



— BUREAU OF —  
RECLAMATION

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ENVIRONMENTAL ASSESSMENT  
ANNABELLA IRRIGATION COMPANY  
PHASE II CANAL PIPING PROJECT

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PRO-EA-FY25-071  
MARCH 2026



UNITED STATES DEPARTMENT OF THE INTERIOR  
INTERIOR REGION 7 – UPPER COLORADO BASIN  
PROVO AREA OFFICE  
PROVO, UTAH

## **Mission Statements**

The U.S. Department of the Interior protects and manages the Nation's natural resources and cultural heritage; provides scientific and other information about those resources; and honors its trust responsibilities or special commitments to American Indians, Alaska Natives, Native Hawaiians, and affiliated Island Communities.

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

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ANNABELLA IRRIGATION COMPANY  
PHASE II CANAL PIPING PROJECT  
PRO-EA-FY25-071

## **1.0 INTRODUCTION AND BACKGROUND**

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This Environmental Assessment (EA) has been prepared to analyze and disclose the environmental effects of implementing the Annabella Irrigation Company (AIC) Phase II Canal Piping project as proposed by the applicant, AIC. The U.S. Bureau of Reclamation (Reclamation) is funding the project, which would allow for the enclosure and piping of 10,900 feet (2.06 miles) of the Annabella Canal. This EA is a site-specific analysis of potential impacts that could result from the implementation of a proposed action or alternatives to the proposed action. The EA assists Reclamation in project planning, ensuring compliance with the National Environmental Policy Act (NEPA), and making a determination as to whether any “significant” impacts could result from the analyzed actions. An EA provides evidence for determining whether to prepare an Environmental Impact Statement (EIS) or a statement of Finding of No Significant Impact (FONSI). If Reclamation’s decision maker determines that this project would result in “significant” impacts, as defined by NEPA, then an EIS would be prepared. If not, a FONSI would be prepared, and a decision would be made to approve the selected alternative.

The Annabella Irrigation Canal is approximately 7-miles-long, located in Annabella, Sevier County, Utah. The canal is historic, constructed between 1872 and 1876. The irrigation season begins around April 1 each year and lasts until the beginning of October. The canal provides irrigation water to 2,284 acres. The AIC may also release water in March and November, pending hydrologic and operational conditions.

The canal collects weeds, debris, and litter (household garbage), which create chokepoints along the canal. Annual seepage losses are estimated at approximately 1,613 acre-feet. It is estimated that 1,533 acre-feet of the total seepage losses occur in the 10,900-foot portion of the canal that is currently unlined. The majority of the unlined segment runs through the city of Annabella. Additional water loss occurs as a result of evaporation in exposed portions of the canal. Some segments of the canal are in a state of structural disrepair, presenting a major public safety hazard.

In Phase I of this project, AIC worked with Franson Civil Engineers (FCE) to complete a water loss study, that determined the estimated water losses in the unlined sections of the canal due is likely due to seepage (1,533 acre-feet). The Proposed Action for Phase II seeks to reduce seepage and evaporation losses and improve public safety. The project would allow for better measurements at each turnout to improve water accounting and avoid spilling at the end of the system.

Total project costs are currently estimated at \$3,093,000. In 2024, AIC was awarded \$500,000 in funding from Reclamation’s WaterSMART Water and Energy Efficiency (WEEG) grant program. In 2025, AIC applied for an additional \$1,421,000 from the WEEG program which, if received, would cover the costs to construct the entire Proposed Action. AIC received \$1,000,000 from an

Agricultural Water Optimization Grant (AWOG) administered by the Utah Department of Agriculture and Food (UDAF). This leaves \$672,000 of non-federal cost-share to be covered by a loan/in-kind.

### **1.1 PURPOSE AND NEED**

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Reclamation's need is to consider the environmental impacts from the allocation of federal funding and implementation of the Proposed Action. Reclamation's purpose is to ensure that considered actions comply with current Reclamation law and policy.

AIC's objectives are to reduce water losses from seepage in the Annabella Irrigation Canal by piping unlined portions and to install other associated improvements, including: (1) concrete cleanout manholes to be installed every 400 feet, and (2) concrete boxes at each turnout location. The goals of the Proposed Action would be to reduce seepage losses in the canal, improve operations-and-management options for the AIC, and improve water use efficiency in the Annabella Irrigation Canal.

### **1.2 DECISION TO BE MADE**

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The federal decision to be made is whether to issue a notice to proceed that would authorize the distribution of funds through the WEEG WaterSMART Program to implement the Proposed Action, described in detail in Section 2.2.

### **1.3 RELATIONSHIP TO STATUTES, REGULATIONS, OR OTHER PLANS**

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This EA has been prepared in accordance with the National Environmental Policy Act of 1969 (NEPA), the Endangered Species Act of 1973 (ESA), the National Historic Preservation Act of 1966 (NHPA), the Clean Water Act of 1972 (CWA), and other federal and state statutes and regulations, as applicable.

## **2.0 DESCRIPTION OF ALTERNATIVES**

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### **2.1 ALTERNATIVE A – NO ACTION**

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Under the No Action alternative, Reclamation would not authorize funding to implement the Proposed Action described in Section 2.2. Existing facilities would continue to operate under current agreements.

### **2.2 ALTERNATIVE B – PROPOSED ACTION**

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The Proposed Action would include all the activities described in this subsection:

#### **1. Piping Unlined Segments of the Annabella Irrigation Canal**

- Enclosing 10,900 feet of unlined canal to reduce conveyance losses. The total area of disturbance would not exceed 7.50 acres excluding staging/storage areas. Staging/storage areas constitute 7.00 acres. See Figure 4 for an overview of the staging area locations.
  - The pipeline would be designed as a non-pressurized system, which would give AIC the ability to pipe only portions of their canal where the conveyance losses are high. Preliminary design done by FCE shows that the pipelines would vary from 36- to 48-inches in diameter. The pipeline will replace the existing ditch. Near the diversion, an 800-foot section of 48-inch diameter pipe would be installed connecting the diversion structure to the start of the lined ditch. At the end of the lined portion of the ditch, a 42-inch diameter pipeline would be installed until the demand allows the pipeline to be reduced to 36-inches in diameter.
  - Most culverts currently crossing the canal would be removed during construction. The pipeline would end at the inlet to remaining culverts and be installed at the outlet. The pipe installed would be a watertight High-Density Polyethylene dual-wall, smooth interior pipe.
  - See Figure 3 for a visual depiction of the total expected area of disturbance for the project.

#### **2. Concrete Cleanout Manhole & Concrete Box Installation**

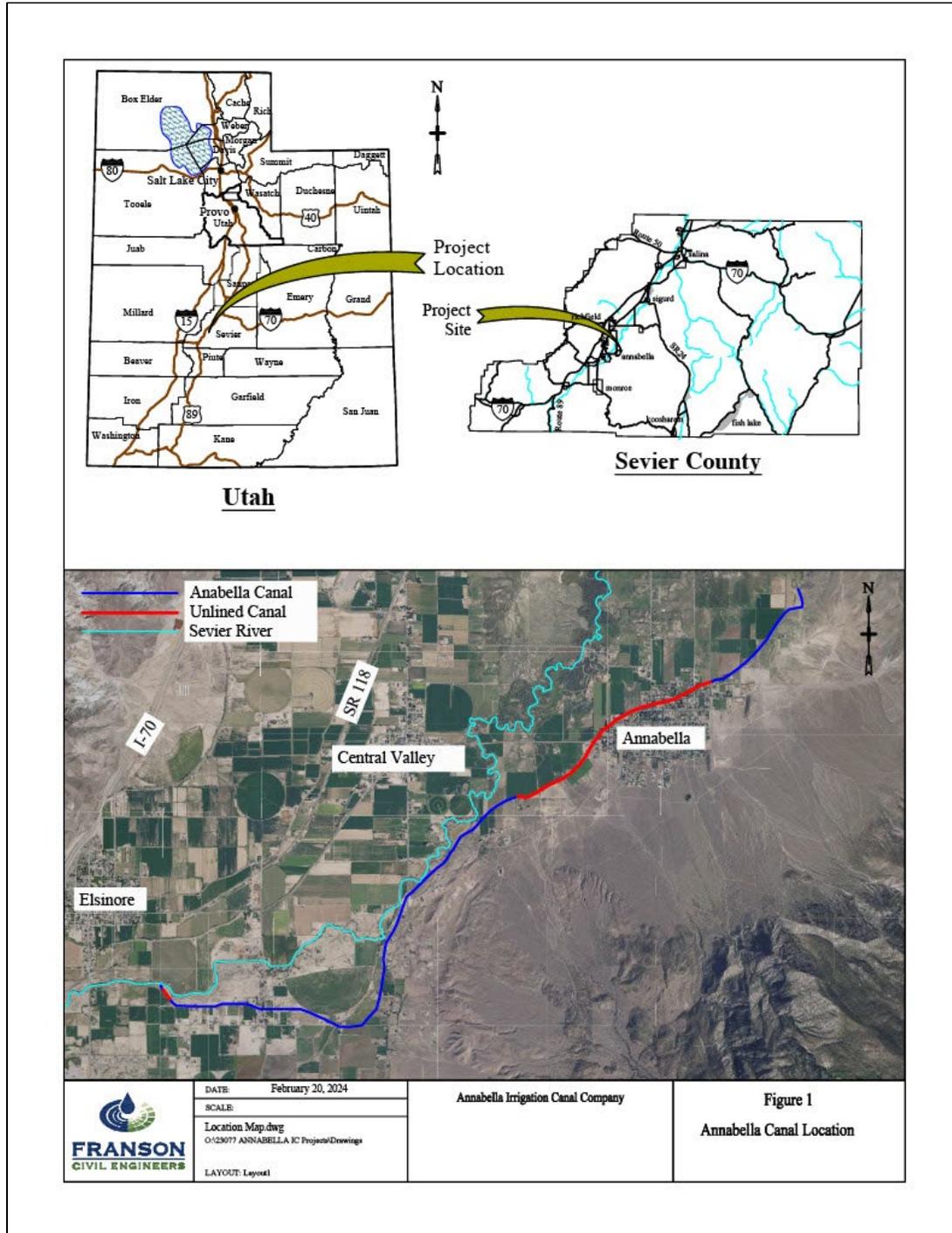
- Install concrete cleanout manholes every 400 feet and concrete boxes at each turnout location with control gates and measurement devices.

#### **3. Install Real-Time Measurement Capabilities**

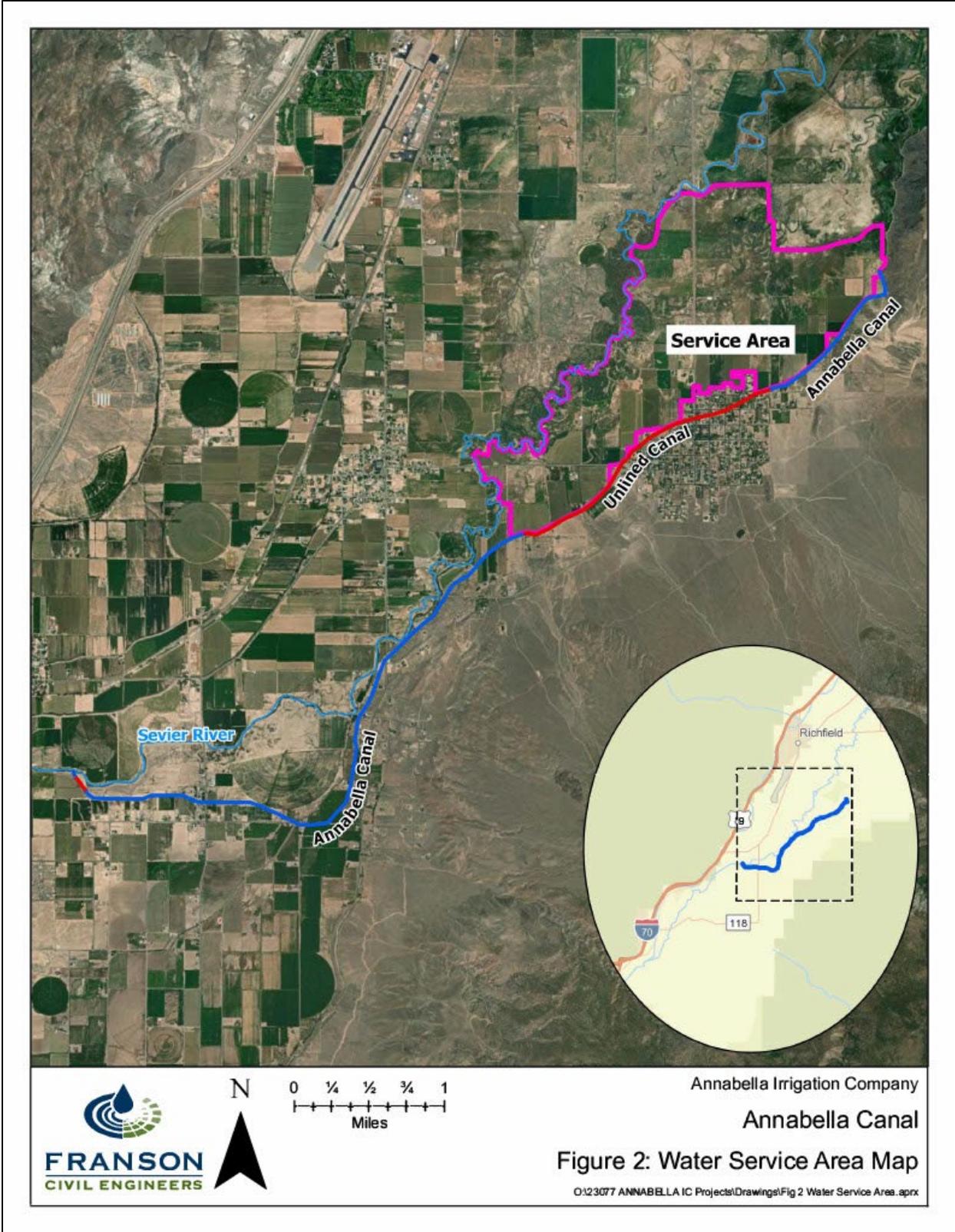
- Real-time measurement capabilities
  - Measurement capabilities are planned at key locations along the system.
  - A weir plate would continue to be used at the diversion structure and at each turnout, a measurement weir would continue to be used.

## 2.2.2 LOCATION MAP, PROJECT AREA MAP

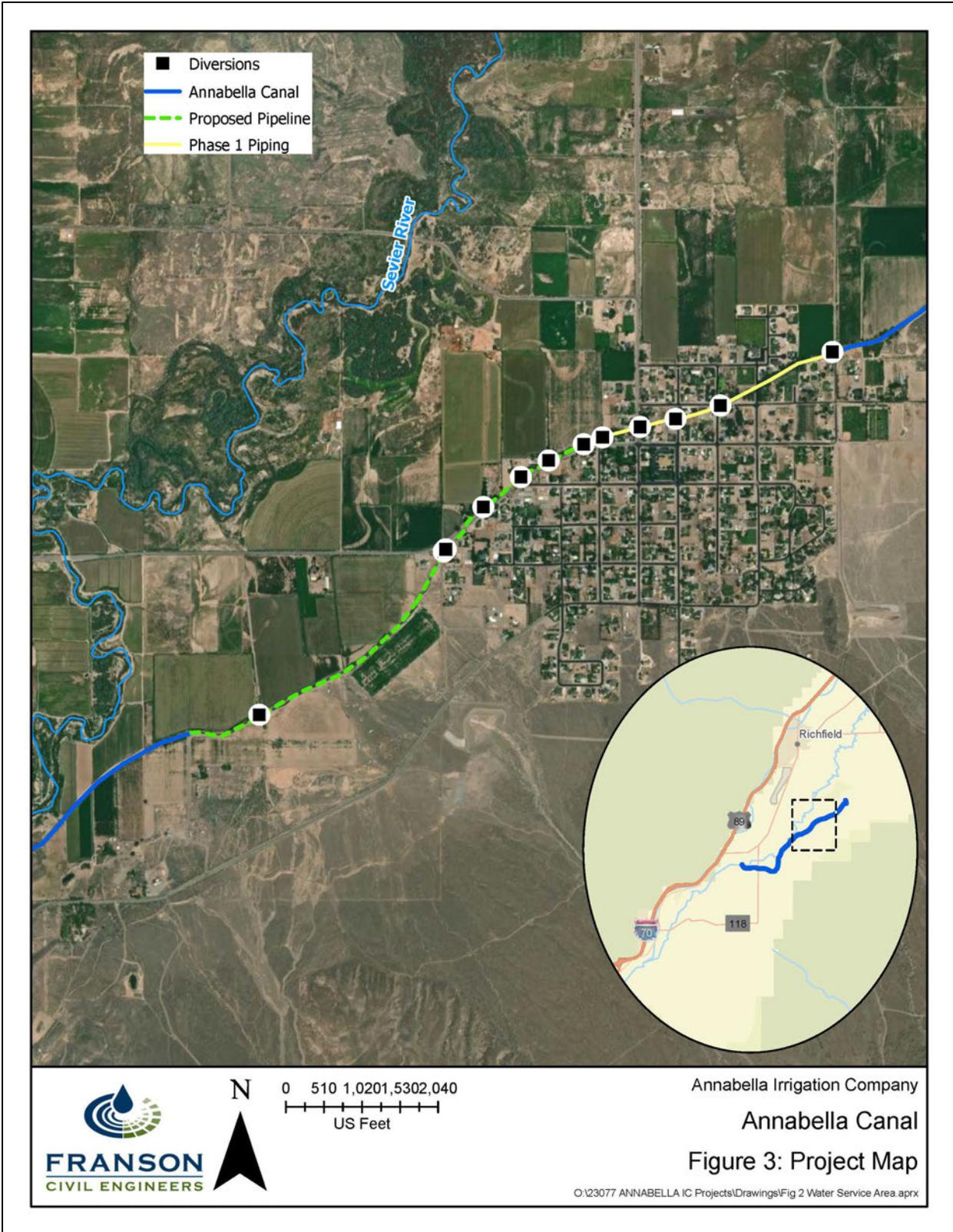
The following figures include the project location map, a map of the AIC service area, and a map of Proposed Action activities.



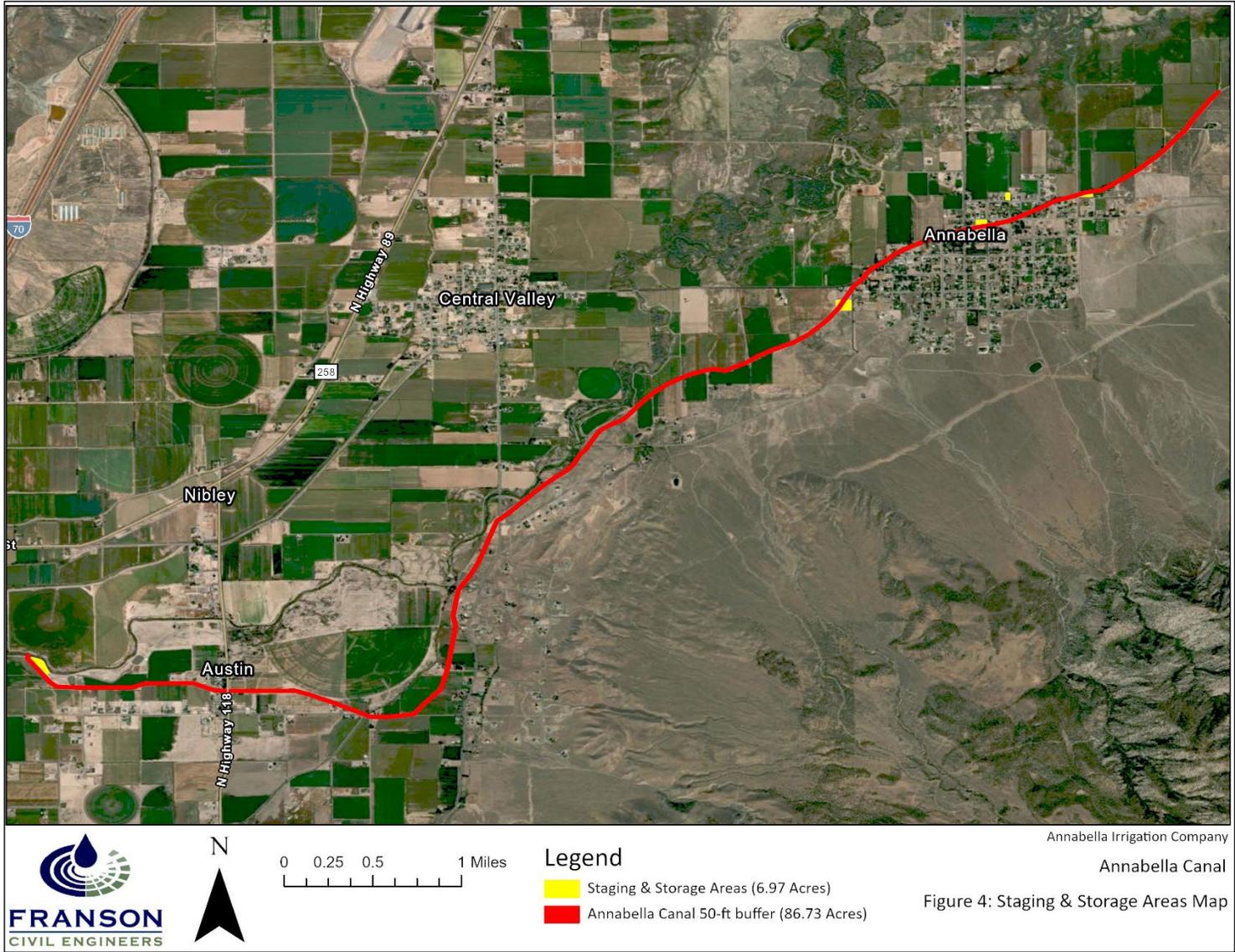
**FIGURE 1: PROJECT LOCATION MAP**



**FIGURE 2: ANNABELLA IRRIGATION COMPANY SERVICE AREA MAP**



**FIGURE 3: PROPOSED ACTION MAP**



**FIGURE 4: STAGING & STORAGE AREAS MAP**

### 3.0 ENVIRONMENTAL EFFECTS

Reclamation considers a variety of legal and policy requirements when considering federal action. Elements of the human environment that are subject to the requirements of a statute, regulation, executive order or similar requirement are shown in Table 3.1, below. Reclamation’s interdisciplinary team identified issues through internal scoping and from known issues in the area. Issues determined to merit detailed analysis are identified in the table. A rationale is included in the table to explain how each resource was evaluated. If any element or issue was determined to potentially be impacted, it was carried forward for detailed analysis in this EA. If an element is not present or would not be affected, it was not carried forward for analysis. The following codes were used to explain the disposition of each element or resource of the human environment:

- NP = not present in the area impacted by the proposed or alternative actions
- NI = present, but not affected to a degree that detailed analysis is required
- PI = present with potential for impacts that need to be analyzed in detail in the EA

**Table 3.1 Elements/Resources of the Human Environment**

Determination	Resource/Issue	Rationale
NI	Air Quality & GHG	The Proposed Action Alternative would not result in substantial increases in greenhouse gas (GHG) emissions. The Environmental Protection Agency (EPA) GHG permitting programs only apply to major stationary sources emitting over 100,000 tons carbon dioxide equivalent (CO2e) per year (e.g., power plant, landfill, etc.) or modifications of major sources with emission increases greater than 75,000 tons CO2e per year. Additionally, the EPA requires annual reporting for facilities with stationary sources that emit 25,000 metric tons CO2e per year to provide a basis for future policy decisions and regulatory initiatives regarding GHG’s. None of the circumstances listed above are considered within the scope and scale of this EA, therefore, this resource is not considered for further analysis in the EA.
PI	Archaeological Resources	The Annabella Canal, a historic property, would be affected by the Proposed Action, therefore this resource is carried forward for further analysis.

<b>Determination</b>	<b>Resource/Issue</b>	<b>Rationale</b>
NP	Indian Trust Assets: Native American Religious Concerns	There are no ITAs or Tribal religious concerns based on a review of the American Indian/Alaska Native/Native Hawaiian National Shapefile Data, professional knowledge of the project area. In addition, no responses were received from Tribal consultation request letters. Therefore, potential impacts to ITAs or related concerns are not known to exist.
NP	Designated Areas: Wild and Scenic Rivers / Wilderness	Based on a review of available geographic information systems (GIS) data, the project area does not involve any Reclamation designated areas or Wild and Scenic Rivers or Wilderness Areas.
NI	Farmlands (Prime/Unique)	Impacts to Prime Farmlands are not expected as the piping project would continue to support irrigation efforts, albeit in a more efficient way. Therefore, no appreciable impacts would be realized, and no further analysis is needed.
NI	Geology / Minerals	Geology and minerals are present in the project area, however the proposed project would have no impact to any mineral resources or geological features in the project area.
NI	Paleontology	Based on consultation with Utah Geologic Survey, the Proposed Action would not likely affect paleontological resources based on the nature of the action and low probability for fossil localities. Therefore, no further analysis is needed (See Appendix A).
PI	Plants: Invasive and Noxious Weeds	The Proposed Action would have the potential to introduce invasive/noxious plants into the area; therefore, this resource concern is carried forward for further analysis.
PI	Plants: Native Communities	The Proposed Action would impact native plant communities in the area and native plant communities would generally benefit from invasive and noxious weed control measures discussed in Section 3.2. Therefore, this resource is addressed in that section.

<b>Determination</b>	<b>Resource/Issue</b>	<b>Rationale</b>
NP	Threatened, Endangered, or Candidate Plant & Wildlife Species	Ute ladies'-tresses (ULT) habitat was thought to occur in the project area, and a 2025 survey was conducted with no individual plants found. Survey results also indicated suitable habitat for ULT was not likely. Through technical assistance with the US Fish & Wildlife Service (USFWS) it was determined that the project area was outside of ULT habitat and there would be No Effect on ULT.
NP	Recreation	Based on the location of the Proposed Action, there are no recreational resources near the canal that would be affected; therefore, this resource will not be brought forward for analysis.
NI	Socioeconomics	Impacts to Socioeconomic conditions may occur through the implementation of this project, however, not to a degree that would require detailed analysis. This determination is based on the localization and scale of the project.
PI	Soils	Soil is present within the project area and would be locally affected by the proposed action. This resource is carried forward for analysis and addressed in Section 3.2 with invasive plants and native plant communities.
PI	Wastes (hazardous/solid)	The Proposed Action would have the potential to introduce or produce hazardous waste or materials. Therefore, this item is carried forward for further analysis.
NI	Water: Hydrology	The project as described would not change the source or quantity of the water diverted nor the nature, timing, or place of use. Therefore, it is not anticipated that hydrology would be affected to a degree that requires further analysis.
PI	Water: Streams, Riparian, Wetlands, Floodplains	Some impacts to the listed water-related areas (wetlands and riparian areas) may occur under the Proposed Action, and therefore these resources are brought forward for analysis (PI).  Streams and floodplains, however, are not affected to the degree that further analysis is needed (NI) based on the location of these features relative to the proposed action area.

Determination	Resource/Issue	Rationale
NI	Water: Water Quality	The project, as described, would not change the source of the water delivered or the location or nature of use. Therefore, it is not anticipated that water quality would be affected to a degree that requires further analysis. Temporary construction impacts should be mitigated through erosion control practices. Construction impacts near drainages to be addressed in the Streams, Riparian, Wetlands, and Floodplains resource analysis.
NI	Water: Water Rights	The project as described would not change the source, quantity, or timing of diversion; the nature or timing of the water use; or the location or acreage of the lands irrigated. Therefore, it is not anticipated that water rights would be affected to a degree that requires further analysis.
NI	Water: Waters of the U.S. (WOTUS)	Based on a GIS data review, and knowledge of the project area, there are no affected WOTUS within the project area.
PI	Wildlife: Non-USFWS Designated	Current conditions of the project area make it unlikely that fish are present within this canal (NP), however, potential nesting habitat for migratory birds exists in the canal corridor (PI). This resource is brought forward for analysis and is covered in combination with the riparian/wetlands analysis.

### 3.1 ARCHAEOLOGICAL RESOURCES

#### 3.1.1 AFFECTED ENVIRONMENT

In compliance with the regulations specified in Section 106 of the National Historic Preservation Act (NHPA) (36 CFR 800.16), the affected environment for cultural resources is identified as the area of potential effects (APE). The APE is defined as the geographic area within which federal actions may directly or indirectly cause alterations in the character or use of historic properties. The APE for this proposed action includes the area that could be physically affected by any of the proposed project alternatives (the maximum limit of disturbance).

Cultural resources are defined as physical or other expressions of human activity or occupation that are over 50 years of age. Such resources include culturally significant landscapes, prehistoric and historic archaeological sites as well as isolated artifacts or features, traditional cultural properties, Native American and other sacred places, and artifacts and documents of cultural and historic significance. Section 106 of the NHPA of 1966, as amended, mandates that Reclamation takes into account the potential effects of a proposed Federal undertaking on historic properties.

Historic properties are defined as any prehistoric or historic district, site, building, structure, or object included in, or eligible for, inclusion in the National Register of Historic Places (NRHP). Potential effects of the described alternatives on historic properties are the primary focus of this analysis.

The Utah Department of Agriculture and Food (UDAF), which is providing AIC with a portion of the non-federal cost-share for construction of this project, completed the cultural resource inventory in July 2025 under project number U25QA0707. The survey identified the Annabella Canal as a previously recorded historic property. A supplemental report was submitted under project number U25QA0707 in February 2026, the addendum included the five staging areas. The supplemental cultural resource inventory did not identify any other historic properties and did not change the original determination of effect.

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### **3.1.2 NO ACTION ALTERNATIVE ENVIRONMENTAL EFFECTS**

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Under the No Action alternative, there would be no need for ground disturbance associated with construction activities and therefore, no impacts to archaeological resources in the project area would occur. Existing conditions would continue.

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### **3.1.3 PROPOSED ACTION ALTERNATIVE ENVIRONMENTAL EFFECTS**

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Based on the Class I and III inventory data and according to 36 CFR 800.4(d)(2), Reclamation has determined that the Proposed Action would have an Adverse Effect on historic properties. The Utah State Historic Preservation Office (SHPO) was consulted on the determination of effects in a letter dated October 14, 2025. SHPO concurred with the determination on October 22, 2025. SHPO was consulted on the supplemental cultural resource inventory determination of effect in a letter dated February 18, 2026. SHPO concurred with the determination on February 24, 2026 (see Appendix A).

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#### **3.1.3.1 MITIGATION MEASURES**

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Pursuant to 36 CFR 800.14(b)(1)(i) the “Programmatic Agreement Between the Bureau of Reclamation and the Utah State Historic Preservation Officer Regarding National Historic Preservation Act Mitigation for Adverse Effects to Irrigation Infrastructure” (PA) will be used to mitigate the adverse effects to the Annabella Canal. Under the provisions of the PA, Reclamation will contribute 1 percent of the WaterSMART grant awarded, a \$5,000 contribution, to Utah State University’s Utah Historic Irrigation Project for additional investigation into historic irrigation systems. SHPO concurred with Reclamation’s proposed mitigation on November 21, 2025.

The objective of the Utah Historic Irrigation Project is to mitigate the loss of historic properties associated with irrigation infrastructure by researching and documenting the history of water management and the use of irrigation, its infrastructure, and agricultural practices in Utah. It also aims to create widely available products to educate the public about this history.

## 3.2 INVASIVE PLANTS & NOXIOUS WEEDS AND SOILS

### 3.2.1 AFFECTED ENVIRONMENT

Invasive species are defined as non-native to the ecosystem and whose introduction or presence can cause economic and/or environmental harm. Invasive species compete directly with native species for moisture, sunlight, nutrients, and space.

The land surrounding the project area is predominantly agricultural and already exhibits potential for the presence of invasive species and noxious weeds. It is reasonable to assume that such species are also present within the project area. These invasive plants have the potential to displace native vegetation and degrade riparian habitats that would otherwise support native species. The table below lists invasive plant species known to occur in the State of Utah; however, specific data confirming their presence in Sevier County was not available.

Utah classifies noxious weeds by how widespread and threatening they are. Class I (1A/1B) weeds are new or barely present and should be eradicated quickly. Class II weeds are established but still a priority for control. Class III weeds are widespread and should be contained. Class IV weeds are banned from sale or propagation.

**Table 3.2 Known Noxious Weeds Species in Utah**

Common Name	Taxonomy	Utah Status
Common crupina	<i>Crupina vulgaris</i>	Class IA
African rue	<i>Peganum harmala</i>	Class IA
Small bugloss	<i>Anchusa arvensis</i>	Class IA
Mediterranean sage	<i>Salvia aethiopis</i>	Class IA
Spring millet	<i>Milium vernale</i>	Class IA
Syrian beancaper	<i>Zygophyllum fabago</i>	Class IA
Ventenata (North Africa grass)	<i>Ventenata dubia</i>	Class IA
Plumeless thistle	<i>Carduus acanthoides</i>	Class IA
Malta starthistle	<i>Centaurea melitensis</i>	Class IA
Camelthorn	<i>Alhagi maurorum</i>	Class IB
Garlic mustard	<i>Alliaria petiolata</i>	Class IB
Purple starthistle	<i>Centaurea calcitrapa</i>	Class IB
Goatsrue	<i>Galega officinalis</i>	Class IB
African mustard	<i>Brassica tournefortii</i>	Class IB
Giant reed	<i>Arundo donax</i>	Class IB
Japanese knotweed	<i>Polygonum cuspidatum</i>	Class IB

Common Name	Taxonomy	Utah Status
Blueweed (Vipers bugloss)	<i>Echium vulgare</i>	Class IB
Elongated mustard	<i>Brassica elongata</i>	Class IB
Common St. Johnswort	<i>Hypericum perforatum</i>	Class IB
Oxeye daisy	<i>Leucanthemum vulgare</i>	Class IB
Cutleaf vipergrass	<i>Scorzonera laciniata</i>	Class IB
Leafy spurge	<i>Euphorbia esula</i>	Class II
Medusahead	<i>Taeniatherum caput-medusae</i>	Class II
Rush skeletonweed	<i>Chondrilla juncea</i>	Class II
Spotted knapweed	<i>Centaurea stoebe</i>	Class II
Purple loosestrife	<i>Lythrum salicaria</i>	Class II
Squarrose knapweed	<i>Centaurea virgata</i>	Class II
Dyers woad	<i>Isatis tinctoria</i>	Class II
Yellow starthistle	<i>Centaurea solstitialis</i>	Class II
Yellow toadflax	<i>Linaria vulgaris</i>	Class II
Diffuse knapweed	<i>Centaurea diffusa</i>	Class II
Black henbane	<i>Hyoscyamus niger</i>	Class II
Dalmatian toadflax	<i>Linaria dalmatica</i>	Class II
Russian knapweed	<i>Acroptilon repens</i>	Class III
Houndstongue	<i>Cynoglossum officinale</i>	Class III
Perennial pepperweed (Tall whitetop)	<i>Lepidium latifolium</i>	Class III
Phragmites (Common reed)	<i>Phragmites australis ssp.</i>	Class III
Tamarisk (Saltcedar)	<i>Tamarix ramosissima</i>	Class III
Hoary cress	<i>Cardaria spp.</i>	Class III
Canada thistle	<i>Cirsium arvense</i>	Class III
Poison hemlock	<i>Conium maculatum</i>	Class III
Musk thistle	<i>Carduus nutans</i>	Class III
Quackgrass	<i>Elymus repens</i>	Class III
Jointed goatgrass	<i>Aegilops cylindrica</i>	Class III
Bermudagrass	<i>Cynodon dactylon</i>	Class III
Johnson Grass	<i>Sorghum halepense</i>	Class III
Sorghum alnum	<i>Sorghum alnum</i>	Class III
Scotch thistle	<i>Onopordum acanthium</i>	Class III

Common Name	Taxonomy	Utah Status
Field bindweed (Wild Morning-glory)	<i>Convolvulus spp.</i>	Class III
Puncturevine (Goathead)	<i>Tribulus terrestris</i>	Class III
Cogongrass (Japanese blood grass)	<i>Imperata cylindrica</i>	Class IV
Myrtle spurge	<i>Euphorbia myrsinites</i>	Class IV
Dames Rocket	<i>Hesperis matronalis</i>	Class IV
Scotch broom	<i>Cytisus scoparius</i>	Class IV
Russian olive	<i>Elaeagnus angustifolia</i>	Class IV

Source, *State of Utah Noxious Weeds List*, Utah Department of Agriculture & Food (UDAF), <https://ag.utah.gov/plant-industry/noxious-weed-control-resources/state-of-utah-noxious-weed-list/>. Accessed August 2025.

### 3.2.2 NO ACTION ALTERNATIVE ENVIRONMENTAL EFFECTS

Under the No Action alternative, there would be no construction activities and therefore, no new impacts to vegetation, invasive species or soils in the study area. Existing conditions would continue.

### 3.2.3 PROPOSED ACTION ALTERNATIVE ENVIRONMENTAL EFFECTS

During construction, there is potential for temporary soil disturbance and the inadvertent introduction of invasive species. To mitigate this risk, all equipment would be inspected and cleaned, prior to arriving on site. Topsoil within disturbed areas would be stripped, stockpiled separately from subsoil, and preserved for respreading during site reclamation activities. If vegetation removal is necessary, disturbed areas would be reseeded and reclaimed with an approved non-invasive seed mix upon completion of construction activities. Reseeding would be conducted using drill seeding or broadcast seeding with appropriate soil preparation to promote establishment. Following construction, AIC would be responsible for monitoring disturbed areas for invasive species and implementing weed control measures, including herbicide application or mechanical removal, as necessary. Weed abatement would also be conducted by the Sevier County Weed Control department.

#### 3.2.3.1 MITIGATION MEASURES

Standard Best Management Practices (BMPs) established by federal, state, and county agencies would be implemented to mitigate and minimize adverse impacts during and after construction. These measures include flagging construction limits as described in the proposed action, restricting ground disturbance to the extent practicable, salvaging and stockpiling topsoil from disturbed areas for later respreading during site reclamation, and decontaminating equipment before and after use at the site. Following construction, AIC would reseed disturbed areas with an approved non-invasive seed mix and would monitor reclaimed areas for invasive species and implement weed control measures, including mechanical removal or herbicide application as necessary.

### **3.3 HAZARDOUS & SOLID WASTE**

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#### **3.3.1 AFFECTED ENVIRONMENT**

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An evaluation of hazardous material/waste sites within the project area was conducted using the Utah Department of Environmental Quality's (DEQ) environmental response and remediation interactive web tool. No sites were identified.

The Utah Department of Environmental Quality (DEQ) maintains an interactive Environmental Response and Remediation web map, which allows for the identification of hazardous and solid waste sites across the state. A review of this tool was conducted on August 6, 2025, and no hazardous or solid waste sites were identified within the project area.

#### **3.3.2 NO ACTION ALTERNATIVE ENVIRONMENTAL EFFECTS**

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Under the No Action alternative, no construction would occur, and no hazardous waste/solid waste would be generated or need to be disposed of. Existing conditions would continue.

#### **3.3.3 PROPOSED ACTION ALTERNATIVE ENVIRONMENTAL EFFECTS**

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Construction equipment required for implementation of the Proposed Action would need to be refueled periodically throughout the construction period. Additionally, construction activities may generate limited amounts of hazardous waste, including excess pipe segments resulting from on-site cutting, discarded packing materials, and leftover rebar or other construction materials.

##### **3.3.3.1 MITIGATION MEASURES**

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The following mitigation measures would be implemented under the proposed action to ensure proper management and disposal of construction-related waste:

- Equipment refueling would occur on-site; however, no fuel would be stored on-site. The National Pollutant Discharge Elimination System (NPDES) Permit requires AIC to prepare a Stormwater Pollution Prevention Plan (SWPPP) which will include spill prevention measures.
- Construction debris and waste materials will be collected and transported to an approved off-site disposal facility.

## **3.4 WETLANDS, RIPARIAN AREAS, & MIGRATORY BIRDS**

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### **3.4.1 AFFECTED ENVIRONMENT**

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#### Wetlands

Desktop reviews and field surveys were used to identify United States Army Corps of Engineers (USACE) jurisdictional wetlands and Waters of the U.S. were completed by Cardinal EC in August 2025 within the Proposed Project to identify the presence of USACE jurisdictional features. This included the Proposed Project plus 50-foot buffer and five Storage and Borrow locations.

Field review identified two non-jurisdictional wetland areas located immediately adjacent to the Annabella Irrigation Canal. These wetlands are small features, likely associated with seepage from the unlined canal. One measuring 0.10 acres and the other 0.02 acres, for a combined total of 0.12 acres of wetlands within the project area.

#### Riparian Areas and Migratory Birds

Migratory birds may be present within and adjacent to the Annabella Canal corridor due to the presence of open water and surrounding agricultural and disturbed lands that provide limited foraging and resting opportunities. Seasonal use could occur during spring and fall migration periods by species protected under the Migratory Bird Treaty Act. Habitat within the corridor is generally sparse and fragmented, consisting primarily of grasses and canal features, and bird presence would be expected to vary by season and local conditions.

### **3.4.2 NO ACTION ALTERNATIVE ENVIRONMENTAL EFFECTS**

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Under the No Action alternative, no construction would occur. No wetlands/riparian areas or floodplain conditions would be impacted. Existing conditions would continue.

### **3.4.3 PROPOSED ACTION ALTERNATIVE ENVIRONMENTAL EFFECTS**

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#### Wetlands

Two wetlands were identified along the Annabella Irrigation Canal, both of which were determined to be non-jurisdictional under USACE definitions. Piping of the canal would eliminate the source of irrigation seepage that sustains these wetlands, resulting in dewatering around these areas. Because the wetlands are small, hydrologically isolated, and dependent on artificial canal seepage, their loss would represent a negligible impact to wetlands.

#### Riparian Areas and Migratory Birds

Piping the Annabella Canal would eliminate the open-water feature that may occasionally be used by migratory birds for resting or foraging. Because habitat along the corridor is limited and

surrounded by agricultural and disturbed lands, impacts would be minor and localized. Construction could temporarily disturb birds if present, but these effects would be short-term and limited to the construction period. After completion, the primary long-term impact would be the loss of this incidental habitat, and no population-level impacts are expected due to the availability of similar habitats in the surrounding area.

## 4.0 CONSULTATION AND COORDINATION

### 4.1 INTRODUCTION

The issue identification table included at the start of Chapter 3 identifies the resources analyzed in detail in the subsequent sections of Chapter 3. The issues were identified through the public and agency involvement process described below.

### 4.2 PERSONS, GROUPS, AND AGENCIES CONSULTED

Table 4-1 lists the people, groups, and agencies that were coordinated with or consulted during the preparation of this environmental assessment. The table also summarizes the conclusions of those processes.

**Table 4-1. Consultations**

Name	Purpose & Authorities for Consultation or Coordination	Findings & Conclusions
Utah State Historic Preservation Office; Tribal Historic Preservation Office	National Historic Preservation Act Section 106	Reclamation determined a finding of Historic Properties Adversely Affected and submitted a letter of findings to the Utah SHPO on October 14, 2025. The Utah SHPO concurred with the finding of Adverse Effect on October 22, 2025, and concurred with Reclamation’s proposal to mitigate these adverse effects through the Mitigation PA on November 21, 2025. See Appendix A.
Tribal Historic Preservation Office	National Historic Preservation Act Section 106	Reclamation initiated consultation on October 15, 2025, through letters of findings sent to the THPOs of the Navajo Nation, Ute Indian Tribe, and Paiute Indian Tribe of Utah. No responses were received.
U.S. Fish and Wildlife Service	Endangered Species Act Section 7	A USFWS IPaC Report was generated on August 8, 2025. A No Effect determination, regarding ULT, was made and confirmed through technical assistance on January 28, 2026, based on USFWS confirmation that the project area exists outside of the known ULT range and redundant survey results showed that no ULT plants were found in the area.
Native American Nations and Tribal Organizations	Executive Order 13175, Executive Order 13007	On October 15, 2025, consultation was initiated by Reclamation through letters sent to the Navajo Nation, Ute Indian Tribe, and Paiute Indian Tribe of Utah. No responses were received.

Name	Purpose & Authorities for Consultation or Coordination	Findings & Conclusions
Utah State Geological Survey (UGS)	Paleontological Resources Preservation Act	On November 26, 2025, Reclamation requested a paleontological file search to determine the nature and extent of paleontological resources within the APE. On December 4, 2025, the assistant to the State Paleontologist reviewed the project area and determined that there are no paleontological localities recorded, and it would have a low probability of being a paleontological sensitive area (see Appendix A).

**4.3 LIST OF PREPARERS**

**Table 4-2. Reclamation Preparers and Reviewers**

Name	Title	Responsible for the Following Section(s) of this Document
Nicole Dangerfield	Archaeologist	Archaeology, Cultural and Indian Trust Assets, Paleontology, Quality Assurance
Erik Kemp	Wildlife Biologist	Biological and Ecological Resources and Public Health and Safety, Wetland Resources
Mark Wimmer	Division Manager	Environmental Coordination
Dustin Woodbury	Civil Engineer – Water Rights Lead	Water Rights

**Table 4-3. Other Preparers**

Name	Title	Document Responsibility
Layne Jensen P.E.	Principal	Project Manager
Landon Richins	Environmental Specialist	NEPA Author, Environmental
Martilyn Nielsen	Engineer	Engineering, Cost Estimates

## 5.0 REFERENCES, GLOSSARY AND ACRONYMS

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### 5.1 REFERENCES CITED

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Department of the Interior. 1995. *Departmental Manual Part 512 American Indian and Alaska Native Programs*.

Natural Resources Conservation Service. 2025. *Web Soil Survey*.  
<https://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx>

U.S. Fish and Wildlife Service. 2025. *Annabella IC WEEG Project (2025-0121114)*.

Utah Department of Environmental Quality (Utah DEQ). 2025. *Environmental Interactive Map*.  
[Utah DEQ Environmental Interactive Map](#)

### 5.2 LIST OF ACRONYMS

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- AIC – Annabella Irrigation Company
- APE – Area of Potential Effects
- AWOG – Agricultural Water Optimization Grant
- BMP – Best Management Practice(s)
- CFR – Code of Federal Regulations
- CWA – Clean Water Act of 1972
- DEQ – Department of Environmental Quality
- DOI – Department of the Interior
- EA – Environmental Assessment
- EIS – Environmental Impact Statement
- ESA – Endangered Species Act of 1973
- FONSI – Finding of No Significant Impact
- IPaC – Information for Planning and Consultation
- ITA – Indian Trust Assets
- NEPA – National Environmental Policy Act of 1969
- NHPA – National Historic Preservation Act of 1966
- NRHP – National Register of Historic Places
- PA – Programmatic Agreement
- Reclamation – U.S. Bureau of Reclamation
- SHPO – State Historic Preservation Office
- UDAF – Utah Department of Agriculture and Food
- ULT – Ute Ladies’-tresses
- USACE – U.S. Army Corps of Engineers
- USFWS – U.S. Fish and Wildlife Service
- USU – Utah State University
- WEEG – Water and Energy Efficiency WaterSMART Grant
- WOTUS – Waters of the United States
- WSS – Web Soil Survey

## **APPENDIX A: SHPO CONCURRENCES**

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Spencer J. Cox  
*Governor*

Deidre M. Henderson  
*Lieutenant Governor*

Donna Law  
*Interim Executive Director*



Christopher Merritt  
*State Historic Preservation Officer*  
*Utah State Historic Preservation Office*

October 22, 2025

Benjamin Woolf  
Acting Area Manager  
Bureau of Reclamation

RE: A Cultural Resource Inventory of the Annabella Irrigation Canal Project in Sevier County, UT

For future correspondence, please reference Case No. 25-2066

Dear Benjamin Woolf,

The Utah State Historic Preservation Office received your submission and request for our comment on the above-referenced undertaking on October 15, 2025.

We concur with your determinations of eligibility and effect for this undertaking.

This letter serves as our comment on the determinations you have made within the consultation process specified in §36CFR800.4. If you have questions, please contact me at (801) 535-2502 or by email at [rmcgrath@utah.gov](mailto:rmcgrath@utah.gov).

Sincerely,

Ryan McGrath  
Compliance Archaeologist



Spencer J. Cox  
Governor

Deidre M. Henderson  
Lieutenant Governor

Donna Law  
Interim Executive Director



Christopher Merritt  
State Historic Preservation Officer  
Utah State Historic Preservation Office

February 24, 2026

Rick Baxter  
Area Manager  
BOR

RE: A Supplemental Cultural Resource Inventory for the Annabella Canal Piping Project, Sevier County, Utah

For future correspondence, please reference Case No. 26-0256

Dear Rick Baxter,

The Utah State Historic Preservation Office received your submission and request for our comment on the above-referenced undertaking on February 18, 2026.

We concur with your determination of effect for this undertaking.

This letter serves as our comment on the determinations you have made within the consultation process specified in §36CFR800.4. If you have questions, please contact me at (801) 535-2502 or by email at [rmcgrath@utah.gov](mailto:rmcgrath@utah.gov).

Sincerely,

Ryan McGrath  
Compliance Archaeologist