Jordan Basin Water Reclamation Facility
Secondary Recycled Water Project

Finding of No Significant Impact
And
Final Environmental Assessment

MARCH 2023

PREPARED FOR:

CENTRAL UTAH WATER
CONSERVANCY DISTRICT

U.S. DEPARTMENT OF THE INTERIOR
MARCH 3, 1849

United States Department of the Interior
Central Utah Completion Act Office

Central Utah Water Conservancy District

Finding of No Significant Impact

Jordan Basin Water Reclamation Facility
Secondary Recycled Water Project

March 2023

Recommended by: _____ Date: 3/29/2023

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CENTRAL UTAH WATER
CONSERVANCY DISTRICT

FINDING OF NO SIGNIFICANT IMPACT

Jordan Basin Water Reclamation Facility
Secondary Recycled Water Project

In accordance with Section 102(2)(c) of the National Environmental Policy Act (NEPA), as amended, the Council on Environmental Quality's (CEQ) Regulations for Implementing the Procedural Provisions of NEPA (40 Code of Federal Regulations [CFR] Parts 1500-1508), and the U.S. Department of the Interior regulations for implementation of NEPA (43 CFR Part 46), the U.S. Department of the Interior, Central Utah Project Completion Act Office (Interior) and the Central Utah Water Conservancy District (District), find that the Preferred Alternative analyzed in the Final Environmental Assessment (Final EA) for the Jordan Basin Water Reclamation Facility (JBWRF) Secondary Recycled Water Project (Project) would not significantly affect the quality of the natural or human environment. Therefore, an Environmental Impact Statement is not required for the Project.

PROJECT AREA

The Project would recycle treated wastewater from the JBWRF for use by the Draper Irrigation Company (DIC) and Bluffdale City. The Project is located in three municipalities in southern Salt Lake Valley – Draper, Riverton, and Bluffdale cities. Construction of the recycled water pump station and groundwater wells and their associated appurtenances would take place on the JBWRF site just north of Bangerter Highway and west of the Jordan River. The proposed pipelines for the Project would be constructed in or directly adjacent to existing residential or commercial roadways. The DIC pipeline would require a new crossing under I-15 and two canals. The project area is shown in Figure 1-1 of the Final EA.

ALTERNATIVES

No-Action Alternative

Under the No-Action Alternative, the United States would not use any funding for the Project, and the Central Utah Project (CUP) treated wastewater from the JBWRF would not be recycled into DIC's and Bluffdale City's secondary irrigation systems but would continue to be released into the Jordan River. Moreover, the pipeline segments that would complete the recycled secondary water pipeline would not be constructed, the shallow groundwater wells would not be installed, and there would be no construction or upgrades of pump stations.

Preferred Alternative

The Preferred Alternative refers to the alternative that would best accomplish the Project's purpose and need (43 CFR §46.420(d)). The Preferred Alternative would be to use federal funding to assist in recycling up to 5,766 acre feet (AF) of treated wastewater discharged at the JBWRF. The Preferred Alternative includes the installation of approximately 13,600 feet of piping ranging between 12 to 42-inches in diameter (some of the pipe would connect to existing piping installed as part of a separate project), construction and drilling of four shallow groundwater wells near JBWRF site and their necessary appurtenances (e.g., electrical, communication lines), and upgrades to the DIC Fort Street pump station.

The Preferred Alternative would be the first CUP recycled treated wastewater project that would receive federal funding and be adopted to meet a portion of the Central Utah Project Completion Act (CUPCA) commitment to recycle 18,000 AF of water in Salt Lake County. DIC and Bluffdale City would be responsible for constructing the facilities necessary to transport their respective shares of the secondary recycled water to their secondary irrigation users.

Recycled Wastewater Volume

A total of 5,766 AF of treated wastewater would be recycled from the JBWRF during the irrigation season[1]. During the non-irrigation season, these volumes of CUP treated wastewater from the JBWRF would be discharged to the Jordan River.

Construction of the Preferred Alternative

Wastewater Pipelines

The Preferred Alternative would install approximately 13,600 feet (about 9,800 feet needed for DIC and 3,800 feet for Bluffdale City) of secondary water pipelines. The new pipelines would range between 12 to 42-inches in diameter beginning at the JBWRF and extending to DIC (to the east) and Bluffdale City (to the west). The DIC pipelines would connect to existing pipelines that have already been constructed (as part of another project) and would extend to the Fort Street Booster pump station located at 13560 South Fort Street in Draper.

For a segment of the DIC pipelines, two parallel pipeline alignment options were evaluated in the NEPA process. The pipeline alignment options are between 150 East and 500 East in Draper (see Figure 1-1 in the Final EA). The pipeline alignment options evaluated are:

- Channing Hall School Access Road (preferred option) – this option would turn east from 150 East and extend along the Channing Hall School access road located south of the school. This option would continue to 500 East.
- 13560 South – this option would continue southward along 150 East and then turn east and extend along 13560 South Road. This option would continue to 500 East.

DIC has been coordinating with Channing Hall School officials to utilize their access road for the secondary pipeline. The access road is owned by Channing Hall School. DIC and Channing Hall School anticipate that an agreement will be reached between the two entities during the spring of 2023. Upon reaching an agreement between DIC and Channing Hall School, the proposed pipeline alignment along 13560 South Road would not be used.

[1] The irrigation season generally extends from April 1st to October 31st each year. The actual start and end dates for the irrigation season varies depending on the hydrologic conditions in the Jordan/Provo River Basin. For this Project, a total of 214 days, between April 1st and October 31st, was used to calculate average flow rates for the Project.

The Bluffdale City portion of the Preferred Alternative would install approximately 3,800 feet of pipe that would extend from the JBWRF to city's secondary water connection at 1300 West and Jordan Basin Lane (see Figure 1-1 in the Final EA).

Recycled Water Pump Station (common for DIC and Bluffdale City)

A new recycled water pump station would be constructed at the JBWRF site. The DIC and Bluffdale City would share the pump station building. A wall within this building would separate the two systems. The recycled water pump station is needed to lift the recycled wastewater to DIC and Bluffdale City and their respective secondary water systems. Within JBWRF, approximately 700 feet of new 42-inch HPDE pipe would be installed to connect the discharged wastewater to the new recycled water pump station.

Groundwater Wells (DIC only)

Four shallow groundwater wells would be drilled to a depth approximately 150 feet near the recycled water pump station. The disturbance area for drilling each well would be approximately 50 feet x 100 feet for each site. Groundwater from the wells would be conveyed in 12-inch pipelines that would connect to the secondary recycled water pipeline as it leaves JBWRF.

Utilities (common for DIC and Bluffdale City)

A new electrical utility powerline from Rocky Mountain Power (RMP) and a new communication line would be installed to support the recycled pump station and shallow groundwater wells. The 12.470 kilovolt (kV) powerline would be approximately 2,700 feet in length and would likely connect to an existing power facility located next to Bangerter Highway at the end of Jordan Basin Lane. The new communication line would come from the JBWRF administration building.

Fort Street Booster Pump Station (DIC only)

The DIC Fort Street booster pump station would need to be upgraded to pump the secondary recycled water from the main pressure zone to the existing irrigation pond. The irrigation pond is also fed by seasonal mountain stream flows and by water pumped from the East Jordan Canal. The secondary water in the irrigation pond is delivered by gravity to users in the upper pressurized irrigation zone and the main zone.

NEED FOR THE PROPOSED ACTION

The Project is needed to provide federal funds to recycle up to 5,766 AF of CUP treated wastewater to increase the quantity and reliability of available secondary water for DIC and Bluffdale City and to meet the Utah Lake Drainage Basin Water Delivery System (ULS) environmental commitment to recycle 18,000 AF of water in Salt Lake County.

PURPOSES FOR THE PROPOSED ACTION

The purposes for the Proposed Action include:

- Improve quality and reliability of the secondary water supply for DIC and Bluffdale City.
- Provide a system to reduce use of culinary water for secondary irrigation use.
- Provide a more resilient, drought-resistant secondary water system.

- Improve the water quality of secondary irrigation water by supplying the higher quality wastewater treated and discharged from JBWRF. The JBWRF treated wastewater is a higher quality than the Utah Lake water flowing in the Jordan River/canal system that is currently used. The current water used contains a high quantities of solids, algae, snails, sediment, worms, seeds, and other debris.
- Provide piping and other facilities necessary for the delivery of up to 5,766 AF of wastewater from the JBWRF for DIC and Bluffdale City.

FINDINGS

The finding of no significant impact (FONSI) is based on the analysis presented in the Final EA. The resources evaluated in Chapter 3 and a summary of impacts are summarized below.

Groundwater

The Preferred Alternative includes the construction of four shallow groundwater wells near the JBWRF for use in the DIC secondary system (no groundwater is proposed for use in the Bluffdale City secondary system). The groundwater would be blended with the treated JBWRF effluent to improve water quality. The pumping of groundwater would have negligible and insignificant impacts on groundwater levels in the area. The pumps would only be operated during the irrigation season allowing the groundwater levels to return to their pre-pumping levels.

Pumping from the four shallow groundwater wells would have a negligible and insignificant affect to the water level and flows in the Jordan River. When the four shallow groundwater wells are in use, less water from DIC's allotment from the Jordan River would be diverted into the East Jordan Canal; this volume of water would remain in the river. The volume of water pumped from the four shallow groundwater wells into the DIC secondary system would be used instead of diverting the same volume of water from the Jordan River into the canal.

Water Quality

The Preferred Alternative would have negligible and insignificant impacts to water quality in the Jordan River. The JBWRF effluent is of higher water quality than the water flowing in the Jordan River. Ultimately and at full build-out of the JBWRF, the Preferred Alternative would recycle up to 5,766 AF (13.6 cfs) per year during the irrigation season. At full buildout the JBWRF would have a maximum discharge to the Jordan River of 46 cfs[2]. A small, insignificant volume of the treated wastewater is reused at the JBWRF for mechanical equipment cooling, landscape irrigation, water for wetlands, and other uses. At full CUP water availability and JBWRF buildout, and assuming the full recycling rate of 13.6 cfs is being used for DIC and Bluffdale City, an average of 32.4 cfs would be added to and increase the flows in the Jordan River. The increase in Jordan River flows would vary based on amount of water in the river at any given time, the volume of water being treated at the JBWRF, and the volume being used for recycling.

[2] The discharge of effluent into the Jordan River from the JBWRF varies depending on the time of year and M&I uses within the system. For the Project, the maximum of 46 cfs was used to calculate the effects on the Jordan River.

Water Rights

The Preferred Alternative would extend and make more resilient the water supply for DIC and Bluffdale City. As part of the Project, JVWCD would allocate a portion of CUP treated wastewater from the JBWRF to DIC and Bluffdale City for a combined volume of 5,766 AF. These volumes would be used during the irrigation season only as required by the DIC and Bluffdale City water rights. DIC and Bluffdale City recycling wastewater and use in their secondary irrigation systems would assist the Interior, District, and the Utah Reclamation Mitigation and Conservation Commission to meet a portion of their 18,000 AF ULS environmental commitment. There would be no change to the beneficial uses of existing water rights.

Surface Water

The Preferred Alternative would have negligible and insignificant impacts to flows in the Jordan River. Currently, the JBWRF capacity is 15 MGD (a maximum of about 23 cfs but varies depending on the time of year and the M&I uses within the system) which is discharged into the Jordan River. Approximately 2.5 MGD of the treated wastewater is reused at the JBWRF for mechanical and equipment cooling, landscape irrigation, water for wetland areas, and other uses. The remainder is discharged into the Jordan River.

The anticipated impacts to the Jordan River would be negligible and insignificant. The JBWRF existing and future treatment capacity is 15 MGD (23 cubic feet per second (cfs)) and 30 MGD (46 cfs) respectively. The Project would recycle up to 5,766 AF per year which is about 13.6 cfs during the irrigation season. At full CUP water availability and JBWRF buildout, and assuming the full recycling rate of 13.6 cfs is being used for DIC and Bluffdale City, approximately 28 cfs would be added to and increase the flows in the Jordan River. The increase in Jordan River flows would vary based on amount of water in the river at any given time, the volume of water being treated at the JBWRF, and the volume being used for recycling. Therefore, the effects to the Jordan River would be insignificant.

Cultural Resources

The Preferred Alternative would result in “No Historic Properties Affected” as agreed to by the Utah State Historic Preservation Office.

Indian Trust Assets

The Preferred Alternative would have no effect to Indian Trust Assets.

Threatened and Endangered Species

The Preferred Alternative would have no effect on June sucker, monarch butterfly, or Ute ladies’-tresses based on lack of suitable habitat in the Project Study Area. Based on the presence of suitable habitat, the Preferred Alternative may affect but is not likely to adversely affect the yellow-billed cuckoo. This species was not found to occupy the project area during the 2022 season. Nesting and breeding seasonal avoidance, and conservation commitments to conduct early season surveys prior to construction (and subsequent years as needed) will be implemented to mitigate any possible impacts to this species. Therefore, the effects to yellow-billed cuckoo are insignificant.

Wetlands and Aquatic Resources

The Preferred Alternative would impact less than 1/10th of an acre of wetlands including the stream channel impacts from the installation of the pipelines and construction of the four shallow groundwater wells. There would be no permanent loss to wetlands from the Preferred Alternative. After construction is complete, the areas disturbed would be returned to pre-construction contours and restored with wetland plantings. The restored area would be monitored for three years to ensure continued revegetation success with appropriate improvement measures taken if needed.

Climate Change

The Preferred Alternative would have no effect to climate change. The Project is needed in response to the variability of the hydrologic cycle which may result from climate change. The secondary irrigation system for DIC and Bluffdale City would become more resilient to climate change upon implementation of the Preferred Alternative.

Cumulative Impacts

The Preferred Alternative would have no cumulative impacts.

Construction Impacts

The Preferred Alternative would result in some construction impacts that would be temporary and short term. These include air quality, noise and vibration, transportation and utilities, public safety, storm water control, soils and vegetation, invasive species and noxious weeds, and hazardous waste. Best Management Practices (BMPs) will be implemented during construction to minimize these impacts.

The Preferred Alternative does not violate federal, state, or local laws or requirements imposed for the protection of the environment. Interior and the District have analyzed the public comments, alternatives, and environmental effects in detail and find that the Preferred Alternative meets the purpose and need described in the Final EA with no significant impacts to the natural or human environment.

DECISION

Interior and the District have decided to implement the Preferred Alternative as described in the Final EA.

ENVIRONMENTAL COMMITMENTS

Proactive measures would be implemented to avoid or prevent adverse impacts that could otherwise result from project measures. In addition to BMPs, the following mitigation commitments for air quality, climate change, cultural resources, geological hazards, groundwater and subsurface water, hazardous wastes, invasive species, noise and vibration, soils and vegetation, transportation and utilities and wildlife, would be part of the construction contract.

Air Quality

BMPs would be employed during construction to mitigate for temporary impacts on air quality due to construction related activities. The BMPs may include:

- Watering the soil and other exposed areas or using other similar approved dust suppressant/soil binder.

- Wetting materials hauled in trucks, providing adequate freeboard (space from the top of the material to the top of the truck), or covering loads to reduce emissions during material transportation/handling.
- Providing a stabilized construction entrance or track-out pad, wheel washers, and/or other similar BMPs at construction offices and site access areas to reduce track-out onto the adjacent roadway network.
- Sweeping or vacuuming tracked-out materials deposited onto adjacent roadways.
- Wetting material stockpiles to prevent wind-blown emissions.
- Establishing vegetative cover on bare ground as soon as possible after grading to reduce wind-blown dust.
- Minimizing the extent of disturbed surfaces.
- Requiring appropriate emission-control devices on all construction equipment.
- Using only properly operating, well-maintained construction equipment.
- Reduced speeds on dirt access roads.
- Restricting earthwork activities during times of abnormal high wind events.

Noise and Vibration

The contractor will comply with applicable federal, state, and local laws, orders, and regulations concerning the prevention, control, and abatement of excessive noise and vibration. The contractor will monitor construction noise levels within the construction area. Mufflers on construction equipment shall be checked regularly to minimize noise. The construction contractor would follow the Salt Lake County Health Department's noise ordinance in addition to any local noise ordinances. A construction noise permit would be required by the Salt Lake County Health Department.

Transportation and Utilities

BMPs would be employed during construction to mitigate for temporary impacts to the transportation system and utility disruptions due to construction related activities. The BMPs may include:

- Where possible, the use of residential urban streets for construction haul routes would be minimized.
- Traffic control plans would be developed in coordination with local agencies to minimize impacts to the public.
- A public information plan would be prepared and distributed, including project schedule, status, utility disruptions, and contact information.
- Advance notice for road closures, detours, and delays would be provided.
- Access to residences would be maintained as much as is reasonably possible.
- Detailed inventory of utilities and utility providers would be prepared to minimize disruption in utility service.

Public Safety

The BMPs for public safety include:

- At all times, construction fencing would be around the perimeter of construction zones to warn and keep out non-construction persons.
- Cover all open trenches with heavy metal plates outside of construction times.
- Use of orange construction signs warning of risk.
- A public information plan would be prepared and distributed, including project schedule, status, utility disruptions, and contact information.
- Construction traffic would maintain minimum driving speeds within residential neighborhoods.

Storm Water Control

The contractor would be required to obtain a Utah Pollutant Discharge Elimination System (UPDES) permit and submit a Storm Water Pollution Prevention Plan prior to construction.

Soils and Vegetation

The contractor would be required to prevent and minimize erosion and siltation during construction and to reestablish permanent vegetative cover on disturbed sites. The contractor will be required to use a native and approved seed mix on disturbed areas. Clearing schedules would be arranged to minimize the exposure of soils. Final erosion control and site restoration measures would be initiated as soon as an area is no longer needed for construction, stockpiling, or access. Upon project completion, all yards, offices, and construction buildings, and all construction materials and debris would be removed from the site. Construction roads, if needed, would be restored to the original contour. Erosion control measures would be initiated as soon as an area is no longer needed for construction, stockpiling, or access. Any land disturbed, but not permanently occupied by new facilities would be graded to provide proper drainage and blend with the natural contours of the land and restored to its pre-construction condition. Where such lands were vegetated, they would be covered with topsoil stripped from construction areas, and revegetated, as appropriate, with plants native to the area and beneficial to wildlife.

Any clearing, removal, and/or trimming of trees and brush will be required between September 1st and January 31st in any year. Any removal and trimming of trees and brush prior to September 1st and after January 31st will require the contractor to arrange for a qualified biologist to conduct nesting surveys, prior to construction activities, to verify that no migratory birds are nesting in the vegetation to be removed. These surveys would be conducted in consultation with U.S. Fish and Wildlife Service and the Contractor should allow 30 days for the survey process.

Invasive Species and Noxious Weeds

To prevent the spreading of invasive species, the contractor would be required to adhere to the following guidelines:

- Identify invasive and noxious weeds within the areas planned for earthwork operations.

- Treat areas identified as having invasive and noxious weeds with an approved herbicide within 10 days before starting earthwork operations.
- Clean all earth-moving equipment before entering the project site.

Hazardous Waste

BMPs for hazardous wastes generated from construction-related activities include:

- All hazardous waste materials, including wastes, petroleum products, and solid wastes, would be handled, stored, and disposed of in conformance with federal and state regulations to prevent soil, groundwater, or surface water contamination.
- The Utah Division of Environmental Response and Remediation (DERR) would be contacted immediately if any contaminated soil or hazardous material is discovered during construction, including petroleum hydrocarbons or other previously unidentified hazardous materials or contaminated soils. The appropriate characterization and handling of the material would be conducted in accordance with DERR guidance.
- Absorbent pads or sheets would be readily available onsite. If onsite maintenance of construction equipment is required, absorbent pads would be placed under likely leak or spill sources. Mitigation for incidental spills or leaks of hydraulic fluid or diesel fuel from construction equipment would be implemented, including cleaning up the spill immediately, removing contaminated soil from the site, and properly disposing of it in conformance with federal and state regulations.

Climate Change

BMPs would be employed during construction to mitigate for temporary impacts on climate change due to construction-related activities. The BMPs may include requirement of appropriate emission-control devices on all construction equipment.

Cultural Resources

Construction activities could have the potential to discover previous, unknown, cultural resources or Native American artifacts. In the event of a discovery, construction activity would be suspended, a treatment plan developed immediately, and coordination with the Utah State Historic Preservation Office would be conducted.

PERMITS, CONTRACTS, AND AUTHORIZATIONS

The Preferred Alternative for the JBWRF Secondary Recycled Water Project would comply with all federal, state, and local regulations.

The parties, Project sponsors, CUWCD, and Interior, would enter into a Reuse Authorization Contract under the 2006 Utah Wastewater Reuse Act UT Code §73-3C-102 (Reuse Act).

Under authority of CUPCA (section 207), a cooperative agreement would be required by Interior to provide federal funds and to implement the Project.

Implementation by the construction contractor of a stormwater pollution prevention plan (SWPPP) would be required by the National Pollutant Discharge Elimination System (NPDES) permit program. The SWPPP would include sediment and erosion control Best

Management Practices such as minimizing the disturbed area, preserving topsoil, controlling stormwater runoff with berms, the use of silt fencing or fiber rolls, and revegetation. It would also implement good housekeeping practices such as proper materials handling and provide for septic, construction, and hazardous materials waste management.

PUBLIC SCOPING AND COMMENT PERIOD

Public Meeting

An in person public scoping meeting was held on Tuesday, February 8, 2022 at the office of Bowen Collins and Associates in Draper. An option to attend the meeting virtually via Zoom was also available. A presentation about the project was given with an opportunity to answer questions and gather public input. Project information and how to provide comments was also provided. Nine people attended the in-person meeting – eight were project team members and one member from the public. Fifteen people attended the meeting virtually. More information on public and agency public involvement process is found in Section 4.1 of the Final EA.

Comments Received

Five comments were received during the scoping period and are found in section 4.1.1 in the Final EA. Three comments came from citizens, one from the U.S. Army Corps of Engineers, and one from the Navajo Nation Heritage and Historic Preservation Department.

PUBLIC REVIEW AND COMMENTS ON THE DRAFT EA

The Joint Lead Agencies released the Draft EA on Friday, January 6, 2023, for public and agency review. The public and agency review period ended Wednesday, February 15, 2023. Activities used to notify the public and agencies of the release of the Draft EA consisted of:

- A post card with Project information and directions on how to comment was mailed to DIC and Bluffdale City residents and local, state, and federal agencies.
- Updated the project website with a copy of the Draft EA along with a means to provide comments.

A total of ten comments were received on the Draft EA and are found in section 4.2 in the Final EA. The JLAs also provided a response to each of the comments in the same section. Comments were received from South Valley Sewer District and local residents. The comments received were carefully considered and reviewed together with the information contained in the Draft EA in determining whether to issue a FONSI.

TRIBAL CONSULTATION

Interior sent letters requesting consultation for the Project on potential properties of religions or cultural importance to Native American Tribal Governments and Bureau of Indian Affairs Agency Offices on January 6, 2022. The Navajo Nation Heritage and Historic Preservation Department responded that they have no Traditional Cultural Properties within the Project Study Area. No other tribes responded.

The Final EA and FONSI are available on the internet at www.doi.gov/cupcao and https://cuwcd.com/resources.html (under the Environmental - Active section). Copies of the Final EA and FONSI are available on request by contacting:

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Jordan Basin Water Reclamation Facility Secondary Recycled Water Project

Final Environmental Assessment

Prepared for

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CENTRAL UTAH WATER CONSERVANCY DISTRICT

March 2023

Joint Lead Agencies

U.S. Department of the Interior, Central Utah Project Completion Act Office

Central Utah Water Conservancy District

Sponsors

Draper Irrigation Company

Bluffdale City

Cooperating Agencies

Utah Reclamation Mitigation and Conservation Commission

U.S. Bureau of Reclamation

Jordan Valley Water Conservancy District

South Valley Sewer District

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ABBREVIATIONS AND ACRONYMS

Acronym	Name
ACHP	Advisory Council on Historic Preservation
AF	acre-feet
AMSL	above mean sea level
APA	Agricultural protection areas
APE	Area of Potential Effects
BMP	Best Management Practice
CAAA	Clean Air Act Amendments
CERCLA	Comprehensive Environmental Response, Compensation, and Liability
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
cfs	cubic feet per second
CUP	Central Utah Project
CUPCA	Central Utah Project Completion Act
CUPCA Office	Central Utah Project Completion Act Office
CUWCD	Central Utah Water Conservancy District
CWP	Central Water Project
DEQ	Utah Division of Water Quality
Distribution Plan	Utah Lake Interim Water Distribution Plan
District	Central Utah Water Conservancy District
DPR	Definite Plan Report
DOI	U.S. Department of the Interior
EA	Environmental Assessment
EIS	Environmental Impact Statement
EPA	U.S. Environmental Protection Agency
EJIC	East Jordan Irrigation Company
ESA	Endangered Species Act
FEMA	Federal Emergency Management Agency
FONSI	Finding of No Significant Impact
GPM	gallons per minute
Interior	U.S. Department of the Interior, Central Utah Project Completion Act
IPaC	Information for Planning and Consultation
ITAs	Indian Trust Assets
JLAs	Joint Lead Agencies

Acronym	Name
JSRIP	June Sucker Recovery Implementation Program
M&I	Municipal and Industrial
MBTA	Migratory Bird Treaty Act
MG	million gallons
Mitigation Commission	Utah Reclamation Mitigation and Conservation Commission
MOA	Memorandum of Agreement
MOU	Memorandum of Understanding
NEPA	National Environmental Policy Act
NFIP	National Flood Insurance Program
NHPA	National Historic Preservation Act
NRCS	Natural Resource Conservation Service
NRHP	National Register of Historic Places
PL	Public Law
PRA	Provo River Aqueduct
Reclamation	U.S. Bureau of Reclamation
SFHA	Special Flood Hazard Area
SHPO	State Historic Preservation Office
SPC	species of concern
SR	state road
SVSD	South Valley Sewer District
SWPPP	Storm Water Pollution Prevention Plan
UAC	Utah Administrative Code
UDAQ	Utah Division of Air Quality
UDCC	Utah Data Conservation Center
UDEQ	Utah Department of Environmental Quality
UDOT	Utah Department of Transportation
UDWR	Utah Division of Wildlife Resources
UNHP	Utah Natural Heritage Program
ULS	Utah Lake Drainage Basin Water Delivery System
UPDES	Utah Pollutant Discharge Elimination System
USACE	U.S. Army Corps of Engineers
USC	United States Code
USFWS	U.S. Fish and Wildlife Service
UST	underground storage tank

CHAPTER 1 – PURPOSE AND NEED FOR PROPOSED ACTION

1.1 INTRODUCTION

This Final Environmental Assessment (Final EA) has been prepared to disclose and evaluate the potential effects of the Jordan Basin Water Reclamation Facility Secondary Recycled Water Project (Project). The Project is proposed by the Draper Irrigation Company (DIC) and Bluffdale City and would be located in Salt Lake County, Utah. If approved, the U.S. Department of the Interior – Central Utah Project Completion Act Office (Interior) could authorize the use of federal funds requested by the DIC and Bluffdale City to construct project features for wastewater recycling of up to 5,766 acre-feet (AF) of Central Utah Project (CUP) water. Under section 207 of CUPCA, up to 65 percent of the project costs could be provided from federal funds, subject to appropriations.

The Final EA has been prepared in compliance with the National Environmental Policy Act of 1969 (42 USC §§ 4321-4347), as amended (NEPA); the requirements of the Council on Environmental Quality's (CEQ's) implementing NEPA regulations at 40 Code of Federal Regulations (CFR) Parts 1500-1508 (2022); and the Department of the Interior Regulations Implementing NEPA at 43 CFR Part 46. The Final EA was prepared by the Joint Lead Agencies (JLAs), Interior and the Central Utah Water Conservancy District (CUWCD), acting under authority in Section 205 of Public Law (PL) 102-575, and in conjunction with cooperating agencies (40 CFR 1508.5) - Utah Reclamation Mitigation and Conservation Commission (Mitigation Commission), U.S. Bureau of Reclamation (Reclamation), Jordan Valley Water Conservancy District (JVWCD), and South Valley Sewer District (SVSD). If the Final EA shows no significant impacts associated with implementation of the Project, then a Finding of No Significant Impact (FONSI) will be issued by the JLAs. If it is determined that there may be significant impacts, the JLAs will initiate the preparation of an Environmental Impact Statement (EIS) prior to implementing the Project.

1.2 BACKGROUND

1.2.1 Bonneville Unit of the Central Utah Project

The Bonneville Unit of the Central Utah Project collects and diverts water within the Uinta Basin (part of the Colorado River Basin) to the Bonneville and Uinta basins, providing water for Salt Lake, Utah, Wasatch, Juab, and Duchesne counties, and portions of Summit County, Utah. The Bonneville Unit contains a vast network of reservoirs, aqueducts, tunnels, canals, pipelines, pump stations, and other conveyance facilities that develop water for irrigation, municipal, and industrial use, instream flows, and hydropower production.

Bonneville Unit water delivered from Jordanelle and Strawberry Reservoirs produce return flow volumes from municipal and industrial (M&I) wastewater and drainage from outdoor uses. The Bonneville Unit is comprised of six systems, including the Municipal and Industrial System (M&I System) and the Utah Lake Drainage Basin Water Delivery System (ULS). Bonneville Unit return flows are available to be used by the JLAs for downstream deliveries, or for Bonneville Unit exchanges. Some of this water is also available for recycling projects as approved by Interior

and CUWCD and in accordance with Utah State water law. In Salt Lake County, return flows from Bonneville Unit uses occurs as wastewater. The treatment and recycling of return flows from wastewater, as quantified by the State Engineer in the administration of the water rights, is an important part of the Bonneville Unit water supply in Salt Lake County. The amount of return flows credited as Bonneville Unit water by the State Engineer from M&I uses of Bonneville Unit transbasin water is considered by Interior to be Bonneville Unit water and thus available for recycling as a CUP water supply.

1.2.1.1 ULS EIS and Wastewater Recycling Commitment

Interior, CUWCD, and the Mitigation Commission completed an EIS for the (ULS) in the Fall of 2004, and subsequent Records of Decisions (RODs) were signed by Interior in December 2004 and the Mitigation Commission in January 2005. The ULS RODs include a recycling wastewater commitment. It states: "The District [CUWCD], working with the Interior, and owners/operators of wastewater treatment plants, shall by the year 2033 recycle 18,000 acre-feet of return flows from the Bonneville Unit Project Water and shall continue to maintain recycling the 18,000 acre-feet through water year 2050; . . .". Section 207 of PL 102-575, as amended, provides authority to the Interior to recycle CUP wastewater.

1.2.2 Draper Irrigation Company and Bluffdale City

DIC provides water to approximately 3,260 secondary irrigation connections in southern Salt Lake County. Water for the secondary irrigation system is obtained from runoff, springs, and Utah Lake via the Jordan River and a diversion into the East Jordan Canal with secondary water rights held in Utah Lake.

Bluffdale City serves water to approximately 840 secondary irrigation connections. Secondary irrigation water is obtained from Utah Lake with secondary water rights they hold in Utah Lake delivered through canals. Bluffdale City is also supplemented from the reuse of water from the Utah Data Center, canal water, and secondary water purchased from DIC.

The secondary water for both DIC and Bluffdale City is metered. In addition, both agencies are active in water conservation and education activities to promote best management practices on conserving water. For secondary water, DIC uses EyeOnWater by Badger Meter which allows their customers to view their usage, receive leak alerts, and compare usage to weather patterns.

DIC and Bluffdale City rely, in part, on water supplied from their secondary rights held in Utah Lake. This water is delivered from the lake into the Jordan River and diverted into the canal system where it is used for secondary irrigation. Both DIC and Bluffdale City have been investigating the feasibility of using recycled treated wastewater as a source to supplement their secondary irrigation systems. At times during the irrigation season, the water quality of Utah Lake is not suitable for secondary irrigation purposes. The Utah Lake water flowing in the Jordan River and diverted into the canal system often contains solids, algae, snails, sediment, worms, seeds, and other debris. Both DIC and Bluffdale City hold secondary Utah Lake water rights that are subject to shortages and can be cut off in drought years (e.g., 2016 and 2022).

For DIC, approximately $2 million dollars of pipeline infrastructure has already been installed as part of other projects. Reclamation has awarded DIC with a $2 million dollar grant and has given DIC notice for another $5 million dollar grant but has not been contracted yet. In addition, the Department of the Interior – CUPCA Office has been budgeting some funding to assist with the Project costs.

1.3 PROPOSED ACTION

The Proposed Action would be to use federal funding to assist in recycling up to 5,766 AF[3] of wastewater treated at the Jordan Basin Water Reclamation Facility (JBWRF) located in south Salt Lake Valley. It includes the installation of approximately 13,600 feet of piping ranging between 12 to 42-inches in diameter (some of the pipe sections would connect to existing piping), construction and drilling of four shallow groundwater wells near the JBWRF and construction of necessary appurtenances (e.g., electrical and communication lines), and upgrades to the DIC Fort Street pump station. The pipelines and other appurtenances of the Proposed Action are shown in Figure 1-1.

The Proposed Action would be the first CUP recycled treated wastewater project that would receive federal funding and be adopted to meet a portion of the CUPCA commitment to recycle 18,000 AF of water in Salt Lake County. DIC and Bluffdale City would be responsible for constructing the facilities necessary to transport their respective shares of the secondary recycled water to their secondary irrigation users.

1.3.1 Project Study Area

The Project Study Area encompasses approximately 31 acres within three municipalities in the southern part of the Salt Lake Valley – Draper, Riverton, and Bluffdale cities. Construction of the recycled water pump station and groundwater wells and their associated appurtenances would take place on the JBWRF site located just north of Bangerter Highway and directly west of the Jordan River. The proposed pipelines for the Project would be constructed in or directly adjacent to existing residential or commercial roadways. The DIC pipeline would require a new crossing under I-15 and two canals.

[3] Initially, the project would recycle 3,315 AF. However, the pipelines, pumps and wells, and other needed facilities would be sized and constructed to accommodate a total of 5,766 AF of recycled wastewater.

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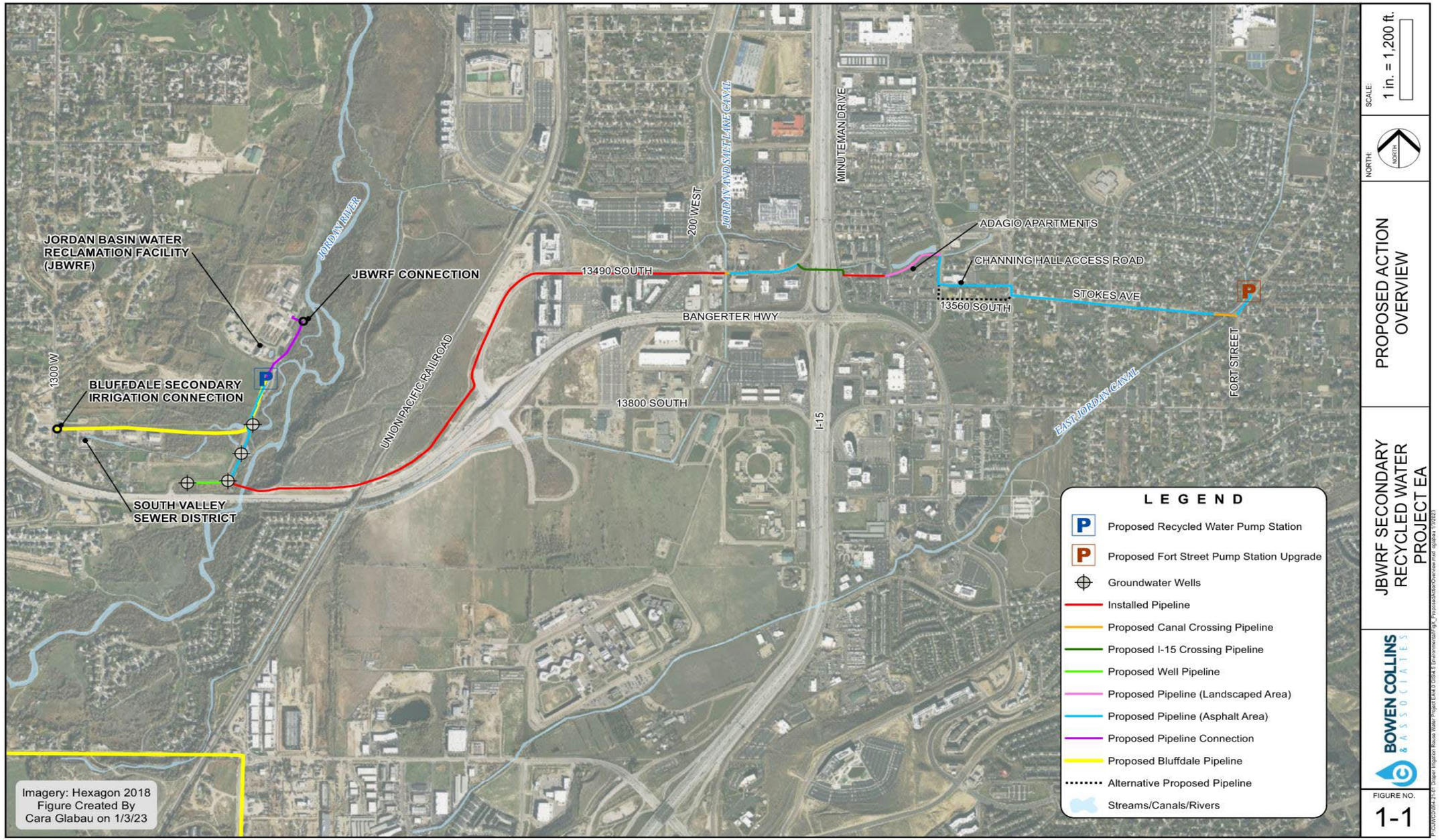

Figure 1-1: Proposed Action Overview

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1.4 PURPOSE AND NEED

1.4.1 Need of the Proposed Project

The proposed project is needed to provide federal funds to recycle up to 5,766 AF of CUP treated wastewater to increase the quantity and reliability of available secondary water for DIC and Bluffdale City and to meet the ULS environmental commitment to recycle water in Salt Lake County.

1.4.2 Purposes of the Proposed Project

The purposes of the proposed Project include:

- Improve quality and reliability of the secondary water supply for DIC and Bluffdale City.
- Provide a system to reduce use of culinary water for secondary irrigation use.
- Provide a more resilient, drought-resistant secondary water system.
- Improve the water quality of secondary irrigation water by supplying a higher quality wastewater treated and discharged from JBWRF. The JBWRF treated wastewater is a higher quality than the Utah Lake water flowing in the Jordan River/canal system that is currently used. The current water used contains solids, algae, snails, sediment, worms, seeds, and other debris.
- Provide piping and other facilities necessary for the delivery of up to 5,766 AF of wastewater from the JBWRF for DIC and Bluffdale City.

1.5 PERMITS, CONTRACTS, AND AUTHORIZATIONS

The Proposed Action for the JBWRF Secondary Recycled Water Project would comply with all federal, state, and local regulations.

The parties, Project sponsors, CUWCD, and Interior, would enter into a Reuse Authorization Contract under the 2006 Utah Wastewater Reuse Act UT Code §73-3C-102 (Reuse Act).

Under authority of CUPCA (section 207), a cooperative agreement would be required by Interior to provide federal funds and to implement the Project.

Implementation by the construction contractor of a stormwater pollution prevention plan (SWPPP) would be required by the National Pollutant Discharge Elimination System (NPDES) permit program. The SWPPP would include sediment and erosion control Best Management Practices such as minimizing the disturbed area, preserving topsoil, controlling stormwater runoff with berms, the use of silt fencing or fiber rolls, and revegetation. It would also implement good housekeeping practices such as proper materials handling and provide for septic, construction, and hazardous materials waste management.

1.6 RELATED PROJECTS AND DOCUMENTS

- Final Environmental Impact Statement and Records of Decisions, Utah Lake Drainage Basin Water Delivery System (2004 and 2005).

- Final Environmental Impact Statement and Record of Decision, UDOT Bangerter 600 West Project (2012). This decision approved the construction of some sections of the DIC secondary water pipeline.
- South Valley Sewer District Wastewater Treatment Facility Plan and 208 Plan Amendment (2007).
- Preliminary Scope of Proposed Wastewater Reuse Project at Jordan Basin Water Reclamation Facility Technical Memorandum (2021).

CHAPTER 2 – ALTERNATIVES

This chapter describes the alternatives considered for the JBWRF Secondary Recycled Water Project. The alternatives evaluated in the Final EA are the No-Action and the Proposed Action Alternatives.

2.1 NO-ACTION ALTERNATIVE

Under the No-Action Alternative, the United States would not use any funding for the Project, and the CUP treated wastewater from the JBWRF would not be recycled into DIC's and Bluffdale City's secondary irrigation systems but would continue to be released into the Jordan River. Moreover, the pipeline segments that would complete the recycled secondary water pipeline would not be constructed, the shallow groundwater wells would not be installed, and there would be no construction or upgrades of pump stations.

2.2 PROPOSED ACTION ALTERNATIVE (PREFERRED ALTERNATIVE)

The Proposed Action would be to use federal funding to assist in recycling up to 5,766 AF of treated wastewater discharged at the JBWRF located in south Salt Lake Valley. The Proposed Action includes the installation of approximately 13,600-feet of piping ranging between 12 to 42-inches in diameter (some of the pipe would connect to existing piping installed as part of a separate project), construction and drilling of four shallow groundwater wells near JBWRF site and construction of necessary appurtenances (e.g., electrical, communication lines), and upgrades to the DIC Fort Street pump station.

The Proposed Action would be the first CUP recycled treated wastewater project that would receive federal funding and be adopted to meet a portion of the CUPCA commitment to recycle 18,000 AF of water in Salt Lake County. DIC and Bluffdale City would be responsible for constructing the facilities necessary to transport their respective shares of the secondary recycled water to their secondary irrigation users.

2.2.1 Recycled Wastewater Volume

A total of 5,766 acre-feet of treated wastewater would be recycled from the JBWRF during the irrigation season[4]. A total of 4,137 AF of wastewater would be recycled for DIC and 1,629 AF for Bluffdale City. During the non-irrigation season, these volumes of CUP treated wastewater would be discharged to the Jordan River.

2.2.2 South Valley Sewer District

M&I water is provided to Draper City, DIC, Sandy City, and Bluffdale City by JVWCD. Wastewater in the area is collected by the SVSD system which has an estimated 1,000 miles of public sanitary sewer lines in the ground over a 105 square miles area in south Salt Lake Valley.

[4] The irrigation season generally extends from April 1st to October 31st each year. The actual start and end dates for the irrigation season varies depending on the hydrologic conditions in the Jordan/Provo River Basin. For this Project, a total of 214 days, between April 1st and October 31st, was used to calculate average flow rates for the Project.

Most of the wastewater in SVSD's sewer lines flows from the east and west side of the valley toward the Jordan River, where it is conveyed to either JBWRF or the South Valley Water Reclamation Facility (near 7500 South and Redwood Road). SVSD owns and operates the JBWRF which is located in Riverton, Utah adjacent to Bangerter Highway and the Jordan River. The treated wastewater capacity at the JBWRF is 15 million gallons per day (MGD) with potential buildout capacity of approximately 30 MGD. Approximately 2.5 MGD of the treated wastewater is reused at the JBWRF for mechanical and equipment cooling, landscape irrigation, water for wetland areas, and other uses. The remainder is discharged into the Jordan River.

2.2.3 Wastewater Reuse Act

The 2006 Utah Wastewater Reuse Act UT Code §73-3C-102 (Reuse Act) defines how water rights must be administered within the context of a wastewater recycling system. The Reuse Act requires that the underlying water right holder and each public agency involved in the conveyance of the culinary water, and the collection and treatment of the related domestic wastewater, and the distribution of the treated wastewater for reuse must agree (through a Reuse Authorization Contract) to the reuse of the wastewater. The CUP wastewater treated and proposed for recycling from JBWRF is owned by the United States, contracted to CUWCD, and allocated by CUWCD to JVWCD. The JVWCD has contracts with DIC and Bluffdale City to allow them to use their respective shares of CUP treated wastewater to supplement their secondary irrigation systems.

The Proposed Action would deliver CUP treated wastewater, through water rights held by the United States, to DIC and Bluffdale City secondary irrigation users. The JVWCD has contracts with DIC and Bluffdale City to allow them to use their respective shares of CUP treated wastewater to supplement their secondary irrigation systems. The volume of CUP wastewater that would be treated by JBWRF and made available to DIC and Bluffdale City would be based on the average irrigation season flow of CUP wastewater from their respective culinary water users treated at the JBWRF.

2.2.4 Construction of the Proposed Action

2.2.4.1 Wastewater Pipelines

The Proposed Action Alternative would install approximately 13,600-feet (about 9,800 feet required for DIC and 3,800 feet for Bluffdale City) of secondary recycled water pipelines which would range between 12 to 42-inches in diameter. The pipelines would begin at the JBWRF and extend to DIC (to the east) and Bluffdale City (to the west). The DIC pipelines would connect to existing segments of pipe that have already been constructed as part of other projects and would extend to the Fort Street Booster pump station in Draper (DIC facility). For the DIC pipeline, there are two parallel alignment options between 150 East and 500 East (see Figure 1-1):

- Channing Hall School Access Road (preferred option) – this option would turn east from 150 East and extend along the Channing Hall School access road located south of the school. This option would continue to 500 East.

- 13560 South – this option would continue southward along 150 East and then turn east and extend along 13560 South Road. This option would continue to 500 East.

DIC has been coordinating with Channing Hall School officials to utilize their access road for the secondary pipeline. The access road is owned by Channing Hall School. DIC and Channing Hall School anticipate that an agreement will be reached between the two entities during the spring of 2023.

For Bluffdale City, the Proposed Action would install approximately 3,800 feet of secondary recycled water pipeline that would extend from the JBWRF to city's secondary water connection at 1300 West and Jordan Basin Lane (see Figure 1-1 in Chapter 1).

2.2.4.2 Recycled Water Pump Station (common for DIC and Bluffdale City)

A new recycled water pump station would be constructed at JBWRF site. The DIC and Bluffdale City would share the pump station building separated by a wall. The recycled water pump station is needed to lift the wastewater to DIC and Bluffdale City secondary water systems. Within JBWRF, about 700 feet of new 42-inch HPDE pipe would be installed connecting the discharged wastewater to the new pump station.

2.2.4.3 Groundwater Wells (DIC only)

Four shallow groundwater wells would be drilled to a depth approximately 150-feet near the recycled water pump station. The disturbance area for drilling each well would be about 50-feet x 100-feet. Groundwater from the wells would be conveyed in 12-inch pipelines and connect to the secondary water pipeline as it leaves JBWRF.

2.2.4.4 Utilities (common for DIC and Bluffdale City)

A new electrical utility powerline from Rocky Mountain Power (RMP) and a new communication line would be installed to support the recycled pump station and shallow groundwater wells. The 12.470 kilovolt (kV) powerline would be approximately 2,700 feet in length and would likely connect to an existing power facility located next to Bangerter Highway at the end of Jordan Basin Lane. The new communication line would come from the JBWRF administration building.

2.2.4.5 Fort Street Booster Pump Station (DIC only)

The DIC Fort Street booster pump station would need upgrades to pump the recycled wastewater from the main pressure zone to an existing irrigation pond. The irrigation pond is also fed by seasonal mountain stream flows and by water pumped from East Jordan Canal. The secondary water is delivered by gravity from the irrigation pond to users in the upper pressurized irrigation zone and the main zone.

2.2.5 Operation & Maintenance

Operation and maintenance of the secondary recycled wastewater facilities (e.g., pipelines, pump stations) would be the responsibility of DIC and Bluffdale City for their respective appurtenances.

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CHAPTER 3 – AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

This chapter discusses resources that may be affected by the No-Action and Proposed Action Alternatives. The impacts are discussed under the following issues:

- Groundwater
- Water Quality
- Water Rights
- Surface Water
- Cultural Resources
- Indian Trust Assets
- Threatened and Endangered Species
- Wetlands and Aquatic Resources
- Climate Change
- Cumulative Impacts
- Construction Impacts

3.1 RESOURCES CONSIDERED AND ELIMINATED FROM FURTHER ANALYSIS

The resources listed below were considered but eliminated from further analysis because they did not occur in the Project Study Area or because their effect would be so minor or negligible and insignificant that they were discounted.

- **Wilderness Areas and Wild and Scenic Rivers** - There is no designated wilderness areas or wild and scenic rivers within the Project Study Area
- **Prime and Unique and Statewide Important Farmlands** - The Proposed Action would not convert nor impact any prime and unique or statewide important farmlands
- **Recreation Resources** - The Proposed Action would have no impacts to recreational resources
- **Socioeconomics** - The Proposed Action would have no impacts to the socioeconomics in south Salt Lake Valley or within DIC and Bluffdale City boundaries
- **Wildlife Resources** - The pipelines required for the Proposed Action would be buried and mainly within the footprint of existing roadways and other disturbed areas. Some features are proposed within the JBWRF site which is fenced and secured and is not available as habitat for larger wildlife species. The Proposed Action would have no impacts to wildlife resources
- **Visual Resources** - The required pipelines for the Proposed Action would be buried and mainly within the footprint of existing roadways or other disturbed areas. The above ground features (e.g., recycling pump house, wells) are located within the JBWRF site

which is an industrial area and not considered a visually sensitive area. There is no public access to this area as well. There would be no visual impacts resulting from the Proposed Action

- **Environmental Justice** - Executive Order 12898 establishes Environmental Justice as a federal agency priority to safeguard that minority and low-income populations are not disproportionately affected by federal actions. The Proposed Action would not require relocations or property acquisitions, health hazards, hazardous waste, or socioeconomic impacts. The Proposed Action would not disproportionately impact any minority or low-income populations

3.2 GROUNDWATER

3.2.1 Affected Environment

Groundwater is regulated by the State Engineer through the Utah Division of Water Rights. In the Salt Lake Valley, groundwater generally flows to the center of the valley towards the Jordan River from the Wasatch Mountains on the eastside and the Oquirrh Mountains on the westside. Groundwater recharge in the Salt Lake Valley is mainly from natural precipitation, irrigation including seepage from canals, river/creek seepage, and subsurface inflow. The groundwater resource in the Project Study Area is mainly within the JBWRF site and an undeveloped portion of land south of the existing main JBWRF structures along Jordan Basin Lane and the Jordan River.

Geotechnical studies and aquifer test well pump evaluations have been conducted to determine the site soil and aquifer conditions at the JBWRF site. The water table was first encountered approximately eight feet below ground surface. Aquifer pump tests identified two distinct, shallow aquifer zones: an upper shallow zone bound by a layer that is impermeable about 79 feet below existing site and a lower shallow zone bound by an overlaying clay layer between 79 and 90 feet below grade to a total depth of approximately 150 feet. Monitoring wells showed that the depth to the groundwater in the upper shallow zone is between ground level to five inches above ground level (artesian) near the JBWRF administrative building. Groundwater flows in the east to northeasterly direction across the site towards the Jordan River which is considered a discharge point in the Salt Lake Valley between the Wasatch Front and the Oquirrh mountains (Lambert, 1995).

3.2.2 Environmental Consequences

3.2.2.1 No-Action Alternative

The No-Action Alternative would have no effect to groundwater resources.

3.2.2.2 Proposed Action Alternative

Groundwater pumping can alter how water moves between the aquifer and the Jordan River by either intercepting its discharge flow into the Jordan River, or by increasing the rate of water movement from the Jordan River into an aquifer. Groundwater pumping may also impact structures due to subsidence.

Part of the Project includes the construction of four shallow groundwater wells near the recycled water pump station and water from the wells would be used for a portion of DIC's allotted water. DIC has an existing water right for the proposed shallow groundwater wells under the permanent change application number 57-10180. In total, DIC has water rights for 4,725.85 AF that can be diverted from the Jordan River via the East Jordan Canal or from the future shallow groundwater wells.

The pumping of the four proposed shallow groundwater wells would have negligible and an insignificant effect on groundwater levels in the upper shallow aquifer. The groundwater levels are expected to return to their pre-pumping levels at the end of each irrigation season or when pumping stops.

There is a potential for the Proposed Action Alternative to affect JBWRF structures due to settlement from groundwater drawdown. When groundwater is pumped there is a potential for the ground to subsided or settle. Field tests and analysis have been done to estimate groundwater pumping induced settlement near the proposed wells. The tests and analysis determined that the drawdown cone from the four proposed groundwater wells would be relatively flat and are not anticipated to introduce differential settlement. Therefore, there would be no impact to JBWRF structures located near the wells. There is always the potential for surface settlement due to water level draw down. Therefore, a groundwater monitoring and site settlement program would be put in place to monitor drawdown and structure movement. DIC would continue to coordinate with SVSD prior to construction of the groundwater wells.

Pumping from the four shallow groundwater wells would have a negligible and insignificant affect to the water level and flows in the Jordan River. When the four shallow groundwater wells are in use, less water from DIC's allotment would be diverted into the East Jordan Canal via the Jordan River. DIC would continue to coordinate with SVSD regarding subsidence resulting from groundwater pumping.

3.3 WATER QUALITY

3.3.1 Affected Environment

Clean Water Act (CWA) federal rules and regulations require the Utah Division of Water Quality (DWQ) to conduct water quality assessments under Section 303(d) that requires states to identify waters that are not attaining beneficial uses according to state water quality standards (UAC R317.2.7.1). The Utah Section 303(d) list also prioritizes the Total Maximum Daily Loads (TMDL) required for each listed waterbody and the cause of nonattainment. This list includes waters impaired as a result of nonpoint sources, point source discharges, natural sources, or a combination of sources.

Utah administrative code R317-3-11 "Use, Land Application and Alternate Methods for Disposal of Treated Wastewater Effluents", provides design requirements for effluent disposal or water reuse of municipal wastewater treatment plant effluents. For facilities that produce, treat, dispose of, or otherwise discharge wastewater, a permit from the Utah Division of Water

Quality (DWQ) may be required per UAC R317-8, "Utah Pollutant Discharge Elimination System" (UPDES). In 2006, DWQ included the Jordan River on the 303(d) list of the CWA as an impaired water body for dissolved oxygen (DO), Total Dissolved Solids (TDS), and Temperature. The 303(d) list is used to identify those streams or water bodies that are impaired or threatened.

The JBWRF was constructed in 2012 with a treated wastewater capacity of 15 MGD with potential buildout capacity of approximately 30 MGD. Operations at the JBWRF utilize a microfiltration membrane process to treat wastewater effluent which complies with Type 1 wastewater effluent reuse requirements (UAC R317-3-11.4). The JBWRF discharges to the Jordan River which can contribute approximately up to 20 percent of the river's flow as measured at 9000 South depending on the natural hydrological conditions, time of year, and upstream diversions. Approximately 2.5 MGD is reused at the JBWRF site for mechanical cooling, landscape irrigation, water for wetland areas, and other uses. The JBWRF obtained a point source discharge permit as part of the UPDES prior to discharging to the Jordan River. In order for the JBWRF to discharge to a 303(d) listed water body, certain water quality parameters and limits were required for the wastewater effluent entering the Jordan River. JBWRF maintains and operates within the limits of the UPDES permit.

Based on the State's water quality model for the Jordan River, there are measurable water quality benefits from the wastewater effluent discharged by JBWRF to the river. Additionally, SVSD commissioned water quality studies in 2004 that concluded the quality of the effluent would be better in several ways to that of the Jordan River water including lower turbidity, reduced color, lower odors, lower total suspended solids, and possible higher dissolved oxygen. Flow from the JBWRF, at its current and built out capacities (15 MGD and 30 MGD, respectively), would represent a significant flow increase in the river during certain times of the year (less water that is reused at the facility). Any flow increases in the river from the release of the treated wastewater is considered a benefit to the river system (SVSD 2004).

To support the JVWCD member agencies with their interest in developing a viable wastewater recycling project, JVWCD has been analyzing the water quality of the treated wastewater at the JBWRF. The water quality analysis indicates that the chloride concentrations for the JBWRF range between 280 mg/l to 520 mg/l. These chloride concentrations are higher than desired for irrigation. However, the chloride levels are also generally lower than Jordan River water. As part of the Project, four shallow groundwater wells are proposed at the JBWRF site and water pumped from the wells would be mixed with effluent to increase reliable water quality. Mixing the well water would lower the average chloride levels in the water used for the DIC secondary systems (JVWCD 2021).

DIC's and Bluffdale City's existing secondary irrigation water system supplies are subject to algal blooms and suspended solids including sediment, snails, worms, and seeds from Utah Lake/Jordan River. DIC's secondary irrigation water comes from the Utah Lake/Jordan River via the East Jordan Canal. Whereas Bluffdale City's secondary irrigation water supply comes from reuse water (Utah Data Center), Utah Lake/Jordan River via various canals and water purchased from DIC.

3.3.2 Environmental Consequences

3.3.2.1 No-Action Alternative

The No-Action Alternative would have no effect on water quality. The Jordan River would continue to receive the majority of the wastewater effluent from the JBWRF. Overall, JBWRF maintains and operates within the limits of the UPDES Permit and does not further impact the water quality of the Jordan River. Under the No-Action Alternative CUP wastewater treated at the JBWRF would not be recycled and used to provide additional water for DIC's and Bluffdale City's secondary irrigation systems which could experience water shortages, potentially increasing the culinary water use for secondary irrigation purposes.

3.3.2.2 Proposed Action Alternative.

Currently, treated wastewater from the JBWRF is discharged to the Jordan River (less the volume of water reused at the facility) which is beneficial to the river system because it is higher quality then the river water. The Project would allow DIC and Bluffdale City to use their allotted CUP treated wastewater for their respective secondary irrigation systems, reducing the effluent being discharged into the Jordan River during the irrigation season. The JBWRF existing and future treatment capacity is 15 MGD (23 cubic feet per second (cfs)) and 30 MGD (46 cfs) respectively. The Project would recycle up to 5,766 AF per year which is about 13.6 cfs during the irrigation season. At full CUP water availability and JBWRF buildout, and assuming the full recycling rate of 13.6 cfs is being used for DIC and Bluffdale City, approximately 28 cfs[5] would be added to and increase the flows in the Jordan River. The increase in Jordan River flows would vary based on amount of water in the river at any given time, the volume of water being treated at the JBWRF, and the volume being used for recycling.

During the non-irrigation season, all of the CUP treated wastewater (less the reuse water at the JBWRF) would continue to be discharged into the Jordan River. The Proposed Action Alternative would have beneficial effect on the Jordan River water quality. The effluent water discharged from the JBWRF would be higher quality than the water currently in Utah Lake and the Jordan River. By adding wastewater effluent to the existing secondary irrigation water, the DIC's and Bluffdale City's irrigation systems overall would have a higher water quality with less solids including algae, snails, sediments, worms, seeds, and debris from Utah Lake. Therefore, the Proposed Action Alternative would have a beneficial effect to water quality in the DIC's and Bluffdale City's irrigation systems.

[5] At full buildout, JBWRF would be treating a maximum of 46 cfs with about 4.6 cfs being reused at the facility. When DIC and Bluffdale City recycle their full allotment of 5,766 AF, this averages approximately 13.6 cfs. Therefore, at full recycling and JBWRF buildout, approximately 27.8 cfs would be discharged into the Jordan River (46 cfs – 4.6 cfs – 13.6 cfs = 27.8 cfs).

3.4 WATER RIGHTS

3.4.1 Affected Environment

The water rights related to the Project are held by the United States (CUP Bonneville Unit water) and DIC. Water right number 55-4494 is held by the United States and through contract administered by CUWCD which has allocated a part of it to JVWCD. DIC and Bluffdale City would use a portion of the JVWCD water for their secondary water system after treatment at JBWRF. DIC also holds water right numbers 57-10180, -10181, -10269 approved for 4,725.85 AF of secondary water that can be diverted from the Jordan River or pumped from the proposed four shallow groundwater wells. DIC's existing water right for the proposed shallow groundwater wells is under permanent change application number 57-10180. The Bonneville Unit water (55-4494) results in return flows in the form of treated M&I wastewater which can be used for secondary recycling in Salt Lake County upon approval.

DIC and Bluffdale City have secondary irrigation systems that are supplied, in part, with Utah Lake and Jordan River water delivered via canals. The Utah Lake waters are secondary rights in the lake and are subject to shortages and cuts during drought years as detailed in a technical memo prepared for JVWCD (JVWCD, 2021). DIC recently completed a Water Rights Master Plan that showed they would experience secondary irrigation water shortages at times, especially if Utah Lake/Jordan River water is not available due to low levels or toxic algal bloom conditions or when the State Engineer cuts secondary water rights in the lake (e.g., 2016 and 2022). The Project would install four shallow groundwater wells that would provide DIC with a resilient water source, under their approved water right, that would shore-up their secondary irrigation supply. DIC would not need to solely rely on their Utah Lake secondary water rights and the other water collected by their system.

3.4.2 Environmental Consequences

3.4.2.1 No-Action Alternative

The No-Action Alternative would have no effect on existing water rights. Secondary water deliveries would continue as allowed by existing water rights. The No-Action Alternative would not provide CUP wastewater from the JBWRF to be recycled to help meet the secondary irrigation needs for DIC and Bluffdale City. DIC's change application for the proposed shallow groundwater would not be used to supplement their secondary irrigation system under the No-Action Alternative.

The treatment and recycling of CUP Bonneville Unit return flows from wastewater, as quantified by the State Engineer, is an important part of the ULS. The No-Action Alternative would not assist DOI, CUWCD, and the Mitigation Commission with meeting their ULS EIS commitment to recycle 18,000 AF of secondary water in Salt Lake County.

3.4.2.2 Proposed Action Alternative

The Proposed Action would extend and make more resilient the water supply for DIC and Bluffdale City. As part of the Project, JVWCD would allocate a portion of CUP treated wastewater from the JBWRF to DIC and Bluffdale City for a combined volume

of 5,766 AF. These volumes would be used during the irrigation season only as required by the DIC and Bluffdale City water rights. DIC and Bluffdale City recycling wastewater and use in their secondary irrigation systems would assist DOI, CUWCD, and the Mitigation Commission to meet a portion of their 18,000 AF ULS commitment. There would be no change to the beneficial uses of existing water rights.

3.5 SURFACE WATER

3.5.1 Affected Environment

The Jordan River is approximately 50 miles long beginning at the north end of Utah Lake in Utah County. The river flows northward through the center of Salt Lake Valley. There are a number of diversions on the Jordan River mainly in the Jordan Narrows segment near the Utah/Salt Lake County line. One of the largest diversions, known as the Surplus Canal, is located at approximate 1100 West 2100 South in Salt Lake. These diversions are used to supply irrigation and secondary water supplies to the Salt Lake Valley. The Jordan River's major tributaries are Little Cottonwood, Big Cottonwood, Red Butte, Emigration, Mill, Parley's, and City creeks, although most of the water flowing in these tributaries is diverted before reaching the river.

The SVSD provides wastewater collection and treatment services to a large and rapidly growing area in Southern Salt Lake County and northern Utah County, including Draper City and Bluffdale City. Prior to the construction of the JBWRF, the SVSD wastewater went to the South Valley Water Reclamation Facility (SVWRF) located at 7500 South and 1300 West in West Jordan that is jointly owned by SVSD and four other entities. The SVWRF discharges treated wastewater into the Jordan River. SVSD decided to construct their own wastewater treatment plant (JBWRF) to meet the increasing needs of the growing communities they serve. Currently, JBWRF is designed to treat 15 MGD wastewater with a discharge to the Jordan River (less the water reused at the JBWRF). The treatment plant is planned to be expanded to 30 MGD sometime in the future.

The JBWRF began discharging treated wastewater effluent into the Jordan River after it was constructed in 2012. Within eight years, JVWCD will contract for their 16,400 AF of ULS water which is imported into the Bonneville Basin from the Colorado River Basin. Some of the JVWCD ULS water would be treated at the JBWRF and be used as part of Proposed Action and/or discharged into the Jordan River.

The surface water that may be affected by the proposed project is the Jordan River. Spills and flood-control releases to the river occur when Utah Lake reaches or exceeds the Compromise Elevation which is the maximum legal storage elevation in Utah Lake and is defined at 4489.045 feet above mean sea level. When the lake elevation is above Compromise Elevation, the control gates to the Jordan River must be fully opened with the exception that they cannot exceed maximum flows in the Jordan River and cause flooding downstream. Much of the water released from Utah Lake into the river is diverted for irrigation and secondary system use in Salt Lake Valley during the irrigation season. Monthly flow rates on the Jordan River during the irrigation season are shown in Table 3-1 on the next page.

Table 3-1: Average Jordan River Flows (during the irrigation season)

	Apr	May	June	July	Aug	Sept	Oct
*Utah Lake to the Jordan River	541	804	867	846	702	508	228
9000 South	167	156	226	149	97	94	88

* Supplemental to the Bonneville Unit 1988 Definite Plan Report, Water Supply Appendix Attachment D, October 2004

3.5.2 Environmental Consequences

3.5.2.1 No-Action Alternative

The No-Action Alternative would have no negative effect on surface water. It could have beneficial impacts to the Jordan River because as additional CUP water is developed (e.g., ULS 22,000 AF of M&I water in Salt Lake County), the amount of return flow to the river will increase with a better-quality treated wastewater effluent.

3.5.2.2 Proposed Action Alternative

During design of JBWRF, SVSD anticipated that a future secondary means of disposal of treated effluent would be to recycle the effluent for irrigation and similar purposes (SVSD 2007) under the Utah Reuse Act. The Proposed Action would divert a portion of the treatment plant effluent for use in the DIC and Bluffdale City's secondary irrigation systems during the irrigation season.

The anticipated impacts to the Jordan River would be negligible and insignificant. The JBWRF existing and future treatment capacity is 15 MGD (23 cubic feet per second (cfs)) and 30 MGD (46 cfs) respectively. The Project would recycle up to 5,766 AF per year which is about 13.6 cfs during the irrigation season. At full CUP water availability and JBWRF buildout, and assuming the full recycling rate of 13.6 cfs is being used for DIC and Bluffdale City, approximately 28 cfs would be added to and increase the flows in the Jordan River. The increase in Jordan River flows would vary based on amount of water in the river at any given time, the volume of water being treated at the JBWRF, and the volume being used for recycling. Therefore, the effects to the Jordan River would be insignificant.

3.6 CULTURAL RESOURCES

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

Section 106 of the National Register of Historic Places (NHPA) of 1966, mandates that the JLAs take 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 NRHP. Potential effects of the described alternatives on historic properties are the primary focus of this analysis.

In accordance with 36 CFR 800.4, the sites were evaluated for significance in terms of NRHP eligibility. The significance criteria applied to evaluate cultural resources are defined in 36 CFR 60.4 as follows:

The quality of significance in American history, architecture, archeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, association and

- Criterion A. That are associated with events that have made a significant contribution to the broad patterns of our history; or
- Criterion B. That are associated with the lives of persons significant in our past; or
- Criterion C. That embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
- Criterion D. That have yielded, or may be likely to yield, information important in prehistory or history.

In compliance with 36 CFR 800.4(d)(2) and 36 CFR 800.11(e), a copy of the Class III cultural resource inventory report and a determination of historic properties affected were submitted to the Utah State Historic Preservation Office (SHPO) for cultural significance to historic properties possibly affected by the Proposed Action for consultation.

3.6.1 Affected Environment

The area of potential effect (APE) for this Proposed Action for cultural resources was defined as three locations of irregularly shaped polygons and linear corridors within which all ground disturbance, easements, and other actions that may impact cultural resources are expected to occur. In total, the APE contained approximately 31 acres. A Class I records search and a Class III cultural resource inventory of the APE were completed in April 2022. The Utah Division of State History (UDSH) file search indicated that 14 archaeological sites and 69 buildings and structures reported within 1/2 mile of the current the APE. Four cultural resource sites were identified in the survey area listed and described below:

- Jordan & Salt Lake City Canal (42SL214) – determined eligible
- East Jordan Canal (42SL290) – determined eligible
- 249 E. 13650 S. – determined not eligible
- 13530 S. 300 E. – determined not eligible

3.6.1.1 Jordan & Salt Lake City Canal (42SL214)

The Jordan & Salt Lake City Canal is one of the oldest major canals constructed in the Salt Lake Valley. Construction began in 1879 and continued for more than a decade as

the canal was extended north from its weir on the Jordan River in the Jordan Narrows area through the valley. The canal provided irrigation water to lands above the Jordan River floodplain. Numerous segments of the canal have been documented previously, including the segment in the current APE, which was documented most recently in 2010. The segment in the current APE comprises an open, unlined ditch measuring approximately 8 meters wide by 1.5 meters deep. The channel has a flared U-shaped cross-section. The canal crosses through the current APE via a modern concrete culvert on 13490 South. No historical features were noted along the 410-meter-long segment of the canal that was inspected for the current undertaking. This segment begins south at Bangerter Highway and extends north through the current APE into private lands for which access had not been granted.

NRHP Evaluation. As noted, many segments of the canal have been documented previously and evaluated for listing on the National Register. Based on these evaluations, the overall canal site has been **determined eligible** for the National Register under Criteria A and B.

3.6.1.2 East Jordan Canal (42SL290)

The East Jordan Canal is among the oldest major canals constructed in the Salt Lake Valley. Construction was completed in 1883. The canal carries irrigation water from the Jordan River in the Jordan Narrows area through the eastern and southeastern parts of the valley. Numerous segments of the canal have been documented previously; however, the segment in the current APE does not appear to have been the subject of such documentation prior to the current undertaking. The segment of the canal in and adjacent to the current APE comprises an open, unlined ditch measuring approximately 10 meters wide by 1.5 meters deep, though the actual flow channel is less than 1 meter deep. The channel has a wide, flat-bottomed U-shaped cross-section. The canal crosses through the current APE via a historical concrete T-beam bridge (UDOT Structure # 035081D) that was built in 1945. A pair of historical water control features—one a storm drain inlet and the other a dual-gate turnout into a lateral ditch network—were identified along the documented segment. These features retain sufficient integrity to be considered contributing components of the canal site.

NRHP Evaluation. As noted above, many segments of the canal have been documented previously and evaluated for listing on the National Register. Based on these evaluations, the overall canal site has been **determined eligible** for the National Register under Criterion A for the significant role the canal played in expanding settlement opportunities and supporting the agricultural economy that sustained the communities it served throughout the late-1800s and early-1900s. The historical bridge (Structure 035081D) over the canal was determined by UDOT to be ineligible for the National Register as part of the *Utah Historic Bridge Inventory.*

3.6.2 Environmental Consequences

3.6.2.1 No-Action Alternative

The No-Action Alternative would have no effect on cultural resources.

3.6.2.2 Proposed Action Alternative

The proposed project resulted in a "No Historic Properties Affected" as agreed to by the Utah State Historic Preservation Office which concurred with these determinations on May 9, 2022 (Agardy 2022).

3.7 INDIAN TRUST ASSETS

Indian Trust Assets (ITAs) are legal interests in property held in trust by the United States for federally recognized Indian tribes or individuals. Assets can be real property, physical assets, or intangible property rights, such as lands, minerals, hunting and fishing rights, and water rights. The U.S. Department of the Interior's policy is to recognize and fulfill its legal obligations to identify, protect and conserve the trust resources of federally recognized Indian tribes and tribal members, and to consult with the tribes on a government-to-government basis whenever plans or actions affect tribal trust resources, trust assets, or tribal safety. Under this policy, the federal government is committed to carrying out its activities in a manner that avoids adverse impacts to ITAs when possible, and to mitigate or compensate for such impacts when it cannot. All impacts to ITAs, even those considered insignificant, must be discussed in the trust analyses in NEPA compliance documents and appropriate compensation or mitigation must be implemented.

3.7.1 Affected Environment

The CUPCA Office sent letters to all Indian Tribes that may have an interest in the JBWRF Secondary Recycled Water project requesting information regarding ITAs within the Project Study Area. The Navajo Nation Heritage and Historic Preservation Department responded that they have no Traditional Cultural Properties within the Project Study Area. No other Indian Tribes responded.

3.7.2 Environmental Consequences

There are no known ITAs in the Project Study Area.

3.7.2.1 No-Action Alternative

The No-Action Alternative would have no effect on ITAs.

3.7.2.2 Proposed Action Alternative

The Proposed Action Alternative would have no effect on ITAs.

3.8 THREATENED AND ENDANGERED SPECIES

3.8.1 Affected Environment

This section evaluates the impact the Proposed Action Alternative may have on the yellow-billed cuckoo (*Coccyzus americanus*), June sucker (*Chasmistes liorus*), monarch butterfly (*Danaus plexippus*), and Ute ladies'-tresses (*Spiranthes diluvialis*).

The eastern portion of the Project Study Area is within residential areas in Draper City where the proposed action is primarily in or directly adjacent to the existing roadway, including the proposed staging areas. This portion of the action area is primarily roadway abutting residential property with sparse vegetation except one area behind the Adagio apartment complex where a man-made pond and open space allows recreation for the residents and attracts a variety of birds. While migratory birds may be present, there is not suitable habitat for any of the potential threatened or endangered species including yellow-billed cuckoo, June sucker, monarch butterfly, and Ute ladies'-tresses.

The western portion of the Project runs parallel to the Jordan River floodplain. There are several spring channels and streams, riparian habitat, some wetlands present in this area. Most of the surrounding area is open farm fields, residential, and the JBWRF and SVSD offices. The riparian habitat is dominated by cottonwoods and the invasive Russian olive trees where birds may be present.

3.8.1.1 Yellow-billed cuckoos

Yellow-billed cuckoos are a threatened bird that prefers nesting habitat within 100 meters of water classified as lowland riparian characterized by a dense sub-canopy or shrub layer (cottonwood/willow habitats) and are considered riparian obligates. They arrive in the spring for breeding in late May or early June and breed through late June to July. The riparian corridor just east of the western portion of the Project Study Area near the Jordan River contains suitable cuckoo habitat. This includes multi-layered trees and shrubs comprised of cottonwoods, Russian olive, tamarisk, and willows in a habitat patch large enough to meet the minimum size requirement of 12 acre at least 100 meters wide by 100 meters long (USFWS 2017). Presence surveys were conducted for this species within suitable habitat during the 2022 nesting and breeding season per USFWS protocol. No cuckoo detections were made and therefore it is assumed no cuckoo were present during the 2022 season.

3.8.1.2 June sucker

June sucker is a threatened fish endemic to Utah Lake and tributaries to Utah Lake including the Provo River system. As such they are not present in the Jordan River or its tributaries.

3.8.1.3 Monarch butterflies

Monarch butterflies are dependent on open areas with flowering plants and milkweed for breeding. Open areas are present in and near the Project Study Area however, there is no milkweed present nor other flowering plants in abundance to provide a significant nectar source.

3.8.1.4 Ute ladies'-tresses

Ute ladies'-tresses are found in moist to very wet meadows, along streams and ditches, in abandoned stream meanders, and near springs, seeps, and lake shores that are free from overly tall competitive species. The minimal wetland areas in the Project Study Area as well as the vegetated banks of the stream channel are all dominated by dense phragmites and cattails, and as such are not suitable for Ute ladies'-tresses.

3.8.2 Environmental Consequences

3.8.2.1 No-Action Alternative

The No-Action Alternative would have no effect on threatened and endangered species.

3.8.2.2 Proposed Action Alternative

The Proposed Action Alternative would have no effect on June sucker, monarch butterfly, or Ute ladies'-tresses based on lack of suitable habitat in the Project Study Area.

Based on suitable habitat, the proposed actions may affect but are not likely to adversely affect the yellow-billed cuckoo because of the lack of occupancy per 2022 season cuckoo surveys, potential nesting and breeding seasonal avoidance, and conservation commitments to conduct early season surveys in 2023 (and subsequent years as needed). Therefore, the effects to yellow-billed cuckoo are insignificant.

If the seasonal avoidance is not possible, USFWS recommends conducting one to two early season nesting surveys ahead of construction to determine current nesting status and potentially clear the Project Study Area again for that specific year. If after surveys are conducted and Yellow-billed cuckoos are found, then the JLA's will talk to USFWS prior to construction.

To maximize conservation measures the JLA's anticipate coordinating with the USFWS on the planning and development of the project, as well as by following best management practices. Specific measures and plans known at this time include the following:

- Cuckoo presence surveys have been conducted for the 2022 nesting and breeding season by a certified and USFWS permitted surveyor. The survey results will be valid for the following season but may be conducted annually to provide clearance for each following year as needed during construction planned within ½-mile of suitable habitat.
- If after surveys are conducted, cuckoos are found to be present, the JLAs will talk to FWS.
- If any trees are expected to be removed as part of the project construction during migratory bird nesting and breeding season (April – August) a qualified biologist will conduct surveys no more than five days prior to the commencement of work. If active nests are found during surveys, tree

removal will be postponed until the young have fledged or the nest is no longer active as determined by the biologist.

- Equipment will be cleaned to remove noxious weeds/seeds and petroleum products prior to moving on site. Additionally, any chemical pollutants produced during the construction activities shall be properly disposed of offsite.
- Fueling machinery will occur off site or in a confined, designated area to prevent spillage into waterways and wetlands.
- Materials will not be stockpiled in the riparian areas or other sensitive areas such as wetlands.
- Fill materials will be free of fines, waste, pollutants, and noxious weeds/seeds.
- Excavated soils will be sorted into mineral soil and topsoil. When backfilling a disturbed site, topsoil will be placed on top to provide a seed bed for native plants.
- Excavated material and construction debris may not be wasted in any stream channel or placed in flowing waters or adjacent wetlands; this will include material such as grease, oil, joint coating, or any other possible pollutants. Excess material must be wasted at an upland site away from any channel or habitat of a federally-listed or sensitive species.
- Any natural (unpaved) areas temporarily impacted by the project will be revegetated with an approved seed mix or planting plan.

3.9 WETLANDS AND AQUATIC RESOURCES

3.9.1 Affected Environment

A spring fed creek flows east through the Project Study Area enroute to the nearby Jordan River. This is a perennial stream that flows into navigable waters and for this reason, the stream and adjacent wetlands are considered “Waters of the U.S.” (WOTUS). WOTUS are regulated by the Army Corps of Engineers (USACE). According to the Aquatic Resource Delineation conducted in November 2021, 0.06 acres of wetlands and 0.10 acres or 77 linear feet of stream channel are present in the Project Study Area. Figures 3-1 through 3-3 illustrate the delineation results including the location of the stream and wetlands in the Project Study Area.

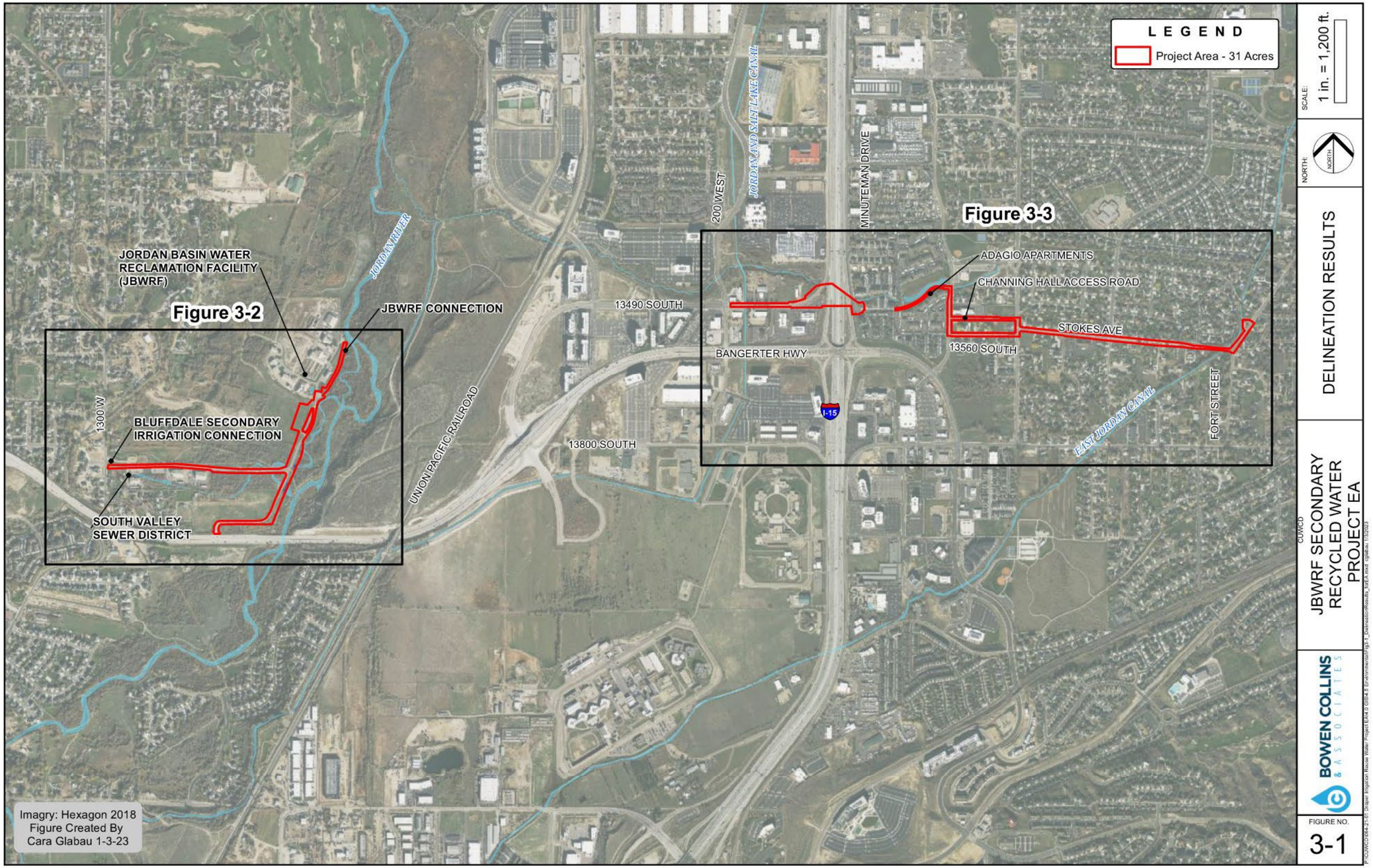

Figure 3-1: Delineation Results

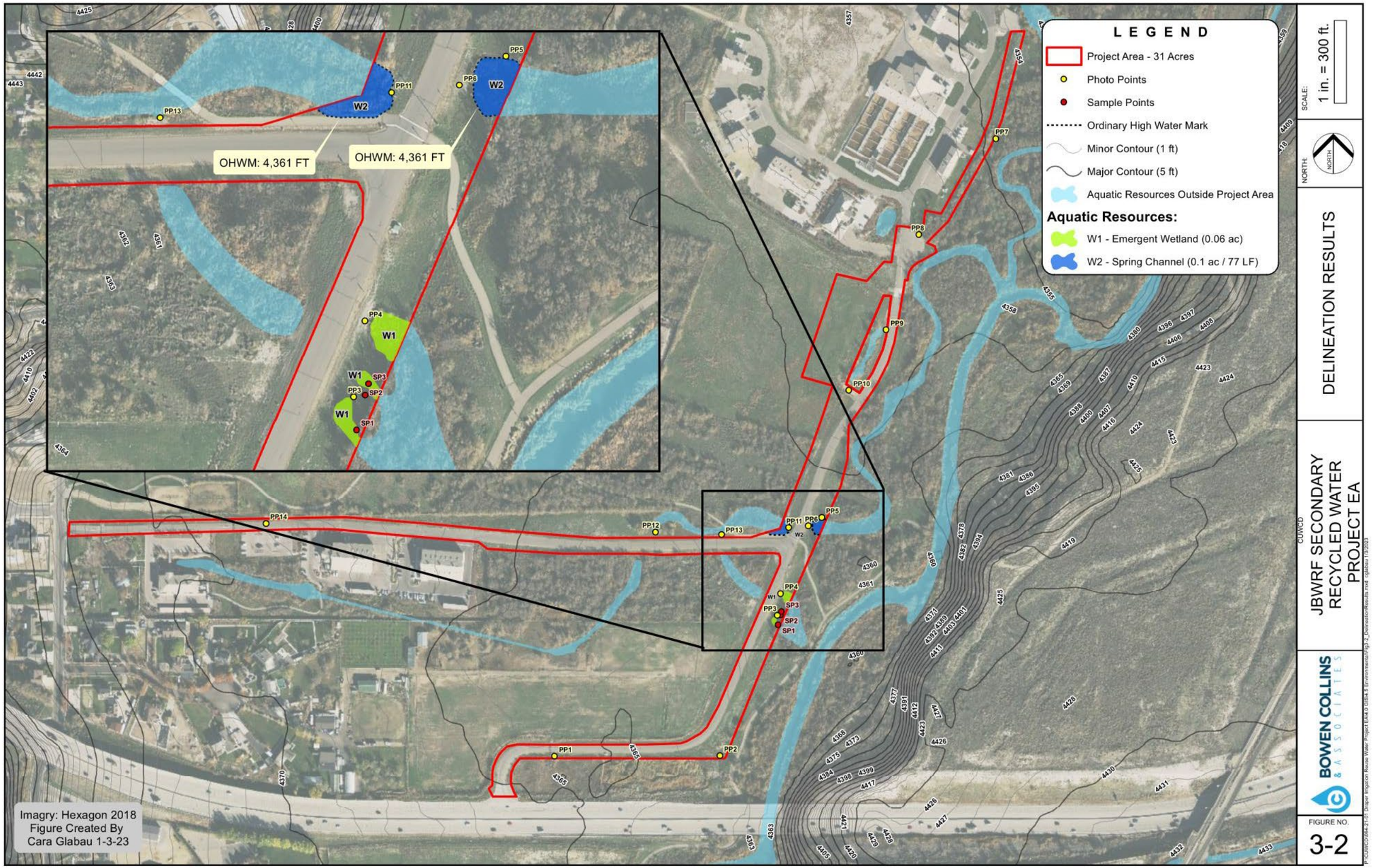

Figure 3-2: Delineation Results

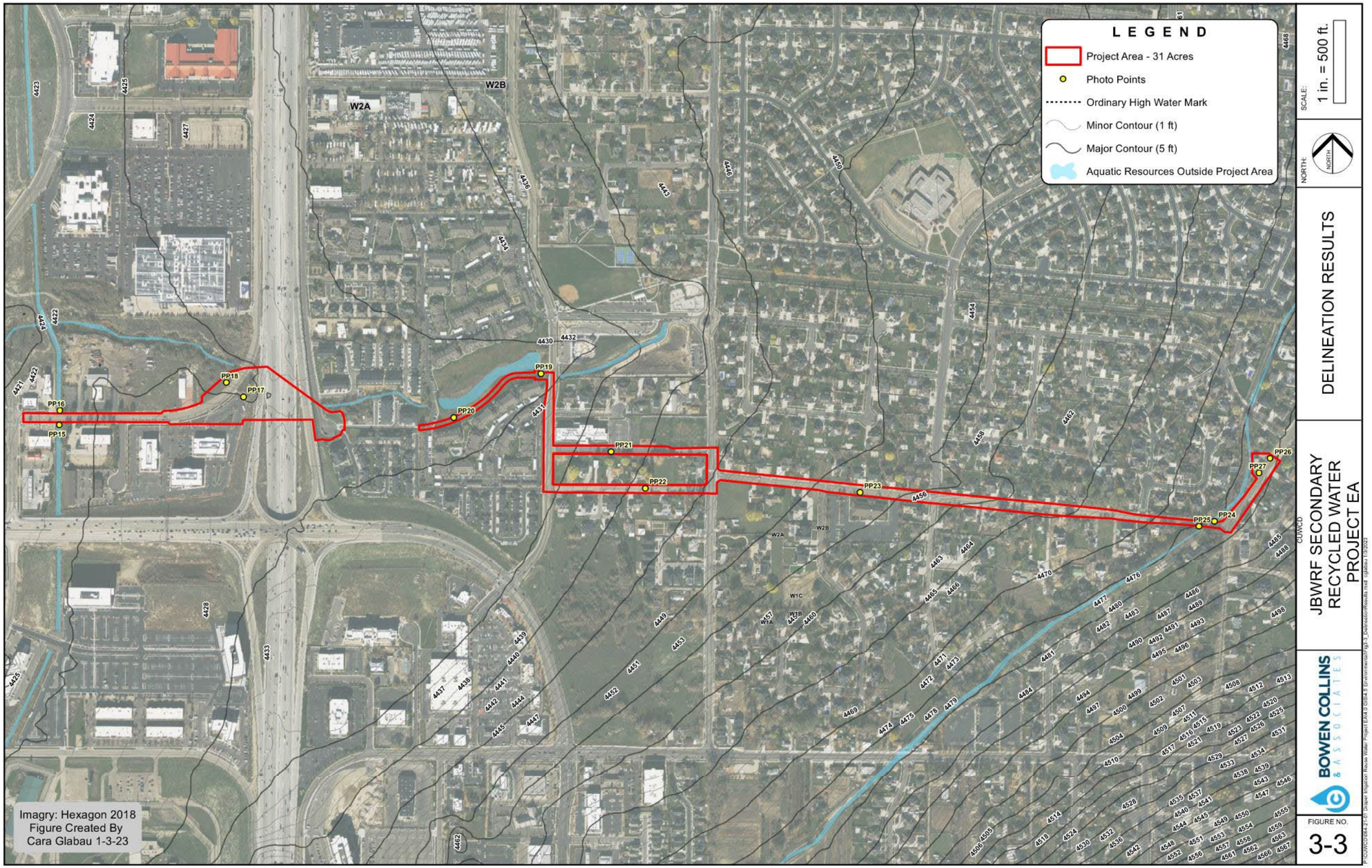

Figure 3-3: Delineation Results

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3.9.2 Environmental Consequences

3.9.2.1 No-Action Alternative

The No-Action Alternative would have no effect on wetlands.

3.9.2.2 Proposed Action Alternative

The Proposed Action Alternative would impact less than 0.10 acres of wetlands including the stream channel impacts from the installation of the pipelines and construction of the four shallow wells. After construction is complete, this area would be returned to pre-construction contours and restored with wetland plantings. The restored area would be monitored for three years to ensure continued success with appropriate improvement measures taken if needed.

Nationwide Permit number 58 requires that the permittee complete and submit to the USACE if the impact will result in a loss of WOTUS greater than 0.10 acres. Therefore, since the Project would not impact more than required for notification, no Pre-construction Notice to the USACE is required.

3.10 CLIMATE CHANGE

The earth's climate is changing, as evidenced by rising temperatures, shifting snow and rainfall patterns, and more extreme climate events like heavy rainstorms and record high temperatures. Climate change is in part caused by greenhouse gases which trap heat in the atmosphere. Burning fossil fuels (coal, natural gas, and oil), solid waste, trees, and other biological materials release carbon dioxide (CO_2) into the atmosphere. Emissions of CO_2 make up the largest component, 79%, of greenhouse gas emissions.

Executive Order 13514, Federal Leadership in Environmental, Energy, and Economic Performance established an integrated strategy towards sustainability in the federal government and made the reduction of greenhouse gas emissions a priority for agencies.

3.10.1 Affected Environment

Weather patterns are changing over time, including warmer temperatures, more severe storms, and increased drought. The Project Study Area and the areas supplied by the regional water delivery system are being affected by these changes.

3.10.2 Environmental Consequences

3.10.2.1 No-Action Alternative

Under the No-Action Alternative, DIC and Bluffdale City would continue to use water supplied from Utah Lake and delivered through the Jordan River and canals for their secondary irrigation needs. As discussed above, the water rights currently used are subject to shortages and reductions during times of drought. The No-Action Alternative would not provide a more resilient secondary water system for these agencies.

3.10.2.2 Proposed Action Alternative

Additional CO_2 emissions would be emitted during the construction of the Proposed Action (see Air Quality below in the Construction Impacts section). The Proposed Action is in response to the variability of the hydrologic cycle which may result from climate change. The secondary irrigation system for DIC and Bluffdale City would become more resilient from climate change upon implementation of the Proposed Action.

3.11 CUMULATIVE IMPACTS

In addition to Project-specific impacts as discussed above, the JLAs analyzed the potential for significant cumulative impacts to resources affected by the Proposed Action and by other past, present, and reasonably foreseeable actions in south Salt Lake Valley. Cumulative impacts are the incremental impacts to the environment of the Proposed Action when added to other past, present, and reasonably foreseeable future actions, regardless of what agency or person undertakes such other actions (40 CFR §1508.7). Cumulative impact analysis is focused on the sustainability of the environmental resource in light of all the forces acting upon it and can result from individually minor but collectively significant actions taking place over time. The regulation focuses on whether the Proposed Action, considered together with any known or reasonably foreseeable actions by the JLAs, other federal or state agencies, or some other entity, combined to cause an effect.

The Proposed Action would be constructed within areas or along roadways that have already been disturbed or developed. The Proposed Action is not anticipated to increase the potential for land developments. The construction of the Proposed Action would have short-term impacts that are temporary in nature, negligible, and insignificant impact to several resources (see discussion below) and would therefore be expected to end after the construction is completed. Therefore, based on the review of the Proposed Action, the JLAs have determined that the JBWRF Secondary Recycled Water Project would not have a significant adverse cumulative effect on any resource.

3.12 CONSTRUCTION IMPACTS

Construction of the Proposed Action would have short-term impacts that are temporary in nature, negligible, and insignificant. Resources that may be impacted by construction are discussed below.

3.12.1 Air Quality

Construction of the JBWRF Secondary Recycled Water Project would have temporary and insignificant impacts on air quality related to emissions from the use of construction equipment and fugitive dust. Vehicles and equipment would emit during construction air pollutants in small quantities. PM_{10} emissions are associated with the dust created from land clearing and ground excavation, and road repair operations. Other pollutants (e.g., $PM_{2.5}$, CO, sulfur oxides [SOx]) are generated from heavy-duty diesel engines used for construction. Fugitive dust can also be produced by winds blowing through the construction site and by trucks carrying

uncovered loads. Additionally, mud tracked onto paved roads leading to and from the construction site creates a source of fugitive dust after it dries.

Some dust would be released and become airborne during the construction; implementation of Best Management Practices (BMPs), including periodic watering of borrow and spoil material, and access roads, would prevent large amounts of dust from being emitted. $PM_{2.5}$ and PM_{10} emissions from construction activities are usually local and short-term and last only for the duration of the construction period.

Construction activities would not violate air quality standards, based on the implementation of BMPs and the short duration of construction. Therefore, there would be short-term and localized minor impacts and no long-term impacts to air quality. Fugitive dust and other emissions BMPs include the following:

- Watering the soil and other exposed areas or using other similar approved dust suppressant/soil binder.
- Wetting materials hauled in trucks, providing adequate freeboard (space from the top of the material to the top of the truck), or covering loads to reduce emissions during material transportation/handling.
- Providing a stabilized construction entrance or track-out pad, wheel washers, and/or other similar BMPs at construction offices and site access areas to reduce track-out onto the adjacent roadway network.
- Sweeping or vacuuming tracked-out materials deposited onto adjacent roadways.
- Wetting material stockpiles to prevent wind-blown emissions.
- Establishing vegetative cover on bare ground as soon as possible after grading to reduce wind-blown dust.
- Minimizing the extent of disturbed surfaces.
- Requiring appropriate emission-control devices on all construction equipment.
- Using only properly operating, well-maintained construction equipment.
- Reduced speeds on dirt access roads.
- Restricting earthwork activities during times of abnormal high wind events.

3.12.2 Noise and Vibration

Residents and businesses near the construction of the JBWRF Secondary Recycled Water Project may experience temporary inconvenience, mainly from the installation of pipelines, due to construction related noise and vibration. Extended disruption of normal activities is not anticipated, since no single area would be exposed to construction noise of long duration. Temporary construction noise would be minimized through adherence to standard specifications for noise levels in the construction area:

- **Noise Levels in the construction area:** the contractor will comply with applicable federal, state, and local laws, orders, and regulations concerning the prevention, control, and abatement of excessive noise. The contractor will monitor construction noise levels within the construction area. Mufflers on construction equipment shall be checked regularly to minimize noise. The construction contractor would follow the Salt Lake County Health Department's noise ordinance in addition to the Draper and Bluffdale city's noise ordinances. A construction noise permit would be required by Salt Lake County Health Department.

Vibration may be generated during construction of the Proposed Action and could be an inconvenience to nearby residents and businesses. However, the impacts would be temporary and only occur during the construction phase of this project. The majority of construction vibration is a result of heavy equipment use. The contractor would be required to adhere to standard specifications for compliance with laws and regulations.

3.12.3 Transportation and Utilities

There would be temporary travel delays, temporary changes in roadway alignments, and road closures along certain roadways during construction due to the movement of heavy machinery and other equipment and supplies. Travel in the area to and from private property or for other public purposes would be maintained throughout construction. Prior to construction, a Traffic Control Plan would be developed to address traffic concerns and approved by the cities impacted by the construction and the engineer.

During construction, it is anticipated that at least one lane of traffic would remain open for access to residences, and commercial businesses. There is the potential for full road closure in some areas for short periods of time. The secondary irrigation pipeline would be installed in sections, which would keep the impacts localized to existing construction areas.

BMPs would be required by the contractor during construction to mitigate for expected transportation impacts including:

- Where possible, the use of residential urban streets for construction haul routes would be minimized.
- Traffic control plans would be developed in coordination with local agencies to minimize impacts to the public.
- A public information plan would be prepared and distributed, including project schedule, status, utility disruptions, and contact information.
- Advance notice for road closures, detours, and delays would be provided.
- Access to residences would be maintained as possible.
- Detailed inventory of utilities and utility providers would be prepared to minimize disruption in utility service.

3.12.4 Public Safety

Public safety during all construction activities would be addressed by the contractor implementing appropriate BMPs to manage site access. Construction site boundaries would be clearly fenced and marked. Open excavations would be covered and blocked off from the public with barriers. Proper road construction signs and warnings would be placed in strategic points wherever construction activities would be conducted to inform pedestrians and drivers of the construction. The BMPs for public safety include:

- At all times, construction fencing would be around the perimeter of construction zones to warn and keep out non-construction persons.
- Cover all open trenches with heavy metal plates outside of construction times.
- Use of orange construction signs warning of risk.
- A public information plan would be prepared and distributed, including project schedule, status, utility disruptions, and contact information.
- Construction traffic would maintain minimum driving speeds within residential neighborhoods

3.12.5 Water Quality and Storm Water Control

Construction activities in the Project Study Area would disturb soils increasing the potential for temporary soil erosion, sedimentation, and siltation impacts which could affect receiving waters during a storm event. To prevent construction impacts, the contractor would be required to comply with all federal and state laws and regulations regarding control and abatement of water pollution during construction. All waste materials and sewage from construction activities or project-constructed features would be disposed of as specified by federal and state health and pollution control regulations. The Contractor would be required to monitor water quality of discharges and receiving water, both background and below discharges, during any construction activities that could impact water quality.

Potential pollutants and wastes include refuse, garbage, cement, concrete, sewage effluent, industrial waste, oil, and other petroleum products, aggregate processing tailings, mineral salts, and thermal pollution. Excavated materials would not be stockpiled or deposited near or on surface waters or other watercourse perimeters where they could be washed away by storm runoff or encroach upon the sensitive area. Construction activities would be required to use methods prevent entrance or accidental spillage of solid matter, contaminants, debris, and other objectionable pollutants and wastes from entering any storm water system, other watercourses, and underground water sources. Excavated materials would not be stockpiled or deposited near or on surface waters or other watercourse perimeters where they could be washed away by storm runoff or encroach upon the sensitive area.

Construction activities that disturb more than one acre require the development of a Storm Water Pollution Prevention Plan (SWPPP) to comply with the Utah Pollutant Discharge Elimination System permit (UPDES). The SWPPP may include such measures as using silt fences, fiber mesh rolls, check-dams, or other techniques to minimize impacts to the surrounding

receiving waters. The contractor will be required to adhere to standard specifications for drainage and sediment control.

3.12.6 Soils and Vegetation

The contractor would be required to prevent and minimize erosion and siltation during construction and to reestablish permanent vegetative cover on disturbed sites. The contractor will be required to use a native and approved seed mix on disturbed areas. Clearing schedules would be arranged to minimize the practical exposure of soils. Final erosion control and site restoration measures would be initiated as soon as an area is no longer needed for construction, stockpiling, or access. Upon project completion, all yards, offices, and construction buildings, and all construction materials and debris would be removed from the site. Construction roads, if needed, would be restored to the original contour. Erosion control measures would be initiated as soon as an area is no longer needed for construction, stockpiling, or access. Any land disturbed, but not permanently occupied by new facilities would be graded to provide proper drainage and blend with the natural contours of the land and restored to its pre-construction condition. Where such lands were vegetated, they would be covered with topsoil stripped from construction areas, and revegetated, as appropriate, with plants native to the area and beneficial to wildlife.

3.12.7 Invasive Species and Noxious Weeds

This disturbance of soils and vegetation could allow for the establishment or spread of invasive species and noxious weeds. Construction specifications would require the contractor to preserve the natural landscape and prevent any unnecessary destruction, scarring, or defacing of the natural surroundings in the work vicinity. All trees, native shrubbery, and other vegetation would be preserved and protected from construction operations and equipment except where clearing operations are required for permanent structures, approved construction roads, or excavation operations. All maintenance yards, field offices, and staging areas would be arranged to preserve trees and vegetation to the maximum practicable extent. Clearing operations would be limited to those needed for construction. Areas around structures would be backfilled and compacted, and all disturbed areas reclaimed to the native vegetation type. Disturbed areas would be reseeded with native grasses and erosion control measures would be put in place to prevent the incursion of invasive weed species.

To prevent the spreading of invasive species, the contractor would be required to adhere to the following guidelines:

- Identify invasive and noxious weeds within the areas planned for earthwork operations.
- Treat areas identified as having invasive and noxious weeds with an approved herbicide within 10 days before starting earthwork operations.
- Clean all earth-moving before entering the project site.

3.12.8 Hazardous Waste

The contractor would be required to implement BMPs for hazardous wastes generated from construction-related activities. The BMPs may include:

- All hazardous waste materials, including wastes, petroleum products, and solid wastes, would be handled, stored, and disposed of in conformance with federal and state regulations to prevent soil, groundwater, or surface water contamination.
- The Utah Division of Environmental Response and Remediation (DERR) would be contacted immediately if any contaminated soil or hazardous material is discovered during construction, including petroleum hydrocarbons or other previously unidentified hazardous materials or contaminated soils. The appropriate characterization and handling of the material would be conducted in accordance with DERR guidance.
- Absorbent pads or sheets would be readily available onsite. If onsite maintenance of construction equipment is required, absorbent pads would be placed under likely leak or spill sources. Mitigation for incidental spills or leaks of hydraulic fluid or diesel fuel from construction equipment would be implemented, including cleaning up the spill immediately, removing contaminated soil from the site, and properly disposing of it in conformance with federal and state regulations.

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CHAPTER 4 – PROJECT COORDINATION

Chapter 4 describes the project coordination and public involvement activities for the Project.

4.1 PUBLIC AND AGENCY SCOPING

As part of the EA process, the JLAs conducted public and agency scoping and coordination in January and February 2022 during which the public and agencies were invited to review project information and to submit comments. Information disseminated consisted of:

- Listing project proponents – Central Utah Water Conservancy District, Department of the Interior – CUPCA Office, DIC and Bluffdale City.
- Project background.
- Stating that the NEPA process had been initiated.
- Describing the Proposed Action Alternative to be evaluated.
- Maps showing the general location of the Proposed Action Alternative.
- Soliciting comments and concerns and how to submit them.
- Providing contact information including telephone numbers, email, and web site address.
- The JLAs used the following to notify the public and agencies about the proposed project and to solicit comments:
    - Mailed a scoping document to interested parties and to local, state, and federal agencies. This document included information about the Proposed Action, project proponents, and how to comment.
    - Developed a project webpage with a newsletter, project contact information, and a means to provide comments on the proposed project.
    - Newspaper ad with project information.
    - Native American Consultation Letters with an attached newsletter (sent by the CUPCA Office).

The JLAs and project proponents held a public information meeting on Tuesday, February 8, 2022, at the Bowen Collins & Associates Draper Office located at 154 East 14075 South. The meeting was also held electronically. A presentation was given which outlined the proposed project along with other information (e.g., how to comment, project representatives contact info). Questions from the public were addressed at this meeting as well. Twenty-four people attended either in person or online.

4.1.1 Scoping Comments

Five comments were received: three from citizens, one from the U.S. Army Corps of Engineers (USACE), and one from the Navajo Tribe. Comments are found in the JBWRF Secondary Recycled Water Project Scoping Document on the Project website https://cuwcd.com/resources.html (under the Environmental - Active section).

The USACE stated that it had jurisdiction within the Project Study Area under the authority of Section 404 of the Clean Water Act for the discharge of dredged or fill material into waters of the United States. The Navajo Nation Heritage and Historic Preservation Department stated that they have no Traditional Cultural Properties within the proposed Project Study Area.

4.2 PUBLIC REVIEW AND COMMENTS ON THE DRAFT EA

The Joint Lead Agencies released the Draft EA on Friday, January 6, 2023, for public and agency review. The public and agency review period ended Wednesday, February 15, 2023. Activities used to notify the public and agencies of the release of the Draft EA consisted of:

- A post card with Project information and directions on how to comment was mailed to DIC and Bluffdale City residents and local, state, and federal agencies.
- Updated the project website with a copy of the Draft EA along with a means to provide comments.

A total of ten comments were received on the Draft EA and are found below along with the JLA response. Each comment received was carefully considered and reviewed.

Comment #1

What is the Cost of the Project? What will be the impact to consumers and residence in increased taxes, fees or monthly billing?

Response to Comment #1

The total project cost is approximately $24 million dollars for the DIC portion. About $2 million dollars of pipeline infrastructure has already been installed as part of other projects. Recently, a 10% increase to DIC rates has been implemented in anticipation for this Project. Two additional 5% increases are anticipated within the next 2-4 years.

DIC has been awarded a $2 million dollar grant from Reclamation. In addition, DIC has received notice of selection for an additional $5 million dollar grant from Reclamation. However, the contract for this grant has not been officially authorized. Proposed rate increases do not include consideration for grants and are based off of current project cost estimates only. In addition, the Department of the Interior – CUPCA Office has been budgeting some funding to assist with the Project costs.

Comment #2

The secondary water coming out of the South Valley Sewer District should be used for Draper Irrigation and Bluffdale to water lawns and gardens so we can save our culinary water in which we are short on.

Response to Comment #2

The recycled secondary water will be used within DIC and Bluffdale City service areas.

Comment #3A

3.2.2 Environmental Consequences. Pg. 11 - Structure settlement and potential damage to buildings and infrastructure is a primary concern of South Valley Sewer District. In the above section, there is no statement or course of action if settlement is detected. If settlement is detected during the monitoring program, would all pumping cease until such settlement subsides? With no guarantee against settlement, the protocols and operating procedures in this regard are critical to the District. Settlement to any facilities at JBWRF is not acceptable due to the critical nature of that facility to treat wastewater.

Response to Comment #3A

DIC conducted initial investigations and determined that based on pumping rates and the geophysics of the area that the cone of depression for pumping groundwater at this site is minimal and does not affect the structures at the JBWRF. However, prior to the construction of the groundwater wells, site settlement and mitigation would be addressed in a site settlement program. This program would be an agreement between SVSD and DIC and is discussed in this section of the Final EA. A mutually agreed upon course of action will be taken if settlement is anticipated or detected at JBWRF. The specifics of the corrective action plan and associated monitoring for settlement will be documented in the future agreement between DIC and SVSD prior to construction of the groundwater wells.

Comment #3B

3.5.2.2 Environmental Consequences. Pg. 16 - While JBWRF has a design capacity of 15 MGD, the Facility is currently at capacity and discharging an average of approximately 12.9 MGD for 2022. The Facility reuses treated effluent for internal use in heat pumps for HVAC, seal water for mechanical seals, landscape irrigation, and other applications throughout the Facility accounting for approximately 2.5 MGD. As part of the property management plan, 0.31 MGD is also distributed to wetlands on District property. The document assumes that all water treated at JBWRF is discharged directly to the Jordan River at the 15 MGD capacity, and calculations are made with that assumption. Current Facility data should be incorporated to allow for more accurate projections. Similarly, it should be noted that while JBWRF does have the expansion capacity of 30 MGD, the timeline for that volume is not yet known. There are capacity and flow calculations that will dictate when design and construction begins, but with flow and diversion options available through District capacity ownership at South Valley Water Reclamation Facility, the exact timing of reaching 30 MGD is unknown at this time. Many variables could change by the time the Facility reaches full buildout capacity, and at that point it will likely not

be discharging the full 30 MGD due to internal reuse and potential wetland mitigation currently experience at the 15 MGD capacity. Clarification should be made regarding these flow numbers and their potential impact to the flow projections in the Jordan River as it directly impacts the Great Salt Lake.

Response to Comment #3B

The Final EA has been clarified to address this comment. The discharge numbers to the Jordan River have been revised to account for the reuse of treated wastewater at the JBWRF. As detailed in the Final EA, the Project would have negligible effects to the Jordan River and the Great Salt Lake. Additional transbasin CUP M&I water will increase the flows in the Jordan River and volume discharged to the Great Salt Lake in the future as JVWCD and other agencies and cities use their full allotment.

Comment #4

The dwindling water level in the Great Salt Lake has been getting a ton of press lately and the legislature is in the process of allocating funds and instituting programs to get more water into the Great Salt Lake (GSL). It seems like this diversion of the water is working against the GSL efforts. We're paying money for infrastructure to move water out of the GSL system and they're paying money to try to get more into the GSL. It's very ineffective to work against each other. What if funds were used to make sure everyone is on a meter for secondary (maybe that's already happened). Could funds be used to create software that would let people know how their secondary water usage compares to average neighbors, efficient neighbors, or guidelines? I think it would be best if all the water could go to the GSL and we could do without the added water by improving conservation efforts. I water my 1 acre lawn once a week and my neighbors water twice a day. Draper City itself is terrible at overwatering their parks creating soggy wetlands just to try to get the dry spots that sprinklers don't reach. I'd rather put the $$ towards conservation efforts and helping people improve the efficiency of their systems and encourage them to use less. I'd rather double the cost of the secondary water as an incentive to conserve and use the additional funds for education and improvement.

Response to Comment #4

The secondary irrigation water for DIC is currently being metered and will continue to be metered as it is now required by the State. Current education and water conservation tips and measures for DIC customers is on its website, along with links for rebates and additional landscape specific water conservation programs through Utah Water Savers. DIC uses EyeOnWater by Badger Meter where customers can view their usage, receive leak alerts, and compare usage to weather patterns. Bluffdale City also meters their secondary water. The State of Utah Water Rights and State of Utah Division of Water Quality applications are required to be submitted and approved through the State of Utah for reuse projects. These applications will address State of Utah requirements with regards to the Great Salt Lake. As detailed in the Final EA, the Project would have negligible effects to the Jordan River and the Great Salt Lake. Additional transbasin CUP M&I water will increase the flows in the Jordan River and volume discharged to the

Great Salt Lake in the future as JVWCD and other agencies and cities use their full allotment.

Comment #5

I am ecstatic about the recycled water project and was hoping that this would have been completed back when the JBWRF was built (would have been less costly). As a Draper resident I believe this recycled water will be a lot cleaner and have less odor than the current Utah Lake water that I have been using for our yard. With the recycled water we should have less problems with our individual filters that each of us (homeowners) have to clean out with all the silt and sediment that the Utah Lake has in it. Glad to hear you are planning on mixing the well water with the recycled water to lower the average chloride levels in the water as this will be beneficial for our plants, trees, and grass as compared to Utah Lake Water. What is the soonest that this project could be completed by?

Response to Comment #5

Thank you for your support. The project is expected to begin construction in winter 2023/2024. Portions will be installed and functioning by spring 2025, however, final completion is anticipated in 2028.

Comment #6

Thank you for the opportunity to comment. I live at 248 E 13560 S in Draper. I've written before and continue to protest the idea of using a dead end neighborhood street with limited residential access, and more importantly, many young children, as an option for the Pipeline. The idea of using the school as your primary line makes much more sense since school property activity is limited to 45 hrs a week during the school year (AND ZERO ACTIVITY DURING MAY THROUGH AUGUST)… while 13560 resident activity is 24/7 year round.

Response to Comment #6

DIC has been coordinating with Channing Hall which is the preferred option between 150 East and 500 East. DIC anticipates installing the pipeline through Channing Hall and not through 13560 South. Those easement agreements are in process but not yet finalized.

Comment #7

What will be the effect on WaterPro customer water prices 1) immediately upon implementig the project, 2) one year thereafter, and 3) after 2 years?

Response to Comment #7

See response to Comment #1.

Comment #8

Costs, how much will the repiping, staffing, construction, put more stress on our pockets than we already have?
I understand the grant but I know that there will still be cost to us from Water Pro and we own

shares how is that going be effected? They just put in meters last year we are still paying for.
I am glad that the water will be treated, and glad to hopefully get good water besides Utah Lake smells.
When will we hear if this going to happen?
Also, will we still have water coming from Utah Lake?
How much water is there for all these residents?
Will the water be safe for animals and children?
Do the chemicals breakdown pipes? Some residents have galvanized pipes will they be more corrupt from the chemicals?

Response to Comment #8

See response to Comment #1.

The project is expected to begin construction in winter 2023/2024. Portions will be installed and functioning by spring 2025, however, final completion is anticipated in 2028. DIC and Bluffdale City will both continue to need and use water from Utah Lake. This project is intended to provide a reliable irrigation water source and supply most of the irrigation water volume for DIC customers. Safety of the public is one of the primary concerns of the project. All state of Utah and federal rules regarding the reuse of wastewater effluent for secondary irrigation purposes has been and will continue be followed, including advanced treatment, disinfection and monitoring requirements. Irrigation water of any type is not recommended for ingestion. The wastewater treatment plant effluent and shallow groundwater do not have chemicals that degrade pipes.

Comment #9

Thank you for providing information about this project.
Draper's irrigation water has become increasingly poor. Our landscape plants, except for grass, have been damaged by the water, causing us to incur significant expense to treat or replace them.
This proposal is a welcome improvement with minimal impacts to the environment and appears to have no adverse impact to the Great Salt Lake flow from the Jordan river.

Response to Comment #9

Thank you for your support.

Comment #10

It appears that, under this plan, water for recycling will be taken directly from the Jordan Basin Water Reclamation facility for part of the year. That is direct reuse of treated wastewater. Considering that this is being distributed throughout the irrigation districts to residences, it requires much greater safeguards. This irrigation water can be unsafe and a warning must be issued to all residential customers. In most states this requires acceptance by each customer of the risks and precautions for unrestricted public use. In many localities, purple pipe and purple yard hydrants are required with signs warning of its non-potable use, to prevent accidental consumption by children and pets.

Reuse of wastewater is a wholly different standard than lake or well water – recycled wastewater for unrestricted public use must meet a much higher quality and safeguard standard. Type I effluent requires full filtration and disinfection to non-detect levels of coliform. It should also require virus inactivation (UV disinfection or 90 minutes chlorination) as required in other states with recycled water distribution. Any residual BOD in the water can cause regrowth of bacteria in the distribution pipelines.

We need to understand the full treatment train at the JBWRF. If turbidity exceeds 2 NTU or bacteria levels are exceeded, there must be safeguards to divert that water from the irrigation supply. There should be multiple barriers provided within the treatment train.

Most importantly, there must be public hearings to advise the customers of the risks and their rights. I have a yard hydrant fed with irrigation water, and it could be easily mistaken for a potable water hydrant. With children in the area exposed to this water, it must be extremely safe before being introduced into the irrigation supply.

If this water were injected into the ground and then withdrawn with extraction wells, that would provide the second contaminant barrier.

Response to Comment #10

As discussed in section 3.3.1 of the Final EA, the JBWRF was constructed in 2012 with a treated wastewater capacity of 15 MGD with potential buildout capacity of approximately 30 MGD. Operations at the JBWRF utilize a microfiltration membrane process to treat wastewater effluent which complies with Type 1 wastewater effluent reuse requirements (UAC R317-3-11.4). Safety of the public is one of the primary concerns of the project. All state of Utah and federal rules regarding the reuse of wastewater effluent for secondary irrigation purposes has been and will continue be followed, including advanced treatment, disinfection and monitoring requirements.

As discussed in above in this chapter, the JLAs held a public meeting on Tuesday, February 8, 2022, to discuss the Project with the public. Notifications were distributed and other measures to invite the public to the meeting and to comment on the Project. More information is found above in this chapter.

None of this water is proposed for groundwater injection. The discharge of the treated wastewater from the JBWRF is of higher quality than that which is flowing in the Jordan River and currently used for secondary irrigation in DIC and Bluffdale City.

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CHAPTER 5 – LIST OF PREPARERS

Name	Title and Project Role	Agency
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Chris Elison	NEPA Projects Coordinator NEPA oversight	CUWCD
Alan Packard	Assistant General Manager Project proponent	JVWCD
Ken Brand	JBWRF Facility Manager Project proponent	SVSD
Michael Fazio	City Engineer Project proponent	Bluffdale City
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