

FINAL ENVIRONMENTAL ASSESSMENT

for the

Big Sandy Watershed Project

Big Sandy Watershed

NRCS Watershed Program

Sweetwater and Sublette Counties, Wyoming

PREPARED BY

Lead Federal Agency

United States Department of Agriculture-Natural Resources Conservation Service

IN COOPERATION WITH

Cooperating Agency

United States Department of Interior Bureau of Reclamation

Sponsoring Local Organization

Eden Valley Irrigation and Drainage District

October 2026

EAXX-005-53-056-1188858037

Table of Contents

CHAPTER 1 INTRODUCTION AND OVERVIEW	1
1.1 PROJECT NAME	1
1.2 PROJECT LOCATION	1
1.3 PLANNING AREA	1
1.4 EXISTING CONDITIONS AND PROJECT HISTORY	3
1.5 AGENCY AUTHORITY	3
1.6 PURPOSE AND NEED	3
CHAPTER 2 ALTERNATIVES	6
2.1 SITE SELECTION AND SCREENING CRITERIA	6
2.2 DESCRIPTION OF ALTERNATIVES	6
CHAPTER 3 ENVIRONMENTAL CONSEQUENCES	8
3.1 AFFECTED ENVIRONMENT	8
3.2 DETERMINATION OF SCOPE FOR NEPA ANALYSIS	14
3.3 DETERMINATION OF SCOPE FOR SECTION 7 OF THE ESA	14
3.4 DETERMINATION OF SCOPE FOR SECTION 106 OF THE NATIONAL HISTORIC PRESERVATION ACT (NHPA)	14
3.5 POTENTIAL EFFECTS ON THE LIVING COMMUNITIES AND HUMAN USES	15
3.6 RESOURCES OF CONCERN	31
3.7 MITIGATION	31
3.8 REASONABLY FORESEEABLE EFFECTS	32
CHAPTER 4 CONSULTATION AND COORDINATION	33
4.1 SECTION 7 OF THE ESA	33
4.2 MAGNUSON-STEVENSON ACT	34
4.3 NHPA CONSULTATION (SECTION 106 OF THE NHPA)	34
4.4 NATIVE AMERICAN GRAVES PROTECTION AND REPATRIATION ACT (NAGRA)	34
4.5 AMERICAN INDIAN RELIGIOUS FREEDOM ACT (AIRFA)	35
4.6 ARCHAEOLOGICAL RESOURCES PROTECTION ACT (ARPA)	35
4.7 TRIBAL TRUST RESPONSIBILITIES	35
4.8 COASTAL ZONE MANAGEMENT ACT (CZMA)	35
4.9 WILD AND SCENIC RIVERS ACT	35
4.10 USACE CIVIL WORKS PROJECTS	35
4.11 NRCS WETLAND AND HEL POLICY	35
4.12 NRCS WETLAND MITIGATION	36
4.13 PL 83-566 SECTION 12 FISH AND WILDLIFE COORDINATION ACT	36
4.14 COMPLIANCE	36
CHAPTER 5 SPECIAL CONDITIONS	37
CHAPTER 6 FINDINGS AND DETERMINATIONS	37
6.1 SECTION 176(c) CAA	37
6.2 PRESIDENTIAL E.O.s	37
CHAPTER 7 LIST OF PREPARERS	39
CHAPTER 8 REFERENCES	41

Tables

TABLE 1-1. ELIGIBILITY FOR FEDERAL ASSISTANCE	5
TABLE 2-1. PROPOSED ACTION MEASURES OF IMPROVEMENT	7
TABLE 3-1. RELEVANCY OF RESOURCES CONSIDERED FOR PROPOSED ACTION	8
TABLE 3-2. SUMMARY OF EFFECTS FOR EACH ALTERNATIVE FOR BIG SANDY WATERSHED	16
TABLE 3-3. POTENTIAL EFFECTS ON FEDERALLY LISTED SPECIES	27
TABLE 3-4. POTENTIAL EFFECTS ON STATE LISTED SPECIES.....	27
TABLE 3-5. POTENTIAL EFFECTS ON SPECIAL AQUATIC SITES AND HIGHLY ERODIBLE LAND	28
TABLE 3-6. POTENTIAL EFFECTS ON WATER FLOW CHARACTERISTICS.....	30
TABLE 3-7. POTENTIAL EFFECTS ON HUMAN ENVIRONMENT	30
TABLE 4-1. COMPLIANCE WITH FEDERAL LAWS AND RESPONSIBILITIES	36
TABLE 7-1. LIST OF PREPARERS, REVIEWERS, AND CONTRIBUTORS	39

Figures

FIGURE 1. BIG SANDY WATERSHED MAP	2
FIGURE 2. LOCATION OF BIG SANDY WATERSHED PROJECT MEASURES.....	4

Chapter 1 Introduction and Overview

This Big Sandy Watershed Environmental Assessment (EA) provides analysis of the Proposed Action (Preferred Alternative) described by the Big Sandy Watershed Plan (Plan), which is incorporated by reference. As the Lead Federal Agency, the United States Department of Agriculture (USDA), Natural Resources Conservation Service (NRCS) has prepared this document. The United States Department of the Interior, Bureau of Reclamation (Reclamation) was invited and accepted to be a Cooperating Agency for the Proposed Project. The Eden Valley Irrigation and Drainage District (EVIDD) is the Sponsoring Local Organization.

Two other alternatives were considered and are described in detail in the Plan. These alternatives were eliminated from further analysis, for the reasons explained below in Chapter 2.

Information about the Proposed Action subject to NRCS authority Public Law (PL) 83-566 is provided in Section 1.1 of the Plan. The planning start for the watershed project was authorized by the Chief of NRCS on September 20, 2020. The Plan and EA have been prepared under the authority of Public Law [PL] 83-566, the Watershed Protection and Flood Prevention Act (16 United States [U.S.] Code [U.S.C.] sections 1001-1012a), and in compliance with the NEPA (42 U.S.C. sections 4321 et seq.) and USDA NEPA regulations at 7 CFR Part 1b (91FR17092, Apr.3,2026).

Further summary information about the activity, including administrative history of actions taken during project evaluation, is provided in the Plan and its Appendices (Proposed Project) and incorporated in this EA.

1.1 Project Name

Big Sandy Watershed Project

1.2 Project Location

The Proposed Project is located near the communities of Farson and Eden, Wyoming. The project area is contained within Township 24 North, and Range 106 West, Sections 1, 2, 11, 12, 17, 18, 19, 20, 29, and 30; Township 25 North, and Range 105 West, Sections 4, 5, 6, 7, 9, and 16; and Township 25 North, and Range 106 West, Sections 1, 10, 11, 12, 13, 14, 15, 22, 23, and 27; 6th Principal Meridian, Sweetwater County, Wyoming.

1.3 Planning Area

The planning area is located within the Upper Colorado Region, Great Divide Subregion, Upper Green Basin, Big Sandy Subbasin, Big Sandy Watershed (Hydrologic Unit Code [HUC] 14040104). The Big Sandy Watershed encompasses approximately 206,757 acres of rural farming communities with predominantly agricultural land use, sparse residential homes, and very few commercial buildings in Sweetwater and Sublette Counties and contains the 323-acre limits of the Proposed Project Area (Project Area).

The Big Sandy River, Little Sandy Creek, and Pacific Creek all flow through the watershed and converge just north of Eden. The headwaters for the Big Sandy River and Little Sandy Creek start in the high elevations of the Wind River Range approximately 35 miles north of the project area. Headwaters for Pacific Creek start just north of Pacific Butte approximately 25 miles east of the project area. The Big Sandy Watershed is shown in Figure 1.

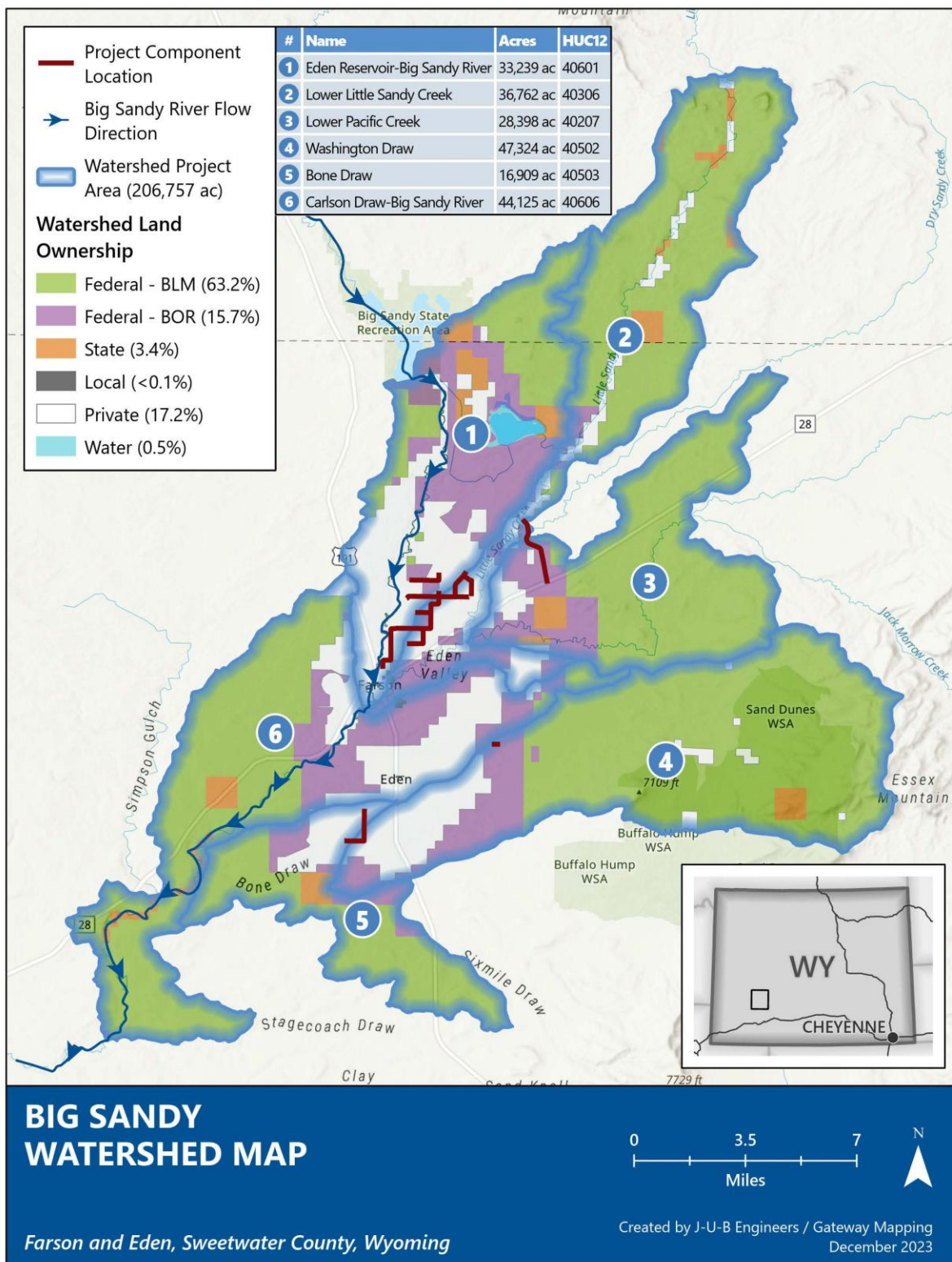


Figure 1. Big Sandy Watershed Map

The project area consists of 13.9 miles of EVIDD laterals (Farson and E-33 Laterals) and canals (Eden Canal), as well as the Eden Canal sand trap, and 88.5 acres of staging areas, as shown in Figure 2.

1.4 Existing Conditions and Project History

As a component of Reclamation's Eden Project, servicing the communities of Eden and Farson, Wyoming and completed in 1959, the Eden Canal, Farson and E-33 Laterals, and the sand trap are operated and maintained as part of the EVIDD system under a contract with Reclamation. The EVIDD system provides irrigation water to approximately 16,700 acres, of which, approximately 75 percent are sprinkler irrigated, and 25 percent are flood irrigated (J U-B and EVIDD 2017). Based on previous planning efforts, including the EVIDD Master Plan Level 1 Study (Master Plan), EVIDD developed a strategic approach to repair, replace, and modernize the irrigation system (J-U-B and EVIDD 2017). EVIDD used the analysis of their needs for rehabilitation, modernization, and management in their Master Plan, and prioritized projects based on their water use efficiency, operations and maintenance (O&M) costs, fundability, and safety. For example, replacement of the sand trap is the number one priority in the Master Plan (J-U-B and EVIDD 2017). This EA presents the National Environmental Policy Act (NEPA) evaluation phase of proposed improvements to provide an efficient water delivery system that reduces water losses, reduces salinity, and reduces sediment build-up to sustain the agricultural community within the Big Sandy Watershed and the larger Colorado River Basin.

1.5 Agency Authority

The NRCS has prepared this EA in compliance with the NEPA of 1969 (42 U.S.C. 4321 et seq.), NRCS procedures for complying with the NEPA at 7 CFR Part 1b, the NRCS National Watershed Program Manual, and other relevant federal and state laws and regulations and Executive Orders (E.O.s).

Watershed planning is authorized under the Watershed Protection and Flood Prevention Act of 1954, as amended, and the Flood Control Act of 1944. NRCS regulations regarding watershed projects and compliance with NEPA can be located at 7 CFR 622 and 7 CFR Part 1b, respectively.

1.6 Purpose and Need

The purpose of the Proposed Project is to provide a reliable, efficient, and safe water delivery system to sustain the agricultural community in Sweetwater County. The Proposed Project is being authorized under PL 83-566 for the purpose of agricultural water management.

This project is needed to improve agricultural water management by addressing water losses associated with irrigation seepage and evaporation from the water delivery system, including addressing the reduced flow and water loss at the sand trap, reducing infrastructure replacement costs, and improving water quality by reducing salinity loading within the watershed, downstream, and within the greater Colorado River Basin.

Table 1-1 documents that the project is eligible for federal assistance and will meet statutory requirements.

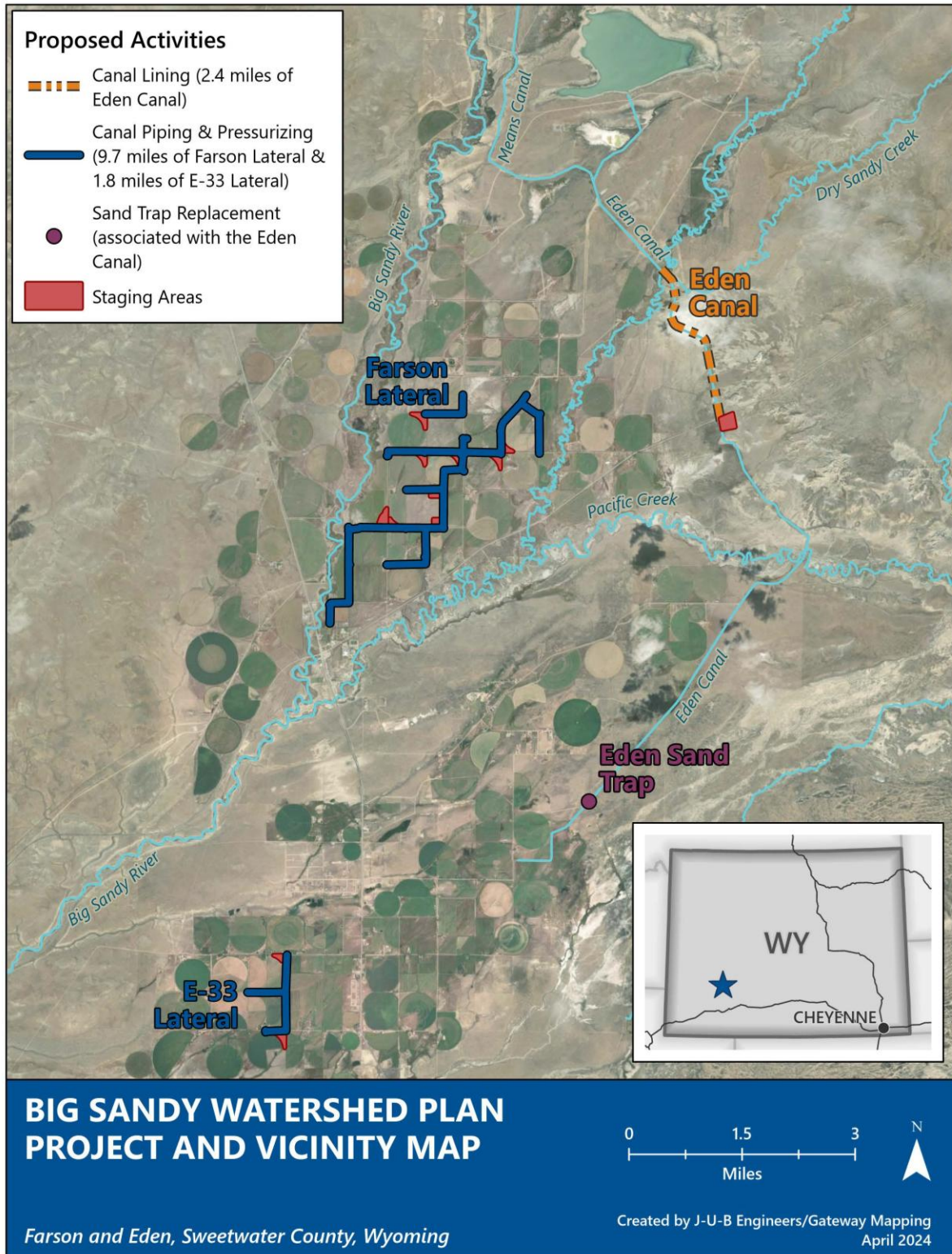


Figure 2. Location of Big Sandy Watershed Project Measures

Table 1-1. Eligibility for Federal Assistance

Eligibility Documentation			
The 206,757-acre Big Sandy Watershed occurs in six 12 th order (HUC-12) sub-watersheds. Assistance for the Big Sandy Watershed Project is authorized under PL 83-566. EVIDD is the Sponsor for this watershed planning project. The EVIDD meets the PL 83-566 criteria for being a Sponsor. Agricultural Water Management is the PL 83-566 authorized purpose.			
Will the project area exceed 250,000 acres in size? (Big Sandy Watershed Plan Section 1.5)	☐ Yes	☒ No	
If over 250,000 acres, will it be divided into sub-watersheds in one plan? N/A	☐ Yes	☐ No	
Proposed Action Watershed Size: 206,757 acres (323 square miles)			
Will any single structure provide more than 12,500 acre-feet of floodwater detention capacity, or have 25,000 acre-feet of total capacity?	☐ Yes	☒ No	
How many recreational developments will be included in the project area?	None		
One development in a project area less than 75,000 acres	☐ Yes	☒ No	
Two developments in a project area between 75,000 and 150,000 acres	☐ Yes	☒ No	
Three developments in a project area greater than 150,000 acres	☐ Yes	☒ No	
Which authorized purposes will the project address? (Indicate only one purpose as primary)			
Purpose	Primary	Other	
• Flood Prevention	☐	☐	
• Watershed Protection	☐	☐	
• Public Recreation	☐	☐	
• Public Fish and Wildlife	☐	☐	
• Agricultural Water Management	☒	☐	
• Municipal or Industrial Water Supply	☐	☐	
• Water Quality Management	☐	☐	
Potential for 20% Agricultural (Rural) Benefits	☒ Yes	☐ No	
Will the project produce substantial benefits to the general public, to communities, and to groups of landowners?	☒ Yes	☐ No	
Can the project be installed by individual or collective landowners under alternative cost-sharing assistance?	☐ Yes	☒ No	
Will the project have strong local citizen and Sponsor support through agreements to obtain land rights, permits, contribute the local cost of construction, and conduct operation and maintenance?	☒ Yes	☐ No	
Is this project funded by the Infrastructure Investment and Jobs Act (IIJA), most commonly known as the Bipartisan Infrastructure Bill?	☐ Yes	☒ No	
Will the project take place in a Special Designated Area? (If yes, check applicable area below.)			
☐ Appalachia	☐ Delaware River Basin	☐ Susquehanna River Basin	☐ Tennessee Valley

Chapter 2 Alternatives

NEPA requires discussion of a reasonable range of alternatives. During the planning stage, several alternatives were considered and eliminated from consideration based on analysis of criteria defined in Section 2.1. In accordance with NEPA and NRCS planning, multiple alternatives were examined to address watershed problems, to identify potential opportunities, and to meet project objectives. The initial array of alternatives was first screened again the project objectives and constraints, and the remaining initial alternatives were then screened against ecosystem services and economic considerations to arrive at the final array of alternative plans. See Section 4.0 of the Plan for comprehensive analysis, including alternatives not analyzed in detail (Alternatives 1 and 2). Two alternatives were carried forward for detailed analysis: the *No Action Alternative* or Future without Federal Investment (FWOFI) and the *Proposed Action Alternative* or Alternative 3, Preferred Alternative, or Future with Federal Investment (FWFI).

2.1 Site Selection and Screening Criteria

An alternative must be available, achieve the overall project purpose, and be feasible when considering cost, logistics and existing technology. Criteria for evaluating alternatives determined by the NRCS were as follows: 1) the alternative had to meet the purpose and need of the project which was to address agricultural water management issues in the watershed, 2) the alternative had to meet project objectives and constraints; and 3) the alternative must be economically feasible and have ecological and social benefits.

2.2 Description of Alternatives

2.2.1 No Action Alternative (FWOFI)

The No Action Alternative is a projection of future conditions without Federal involvement and serves as a baseline for the evaluation and comparison of effects of the action alternatives. The No Action Alternative is the projection of future conditions with current operations, maintenance, and replacement (OM&R), including periodic replacement of existing infrastructure such as drop structures by the Sponsor, but no new proposed activities.

2.2.2 Environmentally Preferred Alternative—Proposed Action Alternative (Alternative 3/Preferred Alternative/FWFI)

The Proposed Action Alternative would line a portion of the Eden Canal, pipe portions of the Farson and E-33 Laterals, and replace the sand trap as shown in Table 2-1. Additional detail on the Proposed Action Alternative can be found in Section 6.0 of the Plan.

Table 2-1. Proposed Action Measures of Improvement

Measure Location	Measure of Improvement	Description
Eden Canal	Install liner	Reshape and line 2.4 miles of the Eden Canal with a membrane liner protected by 4 inches of fiber reinforced shotcrete. The canal prism would be reshaped to its original trapezoidal section.
Farson Lateral (Phase IV); F-11; F-12; F-16; F-19; F-23; F-2-10	Install pipe	Install high-density polyethylene pipe (HDPE) pipe and fittings.
	Remove all existing structures	Remove 7 drop structures.
	Replace existing turnout structures with individual turnouts with meters	Install 33 piped turnouts in similar locations to the existing turnouts. The new turnouts would include appropriate pipe fittings, valves, meter, and Remote Telemetry Units (RTU) and solar power.
E-33 and E-33B Laterals	Install pipe	Install HDPE pipe and fittings.
	Remove all existing structures	Remove 2 drop structures.
	Replace existing turnout structures with individual turnouts with meters	Install 9 piped turnouts in similar locations to the existing turnouts. The new turnouts would include appropriate pipe fittings, valves, meters, and Remote Telemetry Units (RTU) and solar power.
Sand Trap	Replace existing sand trap along the Eden Canal	Replace existing sand trap with a concrete-lined collection basin constructed parallel to the canal.

Chapter 3 Environmental Consequences

3.1 Affected Environment

Details for the Affected Environment can be found in Section 3.0 of the Plan. The current conditions for economic, ecological, biological, and social resources identified in the project area are used to determine effects and to conduct alternatives analysis. Table 3-1 discusses the relevancy of each environmental resource for the analysis.

Table 3-1. Relevancy of Resources Considered for Proposed Action

Resource	Relevant to the Proposed Action?		Rationale (Context and Intensity)
	Yes	No	
Economics			
Economics/Socioeconomics—National Economic Efficiency (NEE) Principles, Requirements, and Guidelines (PR&G)	X		Addressing EVIDD’s irrigation system’s seepage and salinity loading would ultimately increase the economic efficiency for producers in the Project Area, while protecting the environment. The Proposed Project involves an expenditure of public funds and an evaluation of the effects of providing NRCS funding is included.
Air Quality and Climate			
Clean Air Act (CAA)/National Ambient Air Quality Standards (NAAQS)	X		Proposed activities could affect air quality protected by the CAA.
Climate and Greenhouse Gases (GHG)	X		The Proposed Project would make the Project Area and the EVIDD irrigation system more resilient to climate stress. Temporary air emissions from construction activities could contribute to the accumulation of GHG.

Resource	Relevant to the Proposed Action?		Rationale (Context and Intensity)
	Yes	No	
Energy			
Energy		X	Both Sweetwater and Sublette Counties are rich in energy resources such as coal, oil and natural gas, crude oil, and other minerals. According to the counties’ data, 67% and 93%, respectively, of the area’s total revenue come from mineral extraction; however, the Proposed Project is not within any energy development areas. Energy usage and efficiency are issues that currently affect agricultural producers within the immediate Project Area because the unpressurized canal requires irrigators in the Project Area to use flood irrigation methods to irrigate their crops and pastures. This irrigation method is much less efficient than other methods, such as sprinkler irrigation and relies on the use of energy resources to pump and disperse irrigation waters. Though the project would facilitate the transition to an energy-efficient irrigation system in the future, no changes are currently proposed, and no energy generation is included in the Proposed Project. Therefore, this resource was eliminated from detailed analysis.
Soils & Geology			
Upland Erosion & Sedimentation	X		Soil disturbance from project activities may contribute to erosion and sedimentation. Continued bank erosion and sedimentation buildup would occur in EVIDD facilities.
Prime & Unique Farmland, and Farmland of Statewide Importance	X		Project activities have the potential to affect protected farmland of statewide importance. Farmland of statewide importance is present in the Project Area (NRCS 2023b; Appendix C—Soil Resource Report and Map of the Big Sandy Watershed Plan).
Vegetation			
Special Status Plant Species including Endangered and Threatened Plant Species	X		Proposed activities could affect the special status plant species protected under the Endangered Species Act (ESA)—the Ute ladies'-tresses (ULT) (<i>Spiranthes diluvialis</i>) (U.S. Fish and Wildlife Service [USFWS] 2024).
Riparian Areas	X		Proposed activities could affect riparian areas.
Noxious Weeds & Invasive Plant Species	X		Proposed activities could increase the risk of spread, and introduction and establishment of invasive species, which are specifically prohibited by E.O. 13112. Noxious weeds currently exist within the Project Area.

Resource	Relevant to the Proposed Action?		Rationale (Context and Intensity)
	Yes	No	
Water Resources			
Regional Water Management Plan	X		The proposed activities are designed to support Regional Water Management Plans, specifically, the Green River Basin Plan. The Green River Basin Plan prioritizes projects that “preserve existing uses...and...rectify existing demands, needs, and shortages” (Wyoming Water Development Office 2010).
Surface Water & Groundwater Quality & Quantity	X		Project activities may affect water quality and quantity.
Clean Water Act (CWA) & Waters of the U.S. (WOTUS), including Specific Aquatic Sites	X		Project activities occur within and adjacent to potential jurisdictional waters and proposed activities could discharge pollutants into WOTUS.
Wetlands	X		Proposed activities could directly affect seepage-induced wetlands during construction activities and cause the loss of seepage-induced wetlands in the long term.
Floodplain Management	X		The proposed activities may affect floodplains protected under E.O. 11988.
Sole Source Aquifer		X	No sole source aquifers occur within or near the Project Area (Environmental Protection Agency [EPA] 2023a), and therefore, the Proposed Project would not affect sole source aquifers, and this resource was eliminated from detailed analysis.
Wildlife			
Fish and Wildlife & Wildlife Habitat	X		Proposed activities could affect wildlife and wildlife habitat by disrupting wildlife during construction and removing a water source and associated riparian vegetation in the Project Area and may require coordination with wildlife agencies.
Candidate, Threatened, and Endangered Species	X		The proposed activities have the potential to affect candidate, threatened, and endangered animal species and habitat.
Essential Fish Habitat (EFH)		X	No EFH is located in or near the Project Area (NOAA 2023), and therefore, the Proposed Project would not affect EFH, and this resource was eliminated from detailed analysis.
Invasive Animal Species		X	No potential for the introduction of invasive animal species exists, and this resource was eliminated from detailed analysis.

Resource	Relevant to the Proposed Action?		Rationale (Context and Intensity)
	Yes	No	
Migratory Bird/ Bald and Golden Eagles	X		The proposed activities have the potential to affect migratory birds, bald and golden eagles, and their habitat (USFWS 2024).
Human Environment			
Cultural & Historic Resources	X		The project activities have the potential to affect cultural and historic resources.
Scientific Resources	X		The Proposed Project would not cause any changes to two stream gauges or their operations present within the watershed Project Area—a gauge located at the Big Sandy Reservoir (Site ID number 09213700) and a gauge located on Pacific Creek (Site ID number 09215000) (USGS 2023b; USGS 2023c)—and this resource was eliminated from detailed analysis. The project activities have the potential to affect paleontological resources
Civil Rights		X	Full and fair participation by potentially affected communities would occur throughout the analysis process; and project benefits would be available to all individuals within and surrounding the Project Area consistent with Title VI of the Civil Rights Act, and this resource was eliminated from detailed analysis.
Public Health & Safety	X		Open canals may present safety concerns; and debris and sediment that enters the canals can cause canals to back up, overtop, and flood surrounding areas.
Hazardous Materials	X		During construction activities, materials considered hazardous could be used and stored on site, such as gas or portable toilet facilities, and requirements to handle or dispose of them must be followed.
Transportation & Infrastructure	X		The proposed activities are designed to improve the existing irrigation infrastructure of the EVIDD system.
Noise	X		Construction activities could cause temporary noise effects.
Visual Resources and Scenic Beauty	X		The proposed activities could affect the visual resources within the Project Area.
Recreation		X	Although recreation facilities are located within the watershed, such as the Big Sandy Park in Farson and the Bicentennial Park in Eden (Sweetwater County 2023), project activities would not affect these facilities because they would not occur in proximity to them. The Big Sandy Reservoir Recreation Area and the Pony Express Historic Trail are located outside and upstream of the Project Area (Recreation 2023). No changes to the water supply within or discharge from the Big Sandy Reservoir would occur from the Proposed Project, and no effect to recreation activities at these facilities or features would occur.

Resource	Relevant to the Proposed Action?		Rationale (Context and Intensity)
	Yes	No	
			Though informal recreation opportunities are present throughout the Project Area and the local residents have used the canal maintenance access roads as informal walking paths, recreation within EVIDD facilities is not permitted (Recreation 2023), the canals within the Project Area are not designated for recreational use or general public access, and swimming in the canal is not permitted. The Proposed Project would not affect recreation or recreation facilities in the Project Area and no changes to recreation areas or to the availability of recreation activities within the Project Area would occur from the proposed activities, and therefore, this resource was eliminated from detailed analysis.
Social Issues		X	No social issues were generated during the scoping process, and this resource was eliminated from detailed analysis.
Special Land Designations			
Coastal Zone Plans; Coral Reefs		X	No coastal zones or coral reefs occur within or near the Project Area and no Coastal Zone Management Areas or Plans are applicable to the Proposed Project, therefore, no effects to coastal zones or coral reefs would occur from the Proposed Project. The project is consistent with PL 101-508 (Coastal Zone Management Act), and this resource was eliminated from detailed analysis.
Forest Resources		X	Forest lands are not located in or near the Project Area, therefore, no effects to forest lands would occur from the Proposed Project, and this resource was eliminated from detailed analysis (USFS 2025).
Land Use	X		EVIDD must coordinate proposed activities with Reclamation, and activities must be consistent with zoning ordinances and adhere to county land use requirements.
Natural Areas	X		The proposed activities may benefit wilderness study areas within the Big Sandy Watershed, and downstream natural areas.
Ecologically Critical Areas		X	No ecologically critical areas are designated within the Project Area, and therefore, no effects to ecologically critical areas would occur from the Proposed Project, and this resource was eliminated from detailed analysis. No critical habitats are located within the project area (see BE in Appendix E of the Big Sandy Watershed Plan).
Parklands, National Parks, Monuments, and Historic Sites		X	No national parks occur within or near the Project Area (National Park Service [NPS] 2023a), and no national parks, monuments, or historical sites are in or immediately near the Project Area based on National Natural Landmarks Directory (NPS 2023b), therefore, no effects to parklands, monuments, or historical sites would occur from the Proposed Project, and this resource was eliminated from detailed analysis.
Wild & Scenic Rivers		X	No wild or scenic rivers or Nationwide River Inventory segments are in or near the Project Area according to the National Wild and Scenic Rivers System Map (Wild and Scenic Rivers 2016), therefore,

Resource	Relevant to the Proposed Action?		Rationale (Context and Intensity)
	Yes	No	
			no effects to Wild and Scenic Rivers would occur from the Proposed Project. Project is consistent with PL 90-542 (Wild and Scenic Rivers Act), and this resource was eliminated from detailed analysis.
Other Concerns Identified by Sponsor, Agencies, and the Public			
Other Concerns Identified by Sponsor, Agencies, and the Public		X	No other concerns were raised by the Sponsor, agencies, public, or Tribes.

In accordance with 7 CFR Part 1b and Section 501.35(B) of the NWPM (NRCS 2015), the NRCS eliminated the following resource categories from further analysis because the Proposed Action would result in negligible or no effect to these resources. Other than the information contained in Table 3-1, this EA provides no additional information for the following resource categories: energy, sole source aquifers, EFH, invasive animal species, civil rights, recreation, social issues, coastal zone plans, coral reefs, forest resources, ecologically critical areas, parklands, National Parks, monuments, and historic sites, wild and scenic rivers, and other concerns.

3.2 Determination of Scope for NEPA Analysis

The project area is a 323-acre portion of the Big Sandy Watershed that includes all areas necessary for implementation of potential measures, including piping, lining, sand trap replacement, temporary access, borrow sites, spoil sites, and laydown areas necessary for construction (Figure 2). The project area encompasses both the direct and indirect effects.

3.3 Determination of Scope for Section 7 of the ESA

In determining the scope for Section 7 of the ESA, an analysis area—the action area—was defined for the analysis of special status plant and animal species consistent with USFWS direction to include all areas to be affected directly or indirectly by the action and not merely the immediate area involved in the action [50 CFR 402.02] (see USFWS scoping letter in Appendix A of the Big Sandy Watershed Plan). Per USFWS policy, agencies are encouraged to use the digital consultation package builder tool available on USFWS Information for Planning and Consultation (IPaC) system to assist in this process, and an official species list from the USFWS IPaC was generated for the action area (USFWS 2024; see Biological Evaluation [BE] in Appendix E).

The action area encompasses approximately 323 acres in Sweetwater County, Wyoming, and includes the affected laterals of the EVIDD system. The action area encompasses the project footprint, staging areas, and a 300-foot buffer on either side of the centerline of the canal laterals.

For the Big Sandy Watershed Project, a qualified biologist prepared a BE which documents the steps leading to the determination of the effect and other supporting information including the Information for Planning and Consultation (IPaC) report generated by the USFWS ecological services office.

3.4 Determination of Scope for Section 106 of the National Historic Preservation Act (NHPA)

The Area of Potential Effect (APE) for Section 106 of the NHPA, surveyed by SWCA Environmental Consultants (SWCA) who meet the Secretary of the Interior's (SOI) Professional Qualification Standards, includes all project disturbance areas associated with construction and maintenance for the Proposed Project. For this undertaking, the APE includes the footprint plus a 200-foot corridor centered on the canals. The APE for staging areas includes the footprint with a 100-foot buffer. The APE encompasses all aspects of the Proposed Project including areas of cultural concern, potential ground disturbance, staging areas, and ingress and egress routes. The APE is consistent with the project footprint for the Proposed Action (Figure 2). The APE includes areas of direct ground disturbance and areas where indirect effects (including changes to visual setting/viewshed) could occur. However, because the proposed improvements consist primarily of buried pipeline installations or canal lining within existing conveyance corridors,

and do not introduce new or prominent above-ground features, the potential for viewshed or visual setting effects was evaluated and determined to be not applicable.

Class III cultural resources inventories were completed for the Proposed Action's APE by consultants who meet the SOI's Professional Qualification Standards. In August 2022, SWCA and a Traditional Cultural Specialist (TCS) from the Northern Arapaho Tribe completed an inventory on approximately 425 acres. SWCA conducted an addendum Class III cultural resources inventory for the proposed sand trap on approximately 11 acres in August 2025. The survey area was larger than the APE because areas of additional measures that were not carried into the final alternatives were surveyed. The inventories included the 323-acre Proposed Action APE including the 2.4 miles of Eden Canal proposed for lining, 9.7 miles of Farson Laterals and 1.8 miles of the E-33 Laterals proposed for piping, the sand trap, and 88.5 acres of proposed staging areas (Veach et al. 2023).

Before conducting the survey, the NRCS consulted with the Wyoming State Historic Preservation Office (SHPO), Tribes, and other appropriate agencies and consulting parties during initial scoping. The full record of Section 106 consultation—including information on the Memorandum of Agreement (MOA), all correspondence, reports, and coordination materials—is maintained in the administrative record and supports the determinations presented; Appendix A provides representative documentation to summarize and substantiate this process.

3.5 Potential Effects on the Living Communities and Human Uses

The purpose of this section is to describe the potential effects of each alternative on the environmental and human health resource categories. Unless otherwise noted, the area of analysis for each resource is the Project Area. The effects analysis of the Proposed Project alternatives includes temporary (0–3 years), short-term (3–10 years), and long-term (10+ years) affect time frames. Temporary effects are short-lived and reversible, occur during a specific period, such as during construction, and the environment returns to its original state once the activity ceases.

Intensity of effects are categorized as:

- Not Applicable (N/A);
- No Effect;
- Negligible Effect—An effect so small that it is not measurable or perceptible. It does not alter the environment in any significant way;
- Minor Effect—An effect that is noticeable but not significant. It may cause some changes to the environment, but these changes are not substantial and do not require major mitigation measures;
- Major Effect—An effect that is significant and substantial. It causes considerable changes to the environment, potentially requiring extensive mitigation measures to address the adverse effects.

Two types of effects may occur and are discussed in this chapter:

- Direct Effect: Effects from a proposed action that occur at the same time and same place.
- Indirect Effect: Effects from a proposed action that occur later in time, at some distance from the project, and are changes due to cause and effect relationships.

Section 1.6 in the Plan discusses past projects in the watershed area. Table 3-2 provides a summary of effects for each alternative.

Table 3-2. Summary of Effects for Each Alternative for Big Sandy Watershed

Activity or Resource Area	No Action Alternative (FWOFI)	Proposed Action Alternative (FWFI)
Economics		
Economic Summary	The Project Area would incur additional economic costs due to maintenance, repair activities, and water management inefficiency.	Direct effects of the FWFI include using \$5,772,200 in local match funds to construct the Proposed Project. The FWFI would require an average annualized costs of \$1,150,400 and provide \$2,926,500 in average annualized benefits—all the economic benefits are related to agriculture—for an average annualized net benefit of \$1,776,100 and a benefit-cost ratio of 2.5:1.0.
Socioeconomics	Under the FWOFI, no Federal investment or associated local match would be required; however, limited non-Federal construction activities, such as replacement of drop structures, would occur as part of ongoing system maintenance funded by the Sponsor Local Organization. These activities would not result in meaningful economic stimulus or job creation within the Project Area.	The FWFI would have a beneficial effect on socioeconomics by temporarily creating 10 jobs within the Project Area during construction and by avoiding \$19,400 in infrastructure replacement costs reducing \$1,270,300 in salinity-related damages, and providing \$1,636,800 in increased farm production.
Air Quality and Climate		
CAA/ NAAQS	No effect to air quality would occur. Sweetwater and Sublette Counties would continue to meet NAAQS.	During construction, the proposed trenching, excavation, and dirt work would produce minimal particulate and diesel emissions from the two to four pieces of heavy equipment operating at the same time, resulting in a temporary, negligible adverse effect to air quality. Once construction is complete, the required O&M activities would decrease, resulting in a long-term beneficial effect to air quality. Sweetwater and Sublette Counties would continue to meet NAAQS.
Climate and GHG	The Project Area would be susceptible to climate stress, especially during drought periods.	By improving water conservation and quality, the FWFI would improve climate resiliency for 16,700 acres and make EVIDD's irrigation system more resilient to climate stress, especially given uncertain increases in variability of temporal and spatial patterns of precipitation, evaporation, and water availability which could challenge

Activity or Resource Area	No Action Alternative (FWOFI)	Proposed Action Alternative (FWFI)
		<p>water resource systems. For the FWFI, 7,728 ac-ft of water would be conserved and 4,776 tons per year of salinity reduction would occur.</p> <p>Though project activities could cause temporary increases in GHGs from construction equipment emissions, these emissions would be temporary, negligible, and localized, and would not interfere with the area achieving NAAQS requirements or statewide GHG goals. Once construction is complete, the required operations and maintenance activities would decrease, resulting in long-term beneficial reductions in GHG emissions.</p>
Soils and Geology		
Upland Erosion & Sedimentation	<p>The FWOFI would have minimal effects on soil resources in the Project Area. Routine maintenance activities, including periodic replacement of drop structures, may result in localized and temporary soil disturbance; however, these activities would not meaningfully reduce existing issues with bank erosion and sedimentation in EVIDD facilities.</p>	<p>Though the FWFI would directly affect soil during temporary ground disturbance during construction, because soil disturbance would occur in the previously disturbed canal prism and staging areas and would be reclaimed, and best management practices (BMPs) would be employed to further minimize erosion and sedimentation during all project activities, the FWFI would have minimal adverse effects in the temporary time frame.</p> <p>In the long term, the Farson Lateral and E33 Lateral pipeline installation and reclamation would remove 11.5 miles of bare and eroded banks of these canals, the Eden Canal lining would protect 2.4 miles of canal bank, and the sand trap replacement would directly remove and reduce sand and sediment, which would have the beneficial effect of reducing erosion and sedimentation in downstream waters. The project activities would comply with the Wyoming Pollutant Discharge Elimination System (WYPDES) permit requirements to minimize or eliminate sediment, and no significant adverse effect would occur to soils from implementing the FWFI.</p>
Prime & Unique Farmland, and Farmland of Statewide Significance	<p>Farmland would continue to produce as in the past. No effects would occur to agriculturally significant soils.</p>	<p>The FWFI would have no negative effects to agriculturally significant soils and would comply with the Federal Farmland Protection Policy Act (FPPA) because temporary and permanent soil disturbance would be focused within the previously disturbed canal prisms, and the FWFI would not disturb existing agricultural lands that are considered farmland of statewide importance, nor alter the land use of designated farmlands. Increased water use efficiency would have beneficial effects on agriculturally significant soils.</p>
Vegetation		
Special Status Plant Species including	<p>Because no suitable habitat is present in the Project Area for</p>	<p>No ULTs or suitable habitat were present in the Project Area. Given the lack of suitable habitat and lack of occurrence records for the species in the vicinity, the FWFI would</p>

Activity or Resource Area	No Action Alternative (FWOFI)	Proposed Action Alternative (FWFI)
Endangered and Threatened Plant Species	ULT, no effects would occur to this species.	have No Effect on the ULT and suitable habitat for the species (see BE in Appendix E of the Plan).
Riparian Areas	Under the FWOFI, riparian areas would largely persist in their current condition, supported in part by ongoing seepage from unlined canals. Routine maintenance activities, including periodic replacement of infrastructure such as drop structures, may result in localized and temporary disturbance to canal-adjacent riparian vegetation; however, these actions would not result in meaningful changes to riparian extent or function at the Project Area scale. Seepage-induced riparian vegetation would continue to exist. Seepage losses and salinity loading would persist, affecting downstream riparian areas.	<p>Under the FWFI, no riparian areas would be affected, as the Little Sandy Creek and associated riparian area fall outside of the project footprint on the north end of the Eden Canal.</p> <p>Along the canals, construction practices would remove a small number of trees and shrubs along portions of the canal alignment and would temporarily disturb the herb layer in 24 acres of seepage-induced riparian vegetation directly associated with the canal prisms. Direct and indirect effects to this riparian vegetation would be minimized by implementing BMPs, including spatially confining construction activities and revegetating disturbed areas.</p> <p>In the long term, this riparian vegetation would eventually decline across the total Project Area caused by hydrological loss when the canals are piped and lined. However, this vegetation is currently heavily managed using herbicide and lacks species diversity and structural complexity, decreasing the magnitude of this decline. Additionally, the remaining 60 miles of canal and laterals combined with the 47 miles of drainage ditches within the EVIDD system have similar riparian vegetation value and would continue to provide 191 acres of riparian vegetation, ensuring the FWFI effects are minor.</p> <p>Despite the loss of poor-quality riparian vegetation along the canals, the project is designed to improve overall water quantity and quality in the Project Area, making the entire watershed more resilient to a changing climate, consistent with the Wyoming Wetlands Conservation Strategy.</p>
Noxious Weeds & Invasive Plant Species	The FWOFI would not alter current invasive species and noxious weed control practices. Weeds would persist at current levels, and EVIDD would continue current weed control practices.	The FWFI would not cause or promote the introduction or spread of invasive species beyond what currently exists and would therefore comply with E.O. 13112. The FWFI construction BMPs minimize the risk of new weed introduction and recruitment and existing weed spread, including cleaning equipment to remove dirt, weeds, organisms, and other contaminating substances before entering the Project Area to avoid noxious weed dispersal, and developing a post-construction rehabilitation plan including mechanisms for addressing soil disturbance reclamation and weed establishment and treatment, and EVIDD would continue to be responsible for complying with the Wyoming Weed and Pest Control Act in the Project Area.

Activity or Resource Area	No Action Alternative (FWOFI)	Proposed Action Alternative (FWFI)
Water Resources		
Regional Water Management Plan	<p>The FWOFI would not include coordinated investment in water infrastructure or water conservation measures; however, limited non-Federal infrastructure replacement, such as periodic replacement of drop structures, would occur as part of routine system maintenance. These activities would not result in meaningful improvements in water use efficiency or alignment with regional water management goals.</p>	<p>The FWFI would conserve water, provide for efficient delivery of water, and improve water quality through piping, lining, and sand trap replacement activities within the Project Area, which would align with the top priorities identified in the Green River Basin Plan to “preserve existing uses...and...rectify existing demands, needs, and shortages.” There would be a water conservation savings of 7,728 ac-ft per year (J-U-B 2022).</p> <p>The savings would be used for irrigation water since, in most years, additional water is needed to supplement supplies on existing irrigated acreage (Long 2022).</p>
Surface Water and Groundwater Quality and Quantity	<p>The Project Area would continue to experience water loss from seepage and evaporation. Routine maintenance activities, including periodic replacement of drop structures, may result in localized and temporary disturbance but would not meaningfully affect surface or groundwater quality or quantity. Groundwater recharge would not be affected. Under the FWOFI, existing conditions would persist, and the earthen laterals would continue to experience erosion and sedimentation, which degrades the water quality of tailwaters.</p>	<p>Effect of Project Activities on Water Quality</p> <p>During construction, only minimal indirect temporary effects to water quality would occur because project activities would not occur within natural channels or associated riparian areas of Project Area creeks or rivers. To further reduce and minimize the negligible effects to water quality associated with construction, BMPs would be implemented to protect water quality and to prevent water pollution from runoff, spills, leaks, and leaching. Due to the temporary nature and small scale of the construction activities’ effects to water quality, and the compliance with the BMPs and the WYPDES Program General Permit, the FWFI would comply with the Wyoming Surface Water Quality Standards and the CWA, and the effects do not rise to the level of significance.</p> <p>Piping the laterals, lining the Eden Canal, and replacing the sand trap would eliminate the water’s contact with the muddy substrate, which would result in cleaner irrigation water.</p> <p>The lateral piping and Eden Canal lining would also eliminate the deep percolation of canal seepage water. These activities would reduce the vertical transport of salts via seepage and would improve surface and groundwater quality by reducing 4,776 tons of salt per year into the watershed and the Colorado River Basin (Reclamation 2019).</p>

Activity or Resource Area	No Action Alternative (FWOFI)	Proposed Action Alternative (FWFI)
	<p>Earthen laterals would continue to erode and transport sediment in tailwaters.</p> <p>The high salt levels of 4,776 tons per year contributed from the Big Sandy watershed to the Colorado River Basin would persist.</p> <p>The 7,793 ac-ft of annual losses due to evaporation and seepage would persist.</p> <p>Groundwater recharge would continue to occur in the Project Area through deep percolation.</p>	<p>Effects of Project Activities on Water Quantity</p> <p>The canal piping and lining and sand trap replacement would eliminate water lost to seepage and reduce water lost to evaporation, having the beneficial effect of conserving 7,728 ac-ft of water annually (J-U-B 2022). The savings would be used for irrigation water since, in most years, additional water is needed to supplement supplies on existing irrigated acreage (Long 2022).</p>
CWA and WOTUS	<p>The FWOFI would have no meaningful direct effects on resources protected under the CWA. Routine maintenance activities, including periodic replacement of drop structures, may result in localized and temporary disturbance; however, these activities would not affect jurisdictional waters in a manner that alters existing conditions.</p>	<p>No effects would occur to natural wetlands since no activities would occur in proximity to natural wetlands within the Project Area.</p> <p>Direct temporary effects would occur to artificial, seepage-induced wetlands from ground disturbing activities. Due to the temporary nature and small scale of the construction activities' effects to water quality, and the compliance with the BMPs and the WYPDES Program General Permit, the FWFI would comply with the provisions in the CWA.</p> <p>In the long term, the FWFI would reduce open canal irrigation water by 11.5 miles and eliminate seepage that contributes hydrology to 6.5 acres of seepage-induced wetlands directly associated with canal irrigation and seepage.</p> <p>Effects to jurisdictional waters, including wetlands (see next section), would require permitting through the U.S. Army Corps of Engineers (USACE). Because the FWFI is an activity conducted as part of a salinity or selenium control project or water conservation project per a binding agreement with USDA, compliance with Section 404 of the CWA for the discharge of dredged or fill material in waters of the U.S. would be fulfilled consistent with the USACE RGP-2302-RWY for irrigation ditch related activities in the State of Wyoming. In January 2024, USACE confirmed general applicability of the RGP-2302-RWY to the Proposed Project.</p>
Wetlands	<p>The FWOFI would not result in direct impacts to wetlands, as no construction activities are</p>	<p>The FWFI would not affect wetlands associated with natural water courses within the Project Area, however, temporary ground disturbing construction activities may directly affect 6.5 acres of seepage-induced wetlands attributable to irrigation water in</p>

Activity or Resource Area	No Action Alternative (FWOFI)	Proposed Action Alternative (FWFI)
	<p>anticipated within wetland areas. Limited, routine maintenance activities, such as replacement of drop structures, may occur within the canal system but would not affect wetlands. The canals in the EVIDD system would continue to provide hydrology to 6.5 acres of seepage-induced wetlands.</p>	<p>the canals within the Project Area. Effects to these wetlands would be avoided and minimized by containing construction to the previously disturbed canal prism and by implementing BMPs. Consistent with E.O. 11990, the NRCS considered the factors relevant to the Preferred Alternative's effect on the survival and quality of the wetlands including the public health, safety, and welfare, including water supply, quality, recharge and discharge, pollution, flood and storm hazards, and sediment and erosion; maintenance of natural systems, including conservation and long-term productivity of existing flora and fauna, species and habitat diversity and stability, hydrologic utility, fish, wildlife, timber, and food and fiber resources; and other uses of wetlands in the public interest, including recreational, scientific, and cultural uses. These actions ensure the FWFI minimizes the destruction, loss, or degradation of wetlands and preserves and enhances the natural and beneficial values of wetlands, as required in E.O. 11990.</p> <p>In the long term, because the FWFI would pipe irrigation water and eliminate canal seepage, the hydrology that created these wetlands would be eliminated. The loss of these wetlands would not affect the ecological function of wetlands in the watershed area that are more robust and naturally occurring.</p>
Floodplain Management	<p>The FWOFI would have no effects on floodplain management.</p>	<p>Because no disturbance, additional occupancy, or modification of floodplains would occur; the ability of the Project Area to naturally moderate floods and maintain water quality would remain similar to the existing conditions. The FWFI would not contribute to any trends increasing flood risk in the Project Area or in the Big Sandy Subbasin and the FWFI would avoid adverse effects to floodplains, and is therefore consistent with E.O. 11988.</p>
Wildlife		
Fish and Wildlife & Wildlife Habitat	<p>The FWOFI would have minimal direct effects on fish or wildlife or habitat in the Project Area. Routine maintenance activities, including periodic replacement of drop structures, may result in localized and temporary disturbance; however, these activities would not meaningfully affect wildlife populations or</p>	<p>Because no fish habitat is present within the canal or laterals within the Project Area, and because BMPs would be in place to protect water quality, the Proposed Action Alternative would not affect fish habitat.</p> <p>Temporarily, wildlife would be displaced by the increased human presence during construction activities. Disruption effects would be limited to the construction phase only, and much of the wildlife in the area is accustomed to farm equipment, agricultural activities, and ongoing operations and maintenance of the irrigation system, similar to the equipment and activities that would be present during implementation of the Proposed Action Alternative, therefore disruptions would be</p>

Activity or Resource Area	No Action Alternative (FWOFI)	Proposed Action Alternative (FWFI)
	<p>habitat conditions at the Project Area scale. Water losses and salt loading would persist in the Project Area.</p> <p>The canals and laterals would continue to be barriers to movement for large and small game animals and could cause mortality for animals that enter the open water features and cannot escape.</p>	<p>minimal. BMPs would be implemented along the entire alignment to further minimize effects to wildlife species and habitat surrounding the canal prism.</p> <p>In the long term, canal piping and lining would remove hydrology from irrigation water and seepage that supports approximately 24 acres of poor-quality seepage-induced riparian vegetation, which includes 6.5 acres of wetlands and an open water source that wildlife, such as big game, small mammals, waterfowl, and avian species, may use for forage, shelter, and stopover habitat. However, vegetation along canals and laterals is currently heavily managed using herbicide to control noxious weeds and general vegetation overgrowth, limiting the abundance of high-quality forage and cover available to wildlife. Revegetation efforts following construction activities would replace the existing vegetation with native, drought-tolerant species, ensuring forage would still be available and effects would be minor. BMPs would be implemented to avoid and minimize potential effects to wildlife species.</p> <p>The Proposed Project also benefits wildlife. Piping the canals and laterals would remove a barrier and mortality risk for wildlife movement.</p> <p>Species-specific Effects—Antelope</p> <p>Although the Project Area overlaps with crucial range for the antelope, the temporary disturbance on 323 acres and the long-term loss of irrigation water along the canals is a very small proportion of the available 1,327,564 acres of the crucial range (0.02%). No migration corridors occur within the Project Area.</p> <p>Based on the ample alternative crucial range available to this species within the region, the lack of migration corridor habitat within the Project Area, and the temporary nature of the vegetation disturbance, population-level effects would not occur to antelope, the overall effects would be negligible, and the FWFI would be consistent with E.O. 2020-1, which protects migration corridors for wildlife in Wyoming.</p> <p>Species-specific Effects—Greater Sage-grouse</p> <p>No effect to greater sage-grouse or core management area habitat would occur from the Proposed Action Alternative. Though the Project Area falls within Greater South Pass Sage-grouse Core within 4 miles of known active greater sage-grouse leks, it is not within 0.6 miles of an occupied leks. Given the absence of long-term change to sagebrush habitat in or around the footprint of the Eden Canal, the Farson and E-33 Laterals, the sand trap, and staging areas; the marginal quality of the greater sage-grouse habitat within the Project Area; the consideration that the FWFI is a <i>de minimis</i> activity per Appendix G of E.O. 2019-3; the very limited extent (0.002 %) of habitat</p>

Activity or Resource Area	No Action Alternative (FWOFI)	Proposed Action Alternative (FWFI)
		affected; and the timing restriction for vegetation removal outside of sage-grouse breeding and nesting season, no effect to greater sage-grouse or its habitat within core management area habitat would occur from the FWFI.
Candidate, Threatened, and Endangered Species	No suitable habitat is present in the Project Area for ESA-listed species. Therefore, the FWOFI would have no effect on special status animal species. Historic depletions would persist.	Based on the lack of suitable habitat in the Project Area for ESA-listed species, no effects would occur to federally listed animal species and state sensitive species (see BE in Appendix E of the Plan). Although historic depletions would continue under the Preferred Alternative, no new depletions are proposed. Due to the lack of suitable habitat for the four Colorado River fish species and no new depletions, the Action Alternative would have no effect on these fishes.
Migratory Bird and Bald and Golden Eagles	The FWOFI would have no effect on migratory birds, or bald and golden eagles.	Because of the lack of suitable breeding habitat within the Project Area and the avoidance and conservation measures, the FWFI would have no effect on bird species protected under the Migratory Bird Treaty Act (MBTA) and Bald and Golden Eagle Protection Act (BGEPA).
Human Environment		
Cultural and Historic Resources	Under the FWOFI, no Federal undertaking would occur; however, limited non-Federal maintenance activities, including periodic replacement of drop structures, would occur within the existing irrigation system. Because these features are part of historic irrigation infrastructure, such activities have the potential to affect historic properties, depending on the nature and extent of work. In the absence of coordinated planning and mitigation, these actions could result in incremental alteration of historic features over time. Long-term neglect of the system could also result in adverse effects if the	Section 106 consultation has been completed. The FWFI would have an adverse effect on six eligible properties. NRCS, Reclamation, Wyoming SHPO, EVIDD, and the Other Consulting Parties agreed that the undertaking shall be implemented in accordance with the stipulations in a MOA to resolve adverse effects on segments of the historic Hay Lateral, Eden Canal, Eden Lateral, and Farson Lateral. Although no adverse effect would occur at two precontact sites, the Northern Cheyenne Tribe requested a construction monitoring/open trench inspection (OTI) by a SOI qualified archaeologist and a Northern Cheyenne Tribe TCS at the two precontact sites along the Eden Canal (see BMPs in Appendix E). This monitoring is separate from measures to resolve adverse effects (as identified in the MOA) and is implemented as a precautionary measure at the Tribe's request, despite the determination of no adverse effects at these locations. This collaboration with the Northern Cheyenne Tribe supports protection of Tribal values during construction. Appendix A of the Plan includes Section 106 documentation, including a summary of Tribal consultation and the MOA to resolve adverse effects.

Activity or Resource Area	No Action Alternative (FWOFI)	Proposed Action Alternative (FWFI)
	system ceases to function properly.	
Scientific Resources	No ground disturbance affecting undisturbed soils would occur under the FWOFI, and therefore, no effects to paleontological resources would occur.	Because construction activities would not intercept bedrock and the implementation of an inadvertent discovery stipulation, the FWFI would not affect paleontological resources.
Public Health and Safety	The FWOFI would not substantially change public health and safety within the Project Area. Limited maintenance activities, including replacement of drop structures, would occur; however, miles of open water and the risk of canals and laterals overtopping and flooding surrounding areas would remain.	The purpose of the Proposed Project is to provide a reliable, efficient, and safe water delivery system by lining and piping open canals and replacing the sand trap, providing beneficial effects to public health and safety by reducing the open water areas and decreasing the flood risk. The FWFI would eliminate 11.5 miles of open water that could pose safety risks in the Project Area. The FWFI would also address flood inundation associated with the overtopping of 13.9 miles of canals and laterals by piping 11.5 miles of laterals and lining 2.4 miles of the Eden Canal, which would reduce flood risk on approximately 16,700 acres of irrigated land and roadways. These actions would subsequently improve public health and safety in the Project Area.
Hazardous Materials	The FWOFI would have no effect on hazardous materials in the Project Area.	No hazardous waste facilities were identified within the Project Area during preliminary investigations (Wyoming Department of Environmental Quality [WDEQ] 2022 & 2023). Because EVIDD would comply with construction contract provisions regarding hazardous or solid waste and would also develop and implement the Spill Prevention, Control, and Countermeasure (SPCC) Plan and the Storm Water Pollution Prevention Plan (SWPPP), handling of hazardous materials would comply with all applicable laws and regulations and would not cause health hazards or environmental concerns.
Transportation and Infrastructure	The existing EVIDD irrigation infrastructure is deteriorating and requires continued labor and capital to perform maintenance activities. If the FWOFI were implemented, EVIDD's infrastructure would not be improved, and the deteriorating condition of the laterals would	During construction, the FWFI may have temporary negative effects on transportation in the Project Area due to construction vehicle access and movement. EVIDD would implement appropriate traffic control measures during construction to minimize disturbance and reduce effects to local traffic. No new access roads would be constructed for the FWFI; access routes and road crossings would be returned to their current conditions; and EVIDD would coordinate with local agencies for road crossings and emergency response. In the long term, the FWFI would directly improve irrigation infrastructure, including the canals and the sand trap, and indirectly protect infrastructure in the Project Area.

Activity or Resource Area	No Action Alternative (FWOFI)	Proposed Action Alternative (FWFI)
	<p>remain the same. The sand trap would continue to limit flow and back up water, causing evaporative water loss and additional maintenance issues for EVIDD. Seepage and evaporative losses would continue in the canals. Drop structures would be replaced on an ongoing basis, as their state of degradation increases.</p> <p>Under the FWOFI, no effects to local traffic would occur.</p>	<p>The FWFI would reduce seasonal maintenance of the irrigation laterals in the Project Area; and the improvements to the irrigation infrastructure would reduce the flooding risk to the transportation system and buildings in the Project Area. The FWFI would negate the need to replace the drop structures.</p>
Noise	<p>No significant change in noise conditions would occur under the FWOFI. Routine maintenance activities, including periodic replacement of drop structures, may result in localized and temporary increases in noise; however, overall noise conditions would remain consistent with the existing rural and agricultural environment.</p>	<p>Construction noise would be temporary and minor, as it would not raise the level of noise in the area above the background level of rural and agricultural noise. In the long term, a beneficial effect to noise would occur as noise disturbance from human activity along the canal alignment would be reduced given a decreased need for maintenance.</p>
Visual Resources and Scenic Beauty	<p>The FWOFI would not result in substantial changes to visual resources or scenic beauty. Routine maintenance activities, including periodic replacement of drop structures, may result in localized and temporary disturbance; however, overall visual character would remain</p>	<p>During construction, temporary, minor visual effects would occur due to the presence of construction equipment and activities, and piping and lining 13.9 miles of canals and laterals would involve removing mature trees and shrubs, and disturbing grasses along portions of the canals and would eliminate the open water of these laterals. During the period between piping and lining the canals and successful reclamation, linear scars attributable to the piping and lining and vegetation removal along the canal lines could be visible intermittently along adjacent roads, and access roads and driveways, but they would not dominate the sight of the casual observer. These linear features would create only a minor visual change in the temporary time frame because they would resemble the current condition of the linear canal features and be strikingly</p>

Activity or Resource Area	No Action Alternative (FWOFI)	Proposed Action Alternative (FWFI)
	consistent with existing conditions.	similar to other linear features, such as ditch, power, road, and fence lines in this rural, agricultural setting. After reclamation and vegetation reestablishment, the visual changes from the FWFI would not rise to the level of significance, as they would be substantially unnoticeable, and the existing character of the landscape and scenic beauty would be retained.
Special Land Designations		
Land Use	The FWOFI would have no effect on land use designations in the Project Area.	Under the FWFI, construction activities associated with Eden Canal would occur on Reclamation-administered land. EVIDD has an existing operations and maintenance contract with Reclamation that allows them to perform maintenance including modernization of the existing features. The proposed activities would fall under that existing contract, and appropriate coordination would occur. The Project Area is zoned for general agriculture, and land use within the Project Area would not change from existing agricultural uses. Sweetwater County's Comprehensive Plan's goal to "encourage the preservation of agricultural lands and activities within the County" (Sweetwater County 2002) would be met by the proposed activities that improve agricultural water management for EVIDD shareholders within the Big Sandy Watershed.
Natural Areas	No effects would occur to designated natural areas under the FWOFI. While limited, routine maintenance activities, such as replacement of drop structures, may occur within the irrigation system, these activities would not occur within or affect nearby natural areas.	Construction activities would have no effects to the Buffalo Hump or the Sand Dunes Wilderness Study Area (WSAs), the Seedskaadee National Wildlife Refuge, or the Flaming Gorge National Recreation Area because no project activities would occur within or nearby these natural areas. The FWFI would improve water quality within the Big Sandy Watershed and in downstream areas by reducing salinity loading by 4,766 tons a year. This outcome would ultimately improve water quality and water flow to nearby natural areas. Therefore, the FWFI would have an indirect beneficial effect on the WSAs, refuge area, and national recreation area within and downstream of the Project Area watershed.

3.5.1 Potential Effects on the Characteristics Associated with Fish and Wildlife

Table 3-3 indicates Federally listed species and Table 3-4 lists the State special status species. For a detailed description of the resource, refer to Sections 3.3.4 and 3.3.6 of the Plan.

Table 3-3. Potential Effects on Federally Listed Species

Federally Listed Species	N/A	No Effect	Negligible Effect	Minor Effect (Short Term)	Minor Effect (Long Term)	Major Effect
Yellow-billed cuckoo (<i>Coccyzus americanus</i>)		X				
Four endangered fish species: <ul style="list-style-type: none"> Bonytail (<i>Gila elegans</i>) Colorado pikeminnow (<i>Ptychocheilus lucius</i>) Humpback chub (<i>Gila cypha</i>) Razorback sucker (<i>Xyrauchen texanus</i>) 		X				
Monarch butterfly (<i>Danaus plexippus</i>)		X				
Suckley's cuckoo bumble bee (<i>Bombus suckleyi</i>)		X				
Ute Ladies'-tresses (ULT; <i>Spiranthes diluvialis</i>)		X				

Table 3-4. Potential Effects on State Listed Species

State-listed Species	N/A	No Effect	Negligible Effect	Minor Effect (Short Term)	Minor Effect (Long Term)	Major Effect
Species of Great Conservation Concern						
Greater sage-grouse (<i>Centrocercus urophasianus</i>)		X				
Other State Species						
Pronghorn antelope (<i>Antilocapra americana</i>)			X			

Federal Discussion

In accordance with Section 12 of PL 83-566, the USFWS was notified of the Proposed Action (Appendix A of the Plan). The USFWS was also invited to comment on the project during the scoping period. On December 21, 2020, the USFWS responded with a letter that provided recommendations for protective measures for threatened and endangered species in accordance with the ESA, including that the NEPA analysis should disclose the full extent of the activities performed under the Proposed Action Alternative, and that the USFWS would like to receive information of the status of the following species within the project area—yellow-billed cuckoo, ULT, bonytail, Colorado pikeminnow humpback chub, and razorback sucker, as well as for water depletions. Depletions include evaporative losses and consumptive use of surface or groundwater within the affected basin, often characterized as diversions less return flows. Protection measures for migratory birds and eagles should be implemented during the Proposed

Action. A coordination meeting was held on June 3, 2022 to discuss ESA-listed species and potential effects, including a focused discussion on depletions. Following this meeting, NRCS provided USFWS with project-specific analysis, including the depletions analysis prepared in 2022. These efforts provided USFWS with opportunity to review and comment on potential effects of the Proposed Project.

For the Proposed Action, a qualified biologist prepared a BE which documents the steps leading to the determination of the effect and other supporting information including the IPaC report generated by the USFWS. The IPaC system is the official method of consultation with USFWS Wyoming office. Based on the BE, the Plan contains the required analysis for ESA species and water depletions in Sections 5.3.4 and 5.3.6; for migratory birds and bald and golden eagles in Section 5.3.6.3; and includes project-specific BMPs for the protection of these species and habitat in Appendix E of the Plan. The BE determined the project would avoid significant or adverse impacts to species within the project area. The NRCS State Biologist concurred with the no effect determination. No further consultation was required for the Proposed Project.

State Discussion

The Wyoming Game and Fish Department (WGFD) was invited to comment on the project during the scoping period. On December 18, 2020, the WGFD responded with a coordination letter that advised that lining canals may dry existing wetlands, and that an invasive weed monitoring and treatment plan should be implemented along with the Proposed Action Alternative. A state sensitive species list was obtained from the Wyoming Natural Diversity Database (WYNDD) as part of the biological resource analysis.

The BE determined that there would be a negligible effect to antelope and no impact to greater sage-grouse from implementation of the Proposed Project. Based on the ample alternative crucial range available to antelope within the region, the lack of migration corridor habitat within the Project Area, and the temporary nature of the vegetation disturbance, population-level effects would not occur to antelope, and the overall effects would be negligible. Data on the Proposed Action Alternative and the Project Area was also submitted to the WGFD Density and Disturbance Calculation Tool (DDCT) to determine whether the Proposed Action Alternative would cause effects to the greater sage-grouse core area. The WGFD DDCT concluded that the Proposed Action Alternative is a *de minimis* action and no further coordination with the WGFD is required (WGFD 2023c; Appendix A of the Plan).

3.5.2 Potential Effects on Special Aquatic Sites (PL 99–198, Title XII, The Food Security Act of 1985)

Table 3-5 displays the potential effects on special aquatic sites and highly erodible lands.

Table 3-5. Potential Effects on Special Aquatic Sites and Highly Erodible Land

Special Aquatic Sites/ Highly Erodible Lands	N/A	No Effect	Negligible Effect	Minor Effect (Short Term)	Minor Effect (Long Term)	Major Effect
Sanctuaries and refuges	X					
Wetlands					X	
Mud flats	X					
Vegetated shallows	X					
Coral reefs	X					

Special Aquatic Sites/ Highly Erodible Lands	N/A	No Effect	Negligible Effect	Minor Effect (Short Term)	Minor Effect (Long Term)	Major Effect
Riffle pool complexes	X					
Highly erodible land	X					

Discussion: No sanctuaries and refuges are present in the project area, and no mud flats, vegetated shallows, coral reefs, riffle pool complexes or highly erodible land (HEL) are present in the project area (see BE report, the Aquatic Resources Delineation (ARD) report, and Geologic Report in Appendix E of the Plan). According to the NRCS Web Soil Survey, only 3.1% of the Project Area has a severe erosion hazard rating (NRCS 2023c) which is well below the 33.3% threshold for a HEL determination (7 CFR 12.22(a)(1)). The Proposed Action is not at risk to enhanced surface erosion.

The Proposed Action Alternative would not affect wetlands associated with natural water courses within the Project Area; however, temporary ground disturbing construction activities may directly affect 6.5 acres of seepage-induced wetlands attributable to irrigation water in the canals within the Project Area. Effects to these wetlands would be minimized by containing construction to the previously disturbed canal prism and by implementing BMPs. Consistent with E.O. 11990, the NRCS considered the factors relevant to the Preferred Alternative's effect on the survival and quality of the wetlands including the public health, safety, and welfare, including water supply, quality, recharge and discharge, pollution, flood and storm hazards, and sediment and erosion; maintenance of natural systems, including conservation and long-term productivity of existing flora and fauna, species and habitat diversity and stability, hydrologic utility, fish, wildlife, timber, and food and fiber resources; and other uses of wetlands in the public interest, including recreational, scientific, and cultural uses (see Section 5.3.5.4 in the Plan). These actions ensure the Proposed Action Alternative minimizes the destruction, loss, or degradation of wetlands and preserves and enhances the natural and beneficial values of wetlands, as required in E.O. 11990.

In the long term, because the alternative would pipe irrigation water and eliminate canal seepage, the hydrology that created these wetlands would be eliminated. The Proposed Action Alternative would pipe 11.5 miles of jurisdictional laterals, reducing open water in the project area by 16 acres. The loss of these wetlands would not affect the ecological function of other wetlands in the watershed area that are more robust and naturally occurring.

Under the CWA, the action of piping the laterals and affecting wetlands would require Section 404 permitting through the USACE. Construction would occur outside of the irrigation season when the laterals do not contain irrigation water. Due to effects to aquatic resources, the project would also need a Section 401 permit from the WDEQ. The Proposed Action would qualify for Regional General Permit (RGP) 2302-RWY. Under the Proposed Action, BMPs would be installed to ensure CWA water quality standards would be met. BMPs include implementation of Temporary Erosion Controls (TECs), SPCC plan, and SWPPP and following the construction stormwater discharge requirements as stated in the WYPDES permit. A complete list of BMPs is included in Appendix E of the Plan. These actions would ensure the Proposed Action minimizes the destruction, loss, or degradation of wetlands and preserves and enhances the natural and beneficial values of wetlands, as required in E.O. 11990. Coordination with USACE is included in Appendix A of the Plan.

3.5.3 Potential Effects on Water Flow Characteristics

Table 3-6 displays the potential effects on water flow characteristics.

Table 3-6. Potential Effects on Water Flow Characteristics

Water Flow Characteristics	N/A	No Effect	Negligible Effect	Minor Effect (Short Term)	Minor Effect (Long Term)	Major Effect
Substrate			X			
Suspended particulates/turbidity				X	X	
Water			X			
Current patterns and water circulation			X			
Normal water fluctuations			X			
Salinity gradients	X					

Discussion:

The Proposed Action would have a negligible short-term effect on substrate and be limited to piping and lining the laterals and canals, replacing the sand trap, and site restoration. The effects to suspended particulates/turbidity are limited to a short-term duration and minor effect during construction prior to site stabilization. Piping the earthen laterals and replacing the sand trap would reduce turbidity in the watershed by eliminating erosion and sediment transport in the project laterals, creating a minor beneficial long-term effect. The Proposed Action's piping the Farson and E-33 Laterals and lining the Eden Canal would have negligible effects to water, current patterns and water circulation, and normal water fluctuations in the project area during construction.

3.5.4 Potential Effects on Human Environment

Table 3-7 displays the potential effects on the human environment.

Table 3-7. Potential Effects on Human Environment

Human Use Characteristics	N/A	No Effect	Negligible Effect	Minor Effect (Short Term)	Minor Effect (Long Term)	Major Effect
Municipal and private water supplies					X	
Recreational and commercial fisheries	X					
Water-related recreation	X					
Aesthetics			X			

Human Use Characteristics	N/A	No Effect	Negligible Effect	Minor Effect (Short Term)	Minor Effect (Long Term)	Major Effect
Parks, national and historical monuments, historic landmarks, national historical landmark district, national seashores, wilderness areas, research sites USFWS refuges, and similar preserves		X				

Discussion: The Proposed Action would have a minor beneficial effect on irrigation water supply, making 7,728 ac-ft of water savings from reduced canal seepage available for irrigation. Negligible effects to aesthetics are expected. No recreation nor parkland resources are applicable to this project as recreation within canal facilities is not permitted, and no national parks, monuments, or historical sites occur in or immediately near the project area. Construction activities would have no effects to the Buffalo Hump or the Sand Dunes WSAs, the Seedskaadee National Wildlife Refuge, or the Flaming Gorge National Recreation Area because no project activities would occur within or nearby these natural areas. The Proposed Action Alternative would improve water quality within the Big Sandy Watershed and in downstream areas of the Project Area by reducing salinity loading by 4,766 tons a year. This outcome would ultimately improve water quality and water flow to nearby natural areas. Therefore, the Proposed Action Alternative would have an indirect beneficial effect on the WSAs, refuge area, and national recreation area within and downstream of the Project Area watershed. The project benefits, NRCS design and construction standards, and implementation of BMPs offset any negligible negative effects.

3.6 Resources of Concern

All relevant ecosystem and resource concerns are detailed in Section 3.0 of the Plan. The decision whether to proceed will be based on policies as described in the National Watershed Program Manual (NWPM) (NRCS 2015) and an evaluation of the probable effects of the proposed activity. The benefits reasonably expected to accrue from the proposal are balanced against its reasonably foreseeable detriments.

3.6.1 Unresolved Conflicts

No areas of controversy or unresolved conflicts were identified regarding resource use.

3.7 Mitigation (36 CFR 800.6)

3.7.1 Avoidance and Minimization

Avoidance and minimization measures are described in Section 6.6.1 of the Plan.

3.7.2 Compensatory Mitigation

Based on coordination with the U.S. Army Corps of Engineers (USACE) and the applicability of RGP-2302-RWY, compensatory mitigation is not anticipated to be required for the Preferred

Alternative. The project is part of a salinity control and water conservation effort under a binding agreement with USDA and is expected to result in no more than minimal adverse effects. Although the project would result in the loss of approximately 6.5 acres of seepage-induced wetlands, these features are irrigation-dependent, maintained by inefficient water delivery, and represent relatively low-function, non-natural systems. The project is conducted as part of a salinity control and water conservation effort under a binding agreement with USDA, which qualifies for consideration of impact threshold waivers under the RGP. In addition, the project provides substantial net benefits at the watershed scale, including reduced salinity loading, improved water quality, and increased water conservation, and is expected to result in no more than minimal adverse effects when considered in context.

Input received from the Wyoming Game and Fish Department (WGFD) identified the potential need for mitigation planning and permitting documentation if wetland losses occur. This input has been considered and is reflected in the evaluation of permitting requirements and potential outcomes.

The USACE confirmed the general applicability of RGP-2302-RWY during coordination on January 23, 2024 (Appendix A) and advised that an Approved Jurisdictional Determination (AJD) was not warranted due to processing timelines. Under the RGP-2302-RWY permit, activities associated with salinity control and water conservation projects may be eligible for waivers of standard impact thresholds where no more than minimal adverse effects are anticipated.

Although compensatory mitigation is not expected, final determination of permit applicability and mitigation requirements will be made by the USACE during permit review. If the Proposed Project does not qualify under the RGP or if impact thresholds are exceeded without waiver, compensatory mitigation may be required. Planning-level estimates indicate that potential mitigation costs could range from approximately \$300,000 to \$600,000, depending on final acreage, mitigation ratios, and site-specific conditions. See Sections 5.3.5.3, 6.6.2, and 7.2 of the Plan for additional information on compensatory mitigation.

3.8 Reasonably Foreseeable Effects

Federal agencies should analyze the reasonably foreseeable effects of the proposed action consistent with Section 102 of NEPA, which does not employ the term “cumulative effects;” NEPA instead requires consideration of “reasonably foreseeable” effects, regardless of whether or not those effects might be characterized as “cumulative” (42 U.S.C. 4332(2)(C)(i)). No ongoing or reasonably foreseeable projects are known within the Project Area that could contribute to effects with the Proposed Action. Therefore, there would be no effects from any reasonably foreseeable actions to consider in the resource analysis in Section 5.0 of the Plan.

.

Chapter 4 Consultation and Coordination

The results of coordinating the proposal on Public Notice (PN) and public meeting are identified below, including a summary of issues raised, and the NRCS evaluation of concerns.

Comments were received in response to the coordination effort (see Appendix A of the Plan). A public hearing was not requested or conducted, though a scoping meeting was held on November 17, 2020. No additional issues were raised by NRCS, including any as a result of coordination with other NRCS offices. No comments were raised that require further discussion to address activities and/or effects outside of the NRCS purview.

The following sections detail compliance with other laws, policies, and requirements.

4.1 Section 7 of the ESA

Refer to Section 2.2 for description of the NRCS Proposed Action for Section 7 of the ESA.

4.1.1 Lead Agency Section 7 Consultation

No other federal agency has been identified as the lead agency for complying with Section 7 of the ESA.

4.1.2 Effects Determinations

Listed species are present or in the vicinity of the NRCS project area, but no designated critical habitat occurs in the project area. Eight proposed, threatened, or endangered species potentially occur within the project boundaries: yellow-billed cuckoo, bonytail, Colorado pikeminnow, humpback chub, and razorback sucker, monarch butterfly, Suckley's cuckoo bumble bee, and ULT. NRCS determined that the project would have no effect on these species.

4.1.3 Endangered Species Act Consultation

The USFWS was invited to comment on the project during the scoping period. The USFWS responded to the scoping letter by providing recommendations for protective measures for threatened and endangered species in accordance with the ESA, including that the NEPA analysis should disclose the full extent of the activities performed under the Action Alternative. See scoping letter in Appendix A and Scoping Report in Appendix E of the Plan. A coordination meeting was held on June 3, 2022 to discuss ESA-listed species and potential effects, including a focused discussion on depletions. Following this meeting, NRCS provided USFWS with project-specific analysis, including the depletions analysis prepared in 2022. These efforts provided USFWS with opportunity to review and comment on potential effects of the Proposed Project.

For the Big Sandy Watershed Project, a qualified biologist prepared a BE which documents the steps leading to the determination of the effect and other supporting information including the IPaC report generated by the USFWS. Based on the BE, the Plan contains the requested analysis in Section 5.3.6 and includes project-specific BMPs for the protection of these species and habitat in Appendix E. The NRCS State Biologist concurred with the no effect determination. No further consultation was required for the Proposed Project.

In accordance with the provisions of PL 93-566 § 12, coordination with USFWS is documented in Appendix A of the Plan.

4.2 Magnuson-Stevens Act

Magnuson-Stevens Fishery Conservation and Management Act, EFH compliance is not applicable to this project. There is no EFH within, or near, the project area (NOAA 2023).

4.3 NHPA Consultation (Section 106 of the NHPA)

Refer to 3.4 for the APE. Consultation occurred with the Wyoming SHPO, the Advisory Council on Historic Preservation (ACHP), and Tribes. NRCS, through the review of the NPS Native American Graves Protection and Repatriation Act (NAGPRA) Native American Consultation Database (NACD), the U.S. Department of Housing and Urban Development Tribal Directory Assessment Tool (TDAT), the Bureau of Indian Affairs (BIA) website, and the existing NRCS tribal consultation areas of interest list, identified eight Federally Recognized Tribes: Comanche Nation, Oklahoma; Crow Creek Sioux Tribe of the Crow Creek Reservation, South Dakota; Crow Nation, Montana; Eastern Shoshone Tribe of the Wind River Reservation, Wyoming; Northern Arapaho Tribe of the Wind River Reservation, Wyoming; Northern Cheyenne Tribe of the Northern Cheyenne Indian Reservation, Montana; Shoshone-Bannock Tribes of the Fort Hall Reservation, Idaho, and the Ute Tribe of the Uintah and Ouray Reservation, Utah.

4.3.1 Lead Agency

NRCS is the designated lead federal agency for complying with Section 106 of the NHPA.

4.3.2 NHPA Consultation

The full record of Section 106 consultation—including information on the MOA, all correspondence, reports, and coordination materials—is maintained in the administrative record and supports the determinations presented; Appendix A provides representative documentation to summarize and substantiate this process.

The Proposed Action would have an adverse effect.

In accordance with 36 CFR Part 800.6, NRCS will resolve the adverse effects on segments of the historic Hay Lateral, Eden Canal, Eden Lateral, and Farson Lateral (48SW9110 and 48SW17798) through a MOA. The MOA includes stipulations to resolve the adverse effects, including continuing consultation with the Wyoming SHPO, documenting cultural forms, completing a historic context for the Eden Project, conducting interviews, digitizing historic documents, and placing interpretive signs and a display. Appendix A of the Plan includes the MOA.

4.4 Native American Graves Protection and Repatriation Act (NAGRA)

PL 101-601; 25 U.S.C. 3001–3013; 104 Stat. 3048–3058:

Portions of the project are located on Federal lands. If any person who knows or has reason to know that he/she has inadvertently discovered possible human remains on Federal land, he/she must provide immediate telephone notification of the discovery to the police and Reclamation's Provo Area Office archaeologist. Work will stop until the proper authorities are able to assess the situation onsite. This action will promptly be followed by written confirmation to the responsible Federal agency official. The Wyoming SHPO and interested Native American Tribal representatives will also be promptly notified. Consultation with SHPO and Native American Tribal representatives will begin immediately. This requirement is prescribed under the

NAGPRA (43 CFR Part 10) and the Archaeological Resources Protection Act (ARPA) of 1979 (16 U.S.C 470).

4.5 American Indian Religious Freedom Act (AIRFA) PL 95-341

The project would not prohibit access to public lands. Access to any sites of religious and cultural significance would not be impacted.

4.6 Archaeological Resources Protection Act (ARPA) PL 96-95

Portions of the project are located on Federal lands. Section 106 was completed following the land managing agency's (Reclamation) ARPA policies.

4.7 Tribal Trust Responsibilities

As part of NEPA scoping, the NRCS provided an opportunity for comment and participation with the Tribes on October 27, 2020. The NRCS completed government-to-government consultation with eight Federally recognized Tribes as part of the EA: Comanche Nation, Oklahoma; Crow Creek Sioux Tribe of the Crow Creek Reservation, South Dakota; Crow Nation, Montana; Eastern Shoshone Tribe of the Wind River Reservation, Wyoming; Northern Arapaho Tribe of the Wind River Reservation, Wyoming; Northern Cheyenne Tribe of the Northern Cheyenne Indian Reservation, Montana; Shoshone-Bannock Tribes of the Fort Hall Reservation, Idaho, and the Ute Tribe of the Uintah and Ouray Reservation, Utah. Consultation letters were sent to the Tribes on December 16, 2020. The NRCS sent follow-up emails on January 12, 2021 to all Tribes who had not responded to the December 16, 2020 letter. Of these eight Tribes, three tribes responded that they would like to participate in the Class III survey: Eastern Shoshone Tribe of the Wind River Reservation, Wyoming; Northern Arapaho Tribe of the Wind River Reservation, Wyoming; Northern Cheyenne Tribe of the Northern Cheyenne Indian Reservation, Montana. On July 14, 2022, on behalf of the NRCS, SWCA sent an email inviting those Tribes to participate in the Class III cultural resource inventory for the project, and an additional email was sent on July 28, 2022. However, only the Northern Arapaho Tribe of the Wind River Reservation, Wyoming TCS was able to participate in the inventory. The remaining five tribes did not respond to the tribal consultation letter. Letters and the cultural resource report were sent to the three Tribes who had requested participation in the Class III inventory on November 16, 2022. The Eastern Shoshone and Northern Arapaho Tribes did not comment, even with a follow-up email sent on December 14, 2022. The NRCS has determined that it has fulfilled its tribal trust responsibilities.

4.8 Coastal Zone Management Act (CZMA) N/A

4.9 Wild and Scenic Rivers Act N/A

4.10 USACE Civil Works Projects

Effects on USACE Civil Works Projects (33 USC 408) are not applicable to this project.

4.11 NRCS Wetland and HEL Policy (PL 99-198, Title XII, The Food Security Act of 1985)

The project would affect 6.5 acres of seepage-induced wetlands. However, the converted acres would not be used for the production of a commodity crop and thus the Food Security Act does

not apply to this conversion. Disturbed areas would be reclaimed with permanent vegetation, and wetlands would not be converted to farmland. Reference Section 5.3.5.3 of the Plan for effects to wetlands that may be regulated by the CWA of 1972.

4.12 NRCS Wetland Mitigation

The Proposed Action Alternative area does not contain areas identified as mitigation for the NRCS for wetland compliance or USACE CWA, conservation banking, mitigation banking, in-lieu fee program, or other Federal, State, or Local resource.

4.13 PL 83-566 Section 12 Fish and Wildlife Coordination Act

In accordance with Section 12 of the PL 83-566, USFWS was notified of the Proposed Action Alternative on February 1, 2024 (Appendix A of the Plan).

4.14 Compliance

The NRCS has determined that it has fulfilled its responsibilities under the following laws, regulations, policies, and guidance shown in Table 4-1.

Table 4-1. Compliance with Federal Laws and Responsibilities

Laws, Regulations, Policies, and Executive Orders	In Compliance?		
	Yes	No	N/A
Section 7(a)(2) of the ESA, PL 93-205, ESA	☒	☐	☐
PL 94-265 provisions of the Magnuson-Stevens Act, EFH	☐	☐	☒
Section 12 and Fish and Wildlife Coordination Act	☒	☐	☐
Section 106 of the NHPA	☒	☐	☐
Tribal Interests: PL 89-655, NHPA; PL 95-341, AIRFA; PL 101-601, NAGPRA; PL 103-344, AIRFA Amendments of 1994; PL 92-203, Alaska Native Claim Settlement Act; PL 93- 638, Indian Self-Determination and Education Assistance Act; E.O.s 13007 and 13175; Secretarial Orders 3206 and 3403; White House Office of Science and Technology Policy (OSTP) and the White House Council on Environmental Quality (CEQ) Joint Memoranda, Indigenous Knowledge; PM, Government-to- Government Relations; PM, Uniform Standards; 230- GM, Part 403, Special Emphasis Programs; 410-GM, Part 405, American Indians and Alaska Natives; 190-NI, Part 315, TALC; DR 1350-001, Tribal Consultation; DR 1340-007, Policies on American Indians and Alaska Natives	☒	☐	☐
CZMA—PL 92-583, CZMA	☐	☐	☒
Wild and Scenic Rivers Act, PL 90-542	☐	☐	☒
Section 408-33 USC 408	☐	☐	☒
PL 99–198, Title XII, The Food Security Act of 1985	☒	☐	☐
Prime and Unique Farmland, Farmland of Statewide or Local Importance: Farmland Protection Policy Act (FPPA), PL 97-98, FPPA	☒	☐	☐
WOTUS, including Wetlands: PL 112-328, Federal Water Pollution Control Act, (a.k.a. CWA)	☒	☐	☐
Water Quality: PL 112-328	☒	☐	☐

Laws, Regulations, Policies, and Executive Orders	In Compliance?		
	Yes	No	N/A
NRCS Wetland and HEL Policy (PL 99–198, Title XII, The Food Security Act of 1985), HEL	☒	☐	☐
Other: N/A	☐	☐	☒

Chapter 5 Special Conditions N/A

Chapter 6 Findings and Determinations

6.1 Section 176(c) CAA

The Proposed Action Alternative has been analyzed for conformity applicability pursuant to regulations implementing Section 176(c) of the CAA. The proposed activities would not exceed the minimal levels of direct or indirect emissions of a criteria, pollutant, or its precursors and are exempted by 40 CFR Part 93.153. Once construction is complete, the required O&M activities would decrease, resulting in a long-term beneficial effect to air quality. Any later indirect emissions are generally not within NRCS' continuing program responsibility and generally cannot be practicably controlled by the NRCS. For these reasons, a Section 176(c) CAA General Conformity Rule determination is not required for this action.

6.2 Presidential E.O.s

6.2.1 E.O. 13175 Consultation with Indian Tribes, Alaska Natives, and Native Hawaiians

NRCS considered information provided from Tribes during project development and the consultation process.

6.2.2 E.O. 13007 Indian Sacred Sites No Indian Sacred Sites would be affected.

6.2.3 E.O. 11988 Floodplain Management

Because no additional occupancy or modification of the floodplain would occur, the Proposed Action Alternative would avoid adverse effects to the floodplain and is therefore consistent with E.O. 11988.

6.2.4 E.O. 13112 and E.O. 13751 Invasive Species

With implementation of BMPs described in Appendix E of the Plan, the Proposed Action Alternative would not cause or promote the introduction or spread of invasive species.

6.2.5 E.O. 13212 and E.O. 13302 Energy Supply and Availability

The proposal is one that would facilitate the transition to an energy-efficient irrigation system. However, the project is not one that would change the production, or transmission of energy.

6.2.6 E.O. 11990 Protection of Wetlands

Consistent with E.O. 11990, the NRCS considered the factors relevant to the Preferred Alternative's effect on the survival and quality of the wetlands including the public health, safety,

and welfare, including water supply, quality, recharge and discharge, pollution, flood and storm hazards, and sediment and erosion; maintenance of natural systems, including conservation and long-term productivity of existing flora and fauna, species and habitat diversity and stability, hydrologic utility, fish, wildlife, timber, and food and fiber resources; and other uses of wetlands in the public interest, including recreational, scientific, and cultural uses (see Section 5.3.5.4 in the Plan). These actions ensure the Proposed Action Alternative minimizes the destruction, loss, or degradation of wetlands and preserves and enhances the natural and beneficial values of wetlands, and it therefore is consistent with E.O. 11990.

6.2.7 E.O. 12372 Intergovernmental Partnerships

Consistent with E.O. 12372, a letter was mailed to the Wyoming Governor's office with project information on February 22, 2021. No response was received.

Chapter 7 List of Preparers

The following personnel prepared, reviewed, and contributed to the Plan and EA (Table 7-1). The document was prepared by the NRCS, and in cooperation with Reclamation as a Cooperating Agency and EVIDD as the Sponsoring Local Organization.

Table 7-1. List of Preparers, Reviewers, and Contributors

Name	Title, Organization, and Experience	Education and Licenses
Shawn Follum	State Conservation Engineer USDA-NRCS 32 years' experience	Master of Art (M.A.) National Strategic Studies Master of Science (M.S.) Civil Engineering Bachelor of Science (B.S.) Civil Engineering Professional Engineer (P.E.) License
Regan Kirchner	Watershed Manager USDA-NRCS 30 years' experience	B.S. Biology
Melissa Benner	State Cultural Resources Specialist USDA-NRCS 18 years' experience	Bachelor of Art (B.A.) Anthropology M.S. Heritage Management
Brian Jensen	Assistant State Conservationist Partnerships USDA-NRCS 18 years' experience	B.S. Wildlife Biology M.S. Zoology & Physiology
Gary Ogren	Civil Engineer USDA-NRCS 22 years' experience	B.S. Civil Engineering P.E. License
Chuck Schmitt	Watershed Civil Engineer USDA-NRCS, ACES 41 years' experience	M.S. Civil Engineering B.S. Civil Engineering P.E. License
Drew Williams	Watershed Wildlife Biologist USDA-NRCS 15 years' experience	M.S. Wildlife Ecology & Management B.S. Wildlife Management
Julie Suhr Pierce	National Economist, Ecological Sciences Division, Science and Technology Deputy Area, USDA-NRCS 40 years' experience	Honors Bachelor of Arts (HBA), MS, and Doctor of Philosophy (Ph.D.).
Jessica Klein	Geotechnical Engineer/Watershed Engineer USDA-NRCS 18 years' experience	B.S. Civil Engineering P.E. License, Licensed Geotechnical Engineer
Michael Stillwagon	State Geologist USDA-NRCS 14 years' experience	M.S. Petroleum Geology B.S. Geology
Wyatt Carter	Fish and Wildlife Biologist, Reclamation 8 years' experience	B.S. Biology/Zoology

Name	Title, Organization, and Experience	Education and Licenses
Brian Deeter	Project Manager J-U-B ENGINEERS, Inc. 30 years' experience	M.S. Hydraulics B.S. Agriculture and Irrigation Engineering P.E. License
Nathan Smith	Hydraulic Modeling J-U-B ENGINEERS, Inc. 17 years' experience	M.S. and B.S. Civil Engineering P.E. License
Autumn Foushee Davies	Natural Resources Technical Lead J-U-B ENGINEERS, Inc. 20 years' experience	M.S. Botany B.S. Natural Resources Conservation and Management—Forest Ecology B.S. Journalism—Environmental Journalism
Suzanne Acton	Environmental Planning/ NEPA Technical Lead J-U-B ENGINEERS, Inc. 28 years' experience	M.S. Forestry—Fire Science and Ecology Emphasis B.S. Biology
Jennie Fischer	Senior Environmental Specialist J-U-B ENGINEERS, Inc. 32 years' experience	B.S. Watershed Sciences
Rebecca Hendricks Miller	Environmental Specialist and Biologist J-U-B ENGINEERS, Inc. 12 years' experience	M.S. Organismal Biology & Conservation B.A. Environmental Studies and Biology
Sydney Allen	Assistant Environmental Specialist J-U-B ENGINEERS, Inc. 1 years' experience	B.S. Environmental and Sustainability Studies
Naomi Ollie	Cultural Resource Specialist SWCA Environmental Consultants 15+ years' experience	M.A. Anthropology with Archaeology emphasis B.A. Anthropology
Michael Verdone	Economist BBC Research & Consulting 15+ years' experience	Ph.D. Natural Resource Economics M.A. Economics

Chapter 8 References

All references are included in Section 8.0 of the Plan.