U.S. Department of the Interior

Bureau of Land Management

May 2021

DRAFT Environmental Assessment of the City of St. George Gap Wash Right-of-Way Amendment

DOI-BLM-UT-C030-2019-0042-EA
Applicant: City of St. George
Case Number: UTU-78573

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CHAPTER 1. INTRODUCTION

1.1 BACKGROUND

The City of St. George (Applicant) owns and operates a public water utility system servicing city residents and businesses. The City of St. George is in Washington County, Utah; it is approximately 77 square miles. The western city limits are bordered by land administered by the BLM, Utah State Trust Lands, and the City of Santa Clara. Population estimates for 2019 are 89,597 residents based on a 23.1% increase from the 2010 population data of 72,897 residents (US Census 2020). To address increased demand and state water system requirements (Utah Administrative Code R309-510), the city plans to upgrade its water system to service the west side of the city. The City of St. George has submitted an application to the BLM to amend an existing right-of-way (ROW) authorized under an original grant issued in March 2000, Serial Number UTU-78573, to include a new 2-million-gallon water storage tank and 2 additional water transmission pipelines. The new tank would be constructed adjacent to an existing 2-million-gallon storage tank and the new pipelines would be buried adjacent to an existing buried 12-inch water pipeline. All new features would be contained within the original ROW area granted which includes the tank site (2.7-acre) and the water and power lines alignment 2,267 feet long by 50-feet wide (2.6-acres).

1.2 BLM PURPOSE AND NEED FOR THE ACTION

The BLM's purpose is to respond to the Applicant's request for a ROW amendment on BLM-administered lands for the proposed upgrade to the municipal water system. The need is established by the BLM's statutory responsibilities regarding ROWs under the Federal Land Policy Management Act (FLPMA) of 1976 (43 USC 1761) as amended.

1.3 DECISION TO BE MADE

The decision the BLM will make based on the analysis in this EA, is whether to issue the proposed ROW amendment and if so, under what terms and conditions.

1.4 CONFORMANCE WITH BUREAU OF LAND MANAGEMENT LAND USE PLAN

The Proposed Action (Section 2.2) conforms to the following management goals and decisions in the St. George Field Office Resource Management Plan (RMP) Record of Decision (ROD) (BLM 1999 amended 2021):

- *LD-12: Applications for new rights-of-way on public lands will be considered and analyzed on a case-by-case basis. Proposals will be reviewed for consistency with planning decisions and evaluated under requirements of the National Environmental Policy Act and other applicable laws for resource protection. Mitigation needed to avoid adverse impacts will be integrated into project proposals and, where appropriate, alternatives identified to further reduce environmental impacts to lands, resources, or adjacent land uses. New utility lines and long-distance transmission lines will be designed and located so as to reduce visual impacts to travelers along I-15 and visually sensitive highways in the county (BLM 1999, page 2.3).*

  The Proposed Action is to amend the existing utility ROW to include the construction and long-term maintenance of the proposed additional storage tank and pipelines. All new structures are contained within the land boundaries of the original ROW. Conservation measures to avoid adverse environmental impacts during construction and long-term maintenance are outlined in Section 2.2.2.

- *LD-13 All new rights-of-way will be subject to applicable standards listed in Appendix 1 for surface disturbing activities. Where needed, wildlife seasonal use restrictions will apply to right-of-way construction. Rights-of-way will generally remain open to other public uses that do not conflict with the purposes for which the rights-of-way are established (BLM 1999, pages 2.3-2.4).*

The Proposed Action would be in conformance with this land decision, as the new pipelines would be buried subsurface, the overlying access road would remain open to other recreational users with the exception of temporary closure during the 120-day construction period. The site of the new secondary water tank is adjacent to the existing tank and enclosed within the existing security fence; after construction, there would be no new adverse impacts to wildlife and recreation uses.

- *LD-19: Rights-of-way exclusion areas, totaling 138,558 acres, are also depicted in Table 2-3 and on Map 2.3. New rights-of-way will be granted in these areas only when required by law or federal court action (BLM 2021, page 41 and Map 2.3).*

  The existing ROW lies within the exclusion area of the recently designated Zone 6. The Proposed Action would be in conformance with this land decision, as it is an amendment to an existing ROW and the proposed facilities would be within the land area boundaries of the previously authorized utility ROW.

- *Fish and Wildlife Management Objective: to maintain habitats in properly functioning condition to support natural wildlife diversity, reproductive capability, and appropriate human use and enjoyment (BLM 1999, page 2.24).*

  The Proposed Action would be in conformance with this management objective as biological survey of existing habitat has been completed and conservation measures of the Proposed Action as outlined in Section 2.2.2 would be implemented.

- *Recreation Management Objective: to provide an array of quality recreation experiences within the agency's capability and logical recreation niche to meet the reasonable needs and expectations of local residents and visitors from outside the area (BLM 1999, page 3.7).*

  The Proposed Action would be in conformance with this management objective for reasons previously stated.

- *Cultural and Paleontological Resources Objective (a): to employ reasonable measures and land use controls needed to reduce impacts from urbanization and human encroachment on cultural and paleontological resources (BLM 1999, page 2.52).*

  The Proposed Action would be in conformance with this management objective as a cultural resource inventory has been completed and conservation measures include construction site monitoring for undiscovered cultural resources as outlined in Section 2.2.2.

1.5 RELATIONSHIP TO STATUTES, REGULATIONS, OR OTHER PLANS

The Proposed Action would be consistent with all federal, state and local statues, regulations and enforceable plans. Implementation would comply with local zoning and building ordinances during all phases of the project.

The City of St. George has both Culinary and Secondary Irrigation Water Master Plans. These plans list the capital facility projects needed to provide service to various parts of the City at projected ten-year and build out scenarios. Based on growth from 2018, which is the baseline year for future projects in the master plans the proposed upgrades, as well as others at other locations, would be necessary to meet projected service demands. These features are listed and evaluated in the Water Impact Fee Facilities Plan as Gap Tank Feed Line (Table 7, p-12) and Gap Irrigation Tank and Gap Irrigation Tank Transmission Line (Table 8, p-13) (Bowen Collins 2018).

1.6 IDENTIFICATION OF ISSUES

A BLM ID Team screened the proposed ROW amendment and completed an ID Team Checklist (see Appendix A) to identify resource values and land uses that could be affected by granting the amendment and that would therefore require analysis in the EA.

- **Threatened, Endangered, or Candidate Animal Species:** How would the construction, implementation, and maintenance of the Proposed Action impact the suitable habitat for the Mojave Desert tortoise in the project area?
- **Recreation:** How would the construction, implementation, and maintenance of the Proposed Action impact recreational use and users in the project area?

These issues are analyzed in detail in Chapter 3.

1.7 ISSUES DISMISSED FROM FURTHER ANALYSIS

Several issues were dismissed from further analysis because they are either not present, would not be affected to a degree that requires detailed analysis, or are not subject to Section 7 consultation. The Checklist (Appendix A) details issues and the resources considered by the BLM ID Team, it also provides rationale for the findings of the resource specialists.

- **Cultural Resources:** What effects would the Proposed Action have National Register of Historic Places (NRHP)-eligible properties within the Project area?
  A Class III Archeological Inventory was completed on the entire area of potential effect (Gourley 2020). Findings concluded three archeological sites in close proximity to the anticipated construction disturbance area. Following the recommendations of BLM archeologist, the sites would be flagged, barricaded, and avoided during construction. Environmental commitments of the Proposed Action include the presence of an approved archeological monitor during ground disturbing activities within 100 feet to the three sites. If any additional artifacts were discovered, construction would be stopped until the discovery is professionally evaluated and resource protection measures are in place.
- **Threatened, Endangered, or Candidate Plant Species:** How would the Proposed Action impact potentially suitable, un-occupied habitat for the Threatened, Endangered, or Candidate Plant Species?
  A biological clearance survey conducted in April 2020 in accordance with USFWS Utah Field Office's minimum standards for botanical surveys for sensitive plant species (USFWS 2011a) found no individual Holmgren milk-vetch (*Astragalus holmgreniorum)* or dwarf bear-poppy (*Arctomecon humilis)* within the project area of affect (BLM 2021). It was determined by the BLM SGFO biologist that surveys for Siler pincushion cactus (Echinocactus Utahia sileri) were not warranted because there are no known populations in the area, with the nearest population occurring approximately 6 miles southwest of the proposed project area. The Utah Natural Heritage Program does not have any recorded occurrences of these species within 0.5-mile of the project footprint (UDWR 2020). No further analysis is warranted for these plants.

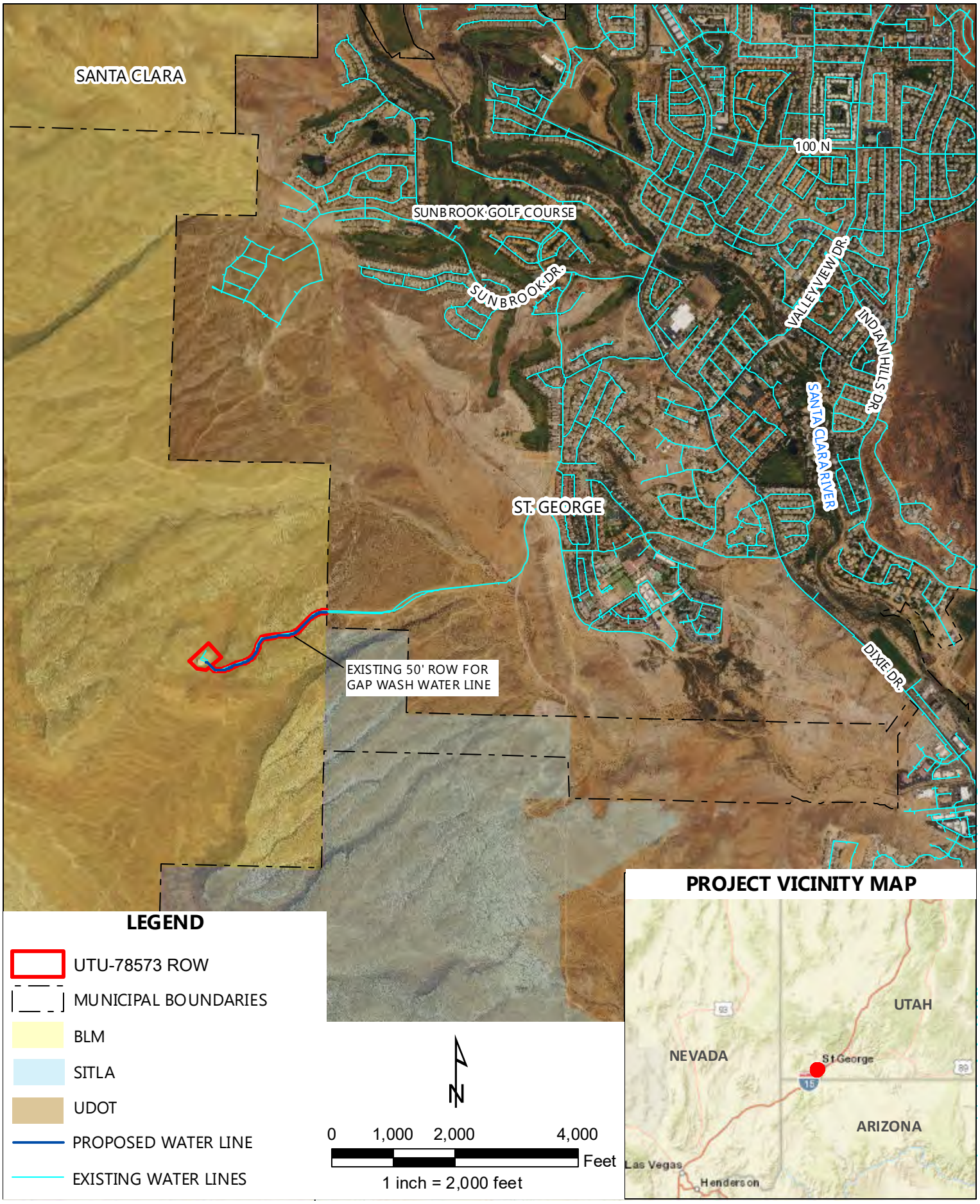


FIGURE 1: GENERAL PROJECT LOCATION
GAP WASH ENVIRONMENTAL ASSESSMENT
WASHINGTON COUNTY, UTAH

CHAPTER 2. DESCRIPTION OF ALTERNATIVES

This EA analyzes the potential effects of implementing Alternative A (No Action) and Alternative B (the Proposed Action). The No Action alternative is considered and analyzed to provide a baseline against which to compare the impacts of the Proposed Action.

2.1 ALTERNATIVE A – NO ACTION

Under the No Action alternative, the BLM would not grant to the Applicant a ROW amendment for the proposed Gap Wash utility system expansion. The applicant would need to construct suitable water storage and transmission features on private lands. However, since this is a planned expansion of equipment within the disturbance area of the existing facility, if a new facility is constructed on private land there would likely be more habitat loss as well as other environmental impacts and economic costs.

2.2 ALTERNATIVE B – PROPOSED ACTION

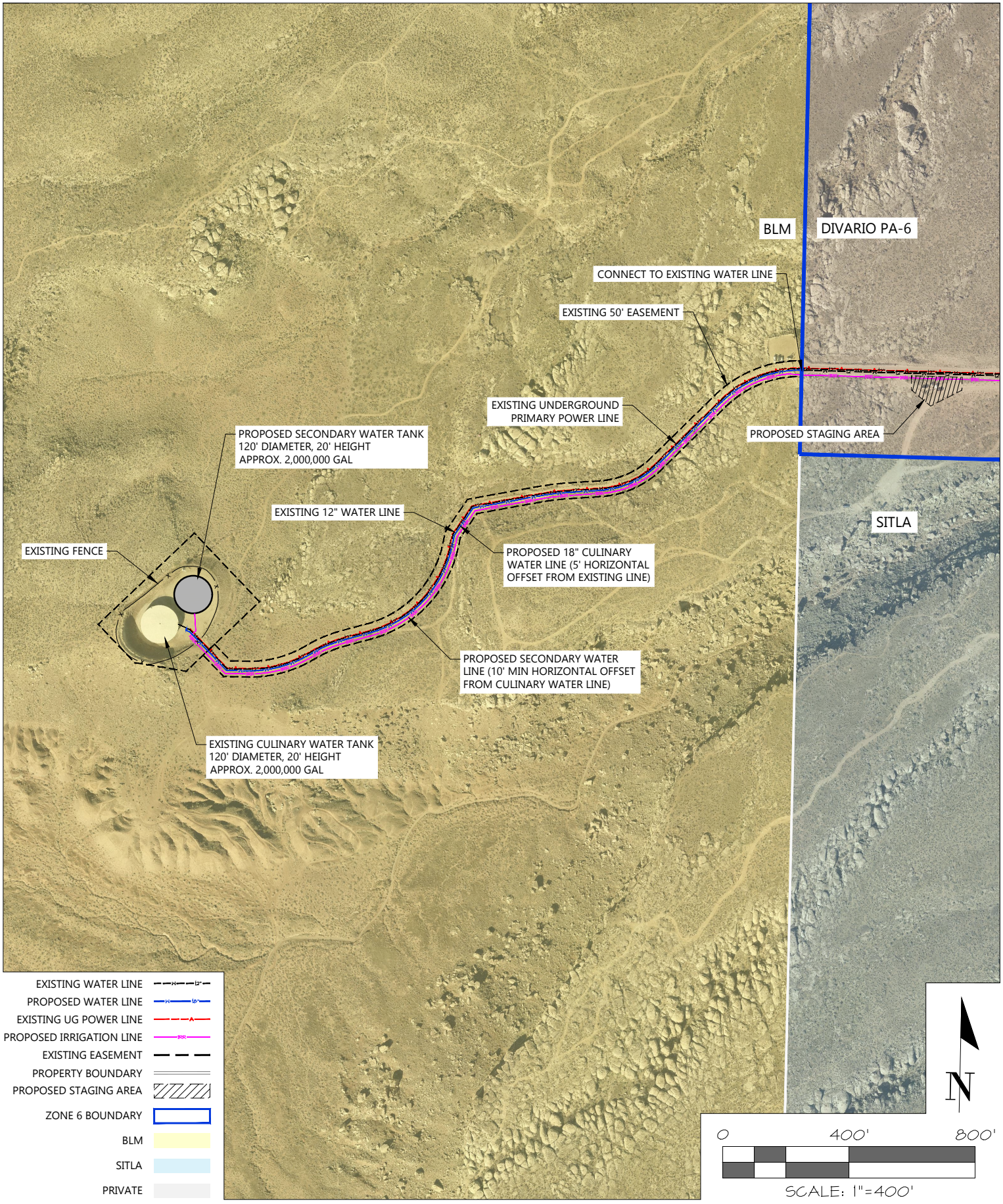
Under the Proposed Action, the BLM would grant to the Applicant a ROW amendment to UTU-78573 to upgrade the existing facility to include a new 2-million-gallon cement water storage tank and 2 additional buried water transmission pipelines as outlined in this section. The new storage tank would be located within the fenced enclosure on the pad adjacent to the existing tank and the two new water pipelines would be located within the previously granted 50-foot wide ROW and buried 3 to 6 feet below grade.

2.2.1 Project Description

The City of St. George plans to upgrade the existing system with construction of additional features on BLM land within an existing ROW to meet the required water storage and pressure demands. The locations of the existing and proposed new features are shown on Figure 2. The proposed features include:

- Culinary Water Pipeline: The proposed 18-inch pipeline would be located next to the existing 12-inch pipeline with a 5-foot offset. It would tie into the existing culinary water storage tank, thus dedicating inflow and outflow pipelines to meet periodic high use demands. The pipeline may require additional facilities, including possible isolation valves, air release valves, and drains at low points. The air release valves would be housed in buried manhole structures and the isolation valves would be directly buried. Drains at low points would include a control valve and a drainpipe to daylight. This pipeline would continue onto private land and tie into the existing culinary water system. Approximately 2,450-linear feet would be on public land administered by the BLM and all necessary pipelines on private land have been constructed previously.
- Secondary Irrigation Water Storage Tank: The proposed secondary water storage tank would be located adjacent to the existing culinary water storage tank within the boundaries of the previously granted ROW. It would have an inside height of 20 feet and an inside diameter of 120 feet, holding approximately 2 million gallons of water. The base elevation of this tank would be situated at 2,996 feet above mean sea level. Because the proposed tank would be constructed on the existing pre-constructed pad, little sand and or gravel would be needed for the construction of the new water tank. If sand or gravel were necessary it would be sourced from a local, existing commercial material source.
- Secondary Water Pipeline: The proposed 18-inch secondary water pipeline would connect the new secondary irrigation water storage tank to the city's secondary irrigation water system. This pipeline would be constructed and buried within the same trench adjacent to the proposed 18-inch culinary pipeline with 10-feet of separation. Approximately 2,450-linear feet would be on public land administered by the BLM. Approximately 14,000-linear feet would continue onto private land within the new Alienta Drive to Gap Canyon Parkway (formerly Plantations Drive) then connect to the secondary system at Dixie Drive. The pipeline may require additional facilities, including possible

isolation valves, air release valves, and drains at low points. The air release valves would be housed in buried manhole structures and the isolation valves would be directly buried. Drains at low points would include a control valve and a drainpipe to daylight. The proposed pipeline would be bedded with sand and backfilled with screened, native material. If the native material is found to be unsuitable for backfill, a source of sand would be found off site at a commercial material source, and any excess spoils would be hauled off site to a commercial material site to maintain the current, existing grades.



PROPOSED TANK AND PIPELINE PLAN
GAP WASH ENVIRONMENTAL ASSESSMENT
WASHINGTON COUNTY, UTAH

The site of the new tank is adjacent and within the fenced enclosure of the existing tank. The tank pad is graded and clear of vegetation. Photo 1 below is a view to the northwest at the existing tank and expansion site. The new tank would be constructed to match the height of the existing tank. Both tanks would be painted a non-reflective color as determined by the BLM and will be in harmony the surrounding parent material. Both tanks would be enclosed in the existing chain link fence.

Photo 1: View to the northwest at the existing tank and pad site.

Both new water transmission pipelines would be buried within the existing dirt access road from the water tanks to private land within the city. Currently, this access road ranges in width from 20 to 40 feet wide however, the existing ROW is 50-feet wide. It is expected that all of the 50-feet wide ROW would be utilized during construction this could result in approximately 1.5-acres of disturbance along the northern margin of the existing access road. Since there is an existing pipeline buried within the ROW, no blasting within the pipeline alignment for construction is expected. The pipelines would continue onto private land however the ROW terminates at the BLM administrative boundary just east of the Gap Trailhead.

Photo 2: View to the east at the access road and pipeline alignment from the tank site.

Photo 3: View to the west at the pipeline alignment from the Gap Trailhead.

2.2.2 Applicant-committed Conservation Measures

2.2.2.1 Desert Tortoise

A temporary, tortoise proof fence would be installed prior to construction to enclose the contractors' construction envelope. A small alcove or tortoise shade area would be constructed on the exterior side, near the center of the length of the fence lines. All construction equipment, supplies, and surface disturbance would be contained within the tortoise proof fence. The fence serves two primary purposes; 1) exclude any tortoise from entering the construction area and 2) define the construction disturbance boundaries. Prior to installation of the tortoise proof fence, the construction area would be surveyed by a USFWS approved, Desert Tortoise Monitor (DTM). Tortoise proof fence would be maintained in good condition and checked daily by the Field Contact Representative (FCR) through the duration of construction.

The contractor shall designate a USFWS approved FCR to conduct daily clearance sweeps of the secured construction fence. The FCR would be required to keep record of the daily wildlife clearance sweeps, pre-construction tortoise awareness meetings, and a log of those personnel with tortoise awareness training working on the project site. The FCR would contact the Desert Tortoise Monitor weekly to review and submit the daily log reports. The FCR would report any occurrence of tortoise immediately to the DTM, BLM, USFWS, or Red Cliffs Desert Reserve to develop appropriate avoidance measures to mitigate potential harm or harassment of the individual. Field notes and any other information summarizing encounters with tortoises during project construction would be submitted in a report to the BLM and USFWS.

All personnel working on the project would be required to take a tortoise awareness class before starting work on this project and refreshed once a year as necessary. The class is designed to educate personnel on desert tortoise and other wildlife that may occur in the area. The class would include appropriate measures to take upon discovery of a tortoise and provide conservation measures to minimize potential encounters with the

Mojave Desert tortoise. Required class topics include: 1) life history of the desert tortoise, 2) legal status, 3) sensitivity to human activities, and 4) occurrence within the protect area.

Before project activities begin, a pre-project meeting would be held between all onsite workers, the primary construction contractor, all sub-contractors, and the DTM to review all conservation measures. A handout of the tortoise conservation measures would be provided to all onsite workers. The FCR will be introduced to all onsite workers.

If during construction, a tortoise were discovered within harm's way, all construction work would be stopped. Contractors would allow the tortoise to move away on its own or they would contact a qualified biologist representing the BLM, Utah Division of Wildlife Resources (UDWR), or Red Cliffs Desert Reserve to come and move the tortoise. All tortoise encounters would be reported to the BLM and USFWS.

City utility maintenance crews would maintain tortoise awareness certification by attending a tortoise awareness-training course every 2 years. Signed certification records would be maintained by the City of St. George and furnished to the BLM and/or the USFWS upon request.

Anytime vehicles or construction equipment are parked in desert tortoise habitat, the area around and directly under the vehicle must be inspected for tortoises before the vehicle or equipment is moved. The inspection does not need to be performed by a tortoise monitor or FCR. If there were a desert tortoise observed, it would be left to move on its own, the tortoise would not be approached or handled. If this does not occur within 15 minutes, an approved desert tortoise biologist would be contacted to remove and relocate the tortoise.

Cross-country vehicular travel outside of the protected project construction area by contractor personnel is prohibited.

Use of firearms by the contractor personnel for target practice is prohibited.

Contractor personnel are prohibited from bringing domestic dogs to the project site.

Construction vehicle speed limit is not to exceed 15 mph.

The construction area would be kept clean of trash and food containers. Ravens and coyotes are natural predators of tortoise and trash draws these predators to an area.

Construction would occur during tortoise low activity season to the extent possible. Tortoises are least active when ambient air temperatures are below 70 or above 100 degrees F. In the project area, tortoises are least active during the months of November through February. Tortoises are most active March through June and September through October.

2.2.2.2 Cultural Sites

Identified archeological sites near the proposed construction area would be flagged, barricaded, and avoided. An approved archeologist with a BLM Cultural Resource Use Permit for public lands in Utah would monitor excavations near the cultural sites. The archeological monitor would submit a Field Work Authorization Request to the BLM prior to work. A monitoring report would be submitted to the BLM within 90 days of end of construction.

2.2.2.3 General Construction and Restoration

Construction of the Proposed Action would be outside of any scheduled Special Recreation Permit events.

The construction area would be actively watered during construction activities to reduce fugitive dust. No water ponds or puddles are permitted.

Construction vehicles would be cleaned and weed free prior to entering the project area.

A Storm Water Pollution Prevention Plan (SWPPP) in accordance with Utah Administrative Code R317 would be submitted to the BLM and the City of St. George for approval prior to construction. Post construction appropriate erosion control measures including water bars, straw bales, and riprap would be placed to ensure the integrity of the road, reduce erosion, and control storm water runoff.

The BLM-approved weed management plan would be implemented post construction.

2.2.3 Plan of Construction and Long-term Operation

If the proposed ROW Amendment is approved, construction could begin as soon as fall 2021. Construction would be initiated after final project design and contracting. The anticipated construction duration is 120 days from mobilization through final survey.

Construction would generally consist of staking the alignment, conducting a tortoise clearance sweep by an approved USFWS biologist and installing tortoise proof fence to define the construction disturbance limit. Environmental exclusion fence around identified cultural sites would also be installed. Then construction equipment would be mobilized and material would be stockpiled at the staging area located approximately 400 feet east of the trailhead on previously disturbed private land.

During construction, trench spoils would be side cast and pipelines would be installed and connected in place to minimize construction disturbance and duration. The new culinary pipeline would be installed adjacent to the existing culinary water line with a minimum of 5-feet separation. The new secondary irrigation pipeline would be installed adjacent to the new culinary line with a minimum 10-feet separation. Equipment used during construction would include a road grader, water truck, dump truck, backhoe, front-end loader, cement truck, and contractor vehicles.

The public would be notified of construction duration, timing, and road closure on the City of St. George website two weeks prior to the onset of construction. Construction would occur during normal weekday hours. The construction area would be flagged, signed, and secured appropriately to restrict public access and use of the roadway during active work. No open trenches would be left over night, weekends, or when crews are not active on site. The Gap Trailhead would remain open and access to the mountain bike trail south of the road would be provided on weekends. The contractor may close the Gap trailhead and the tank access road during the week if necessary for public safety. The Zen trail parking area and other non-designated, dispersed parking at the public/private land boundaries are locally available. Safety measures would be strictly followed during construction.

Long-term Operation: Currently, a city worker travels by truck 3 to 4 times a week to the existing water tanks for inspection and care of the water system facility. Regular maintenance access for the Proposed Action would continue similar to the current routine. Other than incidental repair of a broken line, little maintenance of the buried utility lines would be required after installation.

2.3 ALTERNATIVES CONSIDERED AND DISMISSED

The applicant considered alternative methods to meet the needed water storage and delivery needs to service the population on the west side of the city prior to submittal of the application for an amended ROW. These alternatives and the primary reasons for dismissal are summarized in this section.

- Construct a Reuse Water Storage Facility on the Divario Property - This option was evaluated as a possibility of providing secondary water storage to develop a water reuse system to service the west side of the city. The Divario master plan community, previously known as The Lakes, was originally slated to have two large “lakes” that would have been connected to the secondary water system and used to provide the needed irrigation water storage. However, as the proposed development evolved the project developers agreed with the City of St. George to eliminate the lake features in lieu of promoting a trails system, parks, and open-space facilities more suited to the native dry climate. By eliminating the “lakes”, a secondary irrigation tank is necessary to meet storage needs.
- Build the Reuse System and No-Build of the 18-inch Culinary Line – This alternative would only work for a projected time frame of 6 months to one year, eventually an upgrade to the culinary system would be necessary to accommodate new users (Bowen Collins 2018) With anticipated build out of private land, demands on the existing culinary water storage tank would require a dedicated inflow and outflow pipeline or a second culinary water storage tank to provide storage

and pressure requirements to new users. This alternative would eventually require a subsequent ROW amendment to upgrade the culinary system if upgrades were applied for separately.

- Build the 18-inch Culinary Line and No-Build of the Secondary/Reuse Tank and Line - If a secondary irrigation water tank and pipeline were not constructed to expand the secondary water system to service the west side of the City, then new users would use culinary water for landscape and the demand for culinary water would be increased. This alternative does not support the city's reclaimed water system to achieve water conservation goals.

CHAPTER 3. AFFECTED ENVIRONMENT AND ENVIRONMENTAL IMPACTS

This chapter describes (1) the affected environment, specifically the existing or baseline conditions relevant to each issue identified in Section 1.6, followed by (2) a description of the impacts on the human environment projected to result from each alternative. Resources that were identified as not present in the project area or that would not be affected to a degree that requires detailed analysis are not described in or analyzed in this EA. The rationale for not analyzing these resources in presented in Section 1.7 and additional information is found on the ID Team checklist in **Appendix A**.

The analysis of impacts in this chapter is based on the best available data. Knowledge of the area and professional judgment are used to infer environmental impacts where data are incomplete or unavailable. Acreage figures and other numbers used in the analyses are approximate projections for comparison and analytical purposes only. Readers should not infer that they reflect exact measurements or precise calculations.

The intensities of impacts are described, where possible, using the following definitions:

- Negligible: The impact is at the lower level of detection; there would be no measurable change.
- Minor: The impact is slight but detectable; there would be a small change.
- Moderate: The impact is readily apparent; there would be a measurable change.
- Major: The impact is severe, highly noticeable, and potentially permanent.

Past actions in the project area include livestock grazing, construction of overhead and buried utilities, construction of the Gap Trailhead and designation of non-motorized trails, and construction of the existing water storage tank and pipeline.

Present actions in the project vicinity that could impact the same components of the environment as the No Action and Proposed Action are:

- Implementation of the recent amendments to the Washington County Habitat Conservation Plan (HCP); Red Cliffs Management Plan, and the St. George Field Office Resource Management Plan for the Northern Corridor. Zone 6 (6,813-acres) would be managed under the provisions of the Red Cliffs Desert Preserve for Mojave Desert tortoise habitat conservation. It is anticipated that private and State Trust Land within Zone 6 would be acquired, traded, or transferred to the BLM. With this designation, target shooting and dispersed camping would be prohibited and approximately 100 miles of undesignated trails (mostly those stemmed from Navajo Drive) would be closed. No new mineral leases within Zone 6 would be granted by the BLM.
- Ongoing and increased recreational use including mountain biking, hiking, dog walking, picnicking, sightseeing, rock climbing and rappelling
- Maintenance and use of existing transmission lines (overhead and buried) in the area
- Maintenance and use of the existing designated roads and trails
- Development of adjacent private lands

Reasonably Foreseeable Future Actions (RFFAs) are decisions, funding, or formal proposals that are either existing or are highly probable based on known opportunities or trends. The following list includes activities that the BLM is aware of within the analysis areas at this time:

- Special Recreation Permits (SRP) for guided mountain biking, mountain bike events, guided hikes, rock climbing, and/or film production
- Conversion of undeveloped land to residential homes within the City of St. George
- Construction of additional residential developments and associated roads and utilities
- Roadway improvement projects

General Physiographic Setting of the Project Area: The area proposed for the water system upgrade is located between 3,000 - 2,770 feet above mean sea level on public land west of Green Valley. The project footprint is roughly 5.4-acres of which 3.2-acres are previously disturbed containing the dirt access road to the fenced storage tank area. The **project area** is defined as the project footprint buffered by 300-feet. The **project vicinity** is defined as adjacent land within the Mojave Basin and Range ecoregion with Sonoran-Mojave Creosote bush-White Bursage Desert Scrub vegetation communities (USGS 2011). The topography generally slopes to the east. Locally, this area is known as the Green Valley Gap; named for the 50-feet deep, northeast trending weathered joint that cuts through the Shinarump Conglomerate Member of the Chinle Formation exposing the Upper Red Member of the Moenkopi Formation. Exposed talus boulders upon the Chinle Formation are of the Virgin Limestone Member (Hayden 2011). The Gap is roughly 300-600 feet south of the proposed pipeline alignment running parallel with the tank access road (the pipeline route). The Proposed Action would not impact the Gap. The Gap transitions to an ephemeral wash draining to the east then southeast into a large retention area roughly 1.6 miles southeast of the project site. Gap Wash continues from the retention basin east where it is canaled through a commercial development, flows through a culvert under Dixie Drive, then outflows to the Santa Clara River upstream of the Tonaquint Cemetery. The washes within the project area only flow in direct response to local precipitation and are not considered Waters of the US under the final 2020 US Waters definition (33 USC 1251 Part 328.3).

3.1 THREATENED, ENDANGERED, OR CANDIDATE ANIMAL SPECIES

How would the proposed utilities affect Mojave Desert tortoise, a federally listed species, with suitable habitat in the project vicinity?

3.1.1 Affected Environment

The analysis area for federally listed animal species is the Upper Virgin River Recovery Unit (UVRRU) as defined in the Revised Recovery Plan for the Mojave population of the desert tortoise (USFWS 2011b). This analysis area was chosen as it represents the suitable habitat of resident populations of the desert tortoise in Washington County east of the Beaver Dam Slope. This recovery unit covers more than 690 square miles of Washington County. It includes land within Ivins, Santa Clara, St. George, Washington, Hurricane, and La Verkin. It is estimated that there are more than 50,000 acres of suitable desert tortoise habitat on BLM and Utah State Trust Land south of the Santa Clara River and west of St. George, Santa Clara, and Ivins within the UVRRU (US Dept of Int 2020). Most of this land is undeveloped, BLM-administered, and roughly 9,824-acres is designated Area of Critical Environmental Concern (ACEC). Designated Critical Habitat within this recovery unit is north and west of the City of St. George. Washington County Commission recently amended the Habitat Conservation Plan (HCP) expanding the Reserve to include Zone 6, which is roughly 6,813 acres of BLM-administered, private, and State Trust Land. This existing ROW is within the boundaries of Zone 6 as shown in **Figure 3** (Washington County Commission 2020). The land within Zone 6 would now and in the future be managed in accordance with the provisions of the HCP as part of the Red Cliffs Desert Reserve.

The USFWS prepared an official species list pursuant to Section 7 of the Endangered Species Act for this project (USFWS 2020). The Mojave Desert tortoise (*Gopherus agassizii)* is listed as having suitable habitat within the analysis area. The designated critical habitat unit is more than 3.5 air miles northeast of the project area, north of the City of St. George and across the Santa Clara River. Designated critical habitat is not within the affected environment.

The project area was surveyed for the presence of desert tortoise in accordance with the Mojave Desert Tortoise Survey Protocol (USFWS 2018) on April 18, 23, and 25, 2020 by qualified biologists. The pedestrian surveyed area included the project footprint buffered by 300-feet beyond the outside edge of the proposed

disturbance area, approximately 88-acres. Three live tortoises and scat were observed during the survey but no active burrows or dens were recorded (BLM 2021).

Past and present actions that have impacted the species within the analysis area include loss of habitat through urbanization and population growth, wildfire, non-native plant invasion, drought and climate change, and soil compaction from grazing and OHV travel. Natural predators include ravens, golden eagles, and coyotes. Overhead structures, including cell towers and power poles, provide perch sites for raven and golden eagles. Negative effects on the area from human presence include trash and illegal dumping of construction and yard debris. Off-lease and uncontrolled dogs could harm or harass tortoise. Tortoise can be hit or run over by OHV and bikes. Human presence is most common at the private/public land interface diminishing to the southwest with distance from development.

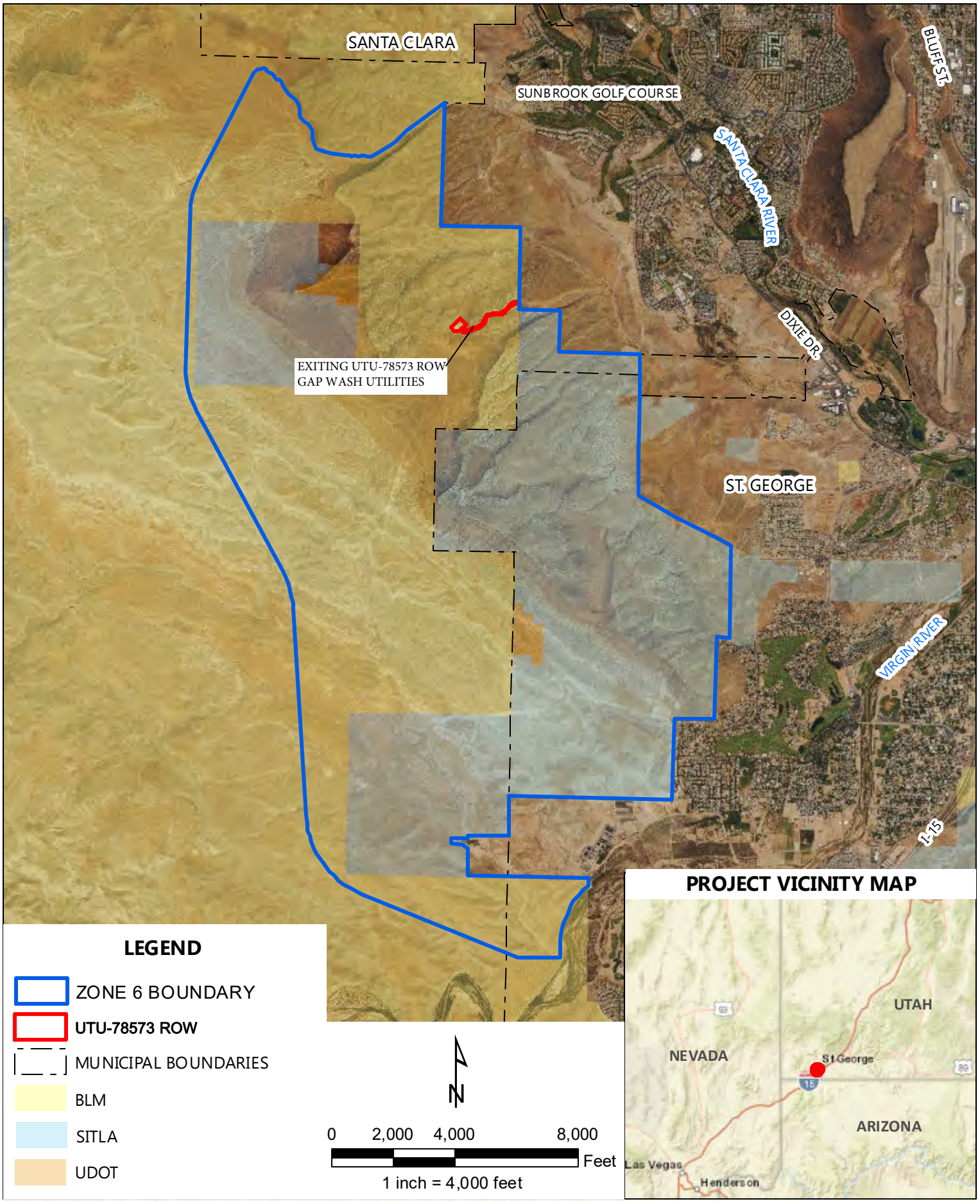


FIGURE 3 - ZONE 6 DESIGNATION
GAP WASH ENVIRONMENTAL ASSESSMENT
WASHINGTON COUNTY, UTAH

3.1.2 Environmental Consequences

3.1.2.1 No Action

There are no anticipated environmental consequences of the No Action alternative on Mojave Desert tortoise or its designated critical habitat because the ROW amendment would not be granted by the BLM.

The past and present actions that have impacted the species and their habitat are anticipated to continue into the reasonably foreseeable future. Human presence and general population growth causes impacts on Mojave Desert tortoise within the Upper Virgin River Recovery Unit. Ongoing habitat conservation measures and public awareness programs have reduced the magnitude of impacts within the analysis area. Preservation of habitat through the recent designation of Zone 6 and the restriction of land development within Zone 6 preserves habitat for desert tortoise that may have been developed within the analysis area. BLM management actions including designation of ACEC for preservation of suitable habitat for listed plant species also preserves suitable habitat for the desert tortoise. Impacts caused by other federal projects would be analyzed under NEPA and ESA regulations separately. Impacts caused by other private projects are mitigated through the HCP or other private actions can address impacts to desert tortoise through Section 10 of the ESA. The No Action alternative would not be additive or countervailing, so would not contribute to or reduce impacts on Mojave Desert tortoise or its designated critical habitat when combined with the past, present, and reasonably foreseeable future actions.

3.1.2.2 Proposed Action

The Proposed Action includes conservation measures to mitigate an encounter with tortoise during construction. A tortoise clearance survey by a qualified biologist would be conducted immediately prior to any ground disturbance. A tortoise proof temporary fence would be installed prior to construction along all of the outside edges of the construction area to enclose the work area and define the construction disturbance boundaries. Other conservation measures are discussed in Section 2.2.2.

The Proposed Action could temporarily clear up to 1.5-acres of desert scrub vegetation along the existing dirt road to trench, side-cast spoils, and install the water pipelines. It is anticipated that the 50-feet wide ROW would remain disturbed to provide maintenance access to buried utilities and to the tank site, as well as safe passage for recreational users. Potentially up to 1.5-acres could remain unvegetated over the long term. This represents .00003% of the 50,000-acres of suitable desert tortoise foraging habitat in the analysis area for tortoise. No long-term surface occupancy or asphalt pavement over the pipeline ROW is permitted. For these reasons and in consideration of the surrounding suitable habitat this impact is considered minor.

Anticipated construction duration is 120 days from mobilization to completion. During this time, a tortoise proof fence would be maintained around the pipeline construction area and tortoise would be restricted from crossing or entering the construction area. Post construction the Proposed Action would have no long-term adverse effect on tortoise habitat that would cause jeopardy of the continuation of the species. Because there is occupied, suitable habitat within the project area it is determined that the Proposed Action may affect, but is not likely to adversely affect the Mojave Desert tortoise. The Proposed Action would have no effect on its designated critical habitat.

Similar to the No Action alternative, the past, present, and reasonably foreseeable actions are anticipated to continue into the reasonably foreseeable future. As the Proposed Action may affect, but is likely to not adversely affect the Mojave Desert tortoise, the impacts of the Proposed Action on Mojave Desert tortoise with suitable habitat in the project vicinity, when combined with the past, present, and reasonably foreseeable future actions (Section 3.1.2.1) are expected to be negligible.

3.2 RECREATION

How would the construction, implementation, and maintenance of the Proposed Action impact recreational use and users in the project area?

3.2.1 Affected Environment

The analysis area for recreation is the BLM-administered public land and State Trust land adjacent to Green Valley that is used for recreation by SRP holders, the local population, and visitors. The analysis area was chosen because it captures land open to recreation use on the west side of the City of St. George. This analysis area includes more than 50,000 acres of land that is mostly open to outdoor recreation with OHV use limited to designated trails and roads. Dispersed camping is permitted and relic campsites are scattered throughout. The Gap Trailhead is a simple parking coral with no developed water or restroom facilities. There are many undesignated points of user access along the BLM/private land interface. SRP holders include commercial outdoor recreation entities that utilize the analysis area for guided hiking, biking, and rock climbing. Mountain bike events utilize the existing trails and permits for film production are issued by the BLM. Recreational use is notability higher on weekends and holidays during the spring and fall.

3.2.2 Environmental Consequences

3.2.2.1 No Action

Under the No Action alternative, the BLM would not grant an amendment to the existing utility ROW and installation of the water storage and water transmission lines as proposed would not occur. No temporary disturbance to trail users and recreation activities would occur.

The present actions are expected to continue in the analysis area. As development of private land in Washington County occurs, BLM administered land at the private land interface experiences increased visitation and use. It would be expected that recreational use of BLM administered land within the Gap area would continue to increase. However, the recently amended HCP includes designation of Zone 6 (6,813-acres), which would be managed under the direction of the Red Cliffs Desert Reserve for desert tortoise habitat. BLM-administered land would also be managed under the provisions of the St. George Field Office RMP as amended (BLM 2021). Private and State Trust Land within Zone 6 would be acquired, transferred, and traded for BLM administration. It is anticipated that approximately 100 miles of existing undesignated trails on private and State Trust Land would be closed to OHV use and, dispersed camping and target shooting would be restricted. Active management including designation of trails and development of supporting features is planned and ongoing. Sustainable uses would need to be balanced with opportunities to mitigate negative impacts on the ecosystem caused by increased public use. Management with local communities and volunteer groups is ongoing and would continue. As public use increases, law enforcement and emergency service needs would proportionately increase. The No Action alternative would not be additive or countervailing, so would not contribute to or reduce impacts when combined with the past, present, and reasonably foreseeable future actions.

3.2.2.2 Proposed Action

During construction, the public would be restricted from entering the defined construction area. Public vehicular use of the access road would be restricted during construction on weekdays and possibly weekends. Other trails in the area would be available to users during the construction period. Impacts on recreation use in the project area would be localized and short-term during the 120-day construction period and would be limited to the immediate area of construction. Construction of the Proposed Action would be outside of any scheduled SRP events (see Section 2.2.2.3) and would not impact the events.

Given the short-term construction period, and the availability of other trails in the area for recreational use the impacts from the Proposed Action on recreation would be minor. However, after construction is complete, no long-term adverse impacts on recreation resources are anticipated and the impacts from the Proposed Action on recreation would be negligible.

Similar to the No Action alternative, the past, present, and reasonably foreseeable future actions are anticipated to continue into the reasonably foreseeable future. As the minor impacts from the Proposed Action would be localized and short-term with no permanent impacts on recreation, when combined with the past, present, and reasonably foreseeable future actions (Section 3.2.2.1), the impacts would be negligible.

CHAPTER 4. CONSULTATION AND COORDINATION

4.1 PERSONS, AGENCIES, AND ORGANIZATIONS CONSULTED

Persons, agencies, and organizations consulted during the environmental review process are listed below in Table 1.

Table 1: Persons and agencies consulted.

Name	Purpose and/or Authorities for Consultation or Coordination	Findings and Conclusions
Utah State Historic Preservation Officer (SHPO)	Consultation as required by the National Historic Preservation Act (Public Law 89-665; 54 U.S.C. 300101 et seq.)	Class III Archeological Inventory of the Area of Potential Effect (APE) of just over 19 acres was conducted. Project U-20-HO-0326 was completed by Big Horn Archeological Consultants and the report was submitted to the BLM 5/27/2020. Three archeological sites have been recorded within the project APE. These Sites should be avoided through barricading and an archeological monitor to be present during construction near the sites.
U.S. Fish and Wildlife Service (USFWS)	Consultation under Section 7 of the ESA (16 USC 1531)	Identification of suitable habitat for listed wildlife within the project area. Section 7 informal consultation with the USFWS regarding Mojave Desert tortoise with recommendations for applicant-committed environmental protection measures.

4.2 SUMMARY OF PUBLIC PARTICIPATION

The BLM is providing a 30-day public review and comment period for the draft EA, beginning on May 4, 2021 and ending on June 2, 2021. Copies of the EA are available on the BLM's ePlanning website during the public review and comment period.

4.3 LIST OF PREPARERS

BLM staff specialists who determined the potentially affected resources for this document are listed in the ID Team Checklist in Appendix A. Those who contributed to the preparation of the EA and provided review comments on the EA are listed below in Tables 2 and 3.

Table 2: BLM St. George Field Office Staff Preparers and Reviewers

Name	Title	Responsibility
Keith Rigtrup	Field Manager	Authorized Officer
Stephanie Trujillo	Realty Specialist	ROW Project Manager
Callie Goff	Planning and Environmental Specialist	EA Technical Editor
Kyle Voyles	Outdoor Recreation Planner	Recreation
Stephanie Taylor	Wildlife Biologist	T&E Species
Amber VanAlfen	Archeologist	Cultural Resources, Native American Consultation

Table 3: Other Preparers and Reviewers

Name	Title	Responsible for the Following Section(s) of this Document
Jill Hankins	Alpine Environmental Resources, LLC	Document Preparation
Garrett Felling	GIS Specialist, Rosenberg Engineering, Inc.	GIS and Mapping

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Appendix A

Interdisciplinary Team
Checklist

AMENDED INTERDISCIPLINARY TEAM CHECKLIST

Project Title: City of St George Gap Wash Right-of-Way Amendment

NEPA Log Number: DOI-BLM-UT-C030-2019-0042-EA

File/Serial Number: UTU-78573

Project Leader: Stephanie Trujillo

Project Location:

Salt Lake Meridian, Utah
T. 42 S., R. 16 W.,
Sec. 33, SE¼SE¼NE¼, E½NW¼SE¼, N½NE¼SE¼.

Project Description:

In August 2019 City of St George submitted an application to amend ROW UTU-78573. The BLM has recently received a revised application changing the proposed action for the project, which includes: Adding a secondary water tank, a fenced tank area, and adding an additional 18 in. water line (for a total of 2 new lines). The additional line and tank are proposed to convey secondary irrigation water. The City is expanding its service area and requires the facilities to meet the demand of growth on the west side of the city.

The two additional water lines would be used for flow of culinary and irrigation water. The lines are proposed within the footprint of the current 50' ROW adjacent to the existing line. The additional tank would be used to store and flow secondary irrigation water and would be located adjacent to the current tank in the existing disturbed pad area. By adding an additional inlet/outlet the City would be able to meet peak demands on the current water system, especially during peak-hour-demands in the summer.

The proposed water tank is estimated to have an inside height of 20 feet and an inside diameter of 120 feet, with capacity to hold approximately 2 million gallons of water. The tank would be constructed onsite out of reinforced concrete.

The proposed pipelines are 18-in. ductile iron approximately 2,267 feet in length and would be installed adjacent to the current line, within the authorized 50-foot right-of-way area. A track hoe will be used to excavate the pipeline trench. Trenches will be backfilled in a timely manner and open trenches will be limited to 500 feet in length. Open sections of trench will have ramped exits at regular intervals, as required. Spoils from the trench will be screened and used to backfill the trench after the pipe has been installed.

An additional 50-foot temporary area is being requested during construction. Staging would be required along the pipeline alignment for storing construction equipment, pipe materials, concrete manhole and vault components, soil spoils, and for stringing the pipeline prior to lowering it into the open trench.

Construction methods include: regrade the existing tank pad area; placement of additional fill and gravel materials to form the tank bedding, if needed; form the steel reinforcement and cast-in-place

of the tank concrete base, wall and roof sections; finish the tank after curing, final installation of tank appurtenances and fittings; excavation of pipeline trenches, including rock excavation; placement of pipeline bedding, pipeline fittings, and backfill materials; finish grading of the access road; revegetation (if required). No additional disturbance outside of the original request is being made.

It is anticipated that some water will be released during facility construction, and during routine maintenance procedures following construction. Drain valves will be located at low points along the water pipeline. Detailed design will be performed to locate these valves where discharge can occur in location where excess water can be directed to the nearest natural wash.

The proposed alignment follows the access road to the Gap Wash tank, which is also part of the Bear Claw Poppy Trail. Portions of the trail may need to be closed to public use during the periods of construction if safe access through the construction zone cannot be maintained. Construction is anticipated to take 2-3 months.

Map attached

DETERMINATION OF STAFF: ***(Choose one of the following abbreviated options for the left column)***

NP = not present in the area impacted by the proposed or alternative actions
NI = present, but not affected to a degree that detailed analysis is required
PI = present with potential for relevant impact that need to be analyzed in detail in the EA
NC = (DNAs only) actions and impacts not changed from those disclosed in the existing NEPA documents cited in Section D of the DNA form. The Rationale column may include NI and NP discussions.

Determi-nation	Resource	Rationale for Determination*	Signature	Date
RESOURCES AND ISSUES CONSIDERED (INCLUDES SUPPLEMENTAL AUTHORITIES APPENDIX 1 H-1790-1)				
NI	Air Quality	Dust emission levels in the immediate area may increase slightly during construction; however, this impact would be isolated to the immediate area and would be short term.	R. Reese	2/11/20
NI	Greenhouse Gas Emissions**	The proposed action is not expected to increase greenhouse gas emissions	R. Reese	2/11/20
NI	Wastes (hazardous or solid)	No hazardous or solid wastes are expected to be produced by this action.	R. Reese	2/11/20
NI	Water Resources/Quality (drinking/surface/ground)	Some sediment from the project may flow into the Santa Clara river as a result of the project, however this impact is expected to be minimal and short term. Recommend that the excavated material be keep damp during construction to reduce wind erosion.	R. Reese	2/11/20
NP	Areas of Critical Environmental Concern	The proposed action is not within an Area of Critical Environmental Concern designated by the St. George Field Office Record of Decision and Resource Management Plan, approved in March 1999, amended in 2001 and 2016.	S. Taylor	2/6/20
NI	Cultural Resources	Class III Cultural Resource Inventory is required. The identified Area of Effect requiring survey is the 50' ROW on BLM, the additional 50' for requested temporary area, a 30' buffer around this 100' linear project area (for the two lines), and the area identified for the proposed tank with a 30' buffer around this construction area. This requirement is necessary due to all existing Class III surveys (U94BL0510 – block survey, U95BL0831-block survey, U99BL0467 – linear	A. VanAlfen	2/25/20

Determi-nation	Resource	Rationale for Determination*	Signature	Date
		survey, U00BL0056 – linear survey) being more than 10 years old. One eligible site has previously been documented within proximity to this project area. This location needs to be flagged to be avoided.		
NI	Native American Religious Concerns	Prior and ongoing consultations with American Indian Tribes that claim cultural affiliation to southwestern Utah have not identified religious concerns within or near the proposed action area, Area of Effect (APE).	A. VanAlfen	2/25/20
NI	Paleontology	There are no recorded paleontological resources in or adjacent to the proposed project area. The nearest recorded site is 3 miles to the NE. ***Class 4*** **– High.** Geologic units that are known to contain a high occurrence of paleontological resources. Units assigned to Class 4 typically have the following characteristics: • Significant paleontological resources have been documented but may vary in occurrence and predictability. • Surface disturbing activities may adversely affect paleontological resources. • Rare or uncommon fossils, including nonvertebrate (such as soft body preservation) or unusual plant fossils, may be present. • Illegal collecting activities may impact some areas. (1) Management concerns for paleontological resources in Class 4 are moderate to high, depending on the proposed action. (2) Paleontological mitigation strategies will depend on the nature of the proposed activity, but field assessment by a qualified paleontologist is normally needed to assess local conditions. The probability for impacting significant paleontological resources is moderate to high and is dependent on the proposed action. Mitigation plans must consider the nature of the proposed disturbance, such as removal or penetration of protective surface alluvium or soils, potential for future accelerated erosion, or increased ease of access that could result in looting. Detailed field assessment is normally required and on-site monitoring or spot-checking may be necessary during land disturbing activities. In some cases avoidance of known paleontological resources may be necessary. Since this project is within an existing road, the probability of new disturbance to paleontological resources is negligible.	K. Voyles	2/11/20

Determi-nation	Resource	Rationale for Determination*	Signature	Date
NP	Geology / Mineral Resources/Energy Production	There are no mineral resource sites, fluid mineral/energy production sites within or adjacent to the project area.	K. Voyles	2/11/20
NP	Cave and Karst	There are no caves or karst terrain in or adjacent to the project area. The project in its entirety is within the non-karst bearing Shinarump member of the Chinle formation.	K. Voyles	2/11/20
NI	Environmental Justice	According to the EPA Environmental Justice Screening and Mapping Tool in combination with the Headwaters Socio-Economic Profile System, Washington County, Utah has been categorized as a minority population area of 10-20% and a poverty population area of 10-20%. Less than 5% of the population speaks English "Not Well". This data also shows that low income and high minority populations are generally located in the St. George/Santa Clara/Washington areas in locations not adjacent to BLM managed lands. (see https://ejscreen.epa.gov/mapper/) However, it is likely that a low income, minority population is also present in the housing area on the east side of the Shivwits Paiute Reservation, and a low-income population exists in the Hildale/Colorado City area. These populations are not distinct on census data due to having been lumped in with higher income low-minority areas in Ivins, Apple Valley, and Springdale. No minority or economically disadvantaged communities or populations are present which could be affected by the proposed action or alternatives.	C. Goff	2/7/20
NI	Socio-Economics	The project area occurs within a rapidly developing area that is transitioning from rural to urban. Residential development is the driver behind this project. However, in the context of overall development within Washington County, the socio-economic impact of the proposed project would be so small that it would have no measurable effect.	C. Goff	2/7/20
NP	Farmlands (Prime or Unique)	There are no Farmlands (Prime or Unique) within or adjacent to the proposed project.	R. Reese	2/11/20
NI	Soils	Although some soil would be disturbed and possible lost during construction due to wind and water erosion, it is likely this impact would be short term and minimal. Recommend that the excavated material be keep damp to avoid wind erosion during construction.	R. Reese	2/11/20
NP	Floodplains	There are no designated floodplains within or adjacent to the proposed project.	R. Reese	2/11/20
NP	Wetlands/Riparian Zones	There are no Wetlands or Riparian areas within or adjacent to the proposed project.	R. Reese	2/11/20
NI	Fish and Wildlife Excluding USFW Designated Species	The project area provides habitat for a variety of resident mammals, birds, and reptiles. The more common of these species may include: desert cottontail (*Sylvilagus audubonii*), antelope ground squirrels (*Ammospermophilus leucurus*), kangaroo rats (*Dipodomys ordii*), deer mice (*Peromyscus maniculatus*), desert wood rats (*Neotoma lepida*), Gambel's quail (*Lophortyx gambelii*), mourning doves (*Zenaida*	S. Taylor	2/6/20

Determi-nation	Resource	Rationale for Determination*	Signature	Date
		macroura), common ravens (*Corvus corax*), wrens (*Catherpes mexicanus*, *Salpinctes obsoletus*), side-blotched lizards (*Uta stansburiana*), and western whiptail (*Cnemidophorus tigris*). Infrequently, larger animals such as raptors, coyotes (*Canis latrans*), gray fox (*Urocyon cinereoargenteus*), and mule deer (*Odocoileus hemionus*) may use the area year-round or for a portion of the year. The following Utah BLM Sensitive Species may occur in the project area: Zebra-tailed lizard (*Callisaurus draconoides*, permanent resident, uncommon), Western banded gecko (*Coleonyx variegatus*, permanent resident, uncommon), ferruginous hawk (*Buteo regalis*, transient, fairly common), Big free-tailed bat (*Nyctinomops macrotis*, summer resident, rare) Fringed myotis (*Myotis thysanodes*, permanent resident, uncommon), Spotted bat (*Euderma maculatum*, permanent resident, rare), Western red bat (*Lasiurus blossevillii*, permanent resident, very rare), Allen's big-eared bat (*Idionycteris phyllotis*, probable permanent resident, very rare), and Townsend's Big-eared bat (*Corynorhinus townsendii*, permanent resident, fairly common). During construction, some small mammals, birds, and reptiles (including BLM Sensitive Species) could be disturbed, injured, or killed and some dens or nests destroyed. Larger animals would be temporarily disturbed and displaced to adjacent habitats. Once construction is completed, larger animals may return to the area. Overall impacts to populations of BLM Sensitive Species and general wildlife would be negligible since the project area is already within a road alignment, and no additional ground disturbance would occur outside the alignment.		
NI	Migratory Birds	A number of migratory bird species may use the project area yearlong, or for a portion of the year. Within Washington County, the migratory bird nesting season can be divided into 2 major timeframes: (1) Early Nesting Season: January 1–March 31, e.g., raptors (eagles, owls, falcons, and hawks); and (2) Primary Nesting Season: April 01–July 15, e.g., songbirds, flycatchers, cuckoos, raptors, and the majority of species. However, the maximum time period for the migratory bird nesting season can extend from January 1–August 31. Since the proposed action is within the current road alignment, and the area is already heavily disturbed by recreation use, no impacts to migratory birds is expected to occur.	S. Taylor	2/6/20
NP	Threatened, Endangered or Candidate Plant Species	Since the majority of the proposed actions will be within an existing disturbed area, and no known populations of TEC plant species have been observed in or near the project area, no impacts to TEC plant species is expected to occur.	S. Taylor	2/6/20
PI	Threatened, Endangered or Candidate Animal Species	Issue: If tortoises inhabit the action area, how will construction activities directly and indirectly affect the desert tortoise and its habitat? The project area is not within Designated Critical habitat for the Mojave desert tortoise (MDT). However, there have been several recent observations of tortoises inside and adjacent to the project area, indicating that this area may now be occupied by MDT. Therefore, a tortoise survey for presence	S. Taylor	2/6/20

Determi-nation	Resource	Rationale for Determination*	Signature	Date
		or absence prior to ground disturbing activities needs to be conducted by a qualified desert tortoise biologist. Tortoises typically hibernate from October through February, and are active/may be observed outside of burrows mid-March through October, with primary activity occurring mid-March through May. In order to reduce risk of tortoise injury/death during mid-March through October: (1) a preconstruction tortoise survey needs to be conducted within the effected project area; (2) construction workers need to receive tortoise awareness training, for (a) reduction of construction vehicle/equipment speeds (b) checking undersides of parked vehicles/equipment for tortoises seeking shelter; and (c) other safety precautions; and (3) a qualified Desert Tortoise Monitor and/or a Field Contact Representative must monitor project activities in all areas accessed by tortoises.		
NI	Vegetation Excluding USFW Designated Species	A small amount of vegetation may be impacted during construction; however, with the majority of the construction being located within an existing disturbed area, this impact would be minimal.	R. Reese	2/11/20
NI	Woodland / Forestry	This project is not expected to impact the woodland or forestry resource.	R. Reese	2/11/20
NI	Fuels/Fire Management	The proposed project would not impact Fuels or Fire Management in the area.	R. Reese	2/11/20
NI	Invasive Species/Noxious Weeds (EO 13112)	BMP's should be followed whenever ground disturbing activities occur. Site should be monitored for noxious and invasive weeds and the appropriate treatments made upon discovery. Infestation and treatment information should be coordinated with BLM.	R. Reese	2/11/20
NI	Lands/Access	The proposed action is not anticipated to impact others authorized users on public lands	S. Trujillo	2/25/20
NI	Livestock Grazing	The proposed action is not anticipated to impact Livestock Grazing	R. Reese	2/11/20
NI	Rangeland Health Standards	The proposed action is not anticipated to impact Rangeland Health.	R. Reese	2/11/20
PI	Recreation	The road to the existing water tank where the new pipeline would be buried is used to access the Bearclaw Poppy Trail as well as rock climbs at the Gap climbing area. The road is also used for mountain bike races during the early spring so it receives heavy and continuous use. Closing the road to vehicle access during construction would not be a problem, but closing it to non-motorized access (foot and mountain bike) would cause problems and more than likely, would not be possible anyway. It is a real possibility that recreational users would try and bypass any closures by walking or riding around them, regardless of how it was signed. If non-motorized access could be maintained during construction, with special provisions for race events (always on Saturdays), impacts to recreational use would be negligible. If non-motorized access cannot be maintained, then closure dates and times should be made available to the public through the City of St George website. This is one of the most heavily used trails in the area. Once construction was completed, there would be no impacts to recreational use.	D. Kiel	2/11/20

Determi-nation	Resource	Rationale for Determination*	Signature	Date
NI	Visual Resources	The project is entirely within VRM Class III and would meet VRM Class III objectives. Class III Objectives: To partially retain the existing character of the landscape 1) The level of change to the landscape can be moderate. 2) Management activities may attract attention, but should not dominate the view of the casual observer. 3) Any changes should repeat the basic elements found in the natural landscape – form, line, color, & texture. Upon completion, the new pipeline would be buried in the existing roadway and no changes to the landscape would be noticeable. The project would meet VRM Class III objectives and no further analysis is required	D. Kiel	2/11/20
		NLCS		
NP	National Conservation Areas	The proposed project is not within a National Conservation Area	D. Kiel	2/11/20
NP	National Historic Trails (Old Spanish Trail)	The proposed project is over a mile from the National Historic Old Spanish Trail.	A VanAlfen	2/25/20
NP	National Recreational Trails (Gooseberry)	The National Recreation Trail (Gooseberry) is not within the proposed project area.	K. Voyles/D. Kiel	2/11/20
NP	Wild and Scenic Rivers	There are no eligible or designated WSR segments in the proposed project area.	K. Voyles/D. Kiel	2/11/20
NP	Wilderness/WSA	The proposed project is not in or near any Wilderness Areas.	K. Voyles/D. Kiel	2/11/20
NP	Lands with Wilderness Characteristics**	There are no designated, proposed, or inventoried lands with wilderness characteristics within in proposed project area	K. Voyles/D. Kiel	2/11/20

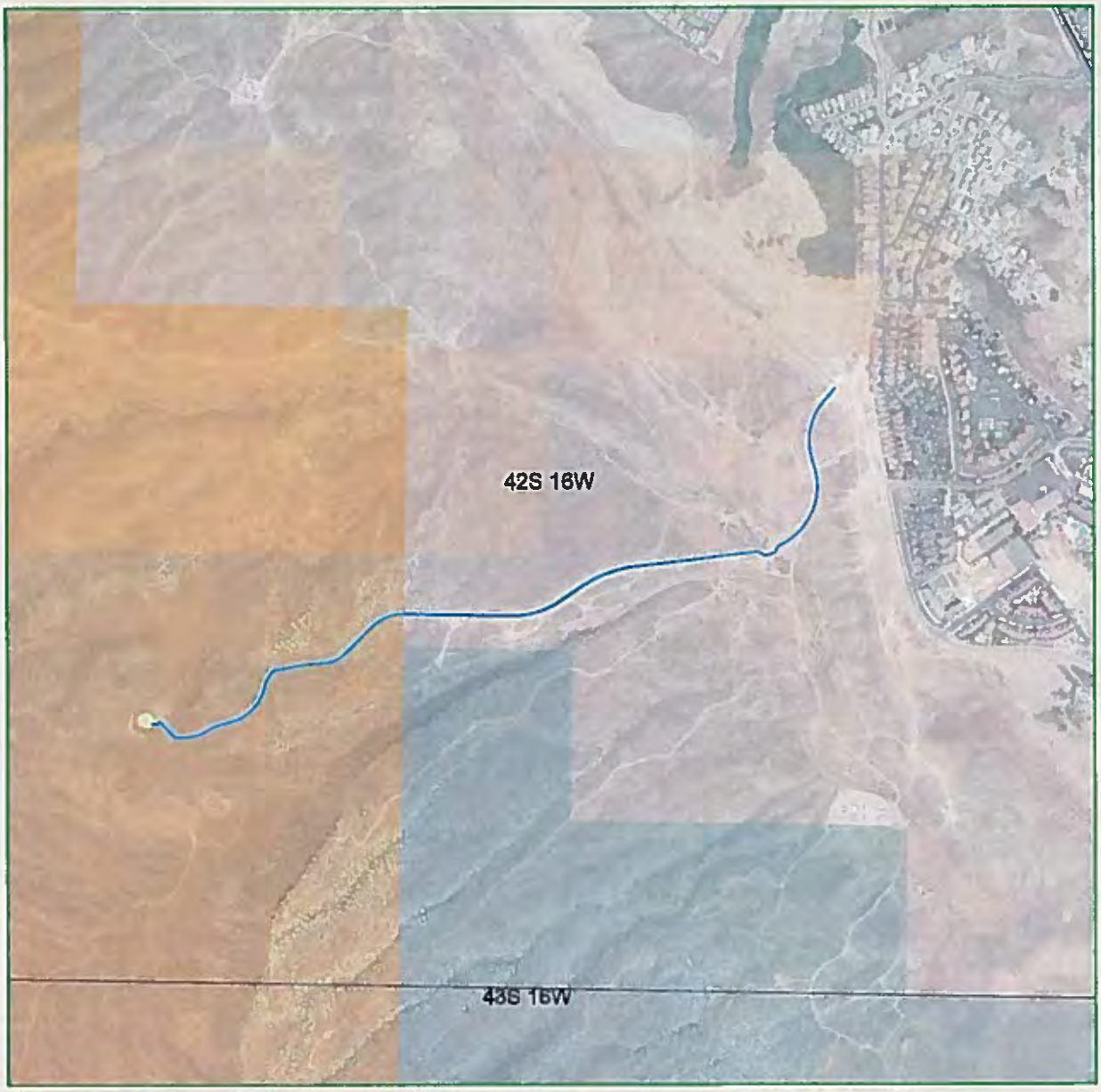
FINAL REVIEW:

Reviewer Title	Signature	Date	Comments
Environmental Coordinator		2/25/20	
Authorized Officer	Keith Rigtrup	2/25/2020	

City of St George Gap Wash Line Amend

St. George Field Office

8/22/2019



Location within St. George Field Office

0 0.15 0.3 Miles

N

Existing 50ft ROW

Existing & Proposed alignment

Gap Wash Tank

Land Status ut_lgd

Bureau of Land Management (BLM)

Private

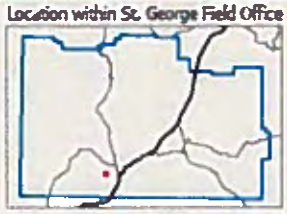
State

City of St George Gap Wash Line Amend

St. George Field Office

2/4/2020

Location within St. George Field Office



N

Existing 50ft ROW

Existing & Proposed alignment

Existing Gap Wash Tank

Land Status st_lgd

Bureau of Land Management (BLM)

Private

State

0 0.085 0.17 Miles