

**STATE OF UTAH
DIVISION OF WATER QUALITY
DEPARTMENT OF ENVIRONMENTAL QUALITY
SALT LAKE CITY, UTAH**

§401 Water Quality Certification No. DWQ-2020-03001

Pursuant to §401 of the Federal Clean Water Act(CWA), the Utah Department of Environmental Quality (DEQ), Division of Water Quality (DWQ) certifies that the applicant has provided reasonable assurance that any discharges associated with the proposed project will not violate surface water quality standards or cause additional degradation in surface water not presently meeting water quality standards. In accordance with Section 401(a)(1) of the CWA [33 U.S.C. Sec. 1341(a)(1)], DWQ hereby issues this §401 Water Quality Certification provided any listed conditions are met and included in the corresponding U.S. Army Corps of Engineers (USACE) Section 404 Permit, Rivers and Harbors Act §9 and §10, or Federal Energy Regulatory Commission (FERC) License.

Applicant: Washington County Water Conservancy District
Mr. Corey Cram
533 E. Waterworks Dr.
St. George, UT 84770

Project: The applicant is proposing to construct the Toquer Reservoir, install four water transmission pipelines, and reconstruct the South Ash Creek Diversion Structure. The majority of the proposed project is located on Bureau of Land Management (BLM) property. The proposed reservoir would have an inundation surface area of 115 acres with a capacity of 3,638 acre-feet. A 12-acre recreation area would be constructed on the southwest side that would include a primitive campground, parking lot, boat ramp, restroom, group pavilion, and interpretive kiosks. The reservoir would permanently impact 6,703 linear feet of two ephemeral channels from the dam footprint and the inundation of these channels. The project would also include four water transmission pipelines that would distribute water between the existing Ash Creek Reservoir and the proposed Toquer Reservoir, and existing regulating ponds. These pipelines would involve 10 channel crossings and construction disturbance to Ash Creek where the main pipeline would run parallel. The water pipelines would be installed using the trench and backfill method to a minimum depth of 8 feet with riprap placed to a minimum depth of 3 feet on the downstream side to protect the pipe from scouring.

Location: The proposed project is located in Washington County, UT. The project initiates just after the Ash Creek Reservoir and travels south to just outside of Toquerville, UT. The project boundaries are from approximately 37.397°, -113.2384° to approximately 37.2519°, -113.3003°.

Watercourse(s): Ash Creek, Leap Creek, South Ash Creek, Dry Sandy, & Wet Sandy

Effective Date: **May 1, 2020**

Erica Brown Gaddis, PhD
Director, Division Water Quality

Table of Contents

I.	Background.....	3
A.	Other Applicable Permits.....	3
B.	Project Description/Purpose.....	3
C.	Existing Site Conditions.....	4
II.	Certification Conditions.....	5
A.	Project Specific Conditions.....	5
B.	General Conditions	6
III.	Aquatic Resource Impacts	8
A.	Linear Water Features.....	8
B.	Impairments and Pollutants of Concern.....	8
IV.	Antidegradation.....	9
V.	Modifications.....	10
VI.	Other Information	11
VII.	Public Notice and Comments.....	12
A.	Public Notice Dates.....	12
B.	Public Notice Comments/Response.....	12
C.	Changes Made to the Certification after Public Notice	12

Appendix A: Site Location Map

Appendix B: Project Layout and Impacts to Waters of the State

Appendix C: Proposed Land Preservation

I. Background

A. Other Applicable Permits

1. USACE 404 Permit : SPK-2011-01121
2. DNR Stream Alteration Order: 20-81-0002

B. Project Description/Purpose

The applicant is proposing to construct the Toquer Reservoir, install four water transmission pipelines, and reconstruct the South Ash Creek Diversion Structure. The majority of the proposed project is located on Bureau of Land Management (BLM) property. The proposed reservoir would have an inundation surface area of 115 acres with a capacity of 3,638 acre-feet. A 12-acre recreation area would be constructed on the southwest side that would include a primitive campground, parking lot, boat ramp, restroom, group pavilion, and interpretive kiosks. The reservoir dam would have a maximum height of 103 feet by approximately 1,100 feet and a maximum width of 300 feet. A concrete weir and splashpad would be constructed for the spillway, and a 1,889 linear foot open channel would tie into the Anderson Junction Wash below the dam. The reservoir would permanently impact 6,703 linear feet of two ephemeral channels from the dam footprint and the inundation of these channels. The downstream channel of Anderson Wash would be truncated as a result of the dam. The reservoir would be used as a water storage facility receiving flow from the upstream Ash Creek Reservoir, the existing Leap Creek Diversion, the reconstructed South Ash Creek Diversion, and the existing Wet Sandy Diversion.

The project would also include four water transmission pipelines that would distribute water between the existing Ash Creek Reservoir and the proposed Toquer Reservoir, and existing regulating ponds. These pipelines would involve 10 channel crossings and construction disturbance to Ash Creek where the main pipeline would run parallel. The water pipelines would be installed using the trench and backfill method to a minimum depth of 8 feet with riprap placed to a minimum depth of 3 feet on the downstream side to protect the pipe from scouring. Once, installation is complete the channels would be restored to preconstruction contours. These channels disturbance would result in temporary impacts to 5,531 linear feet (2.35 acres) of intermittent channel and 112 linear feet (0.31 acre) of ephemeral channel.

The applicant's stated purpose is to: 1) increase the availability of water for consumptive use through water collection, storage, and aquifer recharge; 2) to improve the efficiency of water conveyance and storage by preventing seepage and evaporative losses occurring in canals and reservoirs; and 3) to allow for high quality water from Toquerville Springs to be transferred from irrigation to culinary uses. The applicant has proposed to preserve and dedicate 4.4 acres of land along the Virgin River to the Virgin River Program.

C. Existing Site Conditions

There are approximately 10,532 linear feet of intermittent channel and 9,135 linear feet of ephemeral channel within the 678-acre project area. The site is located at the northeastern edge of the Mojave Desert.

The reservoir area is located in a transition zone from a black brush (*Coleogyne ramosissima*) community to a pinyon/juniper forest. Roughly, the western third of the area is dominated with Utah juniper (*Juniperus osteosperma*) and black brush, while the other two thirds is dominated with black brush, wolf berry (*Lycium andersonii*), green ephedra (*Ephedra viridis*), Indigo bush (*Psoralea fremontii*) and sand sage (*Artemisia filifolia*).

Vegetation communities along the pipeline area varies with changes in elevation, presence of surface water, and impacts from past fires. Vegetation from Anderson Junction north to Ash Creek Reservoir can be characterized as pinion/juniper forest. Vegetation communities south of Anderson junction are lower in elevation and dominated by sand sage, and desert almond (*Prunus fasciculata*). Within the pinion/juniper vegetation communities north of Anderson Junction, there are two distinctly different plant communities. The first is dominated by cottonwood (*Populus fremontii*) and single leaf ash (*Fraxinus anomala*), and was found in association with several streams. The second plant community, dominated by yerba santa (*Eriodictyon angustifolium*) and Dixie live oak (*Quercus turbinella*), was found in burned areas. Cheat grass (*Bromus tectorum*) and foxtail brome (*Bromus rubens*) occur in great density in the burned areas and throughout the project area. Salt cedar (*Tamarix ramosissima*), perennial pepperwood (*Lepidium latifolium*), and scotch thistle (*Onopordum acanthium*) are found along several streams within the study area.

There are two primary soil types within the project: on the north, which includes much of the area that would be inundated by the reservoir, the soils are a Veyo-Curhollow complex, which are characteristic of alluvial fans that are well-drained and have a 3 to 10 percent slope. On the southern end of the proposed project site, which would include the dam, the soils are a Pintura-Toquerville complex, which are characteristic of mountain slopes, generally have a 1 to 20 percent slope, and are considered somewhat excessively drained. Neither of these sandy soil types are hydric, nor are they frequently flooded.

II. Certification Conditions

A. Project Specific Conditions

1. Channel Work

- a. In channel work shall be conducted in the “dry” to the maximum extent practicable, by diverting flow utilizing cofferdams, berms constructed of sandbags, clean rock (containing no fine sediment) or other non-erodible, non-toxic material. All diversion materials shall be removed at the completion of the work.
- b. In channel structures should not result in a disruption or cause a barrier to the movement of fish or other aquatic life on the downstream side.
- c. If any dredged material is removed from the channel and stored on land, the material must be protected or stored in a way as to prevent reentry into the channel.
- d. While working in the channels, BMPs should be implemented to prevent additional discharges and limit increases in turbidity. A turbidity curtain or other means to protect water quality should be utilized to prevent impacts to downstream water quality if necessary.
- e. Construction machinery used should be clean to prevent the possible transfer of Aquatic Invasive Species.

2. Disturbance Minimization

- a. Clearing, grubbing, and other disturbances to riparian vegetation should be kept to the minimum required for proposed work and native riparian vegetation should be reestablished after work is complete.
- b. Backfill/restoration activities should be accomplished in a manner that stabilizes the streambed and banks to prevent erosion. The stream should be restored to pre-project condition to the extent practicable.
- c. The alignment of the utility line crossings should intersect the stream channels as close to perpendicular as possible.

3. Reporting

- a. Photo documentation of completion of crossing and restoration should be sent to the DWQ for our records.

B. General Conditions

1. Good Housekeeping

- a. Applicant and their subcontractors shall ensure that all workers involved are continuously aware of the water quality protection measures before the start and during the construction period.
- b. Retain a copy of this §401 Certification and its affiliated USACE 404 Permit onsite.

2. Stormwater and BMPs

- a. Water quality standards in associated water resources could be violated unless appropriate Best Management Practices (BMPs) are incorporated to minimize the erosion-sediment and nutrient load to any adjacent waters during project construction. The applicant shall not use any fill material which may leach organic chemicals (e.g. discarded asphalt), noxious weeds/seeds, or nutrients (e.g., phosphate rock) into waters of the State.
- b. Construction activities that disturb one acre or more, or are part of a common plan of development, are required to obtain coverage under the Utah Pollutant Discharge Elimination System (UPDES) Stormwater General Permit for Construction Activities (Permit No. UTR300000¹). The permit requires the development of a Storm Water Pollution Prevention Plan (SWPPP) to be implemented and updated from the commencement of any soil disturbing activities at the site, until final stabilization of the project. The SWPPP should include, but not limited to, final site maps and legible plans, location of stormwater outfalls/discharges, and information pertaining to any stormwater retention requirements.
- c. Dewatering activities, if necessary during construction, may require coverage under the UPDES General Permit for Construction Dewatering (Permit No. UTG070000²). The permit requires water quality monitoring every two weeks to ensure that the pumped water is meeting permit effluent limitations unless water is contained onsite.
- d. A project within a Municipal Separate Storm Sewer System (MS4) jurisdiction, must comply with all the conditions required in that UPDES MS4 Permit and associated ordinances. No condition of this 401 Certification shall reduce or minimize any requirements provided in the MS4 Permit. In the case of conflicting requirements, the most stringent criteria shall apply.

¹ Link: <https://documents.deq.utah.gov/water-quality/permits/updes/DWQ-2017-003485.pdf>

² Link: <https://deq.utah.gov/legacy/permits/water-quality/utah-pollutant-discharge-elimination-system/docs/utg070000.pdf>

- e. Utah Administrative Code R317-2 requires that the Applicant cannot increase water turbidity by 10 NTUs. If violated shall immediately notify the DWQ. A fact sheet describing the Utah Department of Environmental Quality's (DEQ) recommended environmental BMPs for construction sites are located on our web site³.

3. Spills

- a. Refueling equipment and storage of lubricants and fuels will occur at designated staging areas and in state approved containers. The storage and refueling areas will be at least 500 feet from the edge of the nearest waterbody (including wetlands), at least 200 feet from the nearest private water supply well, and at least 100 feet from the nearest municipal water supply well.
- b. Utah Annotated Code 19-5-114 requires that any spill or discharge of oil or other substances which may cause pollution to waters of the State, including wetlands, must be immediately reported to the Utah DEQ Spill Hotline at (801) 536-4123, a 24-hour phone number.

³ Link: <https://deq.utah.gov/legacy/businesses/business-assistance/construction/index.htm>

III. Aquatic Resource Impacts

All Waters of the State of Utah (defined in Administrative Code (UAC) R317-1-1) are protected from pollutant discharges that affect water quality by narrative standards (see UAC R317-2-7.2); broadly, discharges should not become offensive or cause undesirable conditions in human health effects of aquatic life. In addition, some particularly sensitive classes of water are further protected from deleterious effects of specific pollutants by application of numeric criteria to designated (beneficial) uses of that water body. Listed below are the water features within the project area and their associated designated beneficial uses (see UAC R317-2-6):

A. Linear Water Features

1. Ash Creek, South Ash Creek, Leap Creek, Dry Sandy, & Wet Sandy.
 - a. Class 2B: Protected for infrequent primary contact recreation. Also protected for secondary contact recreation where there is a low likelihood of ingestion of water or a low degree of bodily contact with the water. Examples include, but are not limited to, wading, hunting, and fishing
 - b. Class 3A: Protected for cold water species of game fish and other cold water aquatic life, including the necessary aquatic organisms in their food chain.
 - c. Class 4: Protected for agricultural uses including irrigation of crops and stock watering.

B. Impairments and Pollutants of Concern

Results from the current water quality assessment, as documented in Utah's 2016 Integrated Report⁴, indicate that the water quality of a segment of Ash Creek and its tributaries are considered to be impaired (Assessment Category 5). This segment of Ash Creek and its tributaries are impaired for Temperature, which impacts cold water aquatic life (Class 3A) beneficial use. The CWA directs states to prepare a plan to restore water quality to impaired waters, otherwise known as a total maximum daily load (TMDL) study. A TMDL is required for each parameter and water body to define pollutant reduction requirements necessary for the water body to meet water quality standards. At present, no TMDLs have been finalized for Ash Creek.

⁴ Link: <https://documents.deq.utah.gov/water-quality/monitoring-reporting/integrated-report/DWQ-2017-004941.pdf>

IV. Antidegradation

Ash Creek and its tributaries are considered Category 3 waters for antidegradation purposes. Category 3 waters in Utah are waters where “*point source discharges are allowed and degradation may occur, pursuant to the conditions and review procedures outlined in Section 3.5*”, as described in Utah Administrative code R317-2-3.4. The antidegradation policy allows for discharges where the water quality effects of the proposed project are determined to be temporary and limited after consideration of the factors identified in Utah Administrative Code R317-2-3.5.b.4., and where best management practices will be employed to minimize pollution effects.

Based on the information provided, an antidegradation level II review will not be required for this project because the effects on water quality of the proposed activity are expected to be temporary and limited, which meets the requirements outlined in UAC R317-2-3.5b. The proposed activities will likely only impact the stream during the proposed work, and the impacts should only be related to sediment and turbidity. Since the channels are to be restored as close to original condition as possible, the impacts should only be temporary.

V. Modifications

- A. Without limiting DWQ's discretion to take other actions in accordance with UAC R317-15, and, as applicable, 33 USC 1341, DWQ may modify the Certification to add, delete, or modify the conditions in this Certification as necessary and feasible to address:
1. Adverse or potential adverse project effects on water quality of designated beneficial uses that did not exist or were not reasonably apparent when this certification was issued;
 2. Total Maximum Daily Loads (TMDLs);
 3. Changes in water quality standards;
 4. Any failure of Certification conditions to protect water quality or designated uses when the Certification was issued; or
 5. Any change in the Project or its operations that will adversely affect water quality of designated beneficial uses when this Certification was issued.

VI. Other Information

A. Fees

1. The legislatively-mandated fee for the 2020 fiscal year is \$100.00/hour for review and issuance of the §401 Water Quality Certification⁵. A quarterly invoice will be sent once plans have been approved. Your payment is due within 30 days.

B. Liabilities

1. Applicant must acquire all necessary easements, access authorizations and permits to ensure they are able to implement the project. This §401 Certification does not convey any property rights or exclusive privileges, nor does it authorize access or injury to private property.
2. This §401 Certification does not preclude the applicant's responsibility of complying with all applicable Federal, State or local laws, regulations or ordinances, including water quality standards. Permit coverage does not release the applicant from any liability or penalty, should violations to the permit terms and conditions or Federal or State Laws occur.

⁵ Link: <https://documents.deq.utah.gov/admin/2020-fee-schedule.pdf>

VII. Public Notice and Comments

A. Public Notice Dates

1. USACE 404 Permit No. SPK-2011-01121: 01/22/2020 – 02/21/2020
2. Utah DEQ Certification No.: DWQ-2020-03001:

B. Public Notice Comments/Response

1. **Comments.**

C. Changes Made to the Certification after Public Notice

1. During finalization of the Certification certain dates, spelling edits, and minor language or formatting corrections may have been completed. Due to the nature of these changes they were not considered Major and the Certification will not be Public Noticed again.

Appendix A: Site Location Maps

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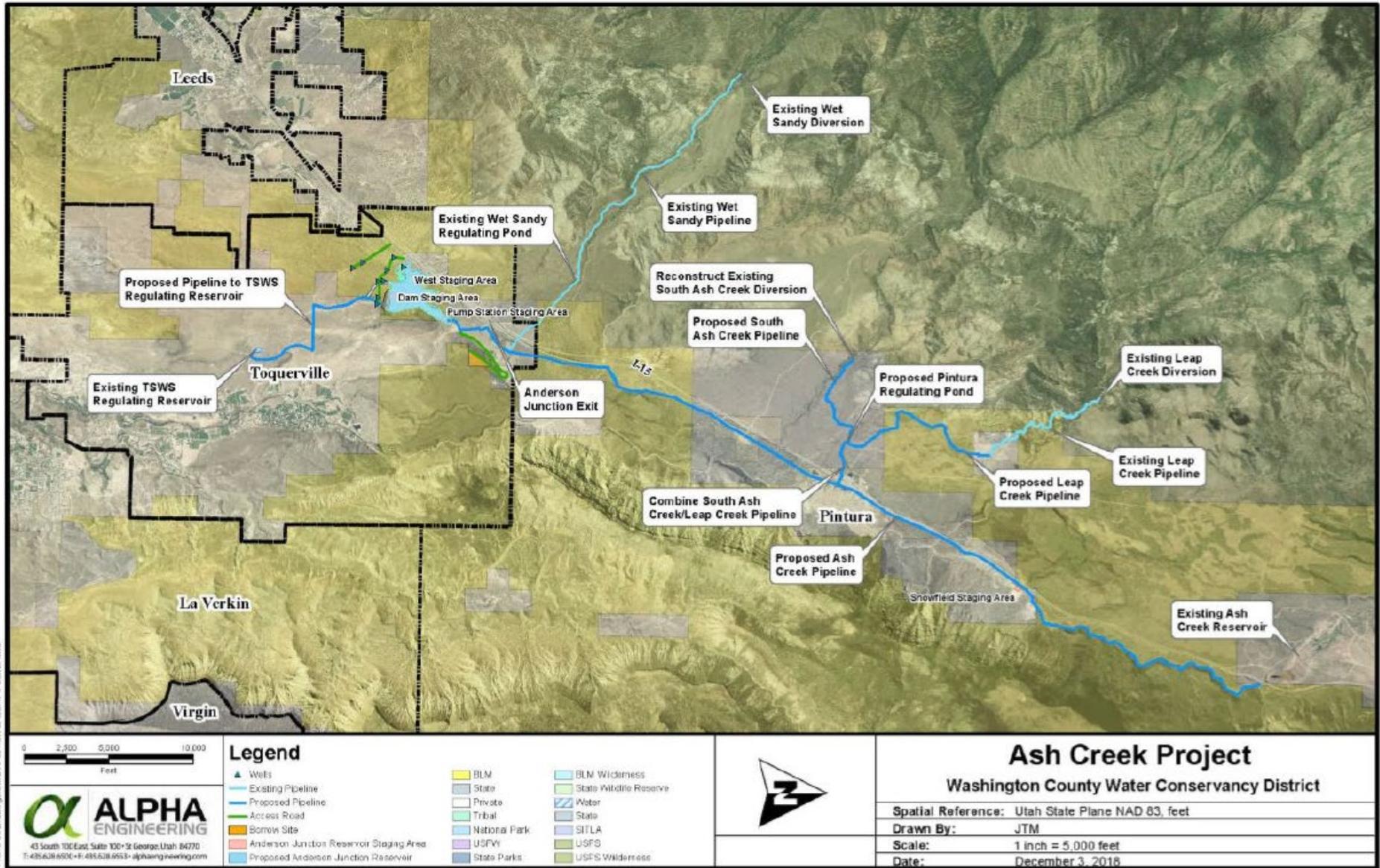
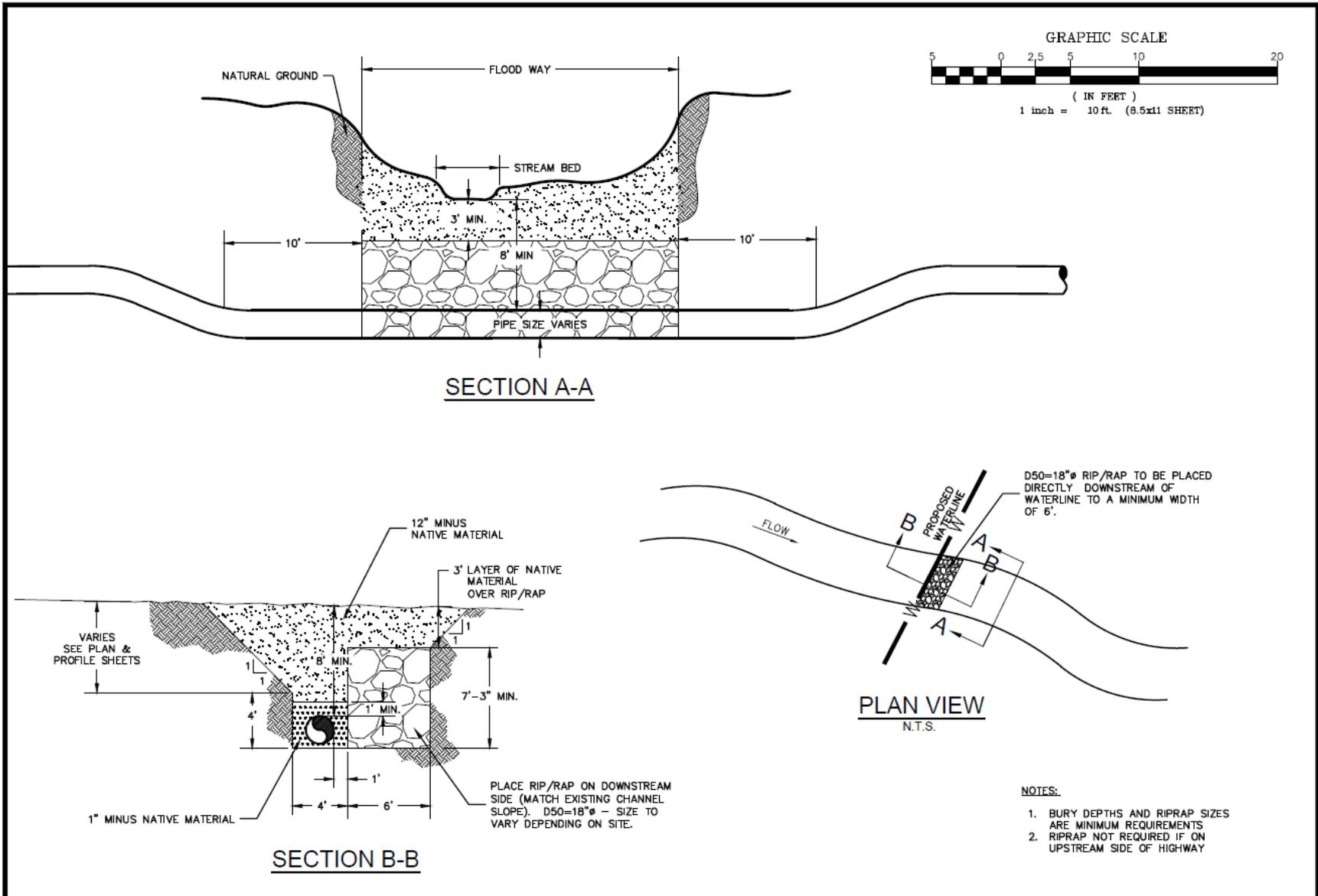


Figure 1. Ash Creek Project area location and Project components

Appendix B: Proposed Project Design Elements

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PIPELINE TYPICAL STREAM CROSSING - PERMIT 401
 ASH CREEK PIPING PROJECT
 WASHINGTON COUNTY WATER CONSERVANCY DISTRICT

Appendix C: Proposed Land Preservation

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Approximately 4.4 acres located
on Virgin River 100 Year
floodplain and upland areas
downstream from confluence of
Ash and LaVerkin Creeks

