



— BUREAU OF —
RECLAMATION

**ENVIRONMENTAL ASSESSMENT
NORTH CREEK IRRIGATION COMPANY CANAL
PIPING AND HYDRO PROJECT WEEG-141**

**PRO-EA-FY25-068
APRIL 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.

TABLE OF CONTENTS

Table of Contents	iii
1.0 INTRODUCTION AND BACKGROUND	4
2.0 DESCRIPTION OF ALTERNATIVES	6
3.0 AFFECTED ENVIRONMENT AND ENVIRONMENTAL EFFECTS	9
4.0 CONSULTATION AND COORDINATION	25
5.0 REFERENCES, GLOSSARY AND ACRONYMS	27

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1.0 INTRODUCTION AND BACKGROUND

This Environmental Assessment (EA) has been prepared to disclose and analyze the environmental consequences of the North Creek Irrigation Company Canal Piping and Hydro Project as proposed by the applicant, North Creek Irrigation Company (NCIC). The U.S. Department of the Interior, Bureau of Reclamation (Reclamation) is analyzing the proposed funding and implementation of this project, which includes the proposal to enclose and pressurize 7.2 miles of the NCIC irrigation ditch system.

Founded in 1878, NCIC is a historic irrigation company located in Sanpete County, Utah. Since 1891, NCIC has continuously irrigated 803 acres of prime farmland—132 years of service. Its 63 shareholders rely on a central delivery canal and five ditches, a network of open-lined and earthen canals, and pipelines to deliver water to their fields. Water is diverted from North Creek and flows through the system, primarily in open earthen ditches, to reach users. Each of the five ditches diverges off the central canal to deliver water to fields. Although some sections of the canal have been modernized with low-pressure pipes, allowing users to sprinkle their farmland using localized pumps, over 27,500 feet of old, open, concrete-lined ditches and 3,200 feet of open, earthen ditches remain.

NCIC has experienced ongoing challenges due to aging infrastructure and persistent drought conditions. The system’s old, open, concrete-lined irrigation ditches have been failing for years, leading to substantial water losses and water delivery issues. Without any long-term storage capacity, NCIC depends heavily on seasonal snowpack to provide adequate flows in the North Creek, from which all its water is diverted.

1.1 PURPOSE AND NEED

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 proposed actions comply with Reclamation’s mission and related law and policy.

The purpose of the North Creek Irrigation Company Canal Piping and Hydro Project (proposed project) is to improve the reliability of irrigation water delivery for NCIC’s existing water users. The Proposed Project is needed because irrigation water users lack dependable access to their water rights and frequently do not receive their full water allotment during times of drought, especially at the end of the irrigation season. The system currently operates at only 55 percent efficiency, resulting in a 45 percent loss of water (estimated to be 1,611 acre-feet (ac- ft) per

year), based on a water loss study. Actions are needed to decrease water loss from the irrigation ditch system and allow more water to remain in North Creek and downstream rivers.

1.2 DECISION TO BE MADE

The federal decision to be made is to issue a notice to proceed that would authorize the distribution of funds from the WEEG WaterSMART program for implementation of the Proposed Action, as described in Section 2.2.

1.3 RELATIONSHIP TO STATUTES, REGULATIONS, OR OTHER PLANS

This EA complies with the following statutes, regulations, and other guidelines, among others:

- National Environmental Policy Act (NEPA) of 1969, as amended, including the updated regulations effective July 1, 2024.
- U.S. Department of the Interior (DOI) NEPA Interim Final Rulemaking, dated July 1, 2025.
- Clean Air Act (CAA).
- Clean Water Act (CWA).
- Endangered Species Act (ESA).
- National Historic Preservation Act (NHPA).
- 36 Code of Federal Regulations (CFR) Part 800 regulations.

2.0 DESCRIPTION OF ALTERNATIVES

2.1 NO ACTION

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

2.2 PROPOSED ACTION

The Proposed Action Alternative would enable NCIC to pipe and pressurize the entire 7.2 miles of existing open irrigation ditch system, install one meter at the existing North Creek diversion and 39 turnout meters. In the existing footprint, the ditch headworks structure would be upgraded with new controls and a meter on the diversion, to adjust how the water is screened and diverted. The Proposed Action would install high-density polyethylene (HDPE) pipe within the existing irrigation ditch system and bury it within the existing irrigation ditch prism. Piping includes approximately 2,780 feet of 28-inch, 13,450 feet of 24-inch, 8,710 feet of 14-inch, 4,265 feet of 12-inch, and 9,450 feet of 10-inch of HDPE pipe. At the request of local landowners, approximately 1.0 miles (approximately 5,300 feet) of the irrigation piping may be rerouted in Phase 1. One temporary crossing of the North Creek channel would occur during pipe installation (0.04 acres). Construction activities would take place outside of the irrigation season (October 16–March 30).

NCIC would also install a 200-kW hydro unit that produces 99,000 kilowatt-hours (kWh) of power annually and a PRV during Phases 1 and 2 of construction. A second 200 kW hydro unit and PRV would be installed during Phase 3. See the Vicinity Map (Figure 2- 1) and North Creek System Improvement Project Map (Figure 2-2).

Four proposed staging areas have been designated, on approximately 17.5 acres, to be constructed and used. Two are located on the west side of the project area, and two on the east side of the project area. The staging areas would be reclaimed after construction is complete and lands would be returned to the original uses.

2.2.2 PROJECT AREA MAP, PROPOSED ACTION MAP

The following figures include the project area map and a map of the Proposed Action.

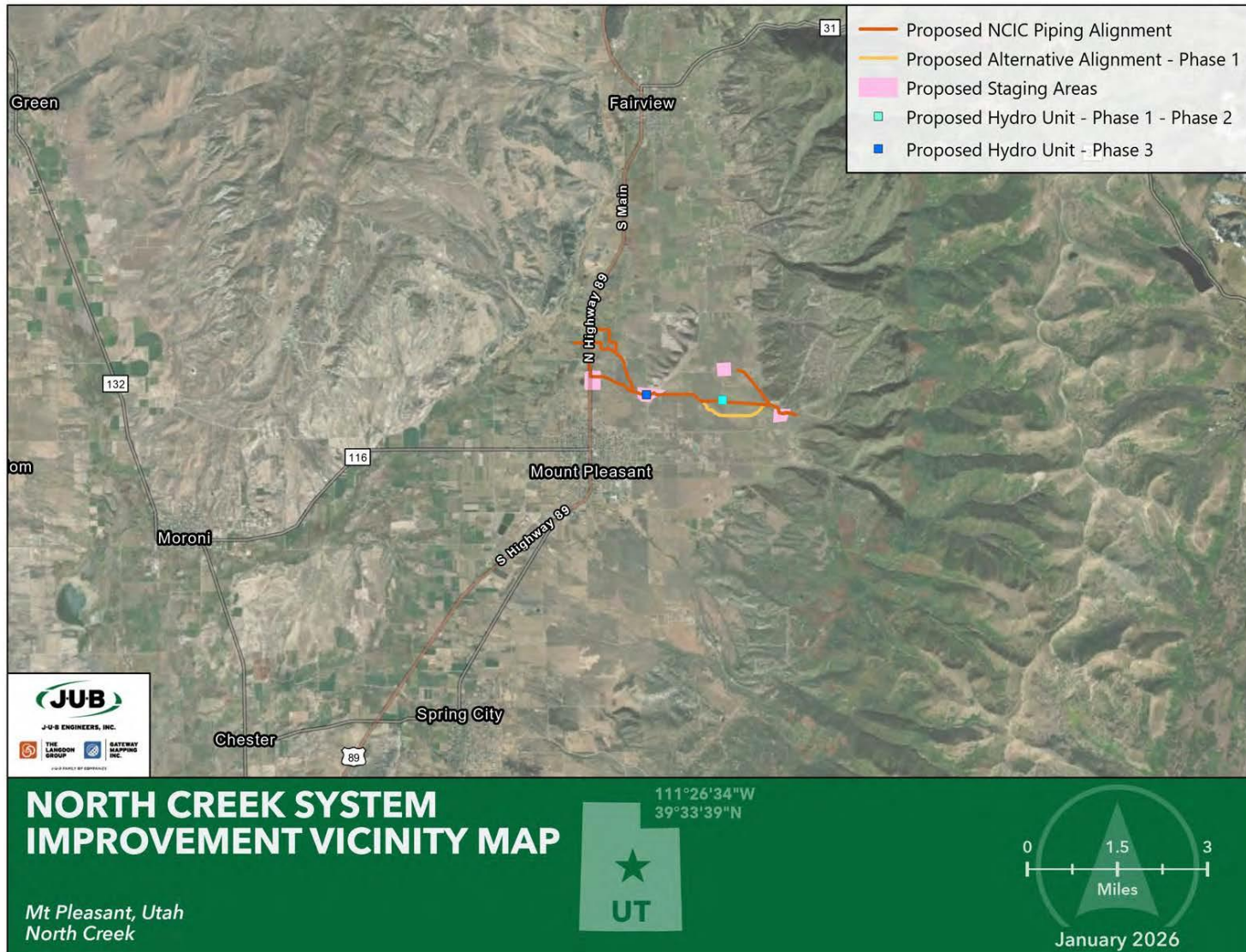


Figure 2-1. North Creek System Improvement Project Area Map

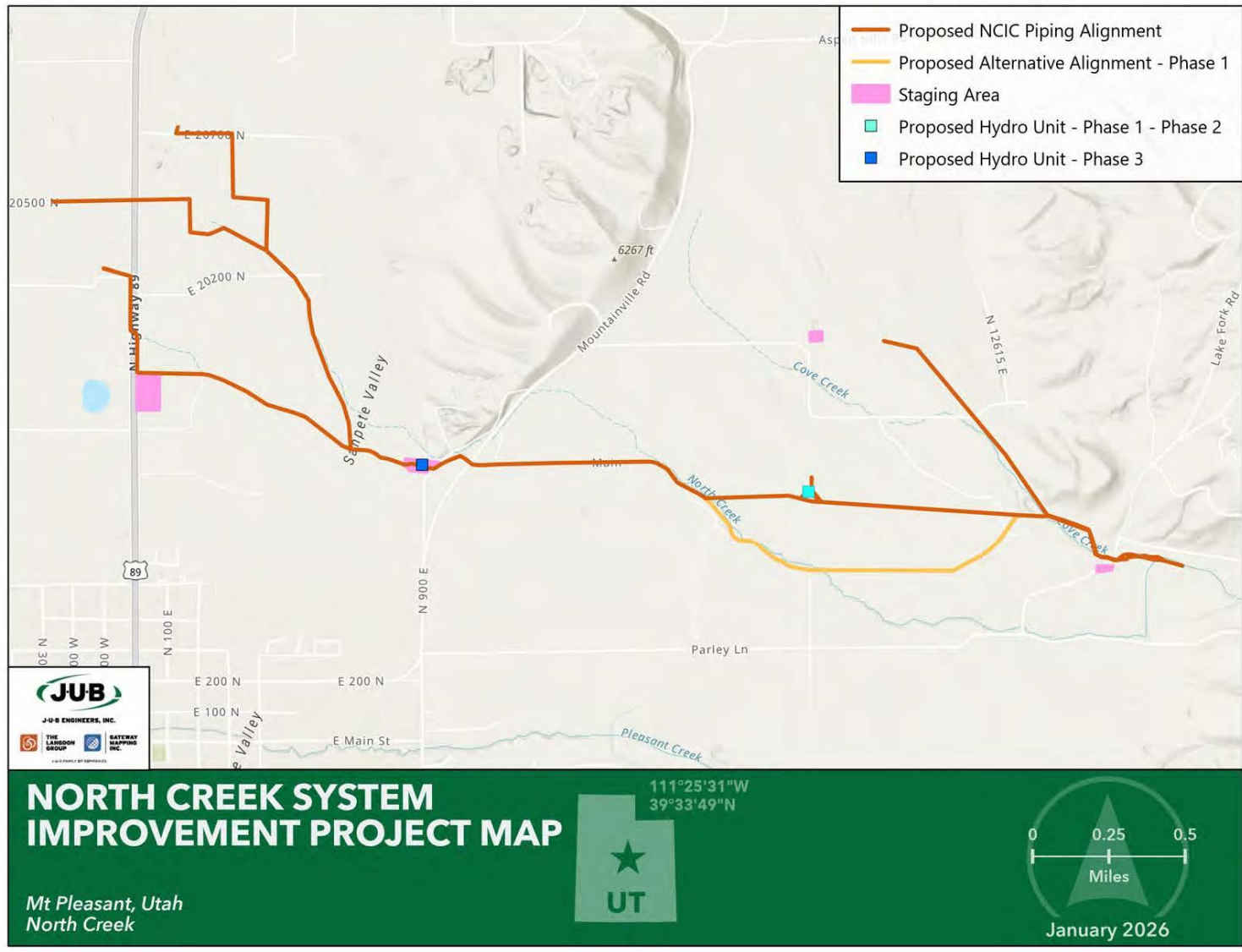


Figure 2-2. North Creek System Improvement Proposed Action Map

3.0 AFFECTED ENVIRONMENT AND 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 & Greenhouse Gas (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 (CO ₂ e) per year (e.g., power plant, landfill, etc.) or modifications of major sources with emission increases greater than 75,000 tons CO ₂ e per year. Additionally, the EPA requires annual reporting for facilities with stationary sources that emit 25,000 metric tons CO ₂ e 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 of the Proposed Action, therefore, this resource is not considered for further analysis in the EA.
NP	Reclamation special areas, lands or facilities including Utah Reclamation Mitigation and Conservation Commission (URMCC) lands	No Reclamation special areas, lands or facilities including URMCC lands are present within the Proposed Action footprint.

Determination	Resource/Issue	Rationale
NI	Archaeological Resources	Project activities have been determined to have no adverse effect on historic properties. This determination was made following a Class III Cultural Resource Inventory (U25HO0202) in consultation with the Utah State Historic Preservation Office (SHPO). The SHPO concurred with Reclamation's determination of no adverse effect on July 25, 2025 (see Appendix A).
NP	Indian Trust Assets (ITA): Native American Religious Concerns	There are no ITAs or Tribal and religious concerns based on a review of the American Indian/Alaska Native/Native Hawaiian National Shapefile Data and professional knowledge of the project area. In addition, no responses were received to the Tribal consultation request letters sent on October 15, 2025. Therefore, potential impacts to ITAs or related concerns are not known to exist.
NP	Designated Areas: Wild and Scenic Rivers or Wilderness Areas	No designated Wild and Scenic Rivers or wilderness areas are present within project area following a GIS review.
NI	Farmlands: Prime/Unique	Following a GIS review of soils data, no designated Prime/Unique Farmlands were found in the project area. In general, affected farmland is expected to benefit from improved watering efficiency as described in the proposed action. No further analysis is therefore 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	Proposed activities would not likely adversely affect paleontological resources as confirmed by consultation with Utah Geologic Survey (UGS) based on the nature of the action and low probability for fossil localities (see Appendix B). Therefore, no further analysis is needed.

Determination	Resource/Issue	Rationale
NP	Plants: ESA-listed—Threatened, Endangered, Proposed, or Candidate Plant Species	Ute ladies'-tresses (ULT) habitat was thought to occur in the project area. A field survey was conducted in 2025 with no individual plants found and it was confirmed that no suitable habitat for ULT was present. Therefore, no further analysis is needed.
PI	Plants: Non-threatened and endangered (T&E), Soils, and Invasive and Noxious Weeds	Proposed activities would have an effect on vegetation and soils based on the proposed action description. Proposed activities may introduce or spread invasive and noxious weeds. Therefore, this resource/issue is carried forward for analysis.
NP	Recreation	No parks or recreation areas are present in the project area based on knowledge of the project and GIS review
PI	Socioeconomics	Impacts to Socioeconomic conditions may occur through the implementation of this project and this resource/issue is brought forward for analysis.
PI	Wastes: Hazardous/Solid	Proposed activities may generate wastes; therefore, this issue is brought forward for analysis.
NI	Water: Hydrology and Water Supply	Proposed activities would not change the source or quantity of the water diverted, nor the nature, timing, or place of water use. Therefore, hydrology is not expected to be affected to a degree that requires further analysis.
PI	Water: Streams, Riparian areas, Floodplains	Proposed activities may affect streams, riparian areas and floodplains. Therefore, these resources/issues are carried forward for analysis.
NP	Water: Wetlands	Proposed activities would not affect wetlands. Field surveys were completed on September 9, 2024, and June 5, 2025, and verified that no jurisdictional wetlands are present in the project area.
NI	Water: Water Quality	Water quality is not expected to be affected to a degree that requires further analysis. Temporary construction impacts would be mitigated through BMPs, including erosion control practices. These impacts are addressed in the Streams, Riparian, and Floodplains Section 3.4, for potential impacts near drainages.

Determination	Resource/Issue	Rationale
PI	Water: Water Rights	Proposed activities such as adding power generation to the existing irrigation nature of use is expected to require water rights filing and approval of a water rights change.
PI	Water: Waters of the U.S. (WOTUS)	Proposed activities may affect WOTUS in the project area.
NI	Wildlife: Migratory Birds, Bald and Golden Eagles	Surveys for migratory bird species (including bald and golden eagles) were completed on September 9, 2024, and June 5, 2025, with no species observed that are of concern. Since construction would take place largely outside of nesting season and surveys did not identify nesting species of concern, no further analysis is needed.
NP	Wildlife: Fish (ESA-listed designated or non-designated)	No ESA-listed fish or habitat are present in the project area based on the lack of year-round habitat within the canal's seasonal use system.
NI	Wildlife: Non-U.S. Fish and Wildlife Service (U.S. Department of the Interior, Fish and Wildlife Service (USFWS) Designated	Proposed activities may alter general wildlife habitat. These impacts are addressed in Vegetation/Soils/Noxious Plants Section 3.1.
NP	Wildlife: ESA-listed—Threatened, Endangered, Proposed or Candidate Animal Species	GIS data and field surveys (September 9, 2024, and June 5, 2025) for ESA listed species confirmed that September no species or habitat is within the project area.

3.1 PLANTS: NON-T&E VEGETATION, SOILS, AND INVASIVE AND NOXIOUS WEEDS

3.1.1 AFFECTED ENVIRONMENT

The project area consists of agricultural and low-intensity rural residential developed areas. The non-residential land is a combination of actively maintained agricultural fields and fenced grazing pastures, with areas of previously disturbed sagebrush flats and paved roadways. Native vegetation within the project area consists primarily of big sagebrush (*Artemisia tridentata*) and other upland shrub and grass species. Vegetation surrounding the irrigation ditches consists primarily of pastureland and includes reed canarygrass (*Phalaris arundinacea*), and witchgrass (*Panicum capillare*). Areas adjacent to North Creek are dominated by horsetail (*Equisetum arvense*), coyote willow (*Salix exigua*), and peachleaf willow (*Salix amygdaloides*). Vegetation associated with the irrigation ditches is highly disturbed. Aside from the ditches and adjacent areas, the project area is dominated by native sagebrush scrub habitat.

The NRCS Web Soil Survey was used to identify soils designations within the project area (NRCS 2025). Soils within the project area are comprised primarily of Birdow very fine sandy loams (36.2%), Mountainville very stony loam (31.5%), and Donnardo very stony loam (12.8%) (NRCS 2025).

Invasive plants and noxious weeds are non-native plant species designated by state law or county ordinance that cause or have the potential to cause negative economic or ecological impacts. Utah has designated 54 weed species as noxious weeds under the Utah Noxious Weed Act (Utah Department of Agriculture and Food [UDAF] 2022). Of these, 16 are known to occur in Sanpete County (Sanpete County 2021b; Table 3-2). Three species of noxious weeds were identified within or adjacent to the project area: Scotch thistle (*Onopordum acanthium*), musk thistle (*Carduus nutans*), and curly dock (*Rumex crispus*). These species are identified in Table 3-2 in bold font.

Table 3-2. Noxious Weeds and Invasive Plants in Sanpete County

Common Name	Scientific Name
Russian Knapweed	<i>Acroptilon repens</i>
Diffuse Knapweed	<i>Centaurea diffusa</i>
Spotted Knapweed	<i>Centaurea stoebe</i>
Squarrose Knapweed	<i>Centaurea virgata</i>
Scotch Thistle¹	<i>Onopordum acanthium</i>
Canada Thistle	<i>Cirsium arvense</i>
Musk Thistle¹	<i>Carduus nutans</i>
Whitetop/Hoary Cress	<i>Lepidium draba</i>
Perennial Pepperweed	<i>Lepidium latifolium</i>
Buffalo Bar	<i>Salsola tragus</i>
Dyer Woad	<i>Isatis tinctoria</i>
Yellow/Dalmatian Toad Flax	<i>Linaria vulgaris</i> / <i>Linaria dalmatica</i>
Houndstongue	<i>Cynoglossum officinale</i>
Curly Dock¹	<i>Rumex crispus</i>
Burdock (Wild Morning Glory)	<i>Arctium minus</i> / <i>Convolvulus arvensis</i>
Black Henbane	<i>Hyoscyamus niger</i>

¹ Species identified in or adjacent to the project area.

Within Utah, counties are given the responsibility to oversee noxious weed management programs within their county boundaries. The Sanpete County Weed Department has developed an integrated weed management plan to increase cooperative control of noxious weeds within the county (Sanpete County n.d.). The Sanpete County Weed Department and County Weed Board goals include the responsibility for public relations, education, and training, weed eradication, fostering sound and desirable means of weed control, and assisting landowners and county officials through outreach and communication.

3.1.2 NO ACTION ALTERNATIVE ENVIRONMENTAL EFFECTS

The No Action Alternative would have no direct or indirect effects on non-T&E vegetation, soils, or invasive plants and noxious weeds in the project area. NCIC’s ongoing routine

maintenance activities would have a minor potential to disturb vegetation and soils or to introduce and establish noxious weeds and invasive plant species. NCIC reclaims vegetation and soils disturbances from maintenance activities as necessary and actively implements a weed control program to adequately manage and prevent the introduction and establishment of noxious weeds and invasive species in alignment with Sanpete County's weed plan. The No Action Alternative would not alter the current NCIC operations and maintenance programs in the project area.

3.1.3 PROPOSED ACTION ALTERNATIVE ENVIRONMENTAL EFFECTS

Minor, direct effects to non-T&E vegetation and soils may occur as a result of land disturbances during construction. Since the majority of the project area has previously been disturbed by the existing irrigation ditch system, access roads, local roads, and minor residential development, as well as substantial agricultural and grazing activities, minimal native, non-T&E vegetation remains in the project area. All disturbed areas would be reclaimed following construction. BMPs would be implemented to minimize disturbances to adjacent vegetation and soils, as discussed in Section 3.1.3.1.

During field surveys, three species of noxious weeds were identified within or adjacent to the project area. The Proposed Action has the potential to introduce noxious weeds and invasive plant species due to land disturbance activities related to construction activities, which would potentially cause major, long-term effects to the area if noxious weeds were allowed to spread. Construction would comply with Executive Order (E.O.) 13112 which established the National Invasive Species Council (NISC) to, "prevent the introduction of invasive species and provide for their control and to minimize the economic, ecological, and human health impacts that invasive species cause" (U.S. Department of Agriculture [USDA] 1999). Additionally, the Sanpete County Weed Department has issued the Sanpete Integrated Weed Management Plan, which outlines their weed management strategies and acceptable noxious weed treatment methods (Sanpete County n.d.).

Minor, direct effects to noxious weeds and invasive species could potentially occur during construction as a result of land disturbances, which would allow noxious weeds and invasive species to grow and spread. To prevent the establishment of noxious weeds and invasive plant species, the project area would be monitored throughout construction and reclamation. If any noxious weeds are identified onsite during construction or reclamation, approved strategies would be employed to control the spread of the species and assist with the eradication of the species at the site. These methods may include physical or mechanical controls (hand pulling, mowing, tilling, or burning), biological (use of insects, fungi, or grazing methods), chemical (herbicides), or cultural/land use methods (i.e., practices that retain, enhance, or introduce desirable species). BMPs would be implemented to prevent the introduction and establishment of these species, as discussed in Section 3.1.3.1.

BMPs would minimize the risk of new invasive plants and noxious weed introduction and recruitment, and existing weed spread, and NCIC would continue weed management activities in compliance with the Utah Noxious Weed Act. These actions ensure the Proposed Action would

not cause or promote the introduction or spread of invasive species beyond what currently exists and therefore complies with E.O. 13112. Therefore, no permanent effects to noxious weeds and invasive species are anticipated as a result of the Proposed Action.

3.1.3.1 MITIGATION MEASURES

Apply BMPs and Temporary Erosion ESCs, including straw wattles, silt fences, and applicable soil management practices, to minimize erosion during and post-construction.

Develop and implement a site rehabilitation plan to reduce post-construction related erosion and sedimentation.

Fugitive dust control measures will be in place. Water trucks or other dust abatement measures will be used during construction to minimize dust impacts. Vehicle speeds will be restricted in the project area.

The following BMPs will be used to prevent the introduction and establishment of invasive plant species and noxious weeds, not limited to:

- Monitor the project area throughout construction for the presence of non-desirable plant species and remove any identified non-desirable species via chemical (where appropriate) or mechanical means.
- Decontaminate construction equipment using high pressure steam/water, or similar means, prior to mobilization to the project area and prior to demobilization from the project area, to prevent the spread of non-desirable plant species into and from the project area.
- Reseed areas disturbed by construction activities with the following approved seed mix: (99.9% noxious weed-free seed), to encourage the establishment of native vegetation.
 - The recommended seed mix includes Indian Ricegrass (0.75), Big Basin Sagebrush (0.2), Showy Milkweed (0.2), 4 wing Saltbush (0.1), Arrowleaf Balsamroot (0.3), Rocky Mountain Beeplant (0.2), White Prairie Clover (0.2), rubber Rabbitbrush (0.25), Needle and thread (0.6), Prairie Junegrass (0.3), Winterfat (0.15), Lewis Flax (0.35), Silvery Lupine (0.2), Western Wheatgrass (1), Bluebunch Wheatgrass (1.4), Antelope bitterbrush (0.15), Prairie Coneflower (Long-headed) (0.25), Monro's Globemallow (0.25), Alkali sacaton (0.35), and Sand Dropseed (0.4) (Pheasants Forever 2026).
- Implement post construction site monitoring to address invasive plant species and noxious weed establishment and eradication.

3.2 SOCIOECONOMICS

3.2.1 AFFECTED ENVIRONMENT

Sanpete County has seen population growth within the last 40 years, which is anticipated to continue into the near future at an estimated growth rate of approximately 1.2% (Sunrise

Engineering 2021). The county maintains ample space to accommodate development and growth of the community.

Given the current water losses experienced in the NCIC irrigation system, the irrigation season in the surrounding area is often truncated. The shortened irrigation season ultimately impacts profitability and overall income status for both NCIC users and surrounding Sanpete County communities.

3.2.1.2 AGRICULTURAL STATISTICS

Although Sanpete County and the surrounding areas are growing, they are still largely agricultural areas. According to the USDA National Agricultural Statistics Service (NASS), as of 2022, sales from farms in Sanpete County included \$25.2 million for crops and over \$183.5 million for livestock, poultry, and other products (NASS 2022). Table 3-3 provides an overview of the agricultural census for Sanpete County.

Table 3-3. Sanpete County Agricultural Census

Resource	Description
Number of Farms	941
Active Farmland (acres)	277,113
Irrigated Acres	53,843 (19.4%)
Average Farm Size (acres)	294
Farmland Use (acres) and Productivity	Cropland: 73,806 (26.6%)
Primary Crops (acres)	Forage (hay/haylage): 43,944 Wheat (grain use): 1,112 Corn (silage/green chop): 2,176 Barley (grain use): 1,336 Vegetables for Sale: 221 Orchards: 13

Source: NASS 2022.

3.2.2 NO ACTION ALTERNATIVE ENVIRONMENTAL EFFECTS

Under the No Action Alternative irrigation users would continue to lack reliable access to their water rights due to seepage and may not receive their full water allotment during times of drought. NCIC and its users would continue to incur high economic costs required to conduct maintenance and operations on its aging infrastructure. However, temporary construction jobs would result as future infrastructure investments are made.

Under this alternative, no hydropower would be produced to power Mt. Pleasant City or the surrounding area and no temporary jobs would be created related to this effort.

3.2.3 PROPOSED ACTION ALTERNATIVE ENVIRONMENTAL EFFECTS

Temporary and permanent beneficial effects to socioeconomics would result from the Proposed Action. Effects include expenditures of federal funds to implement the Proposed Action. In

addition, the Proposed Action would temporarily create approximately 6 jobs (i.e., 1 full crew of 4, plus 1 job superintendent and 1 office support staff) during construction. The Proposed Action would reduce operational and maintenance costs for NCIC as new infrastructure requires fewer repairs than aging infrastructure. The Proposed Action is expected to result in a slight increase in agricultural profitability due to reliable water being available throughout the irrigation season.

Long-term, the two 200 kW hydro units and PRVs would generate 198,000 kWh of power annually for Mt. Pleasant Power and reduce costs that would have been incurred by Mt. Pleasant Power from purchasing power from the grid. The addition of these hydro units to the existing irrigation system would allow Mt. Pleasant Power to provide electricity to approximately 12 homes. The cost of any transmission utilities to connect these hydro units to the existing power grid would be incurred by Mt. Pleasant Power.

3.3 WASTES: HAZARDOUS/SOLID

3.3.1 AFFECTED ENVIRONMENT

A review of the Utah Department of Environmental Quality (UDEQ), Division of Waste Management and Radiation Control's database and the Environmental Protection Agency's (EPA) Envirofacts database was conducted to identify any reported facilities in, or within a 0.5-mile radius of the project area that generate, handle, or dispose of hazardous waste, or if any environmental incidents involving hazardous materials have been reported within city limits. No sites were identified within the 0.5-mile radius of the project area.

The EPA's Envirofacts database did not identify any hazardous materials generating, handling, or disposal facilities or locations impacted by hazardous materials within or adjacent to the project area (EPA 2025). The online databases maintained by the UDEQ and EPA list facilities that have registered with the State and Federal agencies, respectively, as generating, handling, or disposing of hazardous waste.

3.3.2 NO ACTION ALTERNATIVE ENVIRONMENTAL EFFECTS

The No Action Alternative would have no direct or indirect effect to hazardous material sites or solid waste storage and disposal sites. No hazardous or solid waste would be generated or need to be disposed of. Existing conditions would continue.

3.3.3 PROPOSED ACTION ALTERNATIVE ENVIRONMENTAL EFFECTS

The Proposed Action would have no direct or indirect effect on reported facilities in, or within a 0.5-mile radius of the project area that generates, handles, or disposes of hazardous waste, because none are present.

Under the Proposed Action, construction-generated wastes, such as fuels, oils, lubricants, and other potential environmentally deleterious materials, may be stored and used on-site; however,

storage, use, and disposal of these materials would be subject to applicable local, state, and federal regulations.

The Proposed Action would manage construction-generated wastes by implementing BMPs prior to and during construction activities. These BMPs include minimizing soil disturbance, and if hazardous materials are encountered, notifying UDEQ, and handling site material appropriately. In the event of an unintended release or hazardous materials discovery, clean up procedures would be conducted according to state and federal regulations. Unintended releases of hazardous materials would be contained, and the appropriate regulatory agencies would be notified. The contractor would be required to obtain a Construction Stormwater General Permit (CSWGP) under the Utah Pollution Discharge Elimination System (UPDES) program prior to construction. As part of this permit, the contractor would also be required to follow an approved Stormwater Pollution Prevention Plan (SWPPP) and Spill Prevention Control and Countermeasures (SPCC) plan, which would be used in the management of construction equipment maintenance and use in the project area. Construction-generated waste, including any potentially hazardous waste, would be disposed of at an approved off-site location.

As a result of BMPs implemented during and post-construction, the Proposed Action is anticipated to have no temporary or permanent effects to hazardous and solid waste.

3.3.3.1 MITIGATION MEASURES

Contractor would obtain a CSWGP under the UPDES program prior to construction. As part of this permit, the contractor would follow an approved SWPPP and SPCC plan, to use in the management of construction equipment maintenance and use in the project area. The contractor shall follow proper storage, handling, use, and disposal of petroleum products and other hazardous materials.

In the event of an unintended release or hazardous materials discovery, clean up procedures would be conducted according to state and federal regulations. Unintended releases of hazardous materials would be contained, and the appropriate regulatory agencies would be notified.

When feasible, construction equipment and vehicles will be fueled offsite. If offsite fueling is impractical, fueling will occur in designated fueling areas. Adequate spill response equipment (i.e., spill kits and cleanup materials) shall be always maintained and present. All spills will be cleaned up immediately.

Dispose of construction-generated waste, including any potentially hazardous waste, at an approved off-site location. Dispose of all excavated sediment and debris at a pre-approved area more than 200 feet from any surface water feature, including North Creek.

3.4 WATER: STREAMS, RIPARIAN AREAS, FLOODPLAINS

3.4.1 AFFECTED ENVIRONMENT

3.4.1.1 STREAMS

An Aquatic Resources Delineation (ARD) was completed on September 9, 2024, and June 5, 2025, to determine the presence of water resources within the Study Area, defined as the project area and all staging areas and access roads (83.6 acres), and a 50-foot buffer centered on irrigation ditches for a total of 132.1 acres. The study area also includes other survey areas that were considered for alternatives but were eliminated. Four creeks were identified within the Study Area: Cove Creek, Little North Creek, Mule Creek, and North Creek.

3.4.1.2 RIPARIAN AREAS

Riparian areas within the Study Area are limited and generally characterized as low to mid-quality habitat. The narrow riparian fringe along North Creek is dominated by coyote willow (*Salix exigua*) and peachleaf willow (*Salix spp.*), and upland shrubs including rubber rabbitbrush (*Ericameria nauseosa*) and big sagebrush (*Artemisia tridentata*) present in adjacent areas. Throughout the Study Area, riparian vegetation lacks continuity and is frequently fragmented by residential and agricultural development. The riparian zone lacks structural complexity, meaning it does not have multiple vegetation layers (such as well-developed understory, mid-story, and overstory) or high species diversity and vertical stratification (CSKT 2021).

3.4.1.3 FLOODPLAINS

Under E.O. 11988, federal agencies must avoid adversely impacting floodplains, directly or indirectly. Floodplains are “lowland and relatively flat areas adjoining inland and coastal waters including flood prone areas of offshore islands, including at a minimum, that area subject to a one percent or greater chance of flooding in any given year” (E.O. 11988 Section 6(C)).

The Federal Emergency Management Agency (FEMA) is responsible for identifying and categorizing flood hazard areas throughout the county. FEMA develops Flood Insurance Rate Maps (FIRMs) that illustrate the various flood hazard areas in a location. Examples of some flood hazard areas are Zone A, Zone V, or Zone VE. Areas that have a 1 percent annual chance of flooding are referred to as the 100-year flood. Moderate flood hazard areas are the areas between the 100-year floodplain boundary and the 500-year floodplain boundary (called Zone B or Zone X-shaded). If an area is outside of the 100-year floodplain and above the 500-year floodplain elevation, it is considered an area of minimal flood hazard risk (Zone C or Zone X-unshaded).

A review of the FIRMs for the project area (Panels #49039C0305C, 49039C0315C, 49039C0310C, and 49039C0320C shows the project area lies entirely outside any special flood hazard areas (i.e., a 100-year or 500-year floodplain elevation), including those areas adjacent to North Creek (FEMA 2012). The NCIC irrigation ditch system in North Creek is in Zone X, an area of minimal flood hazard.

3.4.2 NO ACTION ALTERNATIVE ENVIRONMENTAL EFFECTS

The No Action Alternative would have no direct effect on Cove Creek, Little North Creek, Mule Creek, or North Creek, because no construction would occur within creeks in the project area. However, the irrigation ditch system would continue to lose approximately 1,611 ac-ft of water per year. This would cause an indirect effect to the creeks by diverting additional water from the creek system to meet irrigation demand and make up for water loss in the system.

3.4.3 PROPOSED ACTION ALTERNATIVE ENVIRONMENTAL EFFECTS

3.4.3.1 STREAMS

The Proposed Action would have a direct, temporary, and minor effect on approximately 0.02 acres of North Creek during construction when the piping is installed. The direct temporary effect would include increased sedimentation and bank disturbance during the creek crossing, and the creek crossing would be restored after construction. The pipe installation across North Creek would be completed via trenching, occur in the fall during the low flow period and include a temporary cofferdam system to maintain surface water flows in North Creek during construction.

Outside of the irrigation season, approximately 2 cubic feet per second (cfs) of water would be diverted from North Creek into the pipeline, run through the hydro units to produce power, and then returned to North Creek. The hydro units would be installed within the existing irrigation ditch system right-of-way and would not connect directly to North Creek. BMPs would be implemented during construction and post-construction to minimize effects to North Creek as a result of the Proposed Action. No permanent reduction of water from North Creek would occur from the hydro units.

As a result of the Proposed Action, the direct, temporary, minor effects would occur to North Creek during construction of the creek crossing. BMPs would be implemented to minimize effects during construction. The piping of the irrigation system would reduce water loss, allowing more water to remain in the system.

3.4.3.2 RIPARIAN AREAS

The Proposed Action would have both temporary minor and long-term effects on riparian areas within the project area. These effects would be minimal due to the overall low quality of riparian vegetation and the level of previously disturbed areas found within the project area.

Approximately 16.0 acres of riparian areas on the east side of the project area near Cove Creek would be temporarily disturbed during construction, which would have a minor effect on overall riparian habitat in the area. BMPs would be implemented during construction and post-construction to minimize effects to riparian areas, as discussed in Section 3.4.3.4. All disturbed riparian areas would be reclaimed following construction. Despite the disturbance, these riparian areas are anticipated to persist due to the proximity to a reliable water source and would continue to support riparian vegetation.

However, approximately 5.24 acres of low-quality riparian habitat would be permanently lost due to piping of the existing irrigation system. This low-quality riparian habitat exists within the irrigation ditch prism and is fed directly from the open irrigation ditches. Piping of the irrigation system within the existing prism would disturb these low-quality riparian areas. These areas would not be reclaimed as riparian areas following construction because piping of the irrigation system would remove the source of water supporting these areas.

3.4.3.3 FLOODPLAINS

The project area is in portions of FIRM panels 49039C0305C, 49039C0315C, 49039C0310C, and 49039C0320C (FEMA 2012). Since the project area lies entirely outside any special flood hazard areas, the Proposed Action would have no direct or indirect effect on floodplains.

The Proposed Action would upgrade the existing ditch headworks structure in North Creek, slightly adjusting how the water is screened and diverted, and would provide NCIC better control over the diversion structure.

Approximately 0.04 acres of North Creek would be temporarily disturbed during pipe installation. No temporary or permanent effects to floodplains are anticipated as a result of the Proposed Action.

3.4.3.4 MITIGATION MEASURES

Apply BMPs and Temporary Erosion and Sediment Controls (TESCs), including straw wattles, silt fences, and applicable soil management practices, to minimize erosion during and post-construction.

Rehabilitate all areas of ground disturbance. Spread or grade stockpiled materials and use a native seed mix (99.9% noxious weed-free seed) to reseed all areas where ground disturbance has occurred. Ensure the seed mix and plants are appropriate to the region and include milkweed species (*Asclepias* sp.) when appropriate to the site.

If appropriate for the area, apply seed by hydroseeding, using a temporary erosion control mulch tackifier to provide stabilization, eliminate erosion concerns, and create vegetation recruitment opportunities.

Dispose of construction-generated waste, including any potentially hazardous waste, at an approved off-site location. Dispose of all excavated sediment and debris at a pre-approved area more than 200 feet from any surface water feature, including North Creek.

3.5 WATER: WATER RIGHTS

3.5.1 AFFECTED ENVIRONMENT

A water loss study of the NCIC irrigation ditch system was completed in July 2022 and a second was completed in May 2023. Flows were measured using a velocity probe and by measuring the

dimensions of the irrigation ditches. Losses vary across the system, with the highest losses occurring in segments with poor infrastructure. The July 2022 study measured substantial losses in the irrigation ditch system, ranging from 16 percent to 38 percent, and total loss in the system was estimated at 45 percent. The May 2023 study measured an 11 percent loss between the headworks and the first diversion, an 18 percent loss in one of the branches downstream of the main diversion and indicated that maximum flow in the system was only 8 cfs, less than 45 percent of the water right. Based on these two studies and discussions with shareholders, the average flow delivered to shareholders was estimated at 4.6 cfs, which translates to approximately 1,611 ac-ft of water lost annually. This loss results in shareholders not receiving their entire water right each year.

NCIC is comprised of five separate irrigation ditch entities, dating back to 1878, that share a single water right. Under the Utah Water Right No. 65-3135, NCIC has the right to divert up to 22.95 cfs from April 1 to October 15, for the beneficial use of irrigating 803 acres, serving 63 shareholders (Utah Department of Natural Resources, Utah Division of Water Rights [UDNR-UDWRi] 2023). NCIC's water right is for irrigation use only. Excess water discharges directly into the San Pitch River, a vital water resource in Sanpete County.

3.5.2 NO ACTION ALTERNATIVE ENVIRONMENTAL EFFECTS

Under the No Action Alternative, shareholder concerns would continue as they would not receive their entire water right each year, because of water loss from the irrigation system. This alternative would result in an adverse effect to shareholders. Water loss would continue at the rates measured in the water loss studies, yet this alternative would have no effect on NCIC's existing water right.

3.5.3 PROPOSED ACTION ALTERNATIVE ENVIRONMENTAL EFFECTS

The Proposed Action would upgrade the existing ditch headworks structure, slightly adjusting how the water is screened and diverted, and would provide NCIC better control over the diversion structure. The upgrade would include new controls and a meter on the diversion, allowing NCIC to more effectively meter and manage the diversion of water from North Creek. The construction would be completed within the existing ditch headworks structure's footprint, so the location of the point of diversion from North Creek would not change. The upgrade would not change the flow direction, place of use, seasonality of diversions, or quantity of water diverted from North Creek. Thus, the upgrade to the headworks structure falls within NCIC's existing water right and is not anticipated to affect other water users.

The Proposed Action would install two 200 kW hydro units: one during the combined Phase 1/Phase 2 and another during Phase 3 of construction. In total, the two hydro units would generate 198,000 kWh of power annually for Mt. Pleasant Power. The hydro units would be connected to the irrigation pipeline at two locations, as shown on the project map in Section 2.2. The hydro units would divert water from the pipeline and then return the water to the pipeline, resulting in a non-consumptive water use. The hydro units are expected to run 24 hours each day, 365 days a year.

During the irrigation season (April 1 to October 15), the water diverted for irrigation under Water Right No. 65-3135 would also be used for power generation. This additional beneficial use of power generation within the canal system during the irrigation season would require a change application to be filed with and approved by the State Engineer in accordance with Utah Code Section 73-3. Because the power generation use would not change the quantity of water diverted from North Creek or introduce additional depletions, this water right change is not anticipated to affect other water users.

Outside of the irrigation season, approximately 2 cfs of water would be diverted from North Creek into the pipeline, run through the hydro units to produce power, and then returned to North Creek, which would not permanently remove that water from the creek system. Diversion of water for non-consumptive power generation purposes during the non-irrigation would require a water rights appropriation to be filed with and approved by the State Engineer in accordance with Utah Code Section 73-3. Area 65 Water Rights Policy allows for non-consumptive hydropower appropriations, and initial discussions indicate the UDWRi is amenable to this non-consumptive appropriation. The appropriation would not allow for long-term water storage or for the consumptive use of this water, nor would it change the amount or seasonality of the water NCIC is allowed to divert for irrigation use. Administered in priority, the new appropriation would have no potential to impair existing water rights. Therefore, the non-consumptive appropriation is not anticipated to adversely affect other water users.

3.6 WATER: WATERS OF THE U.S. (WOTUS)

3.6.1 AFFECTED ENVIRONMENT

The CWA establishes the framework for regulating discharges of pollutants into the WOTUS, which can include wetlands, and regulating quality standards for surface waters (EPA 2022). An ARD was conducted for the Study Area on September 9, 2024, and June 5, 2025. As part of the ARD, field verification in accordance with the U.S. Army Corps of Engineers (USACE) 1987 Wetland Delineation Manual and the 2008 Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West (Version 2.0), identified several WOTUS resources within the Study Area, as shown in Table 3-4.

Table 3-4. Water Resource Linear Features within the Study Area

Resource Name	Resource Size (acres)	Resource Size (linear feet)
Cove Creek	0.25	1,744.23
Little North Creek	0.18	3,292.10
Mule Creek	0.13	1,670.23
North Creek	1.03	7,164.49
Ponds	0.33	-
Ditches	2.55	36,656.19
Total Water Resources	4.47	50,527.24

Cove Creek, Little North Creek, Mule Creek, and North Creek as well as 51 of the ditches (approximately 2.1 acres) identified in the Study Area are jurisdictional WOTUS due to the connectivity to the San Pitch River. All three of the ponds and 11 of the ditches (approximately 0.5 acres) identified are considered non-jurisdictional because they discharge directly into upland areas for irrigation purposes and have no observable return flow to downstream waters.

3.6.2 NO ACTION ALTERNATIVE ENVIRONMENTAL EFFECTS

The No Action Alternative would have no new effects on WOTUS because no construction would occur. Under the No Action Alternative, the irrigation ditch system would continue to lose approximately 1,611 ac-ft of water annually, reducing available water within the system.

3.6.3 PROPOSED ACTION ALTERNATIVE ENVIRONMENTAL EFFECTS

The Proposed Action would have no effects on Cove Creek, Little North Creek, and Mule Creek, all jurisdictional WOTUS because no actions are proposed in these waters. No effects to jurisdictional wetlands would occur because none are present within the Project Area.

The Proposed Action would have a temporary effect on North Creek, a jurisdictional WOTUS. The construction of the piping would disturb approximately 0.04 acres of North Creek, which would result in increased sedimentation without implementing mitigation measures, during construction activities. The pipe installation across North Creek would be completed via trenching, occur in the fall during the low flow period, and include a temporary cofferdam system to maintain surface water flows in North Creek during construction. The creek crossing would be restored after construction and BMPs would be implemented during construction and post-construction to minimize effects to North Creek.

Outside of the irrigation season, approximately 2 cfs of water would be diverted from North Creek into the pipeline, run through the hydro units to produce power, and then returned to North Creek, resulting in non-consumptive use of the water. The hydro units are expected to run 24 hours each day, 365 days a year. The hydro units would be installed within the existing irrigation ditch system right-of-way and would not connect directly to North Creek. BMPs would be implemented during construction and post-construction to minimize effects to North Creek as a result of the Proposed Action. No permanent reduction of water from North Creek would occur from the hydro units.

No permanent effect on North Creek is anticipated because of the stream crossing or construction and installation of the hydro units. The Proposed Action and associated mitigation measures would improve water delivery efficiency, reducing water loss from irrigation ditches, and minimize sedimentation during construction. The piping of the irrigation system would reduce water loss, allowing more water to remain in the natural streams systems over time.

3.6.3.1 MITIGATION MEASURES

Apply BMPs and TESCOs, including straw wattles, silt fences, and applicable soil management practices, to minimize erosion during and post-construction.

Develop and implement a site rehabilitation plan to reduce post-construction related erosion and sedimentation.

Rehabilitate all areas of ground disturbance. Spread or grade stockpiled materials and use a native seed mix (99.9% noxious weed-free seed) to reseed all areas where ground disturbance has occurred. Ensure the seed mix and plants are appropriate to the region and include milkweed species (*Asclepias sp.*) when appropriate to the site.

If appropriate for the area, apply seed by hydroseeding, using a temporary erosion control mulch tackifier to provide stabilization, eliminate erosion concerns, and create vegetation recruitment opportunities.

A combined stream alteration permit from the UDWRi and the USACE is required for the small section where the installed pipe would cross North Creek. This is the responsibility of the grantee.

Dispose of construction-generated waste, including any potentially hazardous waste, at an approved off-site location. Dispose of all excavated sediment and debris at a pre-approved area more than 200 feet from any surface water feature, including North Creek.

4.0 CONSULTATION AND COORDINATION

4.1 PERSONS, GROUPS, AND AGENCIES CONSULTED

Table 4-1. Coordination and Consultation

Name	Purpose & Authorities for Consultation or Coordination	Findings & Conclusions
Utah SHPO;	NHPA Section 106	SHPO concurred with Reclamation’s determination that the proposed undertaking would have No Adverse Effect to Historic Properties on July 25, 2025 (see Appendix A)
USFWS	ESA Section 7	No consultation is required, based on field survey data and the absence of T&E species habitat.
Native American Nations and Tribal Organizations	NHPA Section 106; E.O. 13175, E.O. 13007	Section 106 Letters sent October 15, 2025, to the Navajo Nation and the Ute Indian Tribe of the Uintah and Ouray Reservation, Utah (See Appendix B). To date, no response has been received from either tribe.
USACE	Clean Water Act	No NEPA consultation necessary. A combined stream alteration permit from UDWRi and the USACE would be required for the North Creek crossing, which would be obtained prior to beginning construction activities.
Utah State Geological Survey (UGS)	Paleontological Resources Preservation Act	Reclamation requested a paleontological file search from UGS on February 16, 2026, to determine the nature and extent of paleontological resources within the APE. UGS determined that there are no

Name	Purpose & Authorities for Consultation or Coordination	Findings & Conclusions
		paleontological localities recorded and the Proposed Action would have a low probability of being in a paleontologically sensitive area (Appendix B).

4.2 LIST OF PREPARERS

Table 4-2. PRO Preparers

Name	Title	Responsible for the Following Section(s) of this Document
Bridget Navarro	Civil Engineer – Water Rights	Interdisciplinary Team Checklist
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Dustin Woodbury	Civil Engineer – Water Rights Lead	Interdisciplinary Team Checklist
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Table 4-3. Other Preparers

Name	Title	Responsible for the Following Section(s) of this Document
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5.0 REFERENCES, GLOSSARY AND ACRONYMS

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5.2 GLOSSARY OF TERMS

Table 5-1 identifies important terms used in this document and their definitions.

Table 5-1. Definitions for Important Terms

Term	Definition
Action Area	For this analysis, the 4,306-acre Action Area includes the project footprint of the Proposed Action and up to a 300-foot construction buffer. This analysis area is used for ESA-listed species.
APE	The APE or Area of Potential Effect is a geographic area defined in 36 CFR 800.16 and the Section 106 implementing regulations to include the “area or areas within which an undertaking may directly or indirectly cause alterations in the character or use of historic properties, if any such properties exist” (36 CFR 800.16). For the Proposed Action, the APE has been set at 132.1 acres and includes all staging areas and access roads, as well as a 50-foot buffer centered on the irrigation ditches. The APE also includes other areas that were considered for alternatives but were eliminated. The APE is defined in Section 3.0.
NI	Resources are present, but not affected to the degree that detailed analysis is required within the EA.
No Action Alternative	This alternative would not complete any construction activities, and no actions would be taken to address sponsor’s concerns. See Section 2.1 for full description.
NP	Resources do not present in the area impacted by the proposed or alternative actions.
PI	Resources present with potential for relevant impact that need to be analyzed in detail in the EA.
proposed project	North Creek Irrigation Company Canal Piping and Hydro Project.
project area	The project area for the Proposed Action encompasses a total of 83.6 acres and includes all NCIC irrigation ditches and potential routes to be piped. The project area includes the physical limits of construction, any proposed staging areas or access roads that would be used during construction, and a 50-foot construction buffer associated with the proposed linear features. The project area is defined in Section 3.0.
Proposed Action Alternative	This alternative would pipe and pressurize the entire 7.2 miles of existing open irrigation ditch system, as well as install meters at the North Creek diversion and 39 turnouts. See Section 2.2 for full description.
Study Area	Defined as the project area and all staging areas and access roads, as well as a 50-foot buffer centered on the irrigation ditches for a total of 132.1 acres. The Study Area also includes other areas that were considered for alternatives but were eliminated. The Study Area matches the APE for the Project Action. The Study Area is defined in Section 3.0.

5.3 LIST OF ACRONYMS

Table 5-2 identifies acronyms and abbreviations used in this document and their definitions.

Table 5-2. Definitions for Acronyms and Abbreviations

Acronym or Abbreviation	Definition
ac-ft	acre-feet
ACS	American Community Survey
AMSL	Above mean sea level
APE	Area of Potential Effect
ARD	Aquatic Resources Delineation
BA	Biological Assessment
BGEPA	Bald and Golden Eagle Protection Act
BMPs	Best Management Practices
CAA	Clean Air Act
Census	U.S. Census Bureau
cfs	cubic feet per second
CFR	Code of Federal Regulations
CSWGP	Construction Stormwater General Permit
CWA	Clean Water Act
DOI	U.S. Department of the Interior
EA	Environmental Assessment
EIS	Environmental Impact Statement
EPA	Environmental Protection Agency
ESA	Endangered Species Act
E.O.	Executive Order
FEMA	Federal Emergency Management Agency
FIRM	Flood Insurance Rate Map
FPPA	Farmland Protection Policy Act
GHG	Greenhouse gas
HDPE	High-density polyethylene pipe
HUC	Hydrologic Unit Code
IPaC	Information for Planning and Consultation
ITA	Indian Trust Assets
J-U-B	J-U-B ENGINEERS, Inc.
kW	Kilowatt
kWh	Kilowatt-hour
MBTA	Migratory Bird Treaty Act
MSO	Mexican spotted owl
NASS	National Agricultural Statistics Survey
NCIC	North Creek Irrigation Company
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NISC	National Invasive Species Council
NRCS	National Resources Conservation Service
PCSRP	Post Construction Site Rehabilitation Plan
Proposed Project	North Creek Irrigation Company Canal Piping and Hydro Project
PRV	Pressure-reducing valve

Acronym or Abbreviation	Definition
Reclamation	U.S. Bureau of Reclamation
RCRA	Resource Conservation and Recovery Act
ROD	Record of Decision
SHPO	State Historic Preservation Office
SPCC	Spill Prevention Control and Countermeasures plan
SWCD	Sanpete Water Conservancy District
SWPPP	Stormwater Pollution Prevention Plan
T&E	Threatened and Endangered
TESC	Temporary Erosion and Sedimentation Control
THPO	Tribal Historic Preservation Office
UDAF	Utah Department of Agriculture and Food
UDEQ	Utah Department of Environmental Quality
UDNR	Utah Department of Natural Resources
UDWRi	Utah Division of Water Rights
UDWR	Utah Division of Wildlife Resources
UGS	Utah Geological Survey
ULT	Ute ladies' -tresses
UPDES	Utah Pollution Discharge Elimination System
URMCC	Utah Reclamation Mitigation and Conservation Commission
U.S.	United States
USACE	U.S. Army Corps of Engineers
USDA	U.S. Department of Agriculture
USFS	U.S. Forest Service
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
WHAT	Wildlife Habitat Analysis Tool
WOTUS	Waters of the United States
YBCU	Yellow-billed cuckoo

APPENDICES

APPENDIX A: STATE, FEDERAL, AND TRIBAL CONSULTATION

APPENDIX B: UTAH GEOLOGICAL SURVEY CONSULTATION



— BUREAU OF —
RECLAMATION

Appendix A- State Historic Preservation Office Letter

North Creek Irrigation Company Canal Piping Project

Provo Area Office – Upper Colorado Basin Region



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

July 25, 2025

Rick Baxter
Area Manager
Bureau of Reclamation
302 East 1860 South
Provo, Utah 84606-7317

RE: A Cultural Resource Inventory of the Mt. Pleasant North Creek Project, Sanpete County, Utah

For future correspondence, please reference Case No. 25-1373

Dear Rick Baxter,

The Utah State Historic Preservation Office received your submission and request for our comment on the above-referenced undertaking on July 25, 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.

Sincerely,

Ryan McGrath
Compliance Archaeologist



— BUREAU OF —
RECLAMATION

Appendix B- Paleontological Resources Letter

North Creek Irrigation Company Canal Piping Project

Provo Area Office – Upper Colorado Basin Region



State of Utah

SPENCER J. COX
Governor

DEIDRE M. HENDERSON
Lieutenant Governor

Department of Natural Resources

JOEL FERRY
Executive Director

Utah Geological Survey
L. DARLENE BATATIAN
State Geologist/Division Director

February 16, 2026

Nicole Jacobson-Dangerfeld
U.S. Bureau of Reclamation Upper Colorado Basin
Provo Area Office
302 East Lakeview Parkway
Provo UT 84606

RE: Paleontological file search and recommendations for the North Creek Irrigation Canal Piping Project, Sanpete County, Utah.
U.C.A. 79-3-508 (Paleontological) Compliance; Request for Confirmation of Literature Search.

Dear Nicole:

I have conducted a paleontological file search for the North Creek Irrigation Canal Piping Project in response to your request of February 9, 2026.

There are no fossil localities recorded in our files in or near this project area. Quaternary and Recent alluvial and alluvial fan deposits that are exposed along this project right-of-way have a low potential for yielding significant fossil localities (PFYC 2). Unless fossils are discovered as a result of construction activities, this project should have no impact on paleontological resources.

If you have any questions, please call me at (801) 537-3311.

Sincerely,

Martha Hayden
Paleontological Assistant

