, maintenance, and fueling procedures will be developed to minimize the risk of spills and impacts from these incidents. A copy of this plan will be provided to Reclamation.	Pre-construction		
5. Equipment will be inspected daily and repaired as necessary to ensure equipment is free of petrochemical leaks.	During construction		
6. The lining will be installed and maintained in a manner that does not interfere with the allocation of water shares.	During construction, post construction		
Access and Transportation			
7. All construction activities will be confined to rights-of-way (ROW) negotiated between the MID and landowners, including the 50-foot ROW across BLM land. Staging will take place along the existing access road.	During construction		
Vegetation			
8. Construction limits shall be clearly flagged onsite to avoid unnecessary ground disturbance or plant loss.	Pre-construction		
9. All construction equipment will be power-washed and free of soil and debris prior to entering and exiting the construction site to reduce the spread of noxious and invasive weeds.	Pre-construction, post construction		
10. Dust abatement measures will be implemented during construction when dry, dusty conditions exist. Water for dust suppression will not be obtained from the canal or Yampa River.	During construction		

Environmental Commitment	Timing	Date of Compliance	MID Initials
11. MID will continue to be responsible for complying with the Colorado Noxious Weed Act and will obtain appropriate pesticide use permits in accordance with Section 402 of the Clean Water Act.	Post-construction		
Wildlife, including Federally Listed Species			
12. In the event that threatened or endangered species are discovered during construction, construction activities shall halt until consultation is completed with the U.S. Fish and Wildlife Service, and protection measures are implemented.	During construction		
13. Construction will occur during the daylight hours to avoid disrupting roosting bald eagles.	During construction		
14. Vegetation removal will occur outside the nesting season for migratory birds (April 1-July 15).	Pre-construction, during construction		
Cultural Resources			
15. 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.	During construction		
16. If additional areas of impact (for example: access roads, borrow pits, or waste areas) are identified during the course of the undertaking, they will be inventoried for cultural resources and consulted on with the SHPO. No construction work will occur at or near the additional impact areas until this consultation is completed.	During construction		
Agricultural Resources and Soils; Ground Disturbance			
17. Ground disturbance and vegetation removal will be limited to the smallest portion of the Proposed Action Area necessary to safely implement the project. Construction disturbance will not impact adjacent hillside slopes. Construction limits will be shown on plans provided to the contractors.	Pre-construction and during construction		
18. Existing access roads will be used to access construction, staging and stockpile areas. No new roads will be constructed.	During construction		
19. Topsoil will be stockpiled and re-distributed after construction, to facilitate revegetation success.	During construction		
20. Soil erosion will be minimized by using erosion control measures at the edges of ground disturbances. Straw wattles, silt curtains, weed-free straw bales, and/or other suitable erosion control measures shall be used to prevent erosion from occurring downgradient and from entering water bodies during construction.	During construction		
21. All disturbed areas will be smoothed and shaped, contoured, and reseeded to as near their pre-project conditions as practicable.	During construction		
22. A noninvasive, drought-tolerant seed mix will be used to revegetate areas disturbed by the project.	During construction and Post-construction		

5 Consultation and Coordination

Reclamation consulted and coordinated with other agencies and provided an opportunity for agencies and the public to comment on the Draft EA between August 5 and September 6, 2019. During this time,

no comments were received. Comments were received from the BLM LSFO office on September 30 and have been addressed (see Appendix D). Notice of the Draft EA comment period was distributed to private landowners adjacent to the Proposed Action, and to the organizations and agencies listed in Appendix E. The Draft EA was available on Reclamation's website. The Final EA is also available on Reclamation's website.

The following local, state, and federal agencies were contacted and consulted in the preparation of this EA. Additional entities were provided the opportunity to comment during the public review period (Appendix E).

- U.S. Bureau of Land Management, Little Snake River Field Office, Craig, CO
- Colorado Office of Archaeology & Historic Preservation, Denver, CO
- U.S. Fish and Wildlife Service, Ecological Services, Grand Junction, CO
- U.S. Army Corps of Engineers, Colorado West Regulatory Branch, Grand Junction, CO

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Appendix A Photo Log

Maybell Canal Water Conservation Project
Appendix A: Photo log, May 3, 2019

Photo 1. Maybell Canal overview, view to the west.

Photo 2. Maybell Canal overview, view to the west.

Photo 3. Maybell Canal overview, view to the east.

Photo 4. Maybell Canal overview, view to the west.

Photo 5. Maybell Canal overview, previously lined portion, view to the east. Note the erosion above the ditch.

Photo 6. Maybell Canal overview, view to the west-southwest from the western extent of the previously lined portion.

Photo 7. Dirt pile near lined portion of Maybell Canal, with the Yampa River on the right, view to the west.

Photo 8. Maybell Canal overview, easternmost extent of previously lined portion, view to the southwest.

Photo 9. Maybell Canal overview, view to the southwest.

Appendix B Concurrence from the SHPO regarding the NHPA

HISTORY Colorado

JUL 3 0 2019

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

Re: Determination of Eligibility and Effect; Maybell Canal Water Conservation Project; WaterSMART Program; Moffat County, CO (HC #76287)

Dear Mr. Warner:

Thank you for your correspondence dated July 1, 2019 and received on July 17, 2019 by our office regarding the consultation of the above-mentioned project under Section 106 of the National Historic Preservation Act (Section 106).

After review of the provided information, we do not object to the proposed Area of Potential Effects (APE) for the above project. We concur that 5MF.4143.7 is *non-supporting* to the overall eligibility of the resource.

Our office has reviewed the scope of work and assessment of adverse effect, we concur with the recommended finding of *no adverse effect* [36 CFR 800.5(d)(1)] under Section 106 for 5MF.4143.7.

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 36 CFR 800.

We request being involved in the consultation process with the local government, which as stipulated in 36 CFR 800.3 is required to be notified of the undertaking, and with other consulting parties. Additional information provided by the local government or 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.

If we may be of further assistance, please contact Jason O'Brien, Section 106 Compliance Manager, at (303) 866-2673 or Jason.obrien@state.co.us.

Sincerely,

Steve Turner, AIA
State Historic Preservation Officer

Appendix C USFWS Biological Opinion and Recovery Agreement

United States Department of the Interior

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

IN REPLY REFER TO:
FWS/R6/ES CO

TAILS 06E24100-2019-F-0447

October 29, 2019

Memorandum

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

J. Creed Clayton

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

Subject: Issuance of Biological Opinion for the Maybell Canal Water Conservation Small-scale Water Efficiency Project Grant

In accordance with section 7 of the Endangered Species Act of 1973 (ESA), as amended (16 U.S.C. 1531 et seq.), and the Interagency Cooperation Regulations (50 CFR 402), the Fish and Wildlife Service (Service) transmits this correspondence to serve as the final biological opinion (BO) for the Maybell Canal Water Conservation WaterSMART Small-scale Water Efficiency Project Grant.

Under the WaterSMART 2018: Small-scale Water Efficiency project grant, the Bureau provides funding assistance to the Maybell Irrigation District to line approximately 1,300 linier feet of Districts' irrigation canal. The project is located approximately 3.6 miles southeast of Maybell, CO in the Lower Yampa hydrologic unit of the Yampa and White River watershed. Historic depletions associated with the canal total 1,941 acre-feet per year.

A Recovery Implementation Program for Endangered Fish Species in the Upper Colorado River Basin was initiated on January 22, 1988. The Recovery Program was intended to be the reasonable and prudent alternative for individual projects to avoid the likelihood of jeopardy to the endangered fishes from impacts of depletions to the Upper Colorado River Basin. In order to further define and clarify the process in the Recovery Program, a section 7 agreement was implemented on October 15, 1993, by the Recovery Program participants. Incorporated into this agreement is a Recovery Implementation Program Recovery Action Plan (RIPRAP) which identifies actions currently believed to be required to recover the endangered fishes in the most expeditious manner.

for

On January 10, 2005, the Service issued a final programmatic biological opinion (PBO) on the *Management Plan for Endangered Fishes in the Yampa River Basin* (this document is available for viewing at the following internet address: http://www.coloradoriverrecovery.org/documents-publications/section-7-consultation/yampaPBO/FinalYPBO.pdf). The Service has determined that projects that fit under the umbrella of the Yampa River PBO would avoid the likelihood of jeopardy and/or adverse modification of critical habitat for depletion impacts. The Yampa River PBO states that in order for actions to fall within the umbrella of the PBO and rely on the RIPRAP to offset its depletion, the following criteria must be met.

1. A Recovery Agreement must be offered and signed prior to conclusion of section 7 consultation.

2. A fee to fund recovery actions will be submitted as described in the proposed action for new depletion projects greater than 100 acre-feet/year (AF/yr). The 2020 fee is $22.13 per AF and is adjusted each year for inflation.

3. Reinitiation stipulations will be included in all individual consultations under the umbrella of this programmatic.

4. The Service and project proponents will request that discretionary Federal control be retained for all consultations under this programmatic.

The Service and the Water User signed the Recovery Agreement. The depletions associated with this project are historic which do require contributions to fund recovery actions. The US Bureau of Reclamation has agreed to condition its approval documents to retain jurisdiction should section 7 consultation need to be reinitiated. Therefore, the Service concludes that the subject project meets the criteria to rely on the RIPRAP to offset depletion impacts and is not likely to jeopardize the continued existence of the species and is not likely to destroy or adversely modify designated critical habitat.

The reinitiation criteria for the Yampa River PBO apply to all projects under the umbrella of the PBO. Therefore, if the PBO is reinitiated, reinitiation of this biological opinion would follow as well.

The Service and the Recovery Program track all water depletions covered under the Yampa River PBO and other water depletion PBOs within the Upper Colorado River Basin on a quarterly basis. A summary of those depletions are available at: http://www.coloradoriverrecovery.org/documents-publications/section-7-consultation/consultation-list.html. In addition, in accordance with the Section 7, Sufficient Progress, and Historic Projects Agreement, the Service reviews cumulative accomplishments and shortcomings of the Recovery Program in the upper Colorado River basin. Per that Agreement, the Service uses the following criteria to evaluate whether the Recovery Program is making "sufficient progress" toward recovery of the four listed fish species:

- actions which result in a measurable population response, a measurable improvement in habitat for the fishes, legal protection of flows needed for recovery, or a reduction in the threat of immediate extinction;
- status of the fish populations;
- adequacy of flows;
- and magnitude of the impact of projects.

Through these bi-annual Sufficient Progress reviews, the Service evaluates the best available and current information to determine if the Recovery Program continues to offset depletion effects identified in existing Section 7 consultations including the depletions covered by these PBOs. In the most recent assessment (dated October 19, 2018), the Service determined that sufficient progress has been made towards recovery. Sufficient Progress reports can be found at: http://www.coloradoriverrecovery.org/documents-publications/section-7-consultation/sufficient-progress-letters.html.

If you have any questions regarding this consultation, or would like to discuss it in more detail, please contact Kurt Broderdorp of our Western Slope Field Office at (970) 628-7186, Email: kurt_broderdorp@fws.gov.

Attachment(s)

Cc: FWS/UCREFRP, Lakewood; Email: Kevin_McAbee@fws.gov

RECOVERY AGREEMENT

This RECOVERY AGREEMENT is entered into this 24 day of October, 2019, by and between the United States Fish and Wildlife Service (Service) and Maybell Irrigation District (Water User).

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

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

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

WHEREAS, on January 10, 2005, the Service issued a programmatic biological opinion (2005 Opinion) on the *Management Plan for Endangered Fishes in the Yampa River Basin* concluding that implementation of specified elements of the Recovery Action Plan (Recovery Elements), along with existing and a specified amount of new depletions, are not likely to jeopardize the continued existence of the endangered fish or adversely modify their critical habitat in the Yampa River subbasin and Green River subbasin downstream of the Yampa River confluence; and

WHEREAS, Water User is the owner of the Maybell Canal (Water Project), which causes or will cause depletions to the Yampa River subbasin; and

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

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

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

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

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

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

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

7. Water User may withdraw from this Recovery Agreement upon written notice to the Service. If Water User withdraws, the Service may request reinitiation of consultation on Water Project without reinitiating other consultations as would otherwise be required by the Reinitiation Notice section of the 2005 Opinion.

Maybell Irrigation District

President

Water User Representative

10/24/19

Date

Western Colorado Supervisor
U.S. Fish and Wildlife Service

10/25/19

Date

(ES/GJ-6-CO-04-F-012 - YP_____)

Appendix D Comment and Response Summary

Appendix D. Comment-Response Summary

Brief: One comment letter was received on September 30, 2019, from the BLM LSFO:

Comment- Part 1 (BLM LSFO)

Unless a survey was completed for BLM Sensitive Plants a determination statement regarding suitable habitat should not be made. Historical occurrences for both Bessey locoweed (*Oxytropis besseyi var. obnapiformis*) and Yampa beardtongue (*Penstemon acaulis var. yampaensis*) are documented within a mile of the proposed project area. If survey's for BLM Sensitive Plant species were completed, I would like the opportunity to review the document.

Response

BLM protocol surveys were not completed for BLM Sensitive Plants within the proposed action area. Determination statements regarding suitable habitat were removed from Section 3.1 in the EA. After additional discussions with BLM, the following language was added to Section 3.1 "A database search was conducted and BLM sensitive plants species have not been documented within the project area (Aimee Huff, LSFO BLM ecologist, personal communication, October 9, 2019)".

Comment- Part 2 (BLM LSFO)

I would also like to see some type of analysis or not present documentation regarding Ute ladies' tresses (Spiranthes diluvialis) since populations have been discovered and are known to occur along irrigated ditches, canals, berms, levees, irrigated meadows, excavated gravel pits, and other human modified wetlands. This species is threatened primarily by habitat loss and modification, although its small populations and low reproductive rate make it vulnerable to other threats. The riparian and wetland habitats required by this species have been heavily impacted by urban development, heavy grazing, stream channelization, water diversions, and other watershed and stream alterations that reduce the natural dynamics of the stream system, recreation and invasion of habitat by exotic plant species (USFWS 1995b). Since this orchid is supported by moist soils through the growing season, water depletions that reduce the amount of water for flooding or wet meadow maintenance can also potentially impact this species.

Response

Although the species has been found along ditches, it is more typically found along stream systems with an associated floodplain. Field investigations conducted by ERO Resources in May of 2019, document an overall lack of stable moisture regime within the project area. Within the project area, sub-irrigated alluvial floodplains are not present; conditions are relatively dry with an unstable moisture regime dependent on the irrigation season. Where present, moist soil is occupied by dense grasses that do not provide suitable open habitat for the species. The project area is within the suspected range of the federally threatened Ute ladies'-tresses orchid (*Spiranthes diluvialis*) (USFWS 2019). Two populations of Ute ladies'-tresses orchids have been observed in Moffat County within the Upper Flaming Gorge Reservoir Watershed. No populations or potentially suitable habitat is documented within the project area, and the project area has not been deemed a high priority survey area by the BLM Little Snake Field Office (Aimee Huff, BLM-LSFO Ecologist, personal communication, October 9 and October 10, 2019).

Appendix D. Comment-Response Summary

The following language has been added to Section 3.5 of the EA:

Published range maps and habitat requirements were reviewed for each of the species, and on-site conditions were evaluated during field investigations. Ute-ladies' tresses (*Spiranthes diluvialis*), Mexican spotted owl (*Strix occidentalis lucida*), and Yellow-billed cuckoo (*Coccyzus americanus*) lack suitable habitat in the project area and are, therefore, eliminated from further analysis.

Appendix E Public Distribution List

Appendix E. Public Distribution List

Colorado Department of Transportation
Michael Goolsby
Regional Director of Transportation
222 South 6th Street, Rm 317
Grand Junction, CO 81501
970-243-2368
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State Historic Preservation Officer
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Colorado River Water Conservation District
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Deputy Chief Engineer
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Water Resource Specialist
1313 Sherman St., Room 721
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Trout Unlimited
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U.S. Army Corps of Engineers
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U.S. Bureau of Land Management
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