BUREAU OF RECLAMATION

Hess Lateral Improvement Project

WaterSMART Program
Water Energy and Efficiency Grant
Upper Colorado Basin: Interior Region 7
Western Colorado Area Office

U.S. Department of the Interior

August 2025

Mission Statements

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

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

Draft Environmental Assessment

Hess Lateral Improvement Project

WaterSMART Program
Water Energy and Efficiency Grant
Upper Colorado Basin: Interior Region 7
Western Colorado Area Office

Prepared for Reclamation by Wright Water Engineers, Inc.

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ABBREVIATIONS AND ACRONYMS

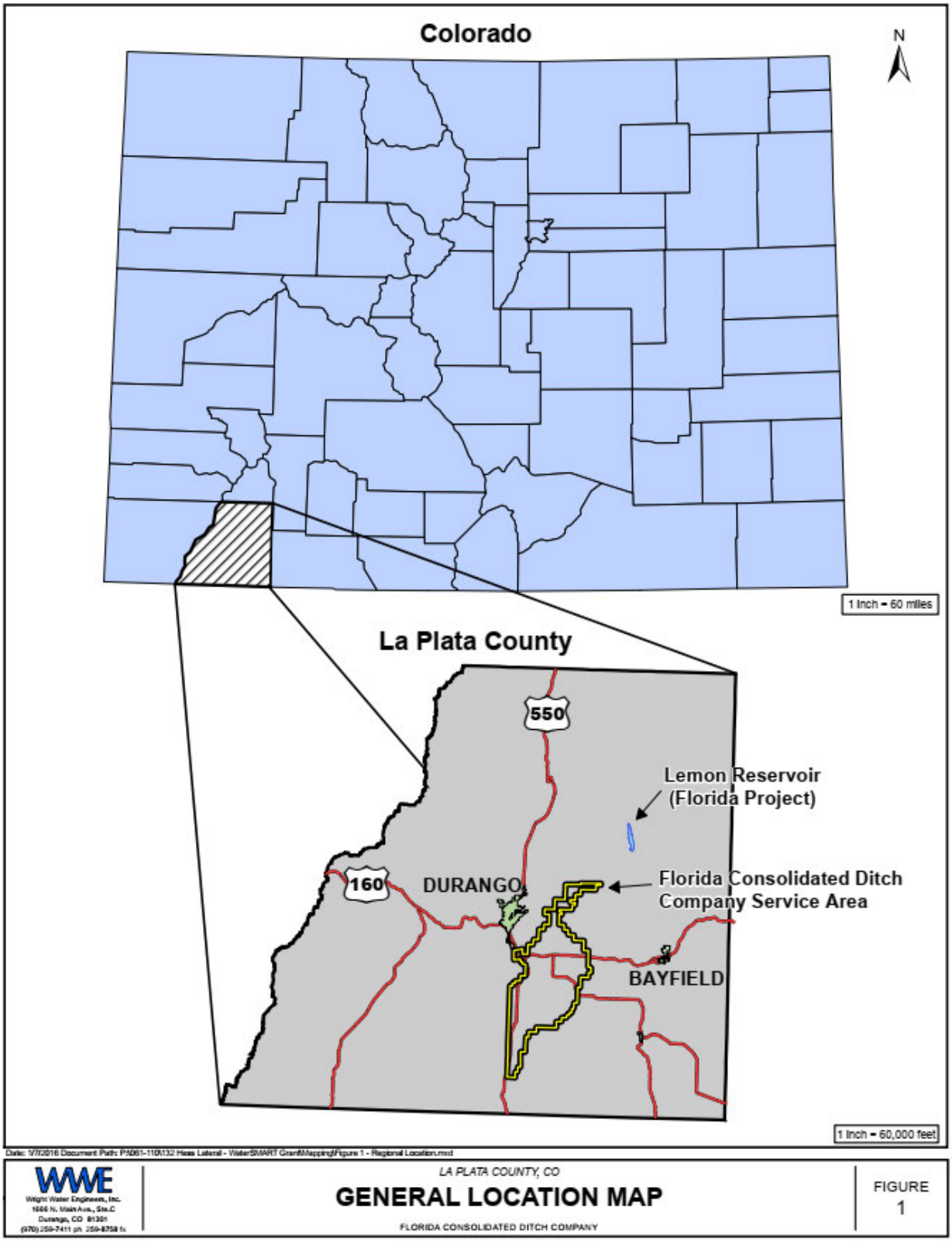
AF	Acre feet
ASCE	American Society of Civil Engineers
BLM	United States Bureau of Land Management
BMP	Best Management Practice
CDOT	Colorado Department of Transportation
CDPHE	Colorado Department of Public Health and Environment
CDPS	Colorado Department of Public Safety
CDWR	Colorado Division of Water Resources
cfs	Cubic feet per second
CPW	Colorado Parks and Wildlife
CWCB	Colorado Water Conservation Board
EA	Environmental Assessment
EQIP	Environmental Quality Incentives Program
FCDC	Florida Consolidated Ditch Company
FHWA	Federal Highway Administration
HDPE	High-density polyethylene
IPaC	Information for Planning and Consultation
LPEA	La Plata Electric Association, Inc.
NAAQS	National Ambient Air Quality Standards
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NPDES	National Pollutant Discharge Elimination System
NRCS	Natural Resources Conservation Service
O&M	Operation & Maintenance
PCN	Pre-Construction Notification
Pipeline	Hess Lateral Pipeline
P.M.	Principal Meridian
PPE	Personal protective equipment
project	Hess Lateral Improvement Project
Reclamation	United States Department of the Interior Bureau of Reclamation
ROW	Right-of-way
SHPO	State Historic Preservation Officer
SUE	Subsurface Utility Engineering
SWMP	Stormwater Management Plan
THPO	Tribal Historic Preservation Officer
USACE	United States Army Corps of Engineers
USDA	United States Department of Agriculture
USGS	United States Geological Survey
USFWS	United States Fish and Wildlife Service
WWE	Wright Water Engineers, Inc.

1.0 CHAPTER 1 – INTRODUCTION

This Environmental Assessment (EA) was prepared by Wright Water Engineers, Inc. (WWE) on behalf of the U.S. Department of the Interior Bureau of Reclamation (Reclamation) to explain and evaluate the potential environmental effects of the proposed Florida Consolidated Ditch Company's (FCDC) Hess Lateral Improvement Project (project) located in unincorporated La Plata County, Colorado. The Federal action evaluated in this EA, referred to herein as the Proposed Action, is whether Reclamation would provide funding assistance to FCDC for the project. The Proposed Action would replace approximately 4.5 miles of open, earth-lined ditch with a buried gravity-pressurized pipeline to deliver irrigation water to user turnouts located along the pipeline. The Proposed Action would replace approximately 3.3 miles of earth lined, open Hess Lateral ditch, and approximately 1.2 miles of private irrigation ditch to deliver up to 19 cubic feet per second (cfs) of irrigation water to its users.

Reclamation has prepared this EA in compliance with the National Environmental Policy Act (NEPA) and the Department of the Interior's NEPA regulations at 43 C.F.R. §§ 46.10-46.450. If potentially significant impacts on 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.

Figure 1. General Proposed Action Location



1.1 Proposed Action Location and Legal Description

The Proposed Action is located in unincorporated La Plata County, Colorado, approximately 12 miles south of Durango, Colorado, along Highway 550. The start of the Proposed Action latitude is 37°8'24.46" N and longitude 107°50'53.01" W and the end of the Proposed Action latitude is 37°5'47.37" N and longitude of 107°51'44.65" W. The Proposed Action runs parallel and adjacent to Highway 550 for approximately four miles. The PLSS sections/townships/ranges crossed by the Proposed Action are as follows: Section 32, Township 34N, Range 9W, New Mexico Principal Meridian (P.M.), through Section 5,6,7,8,18, and 19 of Township 33N, Range 9W, New Mexico P.M. The land classification affected by the Proposed Action is private land, owned by various individual private landowners, La Plata Electric Association Inc. (LPEA), and Colorado Department of Transportation (CDOT). A full site map is provided in Figure 1.

The Hess Lateral Ditch (ditch) is currently owned and operated by FCDC across private landowner property with current access granted through FCDC-owned right-of-way (ROW). The current water users are comprised of shareholders in the FCDC and Florida Project water users. FCDC is an incorporated mutual ditch company.

1.1.1 Easments

FCDC has been working to secure easements through collaboration with landowners across the Proposed Action area, developing a 40-foot-wide easement, and, if required, an additional 60-foot-wide easement for pressure reducing valves, turnouts, etc. There are eleven private landowners that would require easement agreements prior to construction commencement. The easements are to be used for the construction and location of the structures, including but not limited to the pipeline, turnouts, valves, thrust blocking, vaults, air relief valves, and stub outs for future connections, together with access to Hess Lateral, carriage of water and operations, repair, and maintenance of the pipeline.

1.2 Purpose and Need for the Proposed Action

The purpose of the Proposed Action is to contribute to the WaterSMART Water and Energy Efficiency Grants' objective of conserving and using water more efficiently to contribute to water supply reliability in the western United States.

The need for the Proposed Action is to conserve water by reducing ditch water loss due to seepage from the open earthen ditch system by approximately 200 acre-feet (AF) a year and to provide pressurized water to promote energy savings by water users.

Additional background information regarding the need of the Proposed Action is included in the sub-sections below.

1.2.1 Quantifiable Water Savings

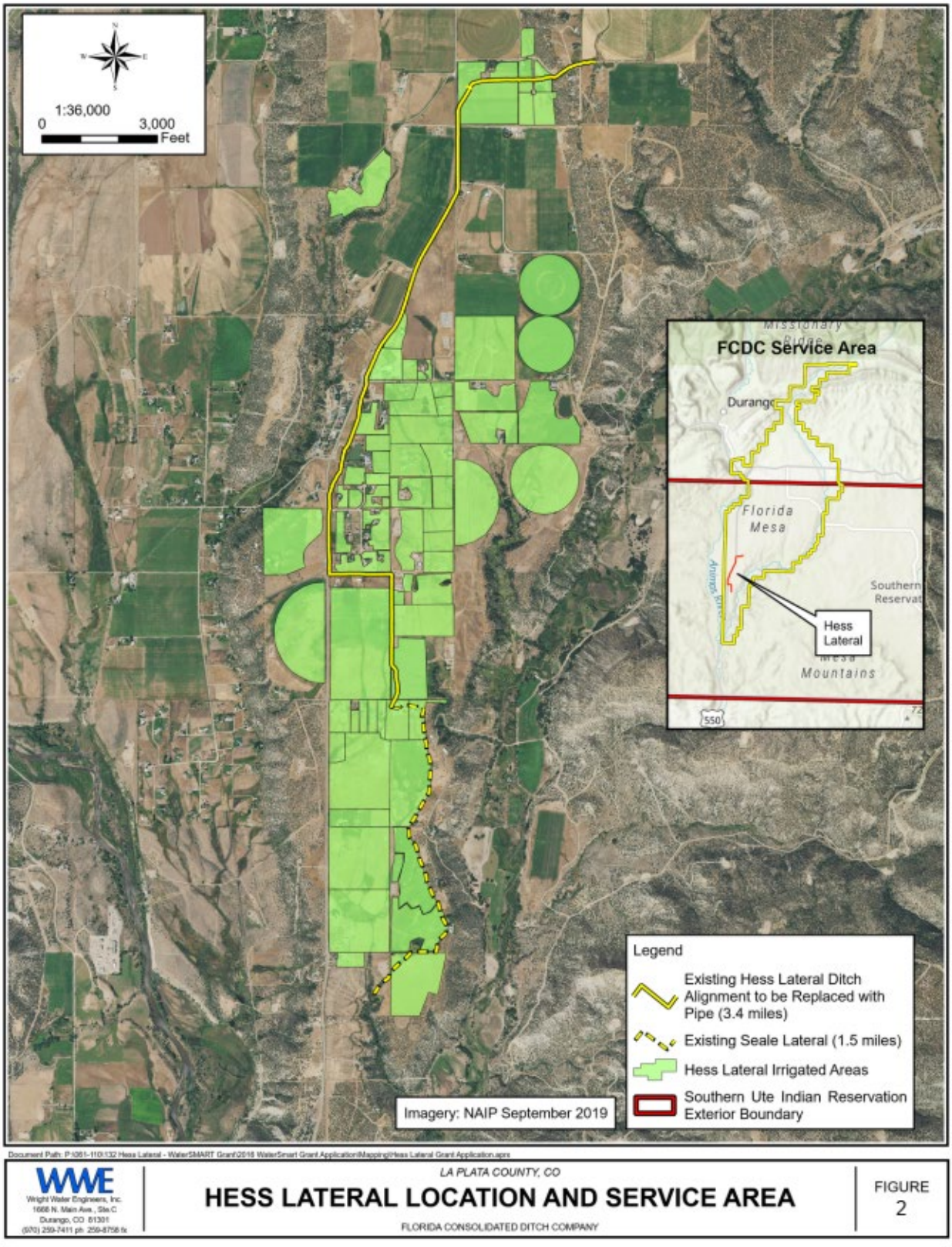
The Hess Lateral Ditch currently carries an average of approximately 2,300 AF of water per year to approximately 940 acres of irrigated farmland, approximately 590 of which are flood irrigated. Figure 2 provides an overview of the current irrigated areas within the service area. The 95-year-old open ditch system experiences water loss through several mechanisms during water deliveries including:

returning water back to the river via percolation, re-diversions and consumption from non-Florida project agriculture, deep percolation, and evaporation.

The FCDC determined the estimated average annual water savings that would result from piping the Hess Lateral by conducting a ponding test in July of 2021 in accordance with Reclamation recommended guidance from Texas A&M (Leigh and Fipps, 2009). The FCDC calculated evaporation losses from the ditch using NOAA Technical Report NWS 33 gross evaporation rates.

Total ditch loss and evaporation water savings equals approximately 200 AF per year, or approximately 9 percent of average annual flow in the Hess Lateral.

Figure 2. Hess Lateral Location and Service Area



1.3 Decision to be Made

The federal decision to be made by Reclamation is whether to authorize the use of federal funds for FCDC to implement the Proposed Action.

1.4 Proposed Action Funding Sources

In addition to Reclamation's portion of the funding, FCDC has secured funding from three additional funding sources. These funding sources have been used to support preliminary planning, Issued for Bid document development, surveying, utility line locates, and engineering services during and after bidding. Additional sources of funding include a Colorado Water Conservation Board (CWCB) low-interest loan secured by the FCDC, a CWCB Grant, and CDOT. The relative contributions from each of these additional sources could change pending final Proposed Action costs.

1.5 Background

1.5.1 Original Hess Lateral Pipeline Installation

The FCDC estimates the Hess Lateral Ditch has been in operation since the 1930s when it was constructed as part of an irrigation water delivery system to convey diverted flows from the Florida River to irrigate up to roughly 1,500 acres on the Florida Mesa. FCDC maintains operations and associated maintenance for the ditch and accesses the Hess Lateral via pre-existing easements and ROW access.

1.5.2 Project Proponent

FCDC, the Applicant, is a privately owned, consolidated company formed in 2014 to provide adjudicated water and Reclamation Florida Project water to approximately 352 shareholders that irrigate approximately 18,700 acres of land. On average, FCDC delivers approximately 24,125 AF of water per year and operates 86.5 miles of canals, ditches, and laterals (Florida Consolidated Ditch Company, 2025).

1.6 Relationship to Other Projects

1.6.1 Ditch to Pipeline Projects

Reclamation provides funding to implement ditch rehabilitation projects, supporting construction to install pipeline across open-ditch networks that experience extensive seepage, salinity concerns, and post-wildfire impacts (to name a few sectors of Reclamation's program).

1.6.2 WaterSMART Grants

Reclamation provides funding for districts, tribes, states, and other entities with water or power delivery authorities through the WaterSMART Water and Energy Efficiency Grant (formally Challenge Grants), herein referred to as the WaterSMART Grant, or Grant. The Grant, as stated on Reclamation's website, Reclamation provides cost share funding to support projects that:

> *… conserve and use water more efficiently; increase the production of hydropower; mitigate conflict risk in areas of high risk of future water conflict; and accomplish other benefits that contribute to water supply reliability in the western United States.*

The purpose of the Proposed Action is to convert an open ditch into a pipeline to improve water efficiency and save water by reducing ditch loss.

1.6.3 Colorado Department of Transportation – Highway 550 Widening Project

The Proposed Action is near CDOT's future Highway 550 Widening Project (Widening Project), which is intended to improve traffic safety and increase the level of service for vehicles traveling between Durango, CO and Farmington, NM on Highway 550. Approximately 2.72 miles of the existing 3.96-mile Hess Lateral open ditch runs parallel with CDOT's Widening Project.

It is worth nothing, that in 2023, CDOT developed an EA, and Finding of No Significant Impact, in cooperation with the Federal Highway Administration (FHWA) of the potential environmental, social, and economic impacts of the proposed improvements to US Highway 550 between Durango, Colorado and the New Mexico border.

1.6.4 Florida Project Water

Florida Project water is delivered through the conveyance system owned and operated by the FCDC. According to Reclamation (2025), in the 1930's, Reclamation conducted feasibility studies for construction of the Florida Project, and Lemon Reservoir was constructed in 1963 which provides supplemental irrigation water for 19,450 acres of agricultural land. In addition to the construction of Lemon Dam, Reclamation work included rebuilding the Florida Farmers Diversion Structure, enlarging 3.9 miles of the Florida Canal, and building a new lateral system to serve an approximately 3,360 acres of additional land in the southeast portion of the Florida Mesa (Reclamation, 2025).

1.6.5 NRCS – EQIP Program

The Proposed Action would support Hess Lateral water users and their potential Environmental Quality Incentives Program (EQIP) program applications for on farm water efficiency projects related to irrigated cropland and grazing lands (Environmental Working Group, n.d.). The Natural Resources Conservation Service (NRCS) provides technical and financial assistance to farmers, ranchers, and forest landowners through EQIP.

1.7 Scoping

Scoping for this EA was completed by Reclamation, in consultation with the following agencies and organizations, during the planning stages of the Proposed Action to identify the potential environmental and human environment issues and concerns associated with implementation of the Proposed Action and No Action Alternatives:

- U.S. Bureau of Land Management, Tres Rios Field Office, Durango, CO
- Colorado State Historic Preservation Office, Denver, CO
- U.S. Army Corps of Engineers, Southern Colorado Branch, Durango, CO

- Southern Ute Tribe, Ute Mountain Ute Tribe, Ute Indian Tribe (Uintah and Ouray Reservation), Hopi Tribe, Kewa Pueblo, Navajo Nation, Pueblo of Acoma, Pueblo de Cochiti, Pueblo of Isleta, Pueblo of Jemez, Pueblo of Laguna, Pueblo of Nambe, Ohkay Owingeh Pueblo, Pueblo of Picuris, Pueblo of Pojoaque, Pueblo of San Felipe, Pueblo of San Ildefonso, Pueblo of Sandia, Pueblo of Santa Ana, Santa Clara Pueblo, Pueblo of Taos, Pueblo of Tesuque, Pueblo of Zia, Pueblo of Zuni, Southern Ute Indian Tribe, Ute Indian Tribe – Uintah and Ouray Reservation, Ute Mountain Ute Tribe, Hopi Cultural Preservation Office.
- U.S. Fish & Wildlife Service, Ecological Services, Grand Junction, CO
- Colorado Parks & Wildlife, Durango, CO
- Colorado Department of Transportation, Durango, CO

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

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). (Executive Order 14154, Unleashing American Energy (Jan. 20, 2025), and a Presidential Memorandum, Ending Illegal Discrimination and Restoring Merit-Based Opportunity (Jan. 21, 2025), require the Department to strictly adhere to the National Environmental Policy Act (NEPA), 42 U.S.C. §§ 4321 et seq. Further, such Order and Memorandum repeal Executive Orders 12898 (Feb. 11, 1994) and 14096 (Apr. 21, 2023). Because Executive Orders 12898 and 14096 have been repealed, complying with such Orders is a legal impossibility. The [bureau] verifies that it has complied with the requirements of NEPA, including the Department's regulations and procedures implementing NEPA at 43 C.F.R. Part 46 and Part 516 of the Departmental Manual, consistent with the President's January 2025 Order and Memorandum. The [bureau] has also voluntarily considered the Council on Environmental Quality's rescinded regulations implementing NEPA, previously found at 40 C.F.R. Parts 1500–1508, as guidance to the extent appropriate and consistent with the requirements of NEPA and Executive Order 14154.)

Table 1. Resources Eliminated from Further Analysis

Resource	Rationale for Elimination from Further Analysis
Indian Trust Assets and Native American Religious Concerns	No Indian trust assets have been identified within the Proposed Action area. No Native American sacred sites were identified within the Proposed Action area. Neither the No Action Alternative, nor the Proposed Action Alternative would affect Indian trust assets or Native American sacred sites. To confirm this finding, Reclamation provided tribes listed in Section 1.7 with a description of the Proposed Action project and a written request for comments regarding any potential effects on Indian trust assets or Native American sacred sites. No comments were received.
Wild & Scenic Rivers, Land with Wilderness Characteristics, or Wilderness Study Areas	No Wild and Scenic Rivers, land with wilderness characteristics, or Wilderness Study Areas exist in the Proposed Action area. Therefore, neither the No Action Alternative nor the Proposed Action Alternative, would have an effect on these resources.
Public recreation	No public lands are involved with the Proposed Action. Therefore, neither the No Action Alternative, nor the Proposed Action Alternative, would have an effect on public recreation.
Water Quality	No known water quality concerns, including elevated water temperature, excess nutrient loading, pathogen and chemical introduction, pesticide and pollutant introduction, and excess salts and sediments, are known within the Hess Lateral ditch. Therefore, neither the No Action Alternative nor the Proposed Action Alternative would have an effect on water quality.

1.8 Alternatives Considered but Eliminated from Detailed Consideration

FCDC developed another alternative alignment for the Hess Lateral Improvement Project that includes the installation of a pipeline across four miles of private landowner property, beginning and ending in similar locations to Alternative No. 1. Alignments of the proposed pipeline would primarily consist across private property, without utilizing much of the existing, earthen ditch alignment. The existing, earthen ditch would be abandoned. Construction of the new alignment would result in temporary construction impacts associated with pipeline installation.

The major difference between Alternative No. 1 and Alternative No. 2 is Alternative No. 2 does not have the easements in place as does Alternative No. 1. Because so much of this project's success is dependent on landowner agreement and support, Alternative No. 2 is not feasible at this time due to

the lack of easements. Therefore, only the No Action and Alternative No. 1 (Proposed Action) are carried forward for analysis in this EA.

2.0 CHAPTER 2 – ALTERNATIVES

Two alternatives are analyzed in this EA: the Action Alternative (Proposed Action) and the No Action Alternative. A discussion of the alternatives considered but not carried forth for analysis in this EA are also presented below with rationale for dismissal.

2.1 No Action Alternative

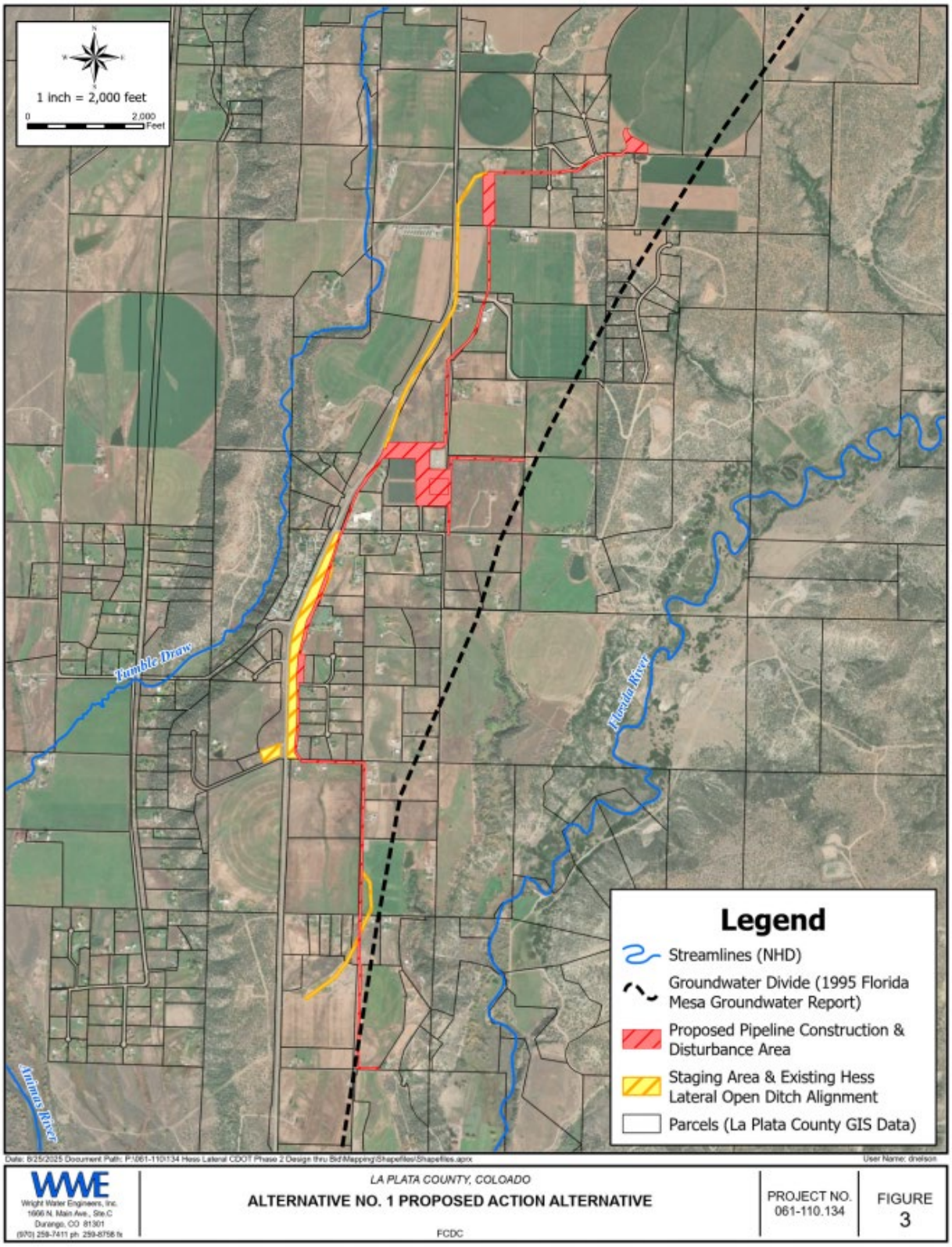
Under the No Action Alternative, the current, open ditch Hess Lateral would convey water approximately three miles north to south via the existing, earthen ditch. Water loss due to seepage would continue. The disparity between water availability and water demand is projected to continue to increase, heightening the demand for water.

Under the No Action Alternative, a CDOT US 550 Widening Project would necessitate relocating approximately 2.7 miles of the Hess Lateral open ditch which is currently located in the CDOT right-of-way. The relocated portion would have to be designed and constructed as part of the US 550 Widening Project.

2.2 Proposed Action Alternative

Under the Proposed Action Alternative, approximately 1.2 miles of private irrigation ditch and 3.3 miles of open earthen Hess Lateral Ditch would be converted to 4.5 miles of buried, pressurized high density polyethylene (HDPE) pipe. The Proposed Action would also include installation of twenty-four irrigation user turnouts from the pipeline, abandoning sections of the existing ditch, and realigning the pipeline as shown in Figure 3. Construction of the new alignment would result in temporary construction impacts associated with pipeline installation.

Figure 3. Proposed Action Alternative Pipeline Alignment



2.2.1 Abandoned Ditch Segment Decommissioning

Sections of the Hess Lateral open ditch would be decommissioned due to the Proposed Action in one of two ways:

1. **Abandoned in Place:** If the landowners do not specify ditch decommissioning preferences, the ditch would be abandoned in-place, without any additional decommissioning requirements. No work is anticipated to decommission the ditch for these sections. Sections of the ditch abandoned in place on within CDOT ROW would likely be filled in or regraded at a later date during construction of CDOTs Widening Project.

2. **Backfill and Stabilize:** During construction of the Proposed Action, FCDC would accommodate certain landowner requests for open ditch de-commissioning on private parcels. All landowners who requested specific requirements for open ditch decommissioning asked for the following work to be completed; The existing open ditch would be backfilled with a locally sourced soil backfill material and then reseeded with a La Plata County Permanent Seeding Mix, or a seed mix specifically requested by the landowner.

2.2.2 Construction

The Proposed Action would begin near the north end of the existing ditch on a 75-acre parcel within Section 32, Township 34, Range 9 S/2, where an intake pond with a surface area of approximately 0.57 acres would hold water that would be used in the irrigation system. The intake pond would receive water from Reservoir Ditch via a new intake pond turnout structure and associated pipeline. Proposed work within the Hess Lateral easement boundary at the north end of the Project would include construction of a flow measurement device in the Reservoir Ditch, an intake pond turnout structure and associated pipeline, an intake pond, a concrete pipeline intake structure for the Hess Lateral Pipeline (Pipeline), and the start of the Pipeline, including a flow measurement device in the Pipeline. The Pipeline would follow the existing ditch alignment, head east for approximately 1,500 feet across private properties. The pipeline would then turn south at an existing private property (37°8'20.637" N, 107°51'21.3444" W) and exit the historical ditch right-of-way. The existing Hess Lateral open ditch would be abandoned in place or backfilled if specifically requested in individual easement agreements.

After turning south, the Proposed Action pipeline alignment would continue south across four private properties as shown in Figure 4. The existing Hess Lateral open ditch (along Highway 550) would be abandoned in place. The pipeline would turn west (37°7'34.539" N, 107°51'29.0484" W) near an existing electrical substation and cross private property where an underground pressure reducing valve vault would be installed. After exiting the vault, the pipeline would continue west until reaching the historical alignment and then turning back south to run parallel with Hwy 550.

The pipeline would then continue south running parallel with Hwy 550 and CDOT's associated right-of-way until crossing Quarter Horse Road. Once across Quarter Horse Road the pipeline turns east and enters the historical ditch alignment where it continues east and then turns south, eventually ending just north of County Road 217.

The Proposed Action would include two pipeline spurs designated as Short Pipeline 1 and 2, as shown in Figure 4. The Short pipeline would begin just upstream of the proposed pressured reducing valve vault. Short Pipeline 1 would convey water to serve irrigated lands east of the existing electrical

substation by crossing a private property and ending at the property's northeast corner. Short Pipeline 2 would convey water to serve irrigated lands east and south of the existing electrical substation by running south along a private property and ending at the at the property's southwest corner. Table 2 provides the areas involved in the Proposed Action.

Table 2. Areas Involved in Proposed Action

Proposed Action Area	Specific Project Element or Activity	General Physical Location and Area Impacted	Previous Analyses Incorporated by Reference
Hess Lateral Intake Structure and Pond	Construction of a new intake pond. Installation of a pipeline intake structure, intake pond turnout, new section of private irrigation pipeline, and intake pond access path.	Located at: 37°08'26.523" N 107°50'49.9956" W Area of impact: Approximately 2.3 acres	N/A
Hess Lateral Pipeline	Portions of existing open ditch to be abandoned and replaced with buried, pressurized HDPE pipe. Turnouts at various locations along the Pipeline alignment.	Begins 37°8'24.46" N 107°50'53.01" W Ends 37°05'47.4" N 107°51'44.7" W Area of impact: Approximately 45 acres (including ROW access)	US 550 Environmental Assessment, Durango Colorado. Authored by CDOT, granted by Reclamation in 2005
Short Pipeline 1 (SP1)	Buried HDPE pipeline installation servicing the easternmost irrigated lands within the Hess Lateral service area.	Begins 37°07'32.1" N, 107°51'28.0" W Ends: 37°07'32.0" N, 107°51'12.1" W Area of impact: Approximately 1.5 acres (including ROW access)	N/A
Short Pipeline 2 (SP2)	Buried HDPE pipeline servicing the south easternmost irrigated lands within the Hess Lateral service area.	Begins 37°07'32.1" N, 107°51'28.0" W Ends 37°07'19.2" N, 107°51'28.1" W Area of impact: Approximately 1 acre (including ROW access)	N/A

The primary components of the Proposed Action alignment and construction are as follows:

- Earthwork, including but not limited to excavation, subgrade preparation and backfill for the pipeline, and associated appurtenances including turnouts, valves, cleanouts, etc.

- Construction of a turnout structure to deliver water from the Reservoir Ditch to the Hess Lateral Pipeline intake and settling pond.
- Earthwork including excavation and subgrade preparation for the intake pond.
- Construction of a concrete intake structure and associated appurtenances including gates, cast in place concrete, manholes, flow meter, etc.
- Construction of a concrete vault to house the pressure reducing valve and associated appurtenances, pressure reducing valve, pressure relief valve, and strainer.
- Coordination of all utility crossings during pipeline construction.
- Pressure testing of the pipeline.

2.2.2.1 Mobilization/Demobilization

The Proposed Action includes preparatory work and operations, including those activities necessary for the movement of personnel, equipment, and supplies to and from the Proposed Action site, and maintenance and clearing of other facilities and appurtenances necessary to undertake the work on the Proposed Action. The Contractor would develop staging areas within the construction easement limits along the proposed pipeline corridor, in the vicinity of the pipeline intake pond, and in designated areas that are currently owned by, or within Colorado Department of Transportation right-of-way (ROW) limits.

No borrow areas are required for the Proposed Action. FCDC would use screened native soils for backfilling the pipeline, and concrete materials would be sourced from a local concrete supplier.

Construction equipment access to the Proposed Action site and pipeline corridor would be from designated construction access points along or at existing County and State Highway roads. The FCDC does not anticipate the need for any new or temporary access roads to complete the Project.

FCDC would be required to develop and adhere to a construction traffic control plan in accordance with Colorado Department of Transportation and La Plata County requirements.

FCDC would be required to obtain the necessary permits for connection to necessary services provided by utility companies serving the Proposed Action area.

2.2.2.2 Clearing and Grubbing

The Proposed Action includes furnishing all items, labor, and equipment necessary for clearing and grubbing within the construction limits. FCDC would use heavy equipment and hand tools to clear and remove vegetation from within the Project construction limits. Trees and ground vegetation would be removed and disposed of legally in accordance with the Proposed Action specifications. In certain instances, private landowners may require any removed trees to be processed into firewood onsite and provided to the landowner. Tree and ground vegetation grubbing would primarily occur along segments of the Hess Lateral Pipeline corridor that are within the historical ditch ROW where trees and ground vegetation are present because of the ditch. The vegetation in the areas of the Hess Lateral Pipeline corridor that are located outside the historical Ditch ROW generally consists of irrigated grass hay farmland. The Proposed Action would cause up to approximately 46.2 acres of ground disturbance.

2.2.2.3 Water Control and Dewatering

The Proposed Action includes furnishing and installing all equipment, labor, and materials and performing all construction operations in connection with controlling groundwater, surface water, and stormwater during the excavation and construction of all structures and other appurtenances associated with the Proposed Action. Groundwater (if any) encountered in below ground excavations would be continuously pumped to facilitate installation of the Proposed Action components in a dewatered state. FCDC would use dewatering pumps to control water within the excavation area and discharge dewatering water to surface water drainage features in accordance with the project's construction dewatering discharge permit. Stormwater would be controlled in accordance with the project's Construction Stormwater Permit and with construction stormwater best management practices.

2.2.2.4 Earthwork

The Proposed Action includes furnishing and installing all items, labor, and equipment necessary for earthwork activities related to pipeline installation, including excavation, disposal, subgrade preparation, fill placement and compaction for the pipeline and associated appurtenances. The FCDC would use heavy equipment to excavate a trench for the pipeline within the Proposed Action construction limits at least 4 to 5 feet deep and then screen the excavated materials onsite for unsuitable pipe backfill materials. After the pipeline is laid in the trench, screened native backfill material would be placed around the pipe and compacted to the required density in accordance with the Proposed Action specifications using vibratory compaction equipment.

2.2.2.5 Intake Pond

The Proposed Action includes furnishing and installing all items and equipment, labor, and materials necessary for; excavation and disposal, subgrade preparation, surveying, over excavation and fill placement, emergency overflow spillway, rerouting of the Kroeger pipeline, concrete maintenance access, and associated intake pond appurtenances. FCDC would use heavy equipment to excavate the approximately 12 feet deep intake pond and build a new trench for the Kroeger pipeline which must be relocated because it is currently located within the excavation extents of the intake pond. Excess excavated spoil material would be disposed of in an approved facility or used to backfill areas of the Hess Lateral Pipeline that are located within the existing ditch ROW. FCDC would prepare and compact the subgrade below the concrete maintenance access ramp into the intake pond using vibratory compaction equipment in accordance with the Proposed Action specifications, install concrete forms, and then place the concrete.

2.2.2.6 Pipeline Intake Structure

The Proposed Action includes furnishing and installing all items and equipment, labor, and materials necessary for the reinforced concrete pipeline intake structure, flow meter and vault, gates, valves, and all associated pipeline intake structure appurtenances. FCDC would use heavy equipment to excavate the locations for the concrete pipeline intake structure and flow meter vault and prepare the subgrade. FCDC would install concrete forms and rebar for the cast-in-place intake structure, place concrete and then backfill the intake structure with suitable native materials. The flow meter vault is a precast concrete manhole that would be lowered into the excavation and then backfilled after pipeline installation through the flow meter vault.

2.2.2.7 Hess Lateral and Short Pipelines

The Proposed Action includes furnishing and installing all items and equipment, labor, and materials necessary for approximately 24,000 feet of irrigation pipeline with a diameter ranging from 30 inches to 8 inches, surveying, trenching, bedding, backfilling and compaction, cleanouts, valves and valve vaults, fittings, pressure testing, and associated pipeline appurtenances. FCDC would install the pipe in an open trench a minimum of 3 feet below ground, measured from ground surface to top of pipe. FCDC would use the butt-fusion approach to weld segments of HDPE pipe together to provide a continuous pipeline and then backfill and compact native screened materials around the pipeline using heavy equipment and vibratory compaction equipment, respectively, in accordance with the Proposed Action specifications.

2.2.2.8 Pressure Reducing Vault

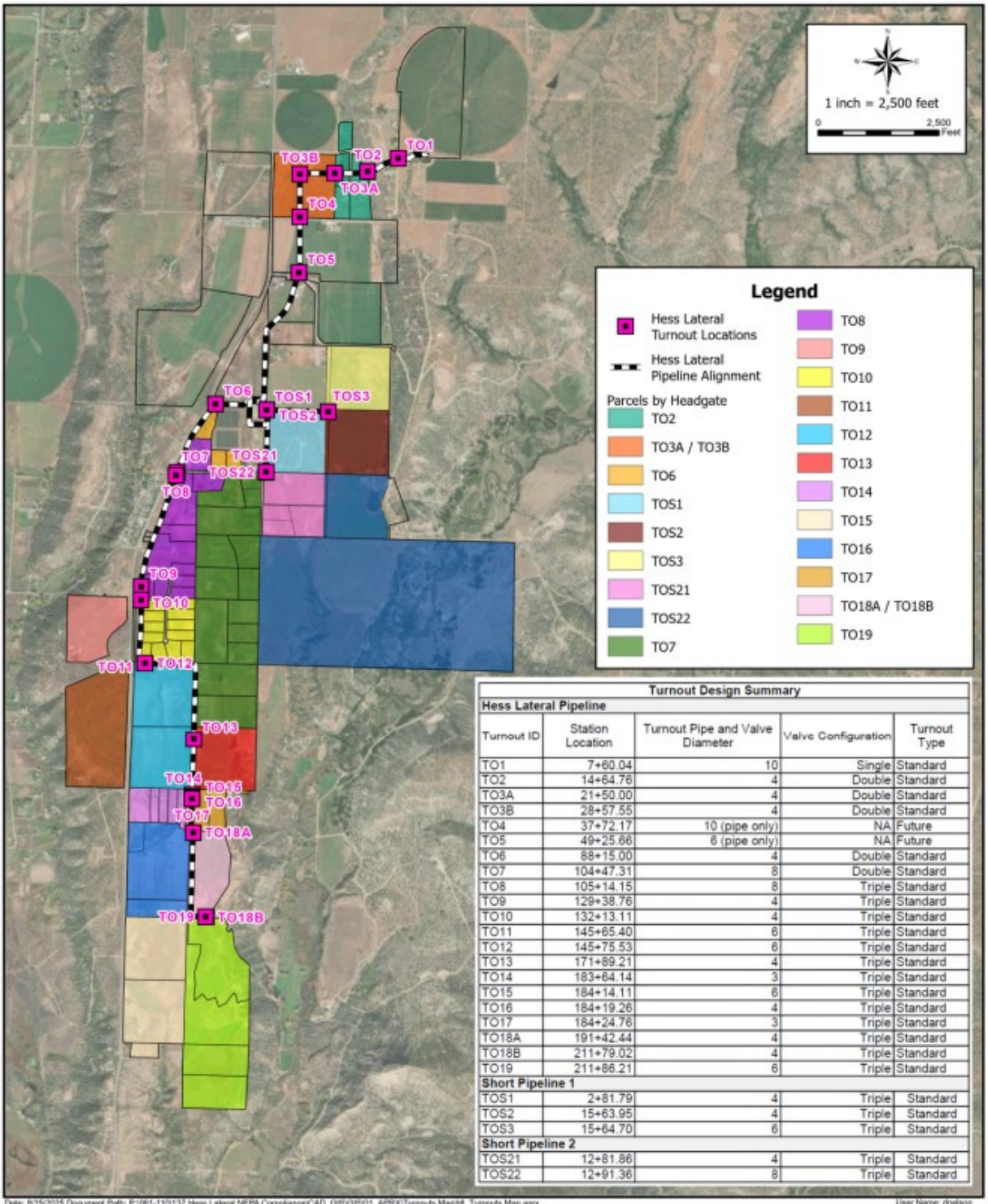
The Proposed Action includes furnishing and installing all items and equipment, labor, and materials necessary for installation of a subterranean reinforced concrete vault to house the pressure reducing valves and associated appurtenances including surveying, excavation, bedding, and backfilling and compaction, and installation of the pressure reducing valves, pressure relief valve, strainers, vents, and sump. FCDC would excavate the vault with suitable native materials. Once installed, work inside the vault would consist of integrating two pressure-reducing valves into the Hess Lateral Pipeline, and their associated appurtenances including but not limited to flow control valves, a pressure relief valve and strainers.

2.2.2.9 Turnout Structures

The Proposed Action includes furnishing and installing all items and equipment, labor, and materials necessary for; the reinforced concrete turnout structure, pipeline from the turnout structure to the intake pond, 3-foot Parshall flume, and associated appurtenances. FCDC would excavate the area in the vicinity of each pipeline turnout structure, prepare the subgrade, and install a below ground corrugated metal turnout structure and then backfill the turnout structure with suitable native materials.

The Proposed Action would include the installation of twenty-four turnouts for irrigation use. Each user would have the option to receive pressurized water to facilitate the use of more efficient on-farm irrigation systems without the need for using electric pumps. The general turnout locations are shown in Figure 4.

Figure 4. Hess Lateral Turnout Locations



Turnout Design Summary

Turnout ID	Station Location	Turnout Pipe and Valve Diameter	Valve Configuration	Turnout Type
Hess Lateral Pipeline				
TO1	7+60.04	10	Single	Standard
TO2	14+64.76	4	Double	Standard
TO3A	21+50.00	4	Double	Standard
TO3B	28+57.55	4	Double	Standard
TO4	37+72.17	10 (pipe only)	NA	Future
TO5	49+25.66	6 (pipe only)	NA	Future
TO6	88+15.00	4	Double	Standard
TO7	104+47.31	8	Double	Standard
TO8	105+14.15	8	Triple	Standard
TO9	129+38.76	4	Triple	Standard
TO10	132+13.11	4	Triple	Standard
TO11	145+65.40	6	Triple	Standard
TO12	145+75.53	6	Triple	Standard
TO13	171+89.21	4	Triple	Standard
TO14	183+64.14	3	Triple	Standard
TO15	184+14.11	6	Triple	Standard
TO16	184+19.26	4	Triple	Standard
TO17	184+24.76	3	Triple	Standard
TO18A	191+42.44	4	Triple	Standard
TO18B	211+79.02	4	Triple	Standard
TO19	211+86.21	6	Triple	Standard
Short Pipeline 1				
TOS1	2+81.79	4	Triple	Standard
TOS2	15+63.95	4	Triple	Standard
TOS3	15+64.70	6	Triple	Standard
Short Pipeline 2				
TOS21	12+81.86	4	Triple	Standard
TOS22	12+91.36	8	Triple	Standard

Date: 8/25/2025 Document Path: P:\061-110\137 Hess Lateral NEPA Compliance\CAD_GIS\GIS\01_APRX\Turnouts Map\HL Turnouts Map.aprx User Name: dnelson

WWE Wright Water Engineers, Inc. 1666 N. Main Ave., Ste C Durango, CO 81301 (970) 259-7411 ph 259-8758 fx

LA PLATA COUNTY, COLORADO

HESS LATERAL TURNOUT LOCATIONS

FCDC

PROJECT NO. 061-110.137

FIGURE 4

2.2.2.10 Reclamation Seeding and Mulching

The Proposed Action includes furnishing and installing all equipment, labor, and materials for soil preparation, seeding, fertilizing, and mulching, and maintenance to reclaim all construction disturbance areas. FCDC would seed and mulch all disturbed areas within the pipeline corridor using a landowner or local NRCS office specified seed mix. FCDC would regularly maintain and monitor the reclamation progress of all disturbed areas until vegetation coverage reaches at least 70 percent of pre-disturbance coverage.

2.2.2.11 Post Construction Maintenance

The Proposed Action would require periodic maintenance by FCDC personnel including:

- Regular maintenance of the equipment inside the subterranean Pressure Reducing Valve Vault, including regular maintenance of the valves and cleaning of the strainers.
- Regular maintenance of the screens on the Pipeline Intake Structure located at the intake pond.
- Draining the pipeline after the irrigation season to avoid freezing the pipeline.
- Periodic cleaning of the pipeline by jetting the pipeline with a mobile pressurized water jetting system that can access the pipeline through cleanouts.
- Periodic repairs or replacement of pipe segments as necessary over the lifespan of the Pipeline.

2.2.3 Access

The contractor would be responsible for obtaining La Plata County Road Crossing permits at locations where the alignment would cross County Roads. The other construction access points permissions are through CDOT and FCDC easements and private landowners and include the following:

- Designated Construction Access Point via Juniper Road
- Designated Construction Access Point via County Road 218
- Designated Construction Access Point via Quarter Horse Road
- Designated Construction Access Point via Kirby Lane
- Designated Construction Access Point via County Road 217

Some proposed accessways may require use of existing private roads. As mentioned in Section 2.2.2.1, Construction equipment access to the Proposed Action site would be from the designated construction access points. Existing County and State Highway roads would be used to access the pipeline corridor. There is no need for any new or temporary access roads to complete the Proposed Action.

The Contractor would be required to develop and adhere to a construction traffic control plan in accordance with Colorado Department of Transportation and La Plata County requirements.

After construction concludes, accessways and road crossings would be returned to the same or better condition that they were prior to construction.

2.2.4 Staging

As shown in Figure 3, staging areas for the Proposed Action have been identified. Staging areas would be within CDOT's 1.5 acres of ROW (located at reference address 102 Short Place, Durango, CO

81303) and would require a special use permit, which the owner (FCDC) would be required to obtain and then transfer to the contractor. Staging areas would be used for storing pipe and other project supplies and equipment.

2.2.5 Borrow Activities

The Proposed Action requires pipe bedding and trench fill material. Suitable material excavated during construction of the pipeline trench and the intake pond would be used to backfill the pipeline once it is screened to meet the requirements of the technical specifications. During construction, topsoil would be stripped and stockpiled and then replaced at the surface when the pipeline is buried. If additional fill material is needed, it would be the contractor's responsibility to source a local supplier and bring suitable fill on-site using vehicles.

2.2.6 Weed Control and Post-Construction Revegetation

The Proposed Action would require weed control and post-construction restoration activities. Appropriate seed mixes would be based on pre-construction land utilization (cropland, etc.) and private landowner input.

To prevent weed establishment during construction, all construction equipment would be cleaned prior to arrival on-site to limit weed introduction. Noxious weeds would be removed after construction activity following La Plata County weed control standards.

Post-construction restoration would include backfilling with appropriate topsoil and revegetating as appropriate throughout the construction corridor.

2.2.7 Schedule

The pipeline construction would be scheduled to accommodate the irrigation season (May 1 through October 1), and therefore may require multiple mobilization and demobilization phases, working around the irrigation season. It is anticipated construction and final reclamation could take cumulatively 30 months to complete.

The Proposed Action could take up to 24 months to construct, including temporary breaks in construction work to accommodate the irrigation season (typically May 1 through October 1), and adequate time for revegetation. The proposed construction calendar would be as follows:

- Year 1/2 Construction: October 2025 – May 2026 (8 months)
  - Vegetation clearing would occur after August 15, 2025, and before October 31, 2025
  - Construction of the Proposed Action would occur between October 2025 and May 2026.
- Year 2 Stabilization: May 2026 – December 2026 (8 months)
  - Installation and monitoring of stabilization measures and revegetation of all disturbed areas would occur during and after substantial completion of the Proposed Action.
  - Initial startup and monitoring of the pipeline would occur during the 2026 irrigation season, and contractor correction of any warranty items as necessary.

General timeline of proposed construction includes the following tasks: mobilization, permits, earthwork, water control and dewatering, pipeline installation (pipeline turnout structures, intake

pond, pipeline intake structure, 21,000 feet of irrigation pipeline, pressure reducing vault), demobilization, and seeding and mulching.

Timing restrictions could include permit approvals, the stock run period, which is seven consecutive days in November (annually), and project material delivery based on industry lead-times.

Seeding and mulching (revegetation) would occur after the Proposed Action construction is completed. After seeding is performed with a Brillion drill (or approved mechanical equivalent), mulching would occur within 48 hours.

2.2.8 Permits and Authorizations

The contractor would be responsible for obtaining the necessary construction-related permits. As mentioned in Section 2.4.10, FCDC is currently working with Reclamation on other federal agency authorizations, such as USACE, SHPO, THPO, USFWS, for the Proposed Action permits and authorizations.

The Proposed Action requires United States Army Corps of Engineers (USACE) Clean Water Act Section 404 (CWA 404) review and consultation. Based on a pre-application meeting with USACE's Durango office, the Hess Lateral and the Proposed Action construction would be permitted work through the Pre-Construction Notification (PCN) application under Regional General Permit 5 – Ditch Related Activities in Colorado. The PCN has been submitted to USACE, and the results of the consultation would be included in the Final EA.

2.2.8.1 Natural Resource Protection Laws

- Clean Air Act of 1963 (CAA; 42 U.S.C. § 7401)
- Endangered Species Act of 1973 as amended (ESA; 16 U.S.C. 1531-1544, 87 Stat. 884)
- 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)

2.2.8.2 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 95-341Archaeology and Historic Preservation: Secretary of the Interior's Standards and Affected Environment and Environmental Consequences

3.0 CHAPTER 3 – AFFECTED ENVIRONMENT & ENVIRONMENTAL CONSEQUENCES

This chapter discusses resources that may be affected by Action Alternative and the No Action Alternative. For each resource, the affected area and/or interests are identified, existing conditions described, and impacts are disclosed under the No Action and a Proposed Action Alternative. This Section concludes with a summary of impacts.

3.1 Water Rights and Use

The FCDC is an irrigation company, consolidated in 2014 that provides water to approximately 352 shareholders serving over 18,000 acres of irrigated agriculture. The FCDC system, including the Hess Lateral, conveys both adjudicated and Florida Project water. In addition, the FCDC provides water to Pastorius Reservoir, which is a Colorado State Wildlife Area.

On average since 1964, the adjudicated water rights of the FCDC divert approximately 26,500 AF/yr and the Florida Project delivers 16,500 AF/yr of water to the Florida Mesa through the FCDC canal conveyance system. Thus, the total volume of water diverted from the Florida River through the FCDC conveyance system to irrigate land on the Florida Mesa is approximately 43,000 AF/yr on average. This total volume decreased to 13,600 AF during the dry year of 2002 (CDWR diversion records, 1964-2014, Use Type Irrigation). The FCDC system also delivers stock water to some users for a one-week period in November after the regular irrigation season (stock run).

According to the Colorado Division of Water Resources (CDWR, 2025), the area in the vicinity of the Proposed Action includes nearby groundwater wells, permitted by the CDWR for domestic use. These domestic wells serve as a source of water supply to the area's residents.

No Action Alternative: The No Action Alternative would have no impact on current water rights and uses within La Plata County. The water delivery system would continue to function as it has in the past.

Proposed Action: FCDC currently operates the water conveyance throughout the Proposed Action area. The Proposed Action would allow FCDC to manage its adjudicated and Florida Project water supplies more efficiently. Conversion of the open ditch to a pressurized pipeline would reduce water loss due to ditch seepage and evaporation. In addition, new turnout structures with adequate controls and measuring devices would encourage the use of more efficient water on-farm irrigation practices by providing a pressurized connection for current and future landowners.

The Proposed Action increases water efficiency by converting the Hess Lateral open ditch into a pipeline conveyance system. The Proposed Action would not increase the acreage of irrigated land as there is a fixed amount of irrigated land under the Florida Project.

Construction of the Proposed Action may temporarily impact stock run water users. FCDC would coordinate with the general contractor and stock run users on timing for the stock water delivery in order to reduce or eliminate the potential for disruption. FCDC would notify shareholders of stock run delays and /or timing changes due to construction timing. Due to the temporary nature of construction, the Proposed Action would not have a long-term impact to stock run users or FCDC operations.

The effect of the Proposed Action to nearby domestic groundwater wells would be negligible. According to Robson & Wright (1995), groundwater recharge on the Florida Mesa totals approximately 15,000 AF/year. Based on a ponding study by WWE, outlined by Leigh and Fipps (2009), the Proposed Action's average annual water savings is approximately 206 AF/year including approximately 201 AF of seepage losses and 5 AF/year of evaporation losses (WWE, 2022). Assuming all the ditch seepage results in groundwater recharge, which is a conservative assumption because a portion of this seepage is likely consumed by ditch bank vegetation, the Proposed Action's reduction in ditch seepage (201 AF) represents approximately 1 percent of the estimated annual groundwater recharge.

Additionally, according to CRS 37-86-103, the FCDC has the right to improve the efficiency of its irrigation delivery system. Per Colorado's Revised Statute (CRS) 37-86-103, ditch right-of-way includes the right to "construct, operate, clean, maintain, repair…to improve the efficiency of the ditch, including by lining or piping the ditch, and to enter on the burdened property…for all reasonable and necessary purposes related to the ditch" (Colorado General Assembly, 2019). Local domestic well owners cannot rely on ditch seepage to recharge domestic wells.

In summary, groundwater resources would not be measurably impacted due to the Proposed Action, and there would be no adverse effect on water deliveries or water rights associated with the Proposed Action.

3.2 Air Quality

The Clean Air Act regulates air emissions from both stationery and mobile sources to protect public health and the environment through EPA's regulation of National Ambient Air Quality Standards (NAAQS) for six principal pollutants including carbon monoxide, lead, nitrogen dioxide, ozone, particle pollution, and sulfur dioxide. (EPA, 2024). Enforcement is at the state level under the Code of Colorado Regulations (CCR) at 5 CCR 1001-5. If the levels of a pollutant in an area are higher than National Ambient Air Quality Standards (NAAQS), the airshed is designated as a "nonattainment area." Areas that meet the NAAQS for criteria pollutants are designated as "attainment areas." The level of analysis for NAAQS airsheds in Colorado is by county. La Plata County is in attainment for all criteria (monitored) pollutants (U.S. EPA, 2025). Impacts to air quality occur from a variety of stationary and mobile pollution sources throughout La Plata County. Minor impacts to air quality from routine maintenance of the ditch system involved with the Proposed Action include dust and exhaust from occasional travel in light vehicles along the Proposed Action corridor, and occasional ditch cleaning and maintenance activities involving heavy equipment and occasional ditch burning. Together, these impacts have not historically risen to the level of non-attainment in the county.

No Action Alternative: The No Action Alternative would have no impact on air quality.

Proposed Action: Short term increases in ambient air particulate levels in the immediate vicinity of the construction activity would have a temporary adverse impact on air quality. The temporary adverse impact would not be significant, as air quality would return to its baseline level and La Plata County would remain in attainment for all criteria pollutants. BMPs would be implemented to further minimize dust in the Proposed Action area. Following construction, impacts to air quality from routine maintenance and operation activities along the pipeline corridor would be insignificant, as they would be similar or less in magnitude to those currently occurring for the existing ditch.

There would be no significant adverse impacts to air quality as a result of the Proposed Action, because construction activities are short-term and localized, the contractors completing the work would be required to follow State of Colorado air quality regulations established to protect the airshed from significant impacts (5 CCR 1001-5), and La Plata County would remain in attainment for all criteria air pollutants.

3.3 Soils and Farmlands of Agricultural Significance

The Proposed Action area for the Hess Lateral Improvement Project is primarily comprised of Falfa clay loam soils at varying slopes, as identified in the NRCS Soil Resources Report (December 16, 2024). These soils, generally found near mesas, are made up of clay loam and clay materials and are well-drained. According to the USDA NRCS Soils, approximately 20 acres of the area consist of Falfa clay loam with 1 to 3 percent slopes, which is classified as "prime farmland if irrigated" which is a soil of agricultural significance. Another 30.5 acres are composed of Falfa clay loam with 3 to 8 percent slopes, which is not considered prime farmland. Both Falfa soil types share similar composition and drainage characteristics. Additionally, the site includes 0.5 acres of Ustic Torriorthents-Ustollic Haplargids complex soils on 12 to 60 percent slopes, which consist of outwash and gravelly or cobbly alluvium and are not classified as prime farmland. The remaining 0.2 acres of the Proposed Action area is covered by water.

The land capability, if irrigated, is considered "3e" by NRCS. Class 3 soils are soils that "have severe limitations that restrict the choice of plants or that require special conservation practices, or both" (USDA, 2014). The Proposed Action area's soils are most susceptible to erosion and climate considerations, as identified in the subclass letter in the land capability assessment (i.e., 3e or 3c).

No Action Alternative: The No Action Alternative would have no impact on land, soils, and farmland of agricultural significance. Irrigation practices would continue, with some landowners utilizing flood irrigation for pastures.

Proposed Action: Short term impacts would occur to land, soils, and farmland due to construction activity. Soil disruption would occur due to trenching and backfilling within the proposed pipeline alignment. Approximately 28.5 acres would be impacted during construction. After construction concludes, soils and farmlands of agricultural significance would return to pre-construction conditions. Pre-construction conditions would return after proper trenching and backfilling of the pipeline, followed by reseeding and reclamation of disturbed areas in accordance with the design

specifications, and therefore this temporary impact would not rise to the level of significance. Native soils would be used as much as possible in these activities. Ditch segments where the ditch would be abandoned would remain in pre-construction condition. Updated turnouts and pressurized water would allow landowners to more efficiently irrigate their land, maintaining the Falfa clay loam (1-3 percent) soil farmland classification.

Soil erosion from irrigation water conveyances would be substantially reduced where ditch reaches are proposed for replacement with buried pipe. Therefore, no adverse effects on soil erosion would occur due to implementation of the Proposed Action.

No significant impacts land and soils and farmlands of agricultural significance would occur due to the Proposed Action, as impacts would be short term and soils and farmlands of agricultural significance would return to pre-construction condition and there would be no adverse effects on soil erosion.

3.4 Wetlands

Wetland vegetation, defined as species with facultative (FAC), facultative wet (FACW), and obligate (OBL) wetland indicator status, is present along the existing Hess Lateral Ditch (Steward 2025). Approximately 4.81 acres of wetlands were identified. This vegetation appears to be solely dependent on irrigation water. According to the *Guidance for Preparing Salinity Control Program Projects*, there is a general assumption that "wetlands associated with canal and lateral seepage do not meet the definition of jurisdictional wetlands" and therefore USACE typically does not require wetland mitigation for losses associated with lateral irrigation service removal and canals (Reclamation, 2018). Reclamation is currently in consultation with USACE. FCDC submitted PCN under Regional General Permit 5, Ditch Related Activities in Colorado, and Proposed Action. consultation results will be included in the Final EA in Appendix A.

Wetland vegetation along the ditch includes reed canary grass (*Phalaris arundinacea*) and willows (*Salix exigua*). Less common wetland vegetation includes Russian olive (*Elaeagnus angustifolia*) and small-fruit bullrush (*Scirpus microcarpus*). Most of the existing ditch is buffered with fringe of wetland vegetation, varying in widths between roughly 3 – 15 feet wide. There are multiple physical bodies of water across the Florida Mesa, in the proximity of the Proposed Action area. Many of these creeks, rivers, and gulches feature similar habitat to the Hess Lateral.

No Action Alternative: The No Action Alternative would have no impact on wetlands.

Proposed Action: The Proposed Action would convert the open ditch to a pipeline, removing the water source that is currently supporting the wetland and riparian vegetation that survives primarily due to water from the ditch. The 4.81 acres of wetlands identified along as being supported by ditch seepage would be impacted due to pipeline conversion (Stewart 2025), as it would transition to upland communities that are common outside of the area of influence of the ditch water. However, converting the ditch to a pipeline would result in a beneficial impact to the historical wetlands along the Florida River due to water savings provided by the Proposed Action. Because the Proposed Action would eliminate water loss due to ditch seepage loss, and additional contract water would be available

to accommodate a variety of uses including augmentation, fish, wildlife, and associated wetland habitat. Therefore, the loss of wetland vegetation along the canal corridor would not rise to the level of significant.

Associated habitat for wildlife within the riparian/wetland communities would be impacted. The loss of wetland habitat associated with ditch seepage would impact small mammals, birds, and reptiles utilizing the habitat; however, due to the alternative riparian/wetland habitat availability in the area, the loss of the ditch induced wetland/riparian habitat is not significant. Associated wildlife resources impacted by the loss of riparian/wetland communities are further discussed in Section 3.10

No significant impacts to wetlands would occur due to the Proposed Action.

3.5 Public Access, Transportation and Safety

Private and public roads provide access and mobility across the Proposed Action area. The main public transportation routes within the area are Colorado State Highway 550, County Road 218, Juniper Road, Quarter Horse Road, and Kirby Lane.

FCDC operates the existing ROW associated with the Hess Lateral across private properties. Landowners work collaboratively with FCDC on access, if required. CDOT also maintains the ROW along Highway 550 and is under agreement with FCDC on access for ditch maintenance.

Other existing utilities in the area include oil and gas pipelines, electrical service lines, internet and telecommunication lines, and private irrigation pipelines. Known utilities and associated structures adjacent to or encountered in the Proposed Action were located from existing records, the best information available from existing utility plans, coordination with local oil and gas operators, field survey by a professional licensed surveyor, Colorado 811 utility locate, and an ASCE 38 SUE Utility Quality Level A investigation conducted in February of 2020 for known utility crossings.

Safety risks are associated with sources of open, moving water. The Proposed Action area is served by the La Plata County Sheriff, La Plata County Ambulance, and the Durango Fire and Rescue Station 4, 8565 Hwy 550 S. (Sunnyside Station).

No Action Alternative: The No Action Alternative would have no impact on public access, transportation, and safety.

Proposed Action: The Proposed Action would require all construction activities to remain within pre-established ROWs. Construction would not expand beyond the ROW, staging areas, and designated access roads. The Contractor would obtain necessary permits for connection to necessary services provided by utility companies serving the Proposed Action area. Existing utilities would not be impacted due to temporary connection and construction use.

All utilities within the Proposed Action construction area would be located and marked and, if necessary, relocated or raised, prior to any construction activities in the Proposed Action area. If relocation or raising of utilities is necessary during construction, a brief interruption of utility services would occur. Due to the temporary nature of the interruptions, the impact on utilities would not rise

to a significant level. There would be no need for construction of new access roads outside of the construction areas. There are no known bridges with weight restrictions that would be used by construction vehicles. Some short-term disruption of traffic at the involved public roads is expected to occur when equipment and materials are hauled into the Proposed Action location, and when pipe crossings are constructed across public roads. Appropriate traffic signage would be used to notify drivers of active construction ingress/egress. The construction contractor and/or the Applicant would coordinate with the county and sheriff department if traffic or access would be delayed or substantially re-routed. Due to the temporary nature of the traffic disruptions and the traffic management provided in coordination with the county and sheriff department, the impacts on traffic would not rise to the level of significant.

The Proposed Action would eliminate the use of the open ditch with free-flowing water. Safety concerns associated with the open ditch would also be eliminated.

The following safety procedures would be in place during construction to help avoid and minimize adverse effects on traffic:

- All utilities would be located and properly marked prior to excavation.
- Construction areas would be clearly marked and fenced to avoid public interference and interaction.
- Trenches left open overnight would be limited in accordance with the technical specifications, and if left open, would be covered/fenced.
- The contractor would be responsible for establishing a safety protocol with laborers and enforcing policies such as personal protective equipment (PPE), etc.

No significant impacts to public access, transportation, and safety would occur due to the Proposed Action.

3.6 Noise

The Proposed Action area currently experiences noise due to Highway 550 traffic, and occasional noise associated with private landowner activity (such as farming practices, personal vehicle, or machinery use, etc.). Highway 550 connects New Mexico to Colorado and experiences high levels of personal vehicles and semi-trucks, resulting in a high level of baseline noise.

No Action Alternative: The No Action Alternative would have no impact on noise.

Proposed Action: The Proposed Action construction activities would generate a temporary source of noise. No significant impacts to noise would occur because of the Proposed Action, because noise associated with construction would be short-term and would not raise the noise level of the area above the moderate to high noise baseline; therefore, the short-term increase in noise would not be significant. To help avoid and minimize the adverse effects to noise, construction equipment would only operate during hours specified in the construction document specifications, 7:00 a.m. to 8 p.m. Monday through Friday, and 8:00 a.m. to 6:00 p.m. on Saturday, Sunday, and holidays.

No significant impacts to noise would occur due to the Proposed Action.

3.7 Visual Resources

The Proposed Action area is located in the Animas River Valley and includes irrigated pastures and agricultural land. Small homestead and farming operations are dominant across the landscape. Operational farm equipment is common in the Proposed Action area. Likewise, road construction and maintenance equipment are periodically present within the area viewshed. The existing open ditch has a fringe of wetland vegetation, primarily reed canary grass and willows. Reaches with pockets of Russian olive occur in more mature areas. Several sections of the current ditch alignment feature bermed sides.

No Action Alternative: The No Action Alternative would have no impact on current visual resources.

Proposed Action: Construction would result in short-term, temporary impacts to the visual resources within the Proposed Action project area. Due to the relatively flat landscape on the Florida Mesa, construction equipment would be highly visible to both private landowners and vehicles along Highway 550 and other private and public roads. Machinery would be present in these areas outside of the irrigation season, from October to May. The staging area would have longer-term equipment and material storage. Following construction in the pipeline and abandoned ditch reaches, the disturbance footprint would be a linear area of bare ground, similar in appearance to its current condition. Areas disturbed during construction would be re-vegetated to cropland or natural vegetation in accordance with landowner desires or La Plata County reclamation criteria (La Plata County, n.d.). Within several growing seasons after construction is complete, vegetation would be re-established, and the visual resources would return to pre-construction conditions. Overall, the long-term visual change to visual resources would be minor and not out of character of existing features, which primarily consist of pasture and agricultural land. The post-construction landscape would maintain the integrity of the agricultural landscape.

No significant impacts to visual resources would occur due to the Proposed Action.

3.8 Livestock Grazing

The Proposed Action area is utilized as a water conveyance system for water users to irrigate pastures and hayfields. A majority of the private landownership in the Proposed Action area utilizes the Hess Lateral for agricultural purposes, including livestock grazing. Available grazing (primarily grass pastures) is available to livestock throughout the Florida Mesa area, divided by private landowner fencing and agriculture operations (hayfields). Private landowners rotate cattle throughout the Hess Lateral ditch area, and cattle may utilize the ditch as a water source.

No Action Alternative: The No Action Alternative would have no impact on current livestock grazing.

Proposed Action Alternative: The Proposed Action Alternative would have temporary, construction-related impact on current fields used for livestock grazing, as the pipeline alignment diverts from the existing Hess Lateral Ditch alignment into currently farmed and grazed pastures. Landowners with grazing livestock would be notified to move livestock, avoiding potential injury. There would not be significant impact to livestock grazing due to the Proposed Action, as there are available alternative grazing locations for livestock in the area. Livestock that utilize the open ditch as a water source would need to utilize alternative water sources such as trough water supplied by livestock owners, or ditch water supplied by the installed pipeline turnout.

After construction and revegetation concludes, pastures and fields would return to pre-construction conditions.

No significant impacts to livestock grazing would occur due to the Proposed Action.

3.9 Vegetation

The Proposed Action area is comprised of active farmland (primarily grass pastures for grazing and hayfields), wetland vegetation buffering the existing ditch's riparian zone, and small communities of woody vegetation. The proposed staging areas are on farmland or within pre-established ROW.

The existing Hess Lateral Ditch supports a narrow fringe of wetland vegetation along much of its length. The wetland vegetation appears to be directly supported by irrigation water conveyed by the ditch. The primary species of wetland vegetation are reed canary grass (*Phalaris arundinacea*) and willows (*Salix exigua*). In addition to the dominant species, small fruit bullrush (*Scirpus microcarpus*) and Russian olive (*Elaeagnus angustifolia*) are present along the existing ditch.

FCDC provides ditch maintenance across the Hess Lateral on an as needed basis to maintain ditch integrity and function during irrigation season. Ditch vegetation maintenance may include debris and vegetation removal through mowing, hand-clearing, or excavating/digging out plants within the ditch to promote unobstructed flow.

No Action Alternative: The No Action Alternative would have no impact on existing vegetation communities. Ditch maintenance would continue affect vegetation along the ditch.

Proposed Action: The Proposed Action would abandon approximately 3.3 miles of the existing Hess Lateral Ditch, converting the open ditch to a buried pipeline. The current riparian and wetland vegetation buffering the existing ditch is directly related to ditch seepage (Stewart 2025). The Proposed Action would result in the loss of this vegetation, either due to direct removal during construction or due to the loss of hydrology the ditch is piped. As described in Section 3.5, the loss of this vegetation would not rise to the level of significant.

The Proposed Action would disturb agricultural land (primarily grazing and hayfields), resulting in temporary impacts due to construction including earthwork, trenching, and backfilling. During construction, temporary and minor increases in dust would occur, but would not impact vegetation or crop health. Agricultural fields would return to pre-construction conditions following reseeding

efforts. Because the area would be reseeded and there would be no loss of this vegetation community, this impact does not rise to the level of significant.

The Proposed Action would not result in significant impacts to vegetation.

3.9.1 Noxious Weeds

Colorado Noxious Weed Act designates noxious weeds and requires their control. La Plata County has identified common weed species in the county that require eradication, management to stop the spread of the plant, or suggested for management when deemed necessary in an area (La Plata County, n.d.). Common noxious weeds to the County include Canada and bull thistle (*Cirsium arvense* and *vulgare*, respectively), diffuse knapweed (*Centaurea diffusa*), and Russian Olive Tree (*Elaeagnus angustifolia*). Thistle varieties and Russian Olive Tree were observed during the biological pedestrian surveys. FCDC practices weed control as necessary within the Hess Lateral pipeline ROW.

No Action Alternative: There would be no effect on noxious weeds from the No Action Alternative. The FCDC would continue to practice weed control as necessary and weeds would continue to grow and propagate through wildlife and livestock grazing/movement.

Proposed Action: Pipeline alignment proposed both within the existing ditch and agricultural fields would be re-graded and filled with topsoil, seeded with a weed-free seed mix. Noxious weeds that are within the existing corridor would continue to grow. As part of the Proposed Action, the contractor would be required to control the growth of noxious weeds during the first growing season. After construction is completed, FCDC would continue to practice weed control as necessary within the Hess Lateral pipeline ROW. Because noxious weeds are currently present and have the continued potential to spread in the Proposed Action area, their ongoing presence and potential to spread following the Proposed Action would not constitute a significant impact.

3.10 Wildlife Resources

The Proposed Action project area, as shown in Figure 3, primarily consists of agricultural fields, with a steeper riparian corridor at the northern section of the ditch. Agriculture and farming practices tend to promote "high-input, high-yield, and high-impact monocultures" with limited biodiversity (Blann, 2006). Much of this area around the Proposed Action is agricultural land both for grazing and crop use.

Agricultural fields provide limited habitat due to the lack of biodiversity and fragmentation of the natural environment. There is still habitat potential and wildlife presence, as discussed below.

Wildlife resources in the Proposed Action project area were evaluated by reviewing the Colorado Parks and Wildlife Species Data (CPW, 2024).

The Proposed Action falls within the overall range of several prominent species, including:

- Mountain lion overall range
- Mule deer overall range

- Elk overall range
- Black bear overall range

The Proposed Action area is characterized by rural residential development and small agricultural land use, primarily pastures and hay fields. More natural habitat occurs outside of the area, including juniper woodlands and the riparian river corridor associated with the Animas River. The species noted above would be more common in the undeveloped neighboring canyons and mesas, but may occasionally use the Proposed Action area, particularly mule deer that have adapted to human presence.

In addition to the species listed above, a variety of birds, reptiles, and small mammals may use the Proposed Action area for all or part of their life cycle. Some examples from each group from the Colorado Parks and Wildlife ArcGIS Online web service "CPWSpeciesData" include:

- Reptiles/Amphibians: bull snake, prairie rattlesnake, common sagebrush and eastern collared lizard, northern leopard frog
- Mammals: Gunnison's prairie dog, big brown bat, Botta's pocket gopher, dwarf shrew.
- Songbirds: Brewer sparrow, band-tailed pigeon (breeding range), Grace warbler (breeding range), Juniper titmouse (breeding range).

Under the USFWS Bald and Golden Eagle Protection Act, individuals in the United States are prohibited, "without a permit issued by the Secretary of the Interior, from "taking" bald or golden eagles, including their parts (including feathers), nests, or eggs." (USFWS, n.d.)

The CPW Species list geodatabase, which includes the locations of bald and golden eagle nest sites (specifying if the nest is active, destroyed, inactive, undetermined, or unknown) was reviewed to determine if there were any known eagle nests in or near the Proposed Action area. Based on this review, there is an active bald eagle active outside of the Proposed Action area, west of Highway 550. The ½ mile buffer on this nest does not extend to the area (CPW Species Data, 2024).

The Proposed Action project area was surveyed by biologists in September 2024 for raptors, raptor nests, and other birds that may be protected under the Migratory Bird Treaty Act (MBTA) (Stewart, 2025). Although avian occupation can be time-sensitive, evaluating potential presence of protected avian resources can help guide project compliance with the MBTA. The Proposed Action area was surveyed for raptor nests during the September 2024 survey. No raptor nests were found, and suitable nesting structures were limited in the Proposed Action area. The CPW Durango office was contacted to determine if they had records of raptor nests in or near the Proposed Action. CPW searched their raptor database, and there were no records of nest avoidance buffers that overlap with this area.

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

Proposed Action: Construction impacts to small animals, especially burrowing reptiles and small mammals, could include direct mortality and displacement during construction activities. Construction activity would be incremental across the ditch corridor, aiding species' viability and mobility opportunity to establish new habitat. In addition, these species and habitats are relatively common throughout the area. Based on the principles of ecological succession, small animals in the surrounding

area would recolonize the construction footprint following the disturbance, and population-level, significant impacts would not occur.

Given the existing level of human disturbance and development (winter livestock feeding, other agricultural activities, residential activities, and road traffic) in the Proposed Action area, big game would be somewhat habituated to the Proposed Action disturbances. While construction would occur during the non-irrigation season (winter months), the construction footprint of the Proposed Action(approximately 26 acres) represents less than approximately 0.007% percent of the total amount of elk and mule deer severe winter range in Game Management Unit 75 (La Plata/San Juan County, 413,290 acres), and this temporary disturbance would result in negligible effects to big game or their severe winter range. Environmental commitments that limit big game interaction with the construction site would be implemented to further reduce impacts. Proper fencing would be utilized during open trench activity to deter both animals and people from interacting with the Proposed Action site and open excavation. In addition, open trenching would be limited to no more than 100 linear feet at one time. March and April are sensitive periods for wintering ungulates primarily due to nutritional stress and gestation for females. Mule deer and elk presence would be monitored closely during these months by the Contractor (foreman, supervisor, environmental inspector), and if needed, construction activity would be adjusted to accommodate ungulates utilizing the Proposed Action site. This decision would be in collaboration with WWE, FCDC, and the contractor based on on-site observation from staff, including the environmental inspector. The contractor would notify FCDC and WWE; WWE would correspond with Reclamation and other applicable agencies on proposed construction adjustments.

Small mammals, songbirds, and reptiles which utilize habitat within the riparian corridor of the existing, open earth ditch would experience a permanent loss of habitat after the ditch is decommissioned and the riparian vegetation associated with the ditch is converted to species tolerant of drier conditions. This permanent impact on the landscape would not cause significant impacts to small mammal, songbird, or reptile populations due to the high mobility of species', population sizes, and regional habitat availability. Even in terminating the Hess Lateral open earth ditch, there are multiple physical bodies of water across the Florida Mesa. Many of these creeks, rivers, and gulches feature similar habitat to the Hess Lateral. Small mammals, songbirds, and reptiles would have habitat availability within short distances from the historical open earth Hess Lateral.

No bald or golden eagles were observed during the pedestrian survey in September 2024, and no nests were observed. Construction contractors would be aware of the existing nest (outside of the ½ mile buffer). If a previously undocumented active raptor nest is discovered within a ½ mile of the Proposed Action area during construction, construction shall cease until Reclamation performs consultation with applicable agencies. Based on this assessment of the Proposed Action area and eagle nesting buffers, there would be no impacts to bald and golden eagles due to the Proposed Action

Pre-construction vegetation clearing would occur outside of migratory bird nesting periods (March 15 – August 15). Because the clearing is outside the migratory bird nesting period, pre-construction surveys and timing restrictions would not be necessary for the Proposed Action to comply with the Migratory Bird Treaty Act (MBTA). Regardless, construction staff would be made aware of potential avian resources in the Proposed Action area and instructed to consult with the project environmental compliance manager if any are identified during construction. If active raptor nests are found in the

area, guidelines set forth in Colorado Parks and Wildlife's *Recommended Buffer Zones and Seasonal Restrictions for Colorado Raptors* (2020) (CPW, 2020) would be implemented. No significant impacts to nesting birds would occur due to the Proposed Action.

Temporary impacts to wildlife resources would occur due to the Proposed Action. No long-term impacts are anticipated as the Proposed Action area would return to pre-construction conditions after construction concludes. Therefore, there would be no significant impacts to wildlife resources as a result of implementing the Proposed Action.

3.11 Threatened and Endangered Species

An official list of threatened and endangered species to be addressed for the Proposed Action area was developed on February 12, 2025, using the US Fish and Wildlife Service's (USFWS) Information for Planning and Consultation (IPaC) process. Nine species were identified: New Mexico meadow jumping mouse, gray wolf, Mexican spotted owl, yellow-billed cuckoo, Colorado pikeminnow, razorback sucker, monarch butterfly, silverspot butterfly, and Suckley's cuckoo bumble bee. The IPaC report is included within the biological survey report.

A biological field survey of the Proposed Action area was conducted between September 28 and 30, 2024 (Stewart, 2025,). The field surveys were conducted outside of standard survey windows for some of the listed species, so the assessments were based on the observation of presence or absence of suitable habitat.

- The Proposed Action area does not contain suitable habitat for the New Mexico meadow jumping mouse (mouse). Habitat requirements for the mouse include dense herbaceous plants or wetland communities near perennial streams, a 100-foot-wide habitat buffer along the perennial stream, moist soils, and adjacent upland areas for hibernation and rearing young (US NPS, 2022).

  Historically, the Southern Ute Tribe documented the presence of the New Mexico meadow jumping mouse along the Animas River within the Trumble Draw area. Groundwater recharge and surface water runoff on the Florida Mesa that return to the Animas River Basins could help support the favorable mouse habitat conditions along the Animas River within the Trumble Draw area (see Figure 3).

  According to Robson & Wright (1995), groundwater recharge on the Florida Mesa totals approximately 15,000 AF/year, and surface water runoff on the Florida Mesa totals about 10,000 AF/year. Groundwater recharge and surface water runoff from the Florida Mesa return to both the Animas and the Florida River Basin depending on which side of the groundwater divide they are located (see Figure 3). It is important to note that water carried in the Hess Lateral is water imported from the Florida River and into the Animas River Basin upstream of the Animas and Florida River confluence. Groundwater and surface water return flows from the Hess Lateral are not part of the natural environment in the Animas River Basin because they are a result of imported water.

- The Proposed Action does not contain suitable habitat for the gray wolf. While the wolf can live in a variety of habitat types, due to the residential development, agricultural use, and proximity to Highway 550, the Proposed Action area would not be utilized by the gray wolf.
- The Proposed Action is not within the designated critical habitat for the Mexican spotted owl. Habitat requirements include forested and rocky-canyon environments (USFWS, n.d.). There is no suitable habitat for the Mexican spotted owl in or near the Proposed Action area due to lack of habitat requirements.
- The Proposed Action does not contain suitable breeding habitat for the yellow-billed cuckoo, which relies heavily on dense riparian forest with canopy cover of at least 50 percent in both the understory and overstory (NatureServe, 2024).
- None of the endangered Colorado River fishes occur in the Proposed Action area, and no new depletions would occur due to the Proposed Action, as previously discussed in Section 3.1.
- The Proposed Action contains suitable breeding habitat for the monarch butterfly. During the biological survey, two milkwood species essential to the monarch butterfly's lifecycle -- showy milkweed (*Asclepias speciosa*) and whorled milkweed (*Asclepias subverticillata*) – were observed and may be used as larva host plants.
- The Proposed Action does not contain suitable habitat for the silverspot butterfly, as it requires moist habitat and the bog violet (*Viola nephrophylla*) to lay eggs on or nearby. Because of the lack of bog violet, there is not suitable habitat.
- The Proposed Action may contain suitable habitat for the Suckley's cuckoo bumble bee; however, the species has not been positively identified in Colorado in several years. The Suckley's Cuckoo Bumble Bee is not currently known to occur in Colorado, and USFWS has indicated projects and activities would have no effect to that species.

The Proposed Action would not result in new water depletions, and the canals associated with the FCDC system are included in the San Juan River Recovery Implementation Program's Baseline Hydrology model for the Navajo Gallup Water Supply Project Biologic Opinion (Reclamation, 2024). Therefore, the historical depletions associated with the Proposed Action have previously been consulted on with the USFWS (Reclamation, 2024).

No Action: There would be no effect on threatened and endangered species from the No Action Alternative.

Proposed Action: The Proposed Action is not within any federally listed threatened and endangered species designated critical habitat and would not result in new water depletions, as previously discussed in Section 3.1. Therefore, the Proposed Action would have no new effect to the listed fish species and would have no effect on Critical Habitat for any listed species.

There are favorable New Mexico meadow jumping mouse habitat conditions along the Animas River within the Trumble Draw area. Based on a field study by WWE, the Proposed Action's average annual water savings is approximately 206 AF/year including approximately 201 AF of seepage losses and 5 AF/year of evaporation losses. Assuming all the ditch seepage results in groundwater recharge, which is a conservative assumption because a portion of this seepage is likely consumed by ditch bank vegetation, the Proposed Action's reduction in ditch seepage (201 AF) represents less than 1 percent of the estimated annual groundwater recharge and surface water runoff on the Florida Mesa (25,000

AF/yr). Furthermore, the Trumble Draw Area is a relatively small tributary to the Animas River, and not all of the 201 AF is likely to return to Trumble Draw. The Proposed Action would have a "may affect, but not likely to adversely affect" impact on the New Mexico meadow jumping mouse due to the lack of suitable habitat and nominal reduction to groundwater recharge on the Florida Mesa.

The Proposed Action vegetation does include two varieties of milkweed, which the monarch butterfly, a proposed threatened species, relies on. Because construction is scheduled for the non-irrigation season, any potential loss of milkweed is unlikely to impact monarch butterflies; however, the potential for impact exists. Therefore, the Proposed Action would have a "may affect, but not likely to adversely affect" impact on the monarch butterfly. The Proposed Action would not result in impacts to any other of the nine species identified for the project. Based on the preceding analysis of the Proposed Action project area and habitat requirements of the federally listed threatened and endangered species identified for this project, there would be no effect to these species due to implementation of the Proposed Action.

Reclamation is in the process of consulting with the UWFWS its effects determinations. The results of that consultation will be included in Appendix B of the Final EA.

3.12 Cultural Resources

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

Section 106 of the National Historic Preservation Act (NHPA) of 1966, mandates that Reclamation consider the potential effects of a proposed Federal undertaking on historic properties. Historic properties are defined as any prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion in the National Register of Historic Places (NRHP). Potential effects of the described alternatives on historic properties are the primary focus of this analysis.

The affected environment for cultural resources is identified as the area of potential effects (APE), in compliance with the regulations to Section 106 of the NHPA (36 CFR 800.16). The APE is defined as the geographic area within which Federal actions may directly or indirectly cause alterations in the character or use of historic properties. The APE for this Proposed Action includes the maximum limit of disturbance that would be physically affected by the Proposed Action

The cultural resources assessment identifies, documents, and evaluates cultural resources within the defined Proposed Action project area, which is 51.24 acres of private land. An extended buffer was allowed at several landowner properties, extending the study area an additional 50 feet on either side of the ROW.

A Class I literature review and a Class III cultural resource inventory were completed for the APE, defined in the action alternative and analyzed for the Proposed Action, by Chronicle Heritage (Chronicle) on FCDC's behalf (Chronicle Heritage, 2024). Chronicle recorded six sites and two

isolated finds. Two of these sites had been previously recorded, and four were newly recorded. Chronicle provided recommendations of eligibility for the sites based upon the principles in 36 CFR 800.4.

Chronicle returned to the Proposed Action site in 2025 to perform an additional survey, as the APE updated based on landowner agreements. Chronicle surveyed LPEA and the southernmost terminus of the pipeline (Ancell Property) and modified the Class III cultural resource inventory report appropriately.

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

Proposed Action Alternative: It is Reclamation's determination that no historic properties would be affected by the Proposed Action. Reclamation is in the process of consulting with the Tribal Historic Preservation Officer (THPO), and results of that consultation will be included in Appendix C of the Final EA.

3.13 Summary

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

Table 3. Environmental Summary Table

Resource	Impacts: No Action Alternative	Impacts: Proposed Action Alternative
Water Rights and Use	No Impact	The Proposed Action would allow FCDC to manage its adjudicated and Florida Project water supplies more efficiently. Conversion of the open ditch to a pressurized pipeline would reduce water loss due to ditch seepage and evaporation. In addition, new turnout structures with adequate controls and measuring devices would encourage the use of more efficient water on-farm irrigation practices by providing a pressurized connection for current and future landowners. The Proposed Action increases water efficiency by converting the Hess Lateral open ditch into a pipeline conveyance system. The Proposed Action would not increase the acreage of irrigated land as there is a fixed amount of irrigated land under the Florida Project.
Air Quality	No Impact	Short term, construction-related impacts to air quality would take place during construction activity, primarily due to exhaust and dust. Following construction, there would be no long-term impact on air quality.
Soils and Farmlands of Agricultural Significance	No Impact	Soil, land, and farmland disruption would occur during construction activity due to trenching and backfilling. Native soils would be used when applicable. Pre-construction conditions would return after construction concludes and reseeding and reclamation takes place. Approximately 28.5 acres may be temporarily impacted during construction activity.

Resource	Impacts: No Action Alternative	Impacts: Proposed Action Alternative
Wetlands	No Impact	It is expected the current riparian/wetland vegetation fringe communities along the ditch may be detrimentally impacted by the Proposed Action, as the wetlands appear to be dependent on irrigation water. There are downstream wetland communities along the Animas River that are identified as critical wetland and riparian areas by the Colorado Natural Heritage Program. Associated Hess Lateral ditch seepage that contributes recharge to these wetland complexes may be lost due to piping activity. This is a potential effect of the Proposed Action.
Public Access, Transportation, and Safety	No Impact	Short term disruption of traffic may occur during construction activity (hauling equipment). Proper safety considerations would be in place to avoid and minimize adverse effects to access, transportation, and safety. Construction would take place within pre-established ROWs and would be properly identified and secured. The Proposed Action would eliminate the use of the open ditch with free-flowing water. Safety concerns associated with the open ditch would also be eliminated.
Noise	No Impact	Short-term increases in noise in the immediate vicinity of the construction activity would occur due to machinery and construction-associated noise. Pre-construction conditions would return after construction concludes.

Resource	Impacts: No Action Alternative	Impacts: Proposed Action Alternative
Visual Resources	No Impact	Due to the relatively flat landscape within the Animas River Valley, machinery during construction would be highly visible to both private landowners across the Proposed Action pipeline alignment and along Highway 550 and other adjacent private and public roads. The post-construction landscape should maintain the integrity of the agricultural valley landscape after vegetation re-establishes within a few growing seasons
Livestock Grazing	No Impact	The Proposed Action Alternative would have temporary, construction-related impact on current fields used for livestock grazing. Landowners would be notified prior to construction to move livestock out of the direct construction vicinity. After construction and revegetation concludes, pastures and fields would return to pre-construction conditions.
Vegetation	No Impact	It is expected that the Proposed Action may result in loss of riparian vegetation currently present along the ditch corridor. There would be temporary impact in current agricultural fields due to construction practices including earthwork, trenching, and backfilling. It is expected the agricultural fields would return to pre-construction conditions after allowing several seasons following revegetation and re-seeding.
Noxious Weeds	No Impact	In converting the open ditch to a pipeline, the Proposed Action would decommission open water within the ditch system, removing a primary water source for the noxious weeds. Impact to and removal of noxious weeds is expected due to the Proposed Action, however, noxious weed communities may continue after construction concludes due to pre-existing presence. FCDC would practice continue to practice weed control as necessary within the Hess Lateral pipeline ROW.

Resource	Impacts: No Action Alternative	Impacts: Proposed Action Alternative
Wildlife Resources	No Impact	Construction would create temporary impacts to mule and elk species due to ground disturbance and construction presence. Small mammals, songbirds, and reptiles which utilize habitat within the riparian corridor of the existing, open earth ditch would experience loss of habitat after the ditch is decommissioned. Construction crews would be made aware of avian activity and notify Environmental Project Managers in potential association with the MBTA. Temporary impact to wildlife resources is expected due to the Proposed Action, however, pre-construction conditions should return after construction concludes.
Threatened and Endangered Species	No Impact	Based on the information provided on the Proposed Action area and habitat requirements for the federally listed threatened and endangered species, no significant impacts would occur due to the Proposed Action. The Proposed Action would have "no effect" on all listed species aside from the monarch butterfly and New Mexico meadow jumping mouse, both with a determined effect determination of "may effect, not likely to adversely effect." There is a known population of New Mexico meadow jumping mouse along the Animas River/Trumble Draw. The water saving due to piping the Hess Lateral may impact groundwater recharge to Trumble Draw. The Hess Lateral Improvement Project may have a potential effect on hydrologic conditions that support the mouse's habitat in these areas. For the Proposed Action construction timeline, bald and golden eagle nesting should be acknowledged, especially with the understanding of the nest within the general area. Construction activity should consider the CPW Raptor Buffer protocol and distances.

Resource	Impacts: No Action Alternative	Impacts: Proposed Action Alternative
Cultural Resources	No Impact	Chronicle recorded six sites and two isolated finds. Two of these sites had been previously recorded, and four were newly recorded. Chronicle provided determinations of eligibility for the sites with determinations including recommended not eligible, non-supporting, or not eligible.

The Proposed Action Alternative for the Hess Lateral Improvement Project would result in a range of short-term construction-related impacts. Temporary effects during pipeline installation include air and noise pollution, visual intrusions, and disruptions to land use, transportation, and livestock grazing. Soil and farmland disturbance is expected but would be mitigated through restoration and reseeding efforts. Water quality would improve due to containment within the pipeline, reducing exposure to pollutants. However, the project may detrimentally impact wetlands and riparian vegetation, particularly along the existing ditch corridor. Wildlife, including mule deer, elk, small mammals, and birds, may experience temporary or localized habitat loss, with potential concerns for eagle nesting during construction.

Positive outcomes include improved water management, reduced noxious weed presence, and enhanced safety by eliminating the open ditch. Overall, while the Proposed Action would lead to some temporary disruptions and localized habitat changes, many of the effects would be mitigated or reversible, and the Project offers long-term efficiency and water quality benefits.

4.0 CHAPTER 4 – CONSULTATION AND COORDINATION

4.1 Introduction

Reclamation offers public involvement within the EA process, notifying the public about the Proposed Action, and allowing time periods for public comment and consultation. In addition, it is Reclamation's responsibility to engage with other agencies in agency-to-agency discussions related to the Proposed Action and possible environmental, cultural, or anthropogenic concerns.

4.2 Public Involvement

Reclamation will post the Draft EA on the Reclamation website for public review and comment for a period of 30 days. In addition, the Draft EA will be sent to the contacts on the distribution list (provided in Section 4.3) on the first day of the public comment period. The Draft EA will comply with Section 508 of the Rehabilitation Act of 1973, structured to be readable by electronic accessibility software and people with disabilities.

4.3 Distribution List

A distribution list shown below is the identified individuals and/or entities to inform of the availability of the Draft EA for public comment:

- Landowners within and adjacent to the Hess Lateral Improvement Project
- Colorado Department of Transportation
- Colorado SHPO
- Colorado Parks and Wildlife
- La Plata County Planning and Development
- City of Durango
- US Army Corps of Engineers
- Tribal Consulting Party, as listed in Section 1.7
- Colorado River Water Conservation District
- FCDC Shareholders
- Colorado Water Conservation Board
- NRCS
- La Plata County Road and Bridge
- US Fish and Wildlife Service
- Bureau of Land Management

5.0 CHAPTER 5 – ENVIRONMENTAL COMMITMENTS

This Section summarizes the design features, BMPs, conservation measures, and other requirements (collectively, "Environmental Commitments") developed to further lessen the potential adverse insignificant effects of the Proposed Action (Table 4). The actions in the following environmental commitment list would be implemented as an integral part of the Proposed Action and shall be included in any contractor bid specifications.

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

Table 4. Environmental Commitments

Type	Environmental Commitments	Affected Resource	Authority
Construction Contractor Plan or Certification Requirement	Contractor shall develop, meet, or exceed the requirements of the Proposed Action Stormwater Management Plan (SWMP) as approved by Colorado Department of Public Health and Environment (CDPHE)	Water Quality	CDPHE
Construction Contractor Plan or Certification Requirement	Contractor shall obtain a Stormwater Discharge Permit (CDPHE Stormwater Discharges Associated with Construction Activity) prior to construction onsite. Colorado Discharge Permit Number COR400000.	Water Quality	CDPHE
Construction Contractor Plan or Certification Requirement	If required to facilitate construction, Contractor may need to complete, submit, and obtain a Construction Dewatering Permit from CDPHE.	Water Quality	CDPHE
Construction Contractor Plan or Certification Requirement	Contractor shall obtain any required local regulatory stormwater permits prior to construction onsite	Water Quality	County Ordinances and Regulations
Construction Contractor Requirement	Contractor shall obtain the necessary permits for connection to necessary services provided by utility companies serving the Proposed Action area.	Access and Safety	County Ordinances and Regulations
Owner Requirement	Where portions of the work are located on private property, easements will be obtained by the Owner. Easements will provide the use of the property for construction purposes to the extent indicated on the easements.	Access	Private landowner
Construction Contractor Requirement	The Contractor shall confine his/her construction operations to within the easement limits or make special arrangements with the property owners for additional area required.	Access and Safety	County Ordinances and Regulations

Type	Environmental Commitments	Affected Resource	Authority
Construction Contractor Requirement	The Contractor shall provide necessary temporary construction facilities including, but not limited to, electricity, water, and sanitary facilities.	Access and Safety	County Ordinances and Regulations
Construction Contractor Requirement	The Contractor shall comply with Safety and Health Regulations for Construction. The Contractor would be responsible for establishing a safety protocol with laborers and enforcing policies such as personal protective equipment (PPE), etc.	Access and Safety	Section 107, Contract Work Hours and Safety Standards Act (Title 29, C.F.R.)
Construction Contractor Requirement	The Contractor shall do work necessary to protect the general public from hazards including, but not limited to, surface irregularities and trenches or excavations in roadway. Barricades, lanterns, and proper signs shall be furnished in sufficient amount to safeguard the public and the work.	Access and Safety	County Ordinances and Regulations
Construction Contractor Requirement	Construction areas would be clearly marked and fenced to avoid public interference and interaction. Proper fencing would be utilized during open trench activity to deter both animals and people from interacting with the Proposed Action site and open excavation. In addition, open trenching would be limited to no more than 100 linear feet at one time	Access and Safety	N/A
Construction Contractor Requirement	Trenches left open overnight would be limited in accordance with the technical specifications, and if left open, would be covered/fenced.	Access and Safety	N/A
Construction Contractor Requirement	All utilities would be located and properly marks prior to excavation	Safety	N/A

Type	Environmental Commitments	Affected Resource	Authority
Construction Contractor Requirement	If required, a construction traffic control plan shall be developed by the Contractor and must be approved by La Plata County prior to construction.	Access, Transportation and Safety	County Ordinances and Regulations
Construction Contractor Requirement	Appropriate traffic signage would be used to notify drivers of active construction ingress/egress. The construction contractor and/or the Applicant would coordinate with the county and sheriff department if traffic or access would be delayed or substantially re-routed.	Access, Transportation, and Safety	N/A
General BMP	The Contractor shall employ best management practices to prevent pollution by spills. Pollutants such as chemicals, fuels, lubricants, concrete drum wash water, and other harmful wastes shall not be discharged into or alongside any waters of the United States but shall be disposed of in accordance with governing county, state, and federal regulations	Water Quality	Clean Water Act of 1972 as amended
General BMP	Contractor shall rake and drag all former grassed and planted areas, leaving all disturbed area free from mud, rocks, gravel, clay, or other foreign material.	Soil Quality	Clean Water Act of 1972 as amended
General BMP	Procedures for installation, maintenance, and removal of temporary erosion control methods (including sediment basins, traps, perimeter dikes, and sediment barriers) shall generally conform to the guidelines contained in the Urban Storm Drainage Criteria Manual, Volume 3.	Water Quality	Clean Water Act of 1972 as amended

Type	Environmental Commitments	Affected Resource	Authority
General BMP	Contractor shall furnish all the labor, equipment, materials, and means required, and shall carry out proper and efficient measures whenever and as often as necessary to reduce the dust nuisance to persons and shall comply and obtain permits required by federal, state, and local laws and regulations.	Air Quality	Clean Air Act of 1963 and 5 CCR 1001-5 Part I.B.10 (Allowable Emissions), Part II.A (Air Pollutant Emission Notices for New, Modified, and Existing Sources), Part II.D (Exemptions from Air Pollutant Emission Notice Requirements
General BMP	Discharges of dredged or fill material into waters of the United States shall be through the use of other practicable alternatives.	Water Quality, Wetlands	Clean Water Act 1972 as amended
General BMP	Employ appropriate dust control measures during Proposed Action project implementation	Air Quality, Water Quality, Soils	Clean Water Act 1972 as amended and Clean Air Act of 1963
General BMP	No storage of petroleum, other chemical products, waste materials, trash, etc. shall be allowed within 100 feet of a wetland or water body boundary or elevation as shown on design drawings. Storage within the floodplain of a stream may be limited to preclude the possibility of an unlawful discharge to the stream	Wetlands, Water Quality	Clean Water Act 1972 as amended

Type	Environmental Commitments	Affected Resource	Authority
General BMP	Dispose of excavated sediment and debris at a pre-approved area more than 200-feet from any surface water feature	Water Quality, Soil Quality	Clean Water Act 1972 as amended
General BMP	Materials excavated during construction shall be placed on dry land outside the channel banks of all streams. The material shall be properly contained or stabilized to minimize erosion and degradation of water quality and be removed before the completion of the Proposed Action.	Water Quality	Clean Water Act 1972 as amended
General BMP	Do not perform construction activities during extreme wet weather conditions, whenever practicable. If heavy precipitation is predicted to occur within 24 hours, respond appropriately to cover up any stockpiles and check that temporary erosion and sediment controls (TESCs) are functioning	Water Quality, Soils	Clean Water Act 1972 as amended
General BMP	Locate borrow areas outside the 100-year floodplain or greater than 200 feet from any identified waters within the Proposed Action area, whichever is greater.	Water Quality, Soils	Clean Water Act 1972 as amended
General BMP	Seed shall be uniformly sown by Brillion drill (or approved mechanical equivalent) or by broadcasting. All surfaces to receive seed shall be slightly moist and the top six inches tilled, or hand worked into an even and loose seed bed at specified grades and elevations. Seeded areas are to be watered and mulched within 48 hours.	Vegetation, Weeds	FCDC

Type	Environmental Commitments	Affected Resource	Authority
General BMP	Clearing shall consist of felling, trimming, and cutting trees into sections and the satisfactory disposal of the trees and other vegetation in areas of excavation and earthwork including downed timber, snags, brush, and rubbish occurring in the areas to be cleared. Contractor shall be responsible for compliance with all federal, state, and local laws and regulations and with reasonable practice relative to disposal of debris.	Vegetation, Weeds, Habitat, Wildlife	FCDC
General BMP	All fill material, regardless of intended use category, must be clean and free of organic matter, roots, brush or other vegetation, trash, brick, debris, frozen material, or other detrimental substances.	Vegetation, Weeds, Habitat, Wildlife	FCDC
General BMP	Post-construction, comply with La Plata County Vegetation municipal code for the eradication or management of noxious weeds	Vegetation, Weeds	La Plata County
General BMP	Limit disturbance to only those areas necessary to safely implement the Proposed Action to ensure retention of vegetation for erosion control and to protect native vegetation, including milkweed and riparian vegetation, whenever practicable. Confine vegetation removal to the smallest portion of the Proposed Action project area as necessary to complete the work.	Vegetation, Water Resources, Wildlife	ESA, Clean Water Act 1972 as amended
General BMP	All construction equipment would be power-washed and free of soil and debris prior to entering the construction site to reduce the spread of noxious and invasive weeds	Water, Soils, Vegetation, Weeds	Clean Water Act 1972 as amended

Type	Environmental Commitments	Affected Resource	Authority
General BMP	Time construction to occur beginning in fall/winter and ending in the spring of each construction phase.	Wildlife	Migratory Bird Treaty Act of 1918
General BMP	Flag active nests of migratory birds, and do not perform water within 50 feet of an active nest, ensuring disturbances to nesting birds would not occur	Wildlife	Migratory Bird Treaty Act of 1918
General NEPA Requirement	Mule deer and elk presence would be monitored closely during severe winter range months by the Contractor and if needed, construction activity would be adjusted to accommodate ungulates utilizing the Proposed Action site. Proper fencing would be utilized to separate ungulate populations from the open-trench construction activity.	Wildlife	Wildlife Resources
General NEPA Requirement	Compliance with all conditions of any Section 404 permit, NPDES permit, and Section 401 Water Quality Certification	Wetlands	Clean Water Act 1972 as amended
General NEPA Requirement	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.	Cultural Resources	National Historic Preservation Act of 1966 Archaeological Resources Protection Act of 1979 Paleontological Resources Preservation Act of 2009

Type	Environmental Commitments	Affected Resource	Authority
General NEPA Requirement	If undocumented threatened or endangered species are encountered during construction, the contractor shall stop construction activities and notify WWE to reach out to appropriate agencies. In addition, WWE will provide education to the contractor at the preconstruction meeting, providing information on possible threatened or endangered species habitat, best management practices, and picture reference identification.	Threatened and Endangered Species	Endangered Species Act of 1973 as amended.
General NEPA Requirement	If a previously undocumented active raptor nest is discovered within 1/2 mile of the Proposed Action area during construction, construction shall cease until Reclamation performs consultation with applicable agencies. WWE will provide education to the contractor at the preconstruction meeting, providing information on potential raptor and nest presence, best management practices, and picture reference identification.		General NEPA Requirement

6.0 CHAPTER 6 – PREPARERS

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7.0 CHAPTER 7 – REFERENCES

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APPENDIX A: USACE Coordination and Consultation Verification

Note: Document will be added during the preparation of the Final EA, after consultation concludes

APPENDIX B: USFWS Consultation

Note: Document will be added during the preparation of the Final EA, after consultation concludes

APPENDIX C: Cultural Resources Compliance Documentation